Ordinary Council Meeting

12 August 2025

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Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 8.1.A

Minutes of the

Ordinary Council Meeting

8 July 2025

Shire of Collie

MINUTES

of the

ORDINARY MEETING OF COUNCIL

held on

Tuesday, 8 July 2025





Our Vision

Collie - *A progressive community, rich in opportunities and as diverse as its heritage and landscape.*

Our Values

The core values at the heart of the Council's commitment to the community are:

***I**ntegrity*

***T**ransparency*

***A**ccountability*

***C**ollaboration*

***R**espect*

Our Commitment to Community

***We will** lead the delivery of our vision*

***We will** support local business wherever possible*

***We will** consult and engage with our community on issues that affect them*

***We will** encourage, welcome and value feedback*
***We will** encourage, support and advocate for our community*

Acknowledgement of Country

The Shire of Collie acknowledges the Traditional Custodians of the land, the Wiilman and Kaniyang people of the Noongar Nation, and pays our respects to Elders, past, present and emerging. We thank them for the contributions they have made to life in the Shire of Collie and to this region.

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Minutes of the Ordinary Meeting of the Collie Shire Council held in the Council Chambers, 87 Throssell Street Collie on Tuesday, 8 July 2025.

The Shire President declared the meeting open at 7:04pm and welcomed councillors, staff, visitors, press and those attending as public gallery.

1. OPENING/ATTENDANCE/APOLOGIES & LEAVE OF ABSENCE

PRESENT:	Ian Miffling OAM JP	Councillor (Presiding Member)
	Joe Italiano	Councillor (Deputy Member)
	Leonie Burton	Councillor (via Teams)
	Gary Faries	Councillor
	Brett Hansen	Councillor
	Dale Hill-Power JP	Councillor
	John Kearney	Councillor
	Paul Moyses	Councillor
	Michelle Smith	Councillor
	Shane Sadlier	Councillor
	Phil Anastasakis	Chief Executive Officer
	Alex Wiese	Director Development Services
	Nicole Wasmann	Governance Coordinator
APOLOGY:	Scott Geere	Director Operations

VISITORS: Nil.

PRESS: 1 member of the press attended.

GALLERY: 2 members of the public attended.

1.1 Councillors granted Leave of Absence at previous meeting/s

Nil.

1.2 Councillors requesting Leave of Absence for future Ordinary Meetings of Council

Nil.

1.3 Councillors who are applying for Leave of Absence for this Ordinary Meeting of Council

Nil.

2. PUBLIC QUESTION TIME

Nil.

3. RESPONSES TO PREVIOUS PUBLIC QUESTIONS TAKEN ON NOTICE

Nil.

4. DISCLOSURE OF FINANCIAL INTEREST

The Chief Executive Officer advised that Disclosures of Interest had been received from Councillors/staff as listed below:

Councillor/staff	Agenda Item	Disclosure
Cr Smith	Item 13.1 - Coalfields Museum and Historical Research Centre Business Case	Proximity – lives and owns property adjacent.
Cr Italiano	Item 13.1 - Coalfields Museum and Historical Research Centre Business Case	Impartial – Museum Committee Chairperson
Cr Kearney	Item 13.1 - Coalfields Museum and Historical Research Centre Business Case	Impartial – work related

5. PETITIONS/DEPUTATIONS/PRESENTATIONS/SUBMISSIONS

Nil.

6. NOTIFICATION OF MATTERS FOR WHICH THE MEETING MAY BE CLOSED TO THE PUBLIC

Nil.

7. ITEMS BROUGHT FORWARD DUE TO INTEREST BY ATTENDING PERSONS

Nil.

8. CONFIRMATION OF THE PREVIOUS MEETINGS OF COUNCIL MINUTES

8.1 Ordinary Council Meeting – 10 June 2025

Officer's Recommendation/Council Decision: ***Resolution: 9612***

Moved: Cr Faries ***Seconded: Cr Moyses***

That Council confirms the Minutes of the Ordinary Meeting of Council held on 10 June 2025.

Carried: 10/0

For: *Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*

Against: *Nil.*

9. BUSINESS ARISING FROM THE PREVIOUS MINUTES

Nil.

10. RECEIPT OF MINUTES OF COMMITTEE MEETINGS HELD SINCE THE PREVIOUS MEETING OF COUNCIL

Nil.

11. CEO REPORTS

11.1 Annual Budget 2025/26	
Reporting Department:	Chief Executive Office
Reporting Officer:	Phil Anastasakis – Chief Executive Officer
Accountable Manager:	Phil Anastasakis – Chief Executive Officer
Legislation:	*Local Government Act 1995*
File Number:	GOV/049
Appendices:	Appendix 11.1A – 2025/26 Annual Budget
Voting Requirement:	Absolute Majority

Report Purpose

This report presents the 2025/26 Annual Budget for Council consideration and adoption. Following the endorsement of the draft Budget, the final 2025/26 Annual Budget papers have been formulated and presented to Council in the statutory format for final adoption at the 8 July 2025 Ordinary Council meeting.

Officer's Recommendation/Council Decision: ***En Bloc Resolution: 9613***

Moved: Cr Faries ***Seconded: Cr Hansen***

MUNICIPAL FUND BUDGET FOR 2025/26

1. *That Council pursuant to Section 6.2 of the Local Government Act 1995 and Part 3 of the Local Government (Financial Management) Regulations 1996, adopts the 2025/26 Budget as contained in Appendix 11.1.A [Under Separate Cover] of this Agenda and the Minutes, for the Shire of Collie for the 2025/26 financial year which includes the following:*

    A. *Statement of Comprehensive Income;*

    B. *Statement of Cash Flows;*

    C. *Statement of Financial Activity;*

    D. *Notes to and Forming Part of the Budget including:*

        i.) *Operating Income and Expenditure.*

        ii.) *Capital Income and Expenditure, including New, Upgrade and Renewal capital works.*

        iii.) *Revenue generated from the Schedule of Fees and Charges for 2025/26.*

        iv.) *Budget Program Schedules 3 to 14.*

MUNICIPAL FUND BUDGET FOR 2025/26 – RESERVE TRANSFERS & LOANS

2. *That Council pursuant to Section 6.2 of the Local Government Act 1995 and Part 3 of the Local Government (Financial Management) Regulations 1996, adopts the Reserve Transfers and current and proposed loans drawdown and repayments detailed within the 2025/26 Budget as contained in Appendix 11.1.A [Under Separate Cover] of this Agenda and the Minutes, for the Shire of Collie for the 2025/26 financial year, with any variations from budget approved based on adjusted loan drawdown timing, the reserve purpose, actual expenditure and/or the transfer of unexpended 2024/25 capital works funding to Reserves, to be utilised and drawn down from the Carried Forward Projects Reserve in future years as required.*

GENERAL AND MINIMUM RATES, INSTALMENT PAYMENT ARRANGEMENTS, DISCOUNTS AND INTEREST

3. *That Council:*

   A. *For the purposes of yielding the deficiency disclosed by the Municipal Fund Budget for 2025/26 adopted at Recommendation 1 above, Council pursuant to Sections 6.32, 6.33, 6.34 and 6.35 of the Local Government Act 1995 impose the following general rates and minimum rates on Gross Rental and Unimproved Values:*

      i.) General Rates

      - *Gross Rental Value (GRV) Rated Properties = $0.084694*
      - *Unimproved Value (UV) Rated Properties = $0.005288*

      ii.) Minimum Payments

      - *Gross Rental Value (GRV) Rated Properties = $1,291.50*
      - *Unimproved Value (UV) Rated Properties = $1,041.60*

	Rate in the Dollar	$ Rate Yield
Gross Rental value (GRV)	$0.084694	$4,850,735
GRV Minimum	$1,291.50	$2,198,133
TOTAL GRV		$7,048,868
Unimproved Value (UV)	$0.005288	$699,121
UV Minimum	$1,041.60	$298,939
TOTAL UV		$998,060
TOTAL GRV & UV YIELD		$8,046,928

B. *Pursuant to Section 6.45 of the Local Government Act 1995 and Regulation 64(2) of the Local Government (Financial Management) Regulations 1996, Council nominates the following dates for the payment in full by instalments:*

- *Option 1 (Full Payment)*
  - *Full amount of rates and charges including arrears, to be paid on or before 29 August 2025 or 35 days after the date of issue appearing on the rate notice, whichever is later.*
- *Option 2 (Four Instalments)*
  - *First instalment to be made on or before the due date of 29 August 2025 or 35 days after the date of issue appearing on the rate notice, whichever is later and including all arrears and a quarter of the current rates and service charges;*
  - *Second quarterly instalment to be made on or before the due date of 31 October 2025, or 2 months after the due date of the first instalment, whichever is later;*
  - *Third quarterly instalment to be made on or before the due date of 9 January 2026, or 2 months after the due date of the second instalment, whichever is later; and*
  - *Fourth quarterly instalment to be made on or before the due date of 13 March 2026, or 2 months after the due date of the third instalment, whichever is later.*

C. *Pursuant to Section 6.45 of the Local Government Act 1995 and Regulation 67 of the Local Government (Financial Management) Regulations 1996, Council adopts an instalment administration charge where the owner has elected to pay rates and charges (and service charges) through an instalment option of $18.00 for each instalment after the initial instalment is paid ($54.00 for four (4) instalment option).*

D. *Pursuant to Section 6.45 of the Local Government Act 1995 and Regulation 68 of the Local Government (Financial Management) Regulations 1996, Council adopts an interest rate of 5.0% where the owner has elected to pay rates and charges (and service charges) through an instalment option.*

E. *Pursuant to Section 6.51(1) and subject to Section 6.51(4) of the Local Government Act 1995 and Regulation 70 of the Local Government (Financial Management) Regulations 1996, Council adopts an interest rate of 10.0% for rates and charges (and service charges) and costs of proceedings to recover such charges that remains unpaid after becoming due and payable.*

F. *Note that pursuant to Section 6.47 of the Local Government Act 1995, Council grant in 2025/2026 a 100% waiver/concession on the local government uniform rate charge to each of the following assessments:*

Assessment Number	*Owner*	*Property Address*
A987	*Ngalang Boodja Corporation*	*154-158 Forrest Street, Collie*
A4295, A5219, A5833, A5838	*Alliance Housing*	*Unit 3/25 Hutton Street, 21A Rogers Avenue, Unit 4/17 Moira Road, Unit 917 Moira Road, Collie*
A3977	*RSL Collie Cardiff*	*2 Lefroy Street, Collie*
A3990	*Country Women's Association*	*76 Throssell Street, Collie*
A4337, A5321	*Riverview Residence*	*1 Burt Street, Collie 3-5 Vernon Street, Collie*
A4779	*North Collie Hall*	*Lot1334 Princep Street, Collie*
A150	*Collie Pioneer Lodge*	*50 Venn Street, Collie*
A5043	*Collie Italian Club*	*19 Ewing Street, Collie*
A995	*Energy West Hall*	*6 Lefroy Street, Collie*
A4813	*Red Cross*	*73 Steere Street, Collie*
A1880	*Agencies for South West Accommodation*	*22-24 Wallsend Street, Collie*

GENERAL FEES & CHARGES FOR 2025/26

4. *That Council pursuant to Section 6.16 of the Local Government Act 1995 and other relevant legislation, adopts the Fees & Charges as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes.*

OTHER STATUTORY FEES FOR 2025/26

5. *That Council:*

   A. *Pursuant to Section 53 of the Cemeteries Act 1986, Council adopts the Fees & Charges for the Collie Cemetery as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes.*

   B. *Pursuant to Section 67 of the Waste Avoidance and Resource Recovery Act 2007, Council adopts the Fees & Charges for the removal and deposit of domestic and commercial waste as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes.*

   C. *Pursuant to Section 67 of the Waste Avoidance and Resource Recovery Act 2007 and Section 6.16 of the Local Government Act 1995, Council adopts the Fees & Charges for the deposit of domestic and commercial waste as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes.*

COUNCIL MEMBERS' FEES AND ALLOWANCES FOR 2025/26

6. *That Council:*

   A. *In accordance with Section 5.98(1) of the Local Government Act 1995, Regulation 30 of the Local Government (Financial Management) Regulations 1996, Part 6.2(1) and Part 6.3(1)(a) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual Council member meeting attendance fees be set at $10,084 (55% of Band 3).*

   B. *In accordance with Section 5.98(1) of the Local Government Act 1995, Regulation 30 of the Local Government (Financial Management) Regulations 1996, Part 6.2(1) and Part 6.3(1)(a) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual meeting attendance fee for the President be set at $15,612 (55% of Band 3).*

   C. *In accordance with Section 5.98(5) of the Local Government Act 1995, Regulation 33 of the Local Government (Financial Management) Regulations 1996, and Part 7.2(1) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual allowance for the Shire President be set at $22,763 (55% of Band 3).*

   D. *In accordance with Section 5.98(1) of the Local Government Act 1995, Regulation 33A of the Local Government (Financial Management) Regulations 1996, and Part 7.3(1) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual allowance for the Deputy Shire President be set at $10,347 (25% of Band 3).*

   E. *In accordance with Section 5.99A(b) of the Local Government Act 1995, Regulation 34A of the Local Government (Financial Management) Regulations 1996, and Part 9.2(2) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual allowance for Information Communication Technology expenses for Council members be set at $1,925 (55% of Band 3).*

MATERIAL VARIANCE REPORTING FOR 2025/26

7. *That Council in accordance with Regulation 34(5) of the Local Government (Financial Management) Regulations 1996, and AASB 101 Presentation of Financial Statements, the level to be used in Statements of Financial Activity in 2025/26 for reporting material variances shall be 10% or $50,000, whichever is the greater.*

Carried By Absolute Majority: 10/0

For:	*Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*
Against:	*Nil.*

Council Decision:	***Resolution: 9614***
Moved: Cr Faries	***Seconded: Cr Hansen***

That Council extend their appreciation to staff regarding the detail and the ease of reading the 2025/26 Budget.

Carried: 10/0

For:	*Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*
Against:	*Nil.*

Background:

As part of the Integrated Planning and Reporting cycle, Council has recently reviewed and updated its four year Corporate Business Plan and ten year Long Term Financial Plan. The Corporate Business Plan and Long Term Financial Plan are reviewed annually, with the first year of the Long Term Financial Plan being 'sliced off' to form the basis of the draft annual budget.

The draft 2025/26 Annual Budget has therefore been prepared taking into consideration the preceding reviews and incorporates relevant elements of the various strategies, plans and resolutions adopted by Council. The draft 2025/26 budget was considered and endorsed at the 10 June 2025 Ordinary Council meeting.

This report recommends Council endorse the final Shire of Collie 2025/26 Annual Budget, inclusive of the proposed 4.5% rate revenue increase (excluding interim rate income), Reserve transfers, workforce changes, loans, capital works and operational expenditure. [refer to Appendix 11.1.A].

Statutory and Policy Implications:

Local Government Act 1995.

2.7. Role of Council

(1) The council governs the local government's affairs and, as the local government's governing body, is responsible for the performance of the local government's functions.

(2) The council's governing role includes the following —

(a) overseeing the allocation of the local government's finances and resources;

(b) determining the local government's policies;

(c) planning strategically for the future of the district;

(d) determining the services and facilities to be provided by the local government in the district;

(e) selecting the CEO and reviewing the CEO's performance;

(f) providing strategic direction to the CEO.

(3) For the purpose of ensuring proper governance of the local government's affairs, the council must have regard to the following principles —

(a) the council's governing role is separate from the CEO's executive role as described in section 5.41;

(b) it is important that the council respects that separation.

(4) The council must make its decisions —

(a) on the basis of evidence, on the merits and in accordance with the law; and

(b) taking into account the local government's finances and resources.

(5) The council must have regard to the need to support an organisational culture for the local government that promotes the respectful and fair treatment of the local government's employees.

(6) The council has the other functions given to it under this Act or any other written law.

Local Government (Financial Management) 1996

6.2. Local government to prepare annual budget

(4) The annual budget is to incorporate —

(a) particulars of the estimated expenditure proposed to be incurred by the local government;

Local Government (Administration) Regulations 1996

19DA. Corporate Business Plans, requirements for (Act s. 5.56)

(1) A local government is to ensure that a corporate business plan is made for its district in accordance with this regulation in respect of each financial year after the financial year ending 30 June 2013.

(2) A corporate business plan for a district is to cover the period specified in the plan, which is to be at least 4 financial years.

(3) A corporate business plan for a district is to —

(a) set out, consistently with any relevant priorities set out in the strategic community plan for the district, a local government's priorities for dealing with the objectives and aspirations of the community in the district; and

(b) govern a local government's internal business planning by expressing a local government's priorities by reference to operations that are within the capacity of the local government's resources; and

(c) develop and integrate matters relating to resources, including asset management, workforce planning and long-term financial planning.

(4) A local government is to review the current corporate business plan for its district every year.

(5) A local government may modify a corporate business plan, including extending the period the plan is made in respect of and modifying the plan if required because of modification of the local government's strategic community plan.

(6) A council is to consider a corporate business plan, or modifications of such a plan, submitted to it and is to determine whether or not to adopt the plan or the modifications.*

**Absolute Majority required.*

(7) If a corporate business plan is, or modifications of a corporate business plan are, adopted by the council, the plan or modified plan applies to the district for the period specified in the plan.

Budget Implications:

The budget outlines planned expenditure and revenue and determines the financial parameters for the Council to operate within for the 2025/26 financial year.

The final 2025/26 budget has been prepared on the basis of a 4.5% rate revenue increase (excluding interim rate income), which is forecast to produce an end of year surplus of $33,811. The small surplus enables Council to withstand minor unforeseen financial costs or revenue reductions that may occur during the year, with the mid-year budget review providing the opportunity in February/March each year to review and adjust the budget for more significant variances.

The current forecast end of year surplus for 2024/25 is $94,740, which is reflected in the opening surplus at the start of the 2025/26 financial year. This forecast will vary when the final annual financial report is produced for 2024/25, with the final result reflected in the financial statements when the 2025/26 mid-year budget review is conducted in February/March 2026.

The fees and charges when adopted will determine the amount of revenue to be received during the 2025/26 financial year for certain areas. The fees and charges revenue has been forecast in the budget income projections and is based on the recent decisions of Council.

Working on a zero-based budgeting principle, the 2025/26 budget has produced a deficit of $60,929 for the 12 month period 1 July 2025 to 30 June 2026. After taking into consideration all other sources of income, Council is required under the *Local Government Act 1995* to raise sufficient rates to meet its total expenditure. However, it is allowed to adopt a budget that has a deficit that does not exceed 10% of its rate revenue.

For the 2025/26 budget it is proposed a total of $8,052,978 be raised from general property rates. This includes $5,000 in forecast Interim Rate revenue that will be received during the 2025/26 financial year, based on new ratable properties being built or changes to the valuation of existing properties.

The expected yield from rates will be sufficient to balance the 2025/26 budget after some adjustments have been made to increase other sources of revenue, reduce operating expenditure and to adjust the amount transferred to or from reserves.

Budget – Whole of Life Cost

While the budget contains new assets and infrastructure, this report does not deal directly with the whole of life costs of those items. Consideration of the whole of life costs relevant to those items forms part of the individual project or asset evaluation and justification.

The Rating Strategy deployed by Council in the 2025/26 financial year has formed part of a long term financial planning strategy to maintain the sustainable operations of Council. If Council is not able to adequately fund operations in the 2025/26 financial year, then the financial position of Council will potentially deteriorate in future years as assets age further and demand for services increase with projected population growth.

Communications Requirements: (Policy No. CS1.7)

Nil.

Strategic Community Plan/Corporate Business Plan Implications:

STRATEGIC COMMUNITY PLAN AND CORPORATE BUSINESS PLAN		
GOAL:	5	Our Organisation
Outcome:	5.1	Innovative leadership, forward planning and mutually beneficial partnerships
Priority	5.1.1	To develop a long-term financial plan based on industry best practice
	5.1.2	To progressively improve the Shire's financial health indicators
Actions	5.1.1.1	Develop an initial 10-year budget

Relevant Precedents:

Each year Council prepares an annual budget for the forthcoming financial year. The annual budget is formed from year one of the Shire of Collie Long Term Financial Plan 2025/26 – 2034/35.

Council has resolved in the lead up to the final 2025/26 budget adoption the Rating Strategy, Reserves Management Strategy, Loan Management Strategy, Elected Members Fees & Allowances, Long Term Financial Plan (incorporating relevant elements of various Asset Management Plans and the Workforce Plan), and the draft 2025/26 Annual Budget.

Comment:

The final 2025/26 budget document follows a similar format to the draft budget but includes presentation of the budget in the statutory format. The final document includes the following information:

- Budget summary and overview, inclusive of the organisational structure and budget snapshot;
- Financial statements including the Statement of Comprehensive Income, Statement of Cash Flows, Statement of Financial Activity (by Nature), with a Statement of Financial Activity (by Program) provided as a summary of Schedules 3 to 14;
- Notes to and forming part of the budget including notes on operating expenditure and revenue, loan borrowings, transfers to and from reserves, rating information and grants;
- Detailed Financial Information for each Schedule at account level, with Sundry Notes providing a greater level of detail for each account. This information is formatted with the account number, description and totals for the 2025/26 Budget; and
- Schedule of Fees & Charges.

The 2025/26 budget has been prepared utilising the various elements that Council has previously resolved to adopt. These include:

- Strategic Community Plan;
- Corporate Business Plan;
- Long Term Financial Plan;
  - Loan Management Strategy;
  - Reserves Management Strategy;
  - Rating Strategy;
- Workforce Plan;
- Asset Management Plans;
- Elected Member Fees, Expenses & Allowances; and
- Fees & Charges Schedule.

Elected Member and staff Budget Requests are considered within the body of this report.

While the 2024/25 financial year has not yet ended when the final budget was completed, the 2025/26 Budget document presented to Council represents the current forecast closing surplus on the 30 June 2025.

The final 2025/26 Budget document is presented to Council for adoption at the Ordinary Council Meeting on the 8 July 2025. The final budget document only varies from the adopted draft budget where there has been updated forecasts or new information provided to what was presented in the draft budget. The draft budget projected a forecast surplus at 30 June 2026 of $19,805 compared to the final budgeted surplus of $33,811.

- ***Statement of Financial Activity – by Program (formerly Rate Setting Statement)***

  An important part of local government budgeting is the classification of budget estimates into the various mandatory descriptions. Local Government accounting systems are required to have the capacity to output accounting reports in at least two classifications, being:

  - Nature classifications; and
  - Statutory Reporting Program (function or activity).

  Historically local governments reported by Statutory Reporting Program as the primary method required by Australian Accounting Standard 27 (AAS27). From 1 July 2023, local government budgets and annual reports must be shown according to Nature classification. However, it is noted that several regulations and the WA Local Government Grants Commission still require information reported by Program.

  For the above reasons, and to provide management with an established method to review and manage Program budgets, the final 2025/26 budget includes both a Statement of Financial Activity by Nature and a Statement of Financial Activity by Program. The final statutory budget only includes a Statement of Financial Activity by Nature, together with a Statement of Comprehensive Income and Statement of Cash Flows. This statement is designed to show how much must be raised from rates to record a breakeven result.

  The Statement of Financial Position shows the proposed financial position for the year, after including all operating revenue and expenditure, capital expenditure, loan repayments, transfers to and from reserves, income from sale of assets and rates.

  The final Budget for 2025/26 as presented produces a surplus of $33,811 at the end of the financial year.

If grants, revenue and the estimated brought forward surplus do not meet expectations or there are requests to increase or add expenditure items, this position will not be achievable.

- ***Rates***

The final 2025/26 Budget includes a 4.5% rate revenue increase (excluding interim rate income) spread across the two Uniform General Rates of Unimproved Value (UV) and Gross Rental Value (GRV). This in accordance with Council's previous resolution through the adoption of the Rating Strategy and Long Term Financial Plan, whereby Council endorsed a projected rate revenue increase of 4.5% for the 2025/26 budget.
After taking into consideration all other sources of income, Council is required to raise sufficient rates to meet its total expenditure. However, it is allowed to adopt a budget that has a deficit that does not exceed 10% of its rate revenue.

For the 2025/26 budget it is proposed a total of $8,052,978 be raised from general property rates. This includes $5,000 in forecast Interim Rate revenue that will be received during the 2025/26 financial year, based on new ratable properties being built or changes to the valuation of existing properties.

The expected yield from rates will be sufficient to meet the 2025/26 budget requirements after some adjustments have been made to increase other sources of revenue, reduce operating expenditure and to adjust the amount transferred to or from reserves.

Based on a 4.50% rate revenue increase, the Gross Rental Value (GRV), Unimproved Value (UV) and Minimum Rates are included as follows:

	Unimproved Value Rate in Dollar	**Gross Rental Value Rate in Dollar**	**GRV Minimum Rate**	**GRV Lesser Minimum Rate**	**UV Minimum Rate**
2024/25 – Current	$0.00507	$0.08228	$1,230.00	$992.00	$992.00
2025/26 – Future	$0.005288	$0.084694	$1,291.50	$1,291.50	$1,041.60

The increase applied to GRV and UV properties represents Council's endorsement of an overall 4.5% rate revenue increase for the 2025/26 budget.

The endorsed Rating Strategy for 2025/26 includes the GRV - Developed minimum rate increasing by 5% to $1,291.50, with the same minimum rate being applied to the GRV – Vacant minimum rate, as an incentive for owners to develop or release residential land and deter land banking by developers. The UV - Unimproved minimum rates will increase by the same 5% to $1,041.60.

The outcome of the rates modelling required to produce an overall 4.5% rate revenue increase results in an average 3.1% increase in GRV (developed) properties not on the minimum rate, with a 5% increase in GRV (developed) minimum rates. The application of a single GRV minimum rate through the removal of the Lesser Minimum of $992.00, will result in an increase of $299.50 for GRV vacant land.

The following table provides a summary of the rates modelling produced, which reflects the percentage increase and shows the mean (average), median (midpoint) and mode (most common) rate for each rating category (excludes Specified Area Rates, Waste Charges and ESL Levy):

General Rate Category	Value	Properties on Minimum Rate	Properties on General Rate	Mean Rate	Median Rate	Mode Rate Range
UV – Rural	UV	287	294	$1,717.83	$1,052.31	$1,001 - $1,500
GRV – Developed	GRV	1,491	2,129	$1,553.42	$1,365.27	$1,001 - $1,500
GRV – Vacant	GRV	183	14	$1,417.61	$1,291.50	$1,001 - $1,500
GRV – Heavy Industry	GRV	0	3	$98,994.86	$11,142.34	
GRV – Light Industry	GRV	1	49	$3,741.63	$3,192.96	$2,501 - $3,000
GRV – Commercial	GRV	27	89	$4,081.37	$2,268.11	$1,001 - $1,500
GRV – CBD	GRV	0	3	$62,898.28	$57,168.45	$85,001 - $116,500
TOTAL		**1,989**	**2,581**	**$1,635.22**	**$1,299.21**	**$1,001 - $1,500**

It should be noted that some GRV and UV properties will receive either an increase or decrease in their rates due to Landgate GRV and UV revaluations. Valuation methodologies and revaluations are effectively outside of Council's control, however, property owners are entitled to appeal valuations issued by Landgate should they believe their UV valuation is not correct.

Household waste collection charges have been increased 5.0% from $246.00 to $261.00 to predominantly reflect the forecast increase in kerbside collection contract costs associated with the waste contract.

- ***Brought Forward Position***

  The 2025/26 Budget includes an estimated brought forward surplus from 30 June 2025 of $94,740. The surplus compares favourably with the original budget position of $26,498. This is primarily attributed to some revenue items exceeding budget forecasts, some expenditure items being lower than budget and the carrying forward of some capital works projects.

  The final actual 2024/25 brought forward surplus will be calculated after the end of the 24/25 financial year, however it is anticipated that the late payment of 50% of the Local Government Grants Commission 2025/26 annual Financial Assistance Grant (FAG) will be made around the 23 June 2026 of approximately $1,358,026. In future years this advance grant payment will be transferred to the new Unspent Grants Reserve, but as this new Reserve has not been created in 24/25 then it will be reflected in the final actual Carried Forward Surplus. Any future advance payments in 25/26 will be transferred to the Unspent Grants Reserve, which will result in the total value of grants received more closely reflecting the total budgeted FAG grants.

- ***Staffing***

  As part of considering and adopting the Shire of Collie Long Term Financial Plan, the Workforce Plan for the 2025/26 – 2034/35 was incorporated. The Workforce Plan identifies the full-time equivalent staff required for Council's operations.

  Based on the Workforce Plan, the total number of full-time equivalent (FTE) staff at the end of 2025/26 will be 70.38 FTE which is an increase of 1.36 FTE (previously 69.02 FTE). The total salaries and wages cost (including superannuation) associated with the employment of 70.38 FTE's is $7,510,236, compared to $6,915,000 in 2024/25.

  Employee costs consist of direct salary and wages, annual and long service leave provisions, workers compensation insurance, training costs, superannuation contributions, uniforms and protective clothing, professional development, fringe benefits tax and any other costs related to the employment of staff.

- ***Capital Works Programme***

  A total of $3,526,770 is to be spent in 2025/26 on the acquisition and/or construction of furniture, equipment, vehicles, plant, buildings and infrastructure assets, including carried forward projects. These are summarised as follows:

- Land & Buildings	$796,000
- Plant & Equipment	$10,000
- Motor Vehicles	$1,733,000 (includes $550k streetsweeper and $800k landfill compactor)
- Furniture & Fittings	$50,500
- Infrastructure	$937,270 (includes roads, paths, parks)

  Council will allocate $1,680,000 from Reserves to fund this expenditure, with the balance of funding sourced from external grants and contributions, proceeds from the sale of assets, or municipal funds.

  Council has commenced the establishment of Asset Management Plans for its various classes of assets, which project over a 10+ year period the required capital upgrade, expansion and renewal requirements. These Asset Management Plans include the regular transfer of funds to Reserves to ensure the Council's cash flow requirements can be met each year. As these Plans are developed in future years, they will provided greater guidance on the asset renewal, upgrade and new asset requirements of the Shire of Collie.

- ***Carried Forward Projects***

  The 2025/26 draft budget includes a number of carried forward capital projects that were not able to be completed during the 2024/25 financial year due to a number of factors. These projects are predominantly capital Transport Construction and are identified in their respective sections of the budget.

Carried Forward Project	Job Ref	Expenditure $	Funding Source
Building Construction			
Shire Administration - Repairs and refurbishment - Includes Carried Over from 24/25 of $26,000.	BAP002	51,000	Building / Carried Over Projects Reserve
Waste Transfer Station Shed to house Compactor - Includes Waste Transfer Station Security funds Carried Over from 24/25 of $35,000.	J1144	245,000	Building / Carried Over Projects Reserve, $50k Renergi Contribution
Parks & Reserves Construction			
Soldiers Park Playground – Carry Over project of approx $1.65m from committed re-allocated State Government funding from the former heated swimming pool election commitment. Swimming Club storage shed/meeting room approx $150k. To be submitted to the mid-year budget review in Feb 2026 if ready.		0	External grant funds
River Revitalisation Strategy – Project of approx $100,000 subject to external grant funding or contribution. To be submitted to the mid-year budget review in Feb 2026 if external funding secured.		0	
Transport Construction			
Forrest St (Design & Construct - Provision of Bio-Retention Basin at Margaretta Wilson Centre Carpark)	J3533	21,250	Municipal Funds / Carried Over Projects Reserve
Cemetery Drainage (Expand drainage infrastructure to accommodate new roads) - Carried Forward to 26/27		0	Municipal Funds
Swinging Bridge	J8051	60,000	Municipal Funds / Carried Over Projects Reserve

- ***Changes from the Draft 2025/26 Budget***

  1. Inclusion of Carried Forward projects and funding sources, together with the adjustments to capital works and reserve transfers.

  2. Inclusion of rates non-payment penalty interest and increase waste site material costs.

  3. Minor corrections to other income and expenditure items based on adjusted forecasts or new information.

  4. Minor adjustments to the allocation of wages and various overheads.

- ***Materiality Limit***

  The Local Government (Financial Management) Regulations (Reg 34(5)) require that each financial year a Local Government adopts a Materiality percentage or value, calculated in accordance with the Australian Accounting Standards.

  This percentage or value is required to guide the users of financial reports regarding variances in actual to budget expenditures and revenues. Specifically the intention is to highlight variances that are important or significant due to their value and possible impact. Too many low value variances can devalue and overcrowd this reporting process.

  Having regard to the fact that the users of these financial reports are primarily management and Council, a value greater than $50,000 or 10%, whichever is greater with reporting at the Program or Nature/Type level has historically been considered reasonable and good practice for highlighting material variances. Council currently has a material reporting variance of greater than $10,000 or 10%, whichever is greater.

  Council is requested to consider increasing the materiality threshold to a value greater than $50,000 or 10%, whichever is greater, with reporting at the Program or Nature/Type level. This will assist in reducing the administration workload and level of reporting to Council in the Monthly Financial Statements while still highlighting variances in items of significance.

Overall the 2025/26 Budget continues to deliver on strategies and actions identified and prioritised by Council in the Strategic Community Plan and Corporate Business Plan, which in the future will be referred to as the Council Plan. This ensures Council maintains a high level of service across all programs while enabling new asset construction and existing asset upgrade and renewal is undertaken at sustainable levels

The final budget for 2025/26 is balanced and Councillors are encouraged to examine the document thoroughly. Councillors are welcome to contact the Chief Executive Officer prior to the Council meeting to discuss any questions.

12. OPERATIONS REPORTS

Nil.

13. DEVELOPMENT SERVICES REPORTS

Cr Kearney and Cr Italiano declared Impartial Interests in Item 13.1.

Cr Smith declared a Proximity Interest in Item 13.1 and left the room at 7:22pm.

13.1 Coalfields Museum and Historical Research Centre Business Case	
Reporting Department:	Development Services
Reporting Officer:	Alex Wiese – Director Development Services
Accountable Manager:	Alex Wiese – Director Development Services
Legislation:	Nil.
File Number:	RCS/038
Appendices:	Appendix 13.1.A - Coalfields Museum & Historical Research Centre Business Case V1.1 (CONFIDENTIAL APPENDIX)
Voting Requirement:	Simple Majority

Report Purpose

The purpose of this report is for Council to receive the Coalfields Museum and Historical Research Centre Business Case dated May 2025 and consider requesting the CEO to work with the Coalfields Museum and Historical Research Centre and the Collie Visitor Centre to investigate the preferred option.

The President advised that a letter had been tabled from the Visitor Centre supporting the proposal.

Officer's Recommendation:

Moved:

That Council

1. Receive the Coalfields Museum & Historical Research Centre Business Case V1.1 dated May 2025; and
2. Request that the Chief Executive Officer work with the Coalfields Museum and Historical Research Centre and the Collie Visitor Centre to investigate the feasibility of the recommended option in the Business Case (Option 2: Co-location with the Collie Visitor Centre), and provide a report on the outcome to a future Ordinary Council Meeting in 2025.

Change to Officer's Recommendation

The Officer's Recommendation was changed to recognise that, due to the requirements of the funding provided to the Coalfields Museum, it is imperative that the feasibility and outcome be finalised before the end of 2025.

Council Decision:	***Resolution: 9615***
Moved: Cr Kearney	***Seconded: Cr Hill-Power***

That Council

1. *Receive the Coalfields Museum & Historical Research Centre Business Case V1.1 dated May 2025; and*
2. *Request that the Chief Executive Officer work with the Coalfields Museum and Historical Research Centre and the Collie Visitor Centre to investigate the feasibility of the recommended option in the Business Case (Option 2: Co-location with the Collie Visitor Centre), and provide a report on the outcome to a future Ordinary Council Meeting before the end of 2025.*

Carried: 9/0

For:	*Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Sadlier.*
Against:	*Nil.*

Background:

The Coalfields Museum and Historical Research Centre (CMHRC) currently leases Lot (1260) 161 Throssell Street, Collie, from the Shire of Collie and has off-site storage in a shed adjacent to Roche Park. The CMHRC is regularly gifted new additions to the museum collection and has also been offered museum pieces from both coal mining companies in Collie and the Muja and Collie Power Stations (when they close). The museum and storage facility are at capacity, and the buildings at 161 Throssell Street have become unsuitable for museum use due to structural and maintenance issues, which pose a risk to the current and future collection.

In recent years, the CMHRC has explored various options to protect the collection and for expansion, including redevelopment plans of the existing museum site at 161 Throssell Street, Collie.

In July 2020, the CMHRC received in principle support from the Council to investigate the redevelopment of the existing site on Throssell Street. Redevelopment did not progress due to the estimated cost (over $6 million), difficulties in securing funding, and the complexity of relocating the entire collection during the construction phase.

In late 2020 and early 2021, the CMHRC explored relocation to other sites. However, no suitable locations were identified, and the CMHRC, being a volunteer-run, not-for-profit organisation, did not have the funds necessary to engage consultants or conduct feasibility studies or a business case. Instead, the committee developed desirable criteria, including items such as:

- land ownership,
- current approved land uses,
- vehicle access,
- parking,
- proximity to the CBD,
- Throssell Street frontage, and
- proximity to other visitor attractions.

The CMHRC committee concluded that the most favourable site is R47293 Throssell Street located next to the RSL building and the old Wallsend underground mine. R47293 is vested in the Shire of Collie with the power to lease. The current purposes for R47293 include tourist/historical display.

At its Ordinary Council Meeting on 19 January 2021, the Council resolved to provide in-principle support for the CMHRC's planning for a new museum development on R47293, noting that a further report would be required to be presented to Council before a decision could be made.

The main challenge with Reserve 47293 was the limited amount of available land (approximately 3,000 m²), which would have prevented the CMHRC from accessing a large museum piece. As shown below in Figure 1, Reserve 20038 is constrained as it contains the Collie Returned Services League (RSL), a truck stop, a car park, and borders the rail reserve and Throssell Street.



Figure 1

Later in January 2021, the CMHRC also commenced discussions on 161 (Lot 1260) Throssell Street, Collie (their existing site), and began developing detailed site plans and layout concepts. However, this did not progress to the lodgement of a development application.

In July 2021, the Shire was approached by the Rotary Club of Collie to discuss the relocation of a disused fire tower to the Collie townsite. After a series of meetings, the Council considered a report on 14 September 2021 regarding the Fire Tower Relocation, and resolved to provide in principle support, subject to a further report on the final preferred location(s).

As part of the Rotary Club of Collie's site selection process, 20 Throssell Street, Collie, was identified as a potential suitable site for relocating and restoring the fire tower, given that a large amount of laydown area was unused by the Forestry Products Commission (refer to Figure 2 below).



Figure 2

The Collie Rotary Club established an informal working group comprising of its members, consultants, and the Shire to scope out and progress the Munro fire tower project. Ownership of the project remained with Collie Rotary Club, and they simultaneously explored funding opportunities. However, these efforts stalled as there was no agreed-upon location for storing the tower in the Collie townsite.

In September 2021 at a briefing session, the Council received an update on the Coalfield's Museum and Munro Fire Tower and the Shire was advised that the Forestry Products Commission was not able to sell its land holdings to the open market but may be able to transfer the land to a government entity, which is the Shire. This led to Shire officers writing to the Forestry Products Commission in March 2022 to formally request the transfer of 20 Throssell Street, Collie, to the Shire of Collie so that it can work with the CMHRC and Collie Rotary Club to establish a new Coalfields Museum, incorporating (potentially) the Munro fire tower.

The CMHRC attended and expressed frustration with the delays in acquiring 20 Throssell Street, Collie, from the State (transfer) and the progress of the museum project at the Annual Electors' Meeting held on 12 April 2022.

The then Director of Development Services, Mathew Young, subsequently attended the CMHRC executive committee in early May 2022 to outline the Forestry Products Commission submission, to suggest the idea of establishing a working group with the Shire to progress the land transfer, to identify funding opportunities, and to progress museum plan development. However, discussions were placed on hold after the State Government announced the site was being considered for a new TAFE facility.

The CMHRC continued to pursue redevelopment options and funding after the State's announcement. In September 2024, it was awarded $95,000 to plan its transformation into a contemporary tourist attraction through the State Government's Collie Futures Small Grants Program. The CMHRC used some of the grant funding and its own funds.

In late 2024, 20 Throssell Street, Collie, was listed for sale on the open market. Purchase and settlement occurred in January 2025. The property is now privately owned.

Statutory and Policy Implications:

Compliance with relevant planning and building legislative requirements and Shire policies.

Budget Implications:

No direct budget implications, however the outcome may result in future expenditure obligations being presented to Council for consideration.

Communications Requirements:

Nil.

Strategic Community Plan/Corporate Business Plan Implications:

STRATEGIC COMMUNITY PLAN AND CORPORATE BUSINESS PLAN		
GOAL:	2	Our Economy
Outcome:	2.1	Economic Development
Priority:	2.1.1	Support the State Government Collie's Just Transition initiatives to achieve economic diversification and sustainability.
Outcome	2.2	Tourism Promotion and Attractions
Priority	2.2.3	To plan for a new cultural and heritage museum to celebrate Collie's unique history

Relevant Precedents:

Council has previously considered four separate reports related to CMHRC, which resulted in the following resolutions. The reported are available and can be accessed on the Shire website.

- At the Ordinary Council Meeting 19 January 2021, after considering a motion received from Cr Italiano, Council resolved.

  That Council:

  1. *Notes the work of the Coalfields Museum and Historical Research Centre Inc (CMHRC) undertaken to date with regard for the planning for a new museum development on Reserve 20038 (Lot 1260) Throssell Street Collie and vested in the Shire as a Museum site with power to lease; and also, investigations into various other sites around town (see attached);*
  2. *Provides in-principal support to preliminary investigation and due diligence for possible future development at a site in Throssell Street next to the RSL building (R47293); and*
  3. *Considers any final determination on the proposed redevelopment after receiving and considering the results of the CMHRC's due diligence report.*

- At the Ordinary Council Meeting 13 September 2021, after considering a report titled Rotary Fire Tower Relocation Project- Preliminary Site Analysis, Council resolved.

  That Council:

  1. *Provide in-principle support for the Rotary Fire Tower Relocation Project, for the Munro Fire Tower to be relocated to Collie;*
  2. *Authorise Officers to continue working with the Collie Rotary Club to identify and analyse site selections for the fire tower; and*

3. *require the final preferred location(s) for the fire tower to be referred to Council for determination.*

- At the Ordinary Council Meeting 14 June 2022, after considering a report titled Alternative Site for Coalfields Museum and Historical Research Centre, Council resolved.

  That Council:

  Endorse Shire Officer request to the Forestry Products Commission to have land transferred to the Shire for the relocated Coalfields Museum and Historical Research Centre Inc (CMHRC) at 20 Throssell Street Collie.

- At the Ordinary Council Meeting 13 September 2022, after considering a report titled Alternative Site for Coalfields Museum and Historical Research Centre, Council resolved.

  That Council;

  1. *Provide in-principle support for the Rotary Fire Tower Relocation Project, for the Munro Fire Tower to be relocated to Collie;*
  2. *Authorise Officers to continue working with the Collie Rotary Club to identify and analyse site selections for the fire tower; and*
  3. *Require the final preferred location(s) for the fire tower to be referred to Council for determination.*

Comment:

For over a century, the Coalfields Museum and Historical Research Centre (CMHRC) has been serving as the primary custodian of the town's industrial, sawmilling, and forestry heritage.

To preserve and share the Shire's history and significance in Western Australia's growth, since 2020, CMHRC has been actively pursuing opportunities to address its ageing facilities, expand its collection, enhance the visitor experience, and achieve regional museum standards comparable to those across Australia.

Over the last five years, CMHRC has explored various options with stakeholders, including on-site redevelopment, relocation to an alternative site, and co-location. This led the CMHRC to apply for a grant in mid-2024 through the State Government's Collie Futures Small Grants Program to plan its transformation and growth.

The CMHRC was successful, and in August 2024, it was awarded a $95,000 grant to complete a business case (and other necessary elements). The purpose was to assess the benefits, costs, and risks of various alternative options for redevelopment (both new and existing), and provide a recommended preferred solution that decision-makers and stakeholders could consider.

The CMHRC completed the business case in May 2025 (refer to Appendix 13.1.A - Coalfields Museum & Historical Research Centre Business Case V1.1) using both its funds and a portion of the grant and has provided a copy to the Shire of Collie as a key stakeholder for consideration. The business case considers four options

- Option 1: Redeveloping the Coalfields Museum at its current location
- Option 2: Co-location with Collie Visitor Centre
- Option 3: Other site locations
- Option 4: No action

The recommended option after stakeholder consultation is co-location with the Collie Visitor Centre. It is considered to offer the most cost-effective, sustainable, and synergistic solution for tourism growth, historical preservation, and of honouring Collie's place in the history of Western Australia.

Given the importance of the project and its long history in getting to this point. Council is asked to receive both the business case and request that the Chief Executive Officer work with the Coalfields Museum, Historical Research, and the Collie Visitor Centre to investigate the recommended option. It is proposed that a joint stakeholder investigation be undertaken over a period of up to six months to allow for appropriate engagement, and where necessary, board and executive consideration. A report on the outcome will be included in the December 2025 Ordinary Council Meeting. Should funds be required, the CMHRC has indicated that the use of their remaining grant funds could be considered.

Cr Smith retuned to the room at 7:29pm.

14. CORPORATE SERVICES REPORTS

14.1 Accounts Paid – 16 May 2025 to 15 June 2025	
Reporting Department:	Corporate Services
Reporting Officer:	Karen Rushton – Finance Officer
Accountable Manager:	Geoff Lawrence – Finance and Business Excellence Coordinator
Legislation:	*Local Government Act 1995 & Local Government (Financial Management) Regulations 1996*
File Number:	FIN/024
Appendices:	Appendix 14.1.A – List of Accounts Paid
Voting Requirement	Simple Majority

Report Purpose

To present the accounts paid for the period 16 May 2025 to 15 June 2025.

Officer's Recommendation/Council Decision: ***Resolution: 9616***

Moved: Cr Hill-Power ***Seconded: Cr Sadlier***

That Council receives the List of Accounts paid for the period 16 May 2025 to 15 June 2025 as presented in Appendix 14.1.A totalling $2,107,309.24.

Carried: 10/0

For: *Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*

Against: *Nil.*

Background:

Where a council has delegated authority to the Chief Executive Officer to make payments from the municipal or trust fund, a list of accounts paid is to be presented at the ordinary meeting each month.

In accordance with Delegation 2.2.21, the Chief Executive Officer is authorised to make payments.

Statutory and Policy Implications:

Local Government Act 1995

Local Government (Financial Management Regulations) 1996

12. Payments from municipal fund or trust fund, restrictions on making

(1) A payment may only be made from the municipal fund or the trust fund —

(a) if the local government has delegated to the CEO the exercise of its power make payments from those funds — by the CEO; or

(b) otherwise, if the payment is authorised in advance by a resolution of the council.

(2) The council must not authorise a payment from those funds until a list prepared under regulation 13(2) containing details of the accounts to be paid has been presented to the council.

13. Payments from municipal fund or trust fund by CEO, CEO's duties as to etc.

(1) If the local government has delegated to the CEO the exercise of its power to make payments from the municipal fund or the trust fund, a list of accounts paid by the CEO is to be prepared each month showing for each account paid since the last such list was prepared —

(a) the payee's name; and

(b) the amount of the payment; and

(c) the date of the payment; and

(d) sufficient information to identify the transaction.

(2) A list of accounts for approval to be paid is to be prepared each month showing —

(a) for each account which requires council authorisation in that month —

(i) the payee's name; and

(ii) the amount of the payment; and

(i) sufficient information to identify the transaction; and

(b) the date of the meeting of the council to which the list is to be presented.

(3) A list prepared under subregulation (1) or (2) is to be —

(a) presented to the council at the next ordinary meeting of the council after the list is prepared; and

(b) recorded in the minutes of that meeting.

13A. Payments by employees via purchasing cards

(1) If a local government has authorised an employee to use a credit, debit or other purchasing card, a list of payments made using the card must be prepared each month showing the following for each payment made since the last such list was prepared —

(a) the payee's name;

(b) the amount of the payment;

(c) the date of the payment;

(d) sufficient information to identify the payment.

(2) A list prepared under subregulation (1) must be —

(a) presented to the council at the next ordinary meeting of the council after the list is prepared; and

(b) recorded in the minutes of that meeting.

Council Policy

CS3.7 Payment of Creditors

5.0 List of Accounts Paid

A list of all accounts paid shall be presented to the Council within two months. The list shall comprise of details as prescribed in the WA Financial Management Regulations (1996)

Budget Implications:

All liabilities settled have been in accordance with the annual budget provisions.

Communications Requirements: (Policy No. CS1.7)

Nil

Strategic Community Plan/Corporate Business Plan Implications:

STRATEGIC COMMUNITY PLAN AND CORPORATE BUSINESS PLAN		
GOAL:	5	Our Organisation
Objective:	5.1	Innovative leadership, forward planning, and mutually beneficial partnerships
Strategic Priority:	5.1.5	To imbed our strategic priorities throughout the organisation

Relevant Precedents:

Each month Council receives the list of accounts presented.

Comment:

A listing of payments is included in Appendix 14.1.A.

Where possible, questions on specific payments should be submitted to the Chief Executive Officer or Director Corporate and Community Services before noon on the day of the scheduled meeting. This will ensure a response can be provided at the Council Meeting.

14.2 Financial Management Report – May 2025	
Reporting Department:	Corporate Services
Reporting Officer:	Geoff Lawrence – Finance and Business Excellence Coordinator
Accountable Manager:	Phil Anastasakis – Chief Executive Officer
Legislation	*Local Government Act 1995 & Financial Management Regulations 1996*
File Number:	FIN/024
Appendices:	Appendix 14.2.A – Financial Report – May 2025
Voting Requirement	Simple Majority

Report Purpose

To provide a summary of the financial position for the Shire of Collie for the month ending 31 May 2025.

Officer's Recommendation/*Council Decision:* ***Resolution: 9617***

Moved: Cr Faries ***Seconded: Cr Kearney***

That Council receive the Financial Management Reports for May 2025 as presented in Appendix 14.2.A.

Carried: 10/0

For: *Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*

Against: *Nil.*

Background:

In accordance with Council policy and the provisions of the *Local Government Act 1995*, the Financial Report required for the end of the period is presented to Council for information. Refer to Appendix 14.2.A.

Statutory and Policy Implications:

The Local Government Act 1995

6.4. Financial Report

(1) A local government is to prepare an annual financial report for the preceding financial year and such other financial reports as are prescribed.

(2) The financial report is to —

(a) be prepared and presented in the manner and form prescribed; and

(b) contain the prescribed information.

Local Government (Financial Management) Regulations 1996

34. Financial activity statement required each month (Act s. 6.4)

(1A) In this regulation—

committed assets means revenue unspent but set aside under the annual budget for a specific purpose.

(1) A local government is to prepare each month a statement of financial activity reporting on the revenue and expenditure, as set out in the annual budget under regulation 22(1)(d), for that month in the following detail —

(a) annual budget estimates, taking into account any expenditure incurred for an additional purpose under section 6.8(1)(b) or (c); and

(b) budget estimates to the end of the month to which the statement relates; and

(c) actual amounts of expenditure, revenue and income to the end of the month to which the statement relates; and

(d) material variances between the comparable amounts referred to in paragraphs (b) and (c); and

(e) the net current assets at the end of the month to which the statement relates.

(1B) The detail included under subregulation (1)(e) must be structured in the same way as the detail included in the annual budget under regulation 31(1) and (3)(a).

(1C) Any information relating to exclusions from the calculation of a budget deficiency that is included as part of the budget estimates referred to in subregulation (1)(a) or (b) must be structured in the same way as the corresponding information included in the annual budget.

(2) Each statement of financial activity is to be accompanied by documents containing

(a) deleted

(b) an explanation of each of the material variances referred to in subregulation (1)(d); and

(c) such other supporting information as is considered relevant by the local government.

(3) The information in a statement of financial activity may be shown according to nature and type classification.

(4) A statement of financial activity, and the accompanying documents referred to in subregulation (2), are to be —

(a) presented at an ordinary meeting of the council within 2 months after the end of the relevant month; and

(b) recorded in the minutes of the meeting at which it is presented.

Budget Implications:

The monthly Financial Management Report provides Council with an overview of budget compared to actual expenditure and revenue. Ongoing financial forecasts to the end of the financial year are being introduced to enable employees to closely monitor revenue and expenditure, and provide up to date forecasts for the end of the financial year. This will provide more accurate budget monitoring, assist the mid-year budget review analysis, and will form a solid foundation for the estimated Surplus/(Deficit) at 30 June, which informs the future Budget and Long Term Financial Plan development process.

Communications Requirements: (Policy No. CS 1.7)
Nil

Strategic Community Plan/Corporate Business Plan Implications:

STRATEGIC COMMUNITY PLAN AND CORPORATE BUSINESS PLAN		
GOAL:	5	Our Organisation
Objective:	5.1	Innovative leadership, forward planning, and mutually beneficial partnerships
Strategic Priority:	5.1.5	To imbed our strategic priorities throughout the organisation

Relevant Precedents:
Each month Council is presented a monthly Financial Management Report.

Comment:
The financial statements provided in Appendix 12.2.A reports on the following information for the reporting period:

- Statement of Financial Accounts by Nature
- Statement of Finance Accounts by Program

Due to the need to focus on the end of financial year audit and the 2023/2024 Annual Financial Statements, the Monthly Financial Statement does not incorporate all of the detail anticipated in future reports, it does include the identification of variances and a forecast end of year financial position.

With the 2023/2024 Annual Financial Statements finalised, it is anticipated that the future Financial Management Reports will incorporate additional reporting elements associated with Program and Sub-Program Reporting, which will provide greater detail on specific income and expenditure line items.

14.3 Acceptance of the Disability, Access and Inclusion Plan 2024-2029	
Reporting Department:	Corporate Services
Reporting Officer:	Tamsin Emmett – Community Development Officer
Accountable Manager:	Alex Wiese – Director Development Services (Acting Corporate Services Director)
Legislation:	*Disability Services Act 1993*
File Number:	GOV/022
Appendices:	Appendix 14.3.A –Shire of Collie Disability Access and Inclusion Plan 2025-2029 – Copy for Advertising
Voting Requirement:	Simple Majority

Report Purpose

This report presents Council with the Shire of Collie Disability Access and Inclusion Plan (DAIP) 2025-2029 and seeks approval to release the DAIP for a public comment period.

Officer's Recommendation/Council Decision: ***Resolution: 9618***

Moved: Cr Italiano ***Seconded: Cr Sadlier***

That Council:

1. *Approves the advertising of the Shire of Collie Disability Access and Inclusion Plan 2024- 2029 as attached to this report for public comment for 21 days; and*
2. *Requests the Chief Executive Officer to report the outcomes of the public comment period and present the proposed Disability Access and Inclusion Plan 2025-2029 at a subsequent 2025 Ordinary Council Meeting.*

Carried: 10/0

For: *Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*

Against: *Nil.*

Background:

Members of the community, people living with disability, their families and carers have the same rights to access programs and services, facilities, information, make complaints, to be consulted and to be employed.

These rights are protected within International, National and State legislation which make it unlawful to discriminate against a person living with disability.

The *Disability Services Act 1993* (amended 2004) requires public authorities to develop and implement Disability Access and Inclusion Plans (DAIP) and to progressively build on the achievements of the previous Plan. The Shire has a statutory obligation to review the DAIP every five years

The draft Shire of Collie DAIP 2025–2029 has been developed through community and stakeholder consultation, and in alignment with the State Disability Strategy. It sets out goals and actions across seven outcome areas aimed at improving accessibility and inclusion in the Collie community.

The Shire's DAIP is a strategic guiding document that aims to actively address barriers faced by people with disability and demonstrate the Shire's commitment to:

- Eliminating discrimination against people with disability; and
- Providing inclusive and accessible information, facilities, services and workplaces.

The Shire's current DAIP has a review date of 30 November 2022. However, the review has been delayed due to staff turnover and vacancies at the Shire. During this time, the Shire has liaised with the Department of Communities about the review delay and submitted the required DAIP Progress Reports. Approval is now requested from Council to release the Shire of Collie DAIP 2025–2029 plan for public comment prior to returning to Council for final adoption.

Seeking feedback from the community and stakeholders ensures the Plan reflects diverse perspectives and promotes shared ownership of the actions within it.

Statutory and Policy Implications:

Section 29 of the *Disability Services Act 1993* (amended 2004) requires all local governments to have and implement a Disability Access and Inclusion Plan (DAIP).
The below legislation is also relevant in the development and implementation of Disability Access and Inclusion Plans.

- Western Australian Equal Opportunity Act 1984 (amended 1988)
- Commonwealth Disability Discrimination Act 1992
- Disability (Access to Premises – Buildings) Standards 2010
- Local Government Act 1995

Budget Implications:

There are no direct costs associated with releasing the draft Plan for public consultation. Advertising and promotional activities will be undertaken within existing budgets.

Communications Requirements:

The Draft Plan will be made available for public comment via:

- The Shire's website;
- Social media;
- Notices at the Shire administration office and community noticeboard;
- Direct engagement with relevant local organisations and stakeholders.

Strategic Community Plan/Corporate Business Plan Implications:

STRATEGIC COMMUNITY PLAN AND CORPORATE BUSINESS PLAN		
GOAL:	1	Our Community
Outcome	1.2	Community connection, engagement and participation
Priority	1.2.3	Improve how we communicate with the community and other stakeholders.
GOAL:	3	Our Built Environment
Outcome:	3.1	Safe and well-maintained shire owned facilities and infrastructure
Priority:	3.1.1	To increase the Shire's capability to maintain and improve facilities and infrastructure

Relevant Precedents:

Council has previously adopted DAIPs, including the 2017–2021 DAIP, and has met all annual reporting requirements under the Disability Services Act.

Comment:

The draft DAIP 2025-2029 consists of the following seven (7) core outcomes as a requirement of the *Disability Services Act 1993 (amended 2004)* and includes actions to deliver on the outcomes:

- Outcome 1 – Access to Services: People with disability have the same opportunity as other people to access the services or, any events organised by the Shire.
- Outcome 2 – Access to Buildings and Other Facilities: People with disability have the same opportunities as other people to access the buildings and other facilities of the Shire.
- Outcome 3 - Access to Information: People with disability receive information from the Shire in a format that will enable them to access the information as readily as other people are able to access it.
- Outcome 4 – Level and Quality of Services: People with disability receive the same level and quality of service from the staff of the Shire as other people receive from the staff of the Shire.
- Outcome 5 – Complaints Handling: People with disability have the same opportunities as other people to make complaints to the Shire.
- Outcome 6 – Participation in Community Consultation: People with disability have the same opportunities as other people to participate in any public consultation by the Shire.
- Outcome 7 – Employment: People with disability have the same opportunities as other people to obtain and maintain employment with the Shire.

The draft DAIP represents an opportunity to shape a more inclusive future for the Shire of Collie, and public consultation is an important step to validate and refine the DAIP actions and ensure they reflect community needs and aspirations. A consultation period of 21 days is proposed.

Following the consultation period, a final version of the DAIP, inclusive of community feedback, will be presented to Council for formal adoption and submission to the Department of Communities.

The Shire of Collie DAIP (Attachment 14.3.A) responds to feedback received during its development and continues the progress achieved in the previous DAIP. It also now references the adopted 2022 Community Strategic Plan. In addition to the continuance of many actions from the previous plan, there are new initiatives in the draft 2025- 2029 DAIP to support those with a disability in the community.

Comments received from the community and stakeholders will be considered and incorporated, and the final draft DAIP will then be presented to Council for adoption in August 2025. The adopted DAIP will then be forwarded to the Department of Communities responsible for ensuring the Plan is compliant.

15. MOTIONS FOR WHICH PRIOR NOTICE HAS BEEN GIVEN

Nil

16. QUESTIONS BY MEMBERS FOR WHICH DUE NOTICE HAS BEEN GIVEN

Nil

17. URGENT BUSINESS APPROVED BY THE PRESIDING MEMBER OR BY DECISION

Council Decision: ***Resolution: 9619***

Moved: Cr Miffling ***Seconded: Cr Faries***

That the Council consider Urgent Business Item 17.1 in relation to emergency works for Bridge 3523 – Bussell's Bridge, Mungalup Road. .

Carried: 10/0

For: *Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*

Against: *Nil.*

17.1 Bridge 3523 (Bussell's Bridge, Mungalup Road) – Emergency Works	
Reporting Department:	Operations
Reporting Officer:	Scott Geere – Director Operations
Accountable Manager:	Scott Geere – Director Operations
Legislation:	Local Government Act 1995.
File Number:	RDS/006
Appendices:	Nil.
Voting Requirement:	Absolute Majority

Report Purpose

Main Roads Western Australia (MRWA) recently informed the Shire that Bridge 3523 located on Mungalup Road over the Collie River, known as Bussell's Bridge, is required to have emergency repairs due to a failure of Pier 5, Pile 5. Until the repairs have been completed, Main Roads is recommending the closure of the lane on the western side of the bridge.

Officer's Recommendation/*Council Decision:* ***Resolution: 9620***

Moved: Cr Kearny ***Seconded: Cr Sadlier***

That Council:

1. *Acknowledge the advice received from Main Roads WA (MRWA) dated 1 July 2025 regarding concerns relating to Bridge 3523 – Mungalup Road;*
2. *Endorse a one lane closure on Bridge 3523 – Mungalup Road as an immediate required measure, until the required emergency works are undertaken to the satisfaction of MRWA;*
3. *Approve a 2025/26 budget amendment to increase General Ledger 134400 - Bridge Maintenance to reflect the increased cost of emergency repairs on Bridge 3523, and the receipt of a bridge maintenance grant from Main Roads WA to reflect two thirds (2/3) of the cost, with details of the actual incurred expenditure reported to Council through the Monthly Financial Report;*
4. *Approve a 2025/26 budget amendment to utilise Shire municipal funds to facilitate the Shire's 1/3 contribution to the required emergency repair work; and*
5. *Authorise the Chief Executive Officer to provide general advice to impacted businesses and landowners of the temporary lane closure to Bridge 3523 – Mungalup Road.*

Carried: 10/0

For: *Cr Miffling, Cr Italiano, Cr Burton, Faries, Cr Hansen, Cr Hill-Power, Cr Kearney, Cr Moyses, Cr Smith, Cr Sadlier.*

Against: *Nil.*

Background:

Bridge 3523 Mungalup Road was first identified by MRWA in early 2023 as having a structural deficiency in Pier 2, Pile 2 & 3, which required emergency work. This was identified by MRWA as part of their Level 2 Bridge Inspection Program.

This is a more intensive audit than the annual Level 1 Bridge Inspection Audit and Maintenance program, carried out by the Shire of Collie each year, and involves an Under Bridge Inspection Unit to provide a closer examination of all bridge components. The remainder of the Level 2 inspection to this bridge was then deferred by MRWA until this required emergency work was completed.

This repair work to Pier 2, Pile 2 & 3 for Bridge 3523 was subsequently completed in the early part of 2024. This work was funded on a co-contribution basis between MRWA (2/3 of cost) and the Shire of Collie (1/3 of cost) A significant portion of the Shire contribution was funded through the Local Roads and Community Infrastructure program.

The remainder of the outstanding Level 2 inspection was completed by MRWA, with a report issued on the 13 September 2024. This report identified that Pier 5, Pile 5 was in poor condition however did not detail any further recommended action.

An email was subsequently received on the 1 July 2025 stating that '*A capacity assessment of the above bridge has been carried out based on the detailed inspection report dated*

13/09/2024. The capacity assessment calculations show that the bridge should have a 4 tonne load limit unless emergency repairs are carried out…'.

A further email was received from MRWA on 5 July 2005 advising "*a better response is to close the RHS lane (western side) to take the loading off the defective pile. This would need to be coupled with appropriate traffic management and speed restrictions. This should be straightforward for the Shire to implement as a similar lane closure was put in place for the previous pile repairs.*

The pile should be monitored two weekly. The pile should be repaired as soon as possible."

This Bridge 3523 is part of a Restricted Access Vehicle 7 (RAV 7) network, which has been approved by MRWA for heavy haulage vehicles.

Statutory and Policy Implications:

Local Government Act 1995

6.8. Expenditure from municipal fund not included in annual budget

(1) A local government is not to incur expenditure from its municipal fund for an additional purpose except where the expenditure —

(a) is incurred in a financial year before the adoption of the annual budget by the local government; or

(b) is authorised in advance by resolution;*

Additional purpose means a purpose for which no expenditure estimate is included in the local government's annual budget.

Budget Implications:

Quotes for the required emergency repair work to Bridge 3523 are currently being sought by the Shire of Collie through MRWA recommended contractors.

The cost of this work is as yet unknown, but MRWA have provided the required structural detail ('Modified Type 4C Detail'), being a grout-filled hot-dipped galvanized steel sleeve to as needed length to remediate the fault and associated temporary formwork to facilitate the repair down to the riverbed.

Confirmation has been received from MRWA that they are willing to enter into discussions for a co-contribution funding arrangement.

The starting point is that the Shire is fully responsible for any emergency repairs. Subject to satisfying various criteria, the Shire can invoice MRWA for 2/3 of the cost to repair the pile. The process for accessing the emergency repairs funding contribution is shown below:

- Shire of Collie to provide MRWA proof that we are undertaking routine and periodic maintenance on the bridges and undertaking Level 1 inspections on our bridges;
- MRWA and Shire of Collie agree on the scope of emergency repairs required;
- Shire of Collie to provide MRWA with a price to carry out the repairs;
- Once MRWA has agreed to the price, MRWA will authorise the work to proceed;

- Shire of Collie to complete repairs and invoice MRWA for 2/3 of the agreed price. Note, MRWA will only contribute to the direct emergency repair costs. This does not include ongoing propping hire or traffic management costs associated with bridge/lane closures or load posting.
- MRWA to confirm that the repairs have been completed satisfactorily and then arrange for payment from the emergency funding.

The Shire of Collie has an existing bridge maintenance budget allocation of $55,461 in the 2025/26 budget, however the expenditure is anticipated to exceed this budget allocation, and other bridge maintenance will still be required.

It is proposed that once the cost of the works has been confirmed, that the amount of the budget amendment be noted and acknowledged by Council at the time of receiving the monthly financial management report.

Budget – Whole of Life Cost:
No new asset is being created. The works will extend (renew) the life of the existing bridge asset.

Communications Requirements:
Impacted business and landowners to be advised of one lane closure on Bridge 3523.

Strategic Community Plan/Corporate Business Plan Implications:

STRATEGIC COMMUNITY PLAN AND CORPORATE BUSINESS PLAN		
GOAL:	2	Our Built Environment
Outcome:	2.1	Safe and well-maintained shire owned facilities and infrastructure
Priority:	2.1.1	To increase the Shire's capability to maintain and improve facilities and infrastructure

Relevant Precedents:
Repair work to Pier 2, Pile 2 & 3 for Bridge 3523, which was subsequently completed in the early part of 2024.

Comment:
The Shire is taking urgent action to obtain quotations from suitably qualified and experienced contractors to facilitate the repair.

The one lane closure to Bridge 3523 is seen to be a necessary action, particularly given the unknown lead times of the yet-to-be appointed contractor to carry out the emergency work.

By prioritising necessary actions to this bridge, the Shire will meet the MRWA bridge funding criteria and the Shire can demonstrate to MRWA that it is undertaking routine and periodic maintenance on the bridges and undertaking Level 1 inspections on Shire bridges in order to further qualify for this funding.

18. ANNOUNCEMENTS BY THE PRESIDING MEMBER AND COUNCILLORS

Shire President Cr Miffling

- June 11 - attended a meeting of the District Health Advisory Committee (DHAC) at the Collie Hospital.
- June 12 - attended a meeting the South32 Worsley Alumina Community Liaison Committee held in Harvey.
- June 12 - attended along with Councillors a meeting with Main Roads WA regarding various traffic issues.
- June 12 - represented Council at the Rotary Club of Collie Apprentice of the Year Awards.
- June 18 - represented Council at a meeting between the Coalfields Museum and Visitors Centre regarding a potential co-location proposal.
- June 23 - along with the CEO attended a meeting of the South West Zone of the WA Local Government Association in Boyup Brook.
- June 26 - represented Council at the Rotary Club of Collie 'Change Over' function.
- July 1- attended Just Transition Working Group meetings.
- July 5 - represented Council at the Collie River Mountain Bike Marathon event at Harris Winery.

Deputy Shire President Cr Italiano

- June 10 – attended citizenship ceremony.
- June 12 – attended South32 community liaison committee meeting at Harvey.
- June 12 – attended Main Roads Department presentation.
- June 18 – attended Collie Visitor Centre meeting.
- June 25 – attended joint Museum and Visitor Centre meeting to discuss co-location.

Cr Hansen

- June 30 – chaired a meeting of the Bush Fire Advisory Committee.

Cr Hill-Power

- Attended a meeting of the Local Government Elected Members Association which included a presentation regarding Cat laws.

Cr Smith

- May 25 – attended a meeting at the Visitor Centre and the Museum to discuss collocation.
- May 23 – attended a Visitor Centre Committee meeting.
- June 12 - attended a meeting with Main Roads WA regarding various traffic issues.
- June 18 – attended a Visitor Centre meeting.

Cr Burton

- Cr Burton advised Council that she had relocated to Rockingham and would be attending meetings for the remainder of her term online.

19. STATUS REPORT ON COUNCIL RESOLUTIONS

Summary reports on the status of Council's resolutions are:

- 'Closed Since Last Meeting' at Appendix 19.1.A
- 'All Open' at Appendix 19.1.B

20. CLOSURE OF MEETING TO MEMBERS OF THE PUBLIC

Nil.

21. CLOSE

There being no further business the Shire President declared the meeting closed at 7:59 pm.

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 10.1.A

Minutes of the

Bush Fire Advisory Committee Meeting

30 June 2025

Shire of Collie

Minutes

for the

Bush Fires Advisory Committee

30th June 2025

Minutes

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1. OPENING/ATTENDANCE/APOLOGIES & LEAVE OF ABSENCE

Chairperson declared the meeting opened at 6.30pm

Appointed Members

Councillor Brett Hansen	Shire of Collie Councillor/Chair
Darren Robinson	Chief Bush Fire Control Officer
Kohdy Flynn	Community Emergency Services Manager/DCBFCO
Declan Rochester	FCO Preston Road BFB
Terry Hunter	FCO Shire of Collie
Julian Martin	FCO Shire of Collie
Shaun Partyka	Senior Community Ranger
Afie Jazreen	Department of Biodiversity Conservation and Attractions

Invited Guests

Bryce Edwards	Forrest Products Commission
Shannon Proudfoot	Captain Collieburn Cardiff BFB
Steven Melvin	Captain Worsley BFB
Archie Boyle	Lieutenant Allanson BFB

Other Attendees

Jewell Crossberg	DBCA, District Fire Coordinator
Jayden Cull	DBCA, A/Fire Operations Officer

Apologies

Michael Hart	Captain/FCO Harris River BFB
Neil Waywood	FCO Collieburn Cardiff
Melissa Howard	BRMC Shire of Collie
Ricky Southgate	DFES A/District Officer Wellington
Shane Hickson	Collie VFRS Captain

Quorum
Presiding Member to ensure that there is a quorum. A quorum for this Committee is 6 voting members.

Other attendance related matters:

1.1 Members granted Leave of Absence at previous meeting/s.
1.2 Members requesting Leave of Absence for future Meetings.
1.3 Members who are applying for Leave of Absence for this Meeting

2. PUBLIC QUESTION TIME

Nill

3. RESPONSES TO PREVIOUS PUBLIC QUESTIONS TAKEN ON NOTICE

Nill

4. DISCLOSURE OF FINANCIAL INTEREST

Nill

5. PETITIONS/DEPUTATIONS/PRESENTATIONS/SUBMISSIONS

5.1 Kohdy Flynn – Mitigation Activity Funding (MAF)

Presentation from the Shire of Collie CESM, Kohdy Flynn on the 2024/25 Round 2 MAF achievements and progress. It was reported that the Shire has successfully competed approximately 50% of the approved treatments in the current round with 6 outstanding prescribed burns that will be a priority moving into next spring, mechanical works have been progressing well with positive feedback from he community, chemical treatments predominantly to previously treated areas will commence once the season allows, all treatment are scheduled to be completed by December. The combined list of the treatment schedule will be sent out as an attachment with the BFAC minutes.

The upcoming 2025/2028 three-year MAF application is currently being developed for the Shire, the three-year application will compromise of approximately 60 treatments totalling around $700,000 in funding being applied for. Input is sought from brigade members to identify eligible reserves and other areas that they wish to see included in the application. The application will be submitted by September, with the outcome of the successful treatments know by November.

5.2 Kohdy Flynn – Review of the Annual Firebreak and Fuel Hazard Reduction Notice

The BFAC committee reviewed the annual 2025/2026 Fire Break Notice and Fuel Hazard Reduction Notice as attached, it was noted that there are no changes to the previous year's notice apart from the changes in FCO and contractor's details on the back page. The committee supported the proposed 2025/2026 notice for dissemination as per usual process.

6. CONFIRMATION OF THE PREVIOUS MINUTES

The minutes of the 25th September 2024 meeting are provided as attached for confirmation.

Officer's Recommendation:

That the Minutes of the Bush Fire Advisory Committee meeting held on Wednesday 25th September 2024 be confirmed as a true and correct record of the meeting.

MOVED: Julian Martin **SECONDED: Terry Hunter**

CARRIED

7. BUSINESS ARISING

Nill

8. OFFICER REPORTS

Nill

9. Other Reports

9.1 Chief Bush Fire Control Officer:
Darren Robinson, CBFCO, Full report as attached.

9.2 Community Emergency Services Manager:
Kohdy Flynn, Full report as attached.

9.3 Department of Fire and Emergency Services Report
Ricky Southgate, A/District Officer DFES SW. Full report as attached.

Ricky was an apology for the meeting, Ricky's full report as attached was presented to the BFAC.

9.4 Department of Biodiversity Conservations and Attractions Report
Afie Jazreen, Fire Operations Officer, DBCA Wellington District, Full report as attached.

9.5 Ranger Report
Shaun Partyka, Senior Community Ranger.

All properties with the Shire had been inspected for compliance under the Shires of Collie Firebreak and Fuel Hazard Reduction Notice.

347 Notices were issued to non-compliant property owners.
46 Urgent work notices issued.
37 Infringements issued to property owners for non-compliance.
33 Private properties mitigated by contractors to achieve compliance.
3 Infringements issued for offences relating to the lighting of fires in the open air.

9.6 Forrest Products Commission Report:
Bryce Edwards, Fire Protection Coordinator. Full report as attached.

10. QUESTIONS BY MEMBERS FOR WHICH DUE NOTICE HAS BEEN GIVEN

Nill

11. URGENT BUSINESS APPROVED BY PRESIDING MEMBER OR BY DECISION

Nill

12. AGENDA ITEMS WITH PRIOR NOTICE

Nill

13. ANNOUNCEMENTS BY PRESIDING MEMBER OR BY DECISION

Nill

14. COMMITTEE DOCUMENTS OF INTEREST

Nill

15. STATUS REPORT ON COUNCIL RESOLUTIONS

Nill

16. GENERAL BUSINESS

Terry Hunter. (Business from ROAC & BOC)

- Terry Hunter advised he is a peer supporter as and can be contacted directly either to assist or point personnel in the right direction for support if needed. Information regarding the Western Australian Emergency Services Hardship Scheme was provided, this scheme is funded by the WA State government and managed by a small committee. The scheme assists all WA Emergency Services personnel who may fall into hardship and can provide grants of up to $5000. Further information can be found via their website About - Emergency Services Volunteers' Hardship Assistance Scheme (waesvhas.org.au) in addition to this the Bushfire Volunteer Association offers a similar hardship scheme for volunteers who are injured on the fire ground. Contact Terry for more information or assistance in applying.

- Terry discussed the topic of the Presumptive Cancer Legislation advising Local Government volunteers are covered via LGIS, however record keeping of incidents attended by volunteers are imperative due to the need to prove the number of hazardous fires a volunteer has attended to qualify for any form of insurance coverage.

- It has been widely spoken about the lack of standard equipment being issued within the DFES High Seasonal Fleet, this has been raised and will hopefully see change in the fleet come next season.

- Can we investigate the possibility of moving to an electronic permit to burn system, a lot of other Shires are moving in this direction. Terry advised he would seek information on what systems are currently being used and their capabilities and complexities along with set up fees and ongoing costs per year. Kohdy advised that this would be a cost to the Shire as it would not be eligible under the current LGGS system, also that there would still be the need to have a paper-based form available for residence who do not have the capacity to apply via electronic means. It was agreed by the committee that Terry would investigate further and report back to the committee.

DBCA.

- The procurement of contractors is proving difficult for the region to secure suitable contractors for maintenance of main forestry roads and tracks, the department is looking into a 3-year contractor panel to better enable scheduling of works and availability of contractors to keep forestry roads maintained.

- The months of April and May seemed to be the busiest with a large number of fires escaping form private burns (under permit) mainly due to pre-frontal winds, some of these escapes were with the Shire of Collie. This in turn creates a large amount of ongoing work for DBCA and volunteer crews in the days after, which in turn leads to the prescribed burning schedule being altered or unachievable. Can we potentially look at conducting an education and awareness campaign between all agencies involving local media outlets. It was agreed upon that all agencies would work together prior to the restricted burning season and engage with relevant stakeholders and media outlets to run an education and awareness media campaign.

Kohdy Flynn

- Just as a reminder of the importance of knowing where the Gazetted Fire District (GFD) boundaries are. If you are dealing with a bushfire, car fire or structure fires outside of the GFD, unless these incidences are officially handed over to DFES/DBCA to manage or are on DBCA tenure; under legislation the local government is the Controlling Agency meaning the first BFB member on the scene assumes control of the incident. A map of the GFD has been disseminated as a separate attachment with these minutes.

- All brigades have now been provided with a QR code for the use of the Fire Mapper App, please ensure all members have this app downloaded prior to turning out to any jobs, this app will be used on most mid to large scale fires and at prescribed burning operations.

Brett Hansen

- Brett made a special announcement on behalf of the BFAC Committee to Terry Hunter. Presenting Terry with his 55-year Long Service Medal Clasp.

  Terry joined the Bushfire Service in 1968 at the age of 16 years old. Since then, Terry has committed 57 years not only to the Shire of Collie Bushfire Brigades but to the State of Western Australia representing volunteers and sitting on many regional and state level bushfire committees, Brett sincerely thanked Terry for his committed and continued service to the BFAC, the Shire of Collie BFB service and the support he continues to provide at incidence and to the volunteers.

NEXT MEETING

The next meeting date is yet to be determined.

17. CLOSE

The Chair of the meeting, Brett Hansen declared the meeting closed at 8:20pm

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 11.1.A

Corporate Business Plan – Quarterly Progress Report, April to June 2025

Shire of Collie



Corporate Business Plan

2022/23 – 2026/27

Quarterly Progress Report
April to June 2025

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Introduction

What is the Corporate Business Plan?

The Corporate Business Plan 2022/23 – 2026/27 is the Shire of Collie's four-year delivery program, aligned to the Shire's Integrated Planning and Reporting Framework, namely the Strategic Community Plan, Annual Budget and other supporting strategies.

The purpose of the Corporate Business Plan is to give effect to the community's vision and the Shire's strategic objectives through the establishment of actions that address each strategy contained within the Strategic Community Plan:

Our Community
Objectives:
- Community Health, safety and wellbeing
- Community connection, engagement and participation

Our Economy
Objectives:
- Economic development
- Tourism promotion and attractions

Our Built Environment
Objectives:
- Safe and well-maintained Shire owned facilities and infrastructure
- Sound land planning and building strategies and schemes

Our Natural Environment
Objectives:
- A high standard of sustainable waste services
- Conservation of our natural environment

Our Organisation
Objective:
- Innovative leadership, forward planning, and mutually beneficial partnerships

The Corporate Business Plan sets out 51 actions that will give effect the 27 strategic priorities of the themes set out above.

Performance Reporting

On a quarterly basis, the Shire completes this performance report against the Corporate Business Plan. This provides an important opportunity to update Council and the community on achievements of the actions. The progressive reporting will also feed into the Annual Report as prepared for each financial year.

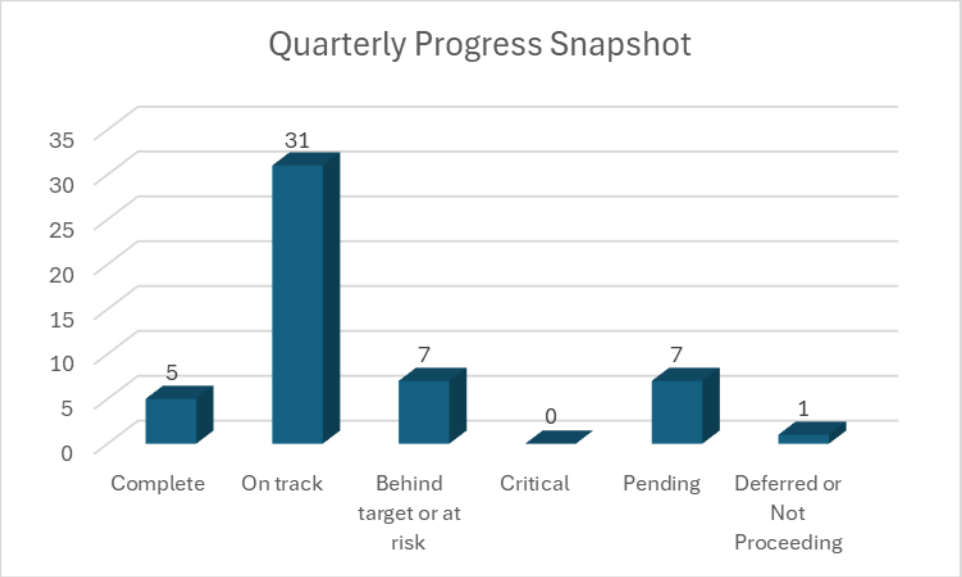
Report Structure

This report includes an overall progress snapshot where a summary of status for actions by category. This is followed by a commentary against each action.

Overall Progress of Actions

Quarterly Progress Snapshot

Progress statistics for the 51 actions during April to June 2025 are:



Refer to the following pages for description of actions and commentary against progress.

No actions are identified as critical.

Action Description and Progress Commentary

The table overpage reflects the actions adopted within the Corporate Business Plan along with comment on progress. The status indicator is based on the criteria set out below:

Status		Criteria
	Complete	Action is complete.
	On track	Action is progressing as planned.
	Behind target or at risk	Minor issues have put achievement of the project due date at risk or behind target. Causes are being managed and the issues are expected to be resolved.
	Critical	Major issues have prevented the service/project from commencing or continuing. The causes for this do/will require significant action to rectify and the issues are likely to be ongoing into future reporting periods
	Pending	Work is pending commencement or waiting on completion of another project
	Deferred or Not Proceeding	Action is no longer proceeding within its planned year of the Corporate Business Plan but will be occurring within a future year of the Plan, or Action is no long proceeding within the timeframe of the current Corporate Business Plan. This may be due to a change in direction caused by external factors (eg loss of grant funding) or change of direction by Council.

Strategic Actions and Timeframes

OUR COMMUNITY									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Comment**
Community health, safety and wellbeing	To prepare and implement a comprehensive Open Space and Recreation Facilities Strategy	1.1.1.1	Prepare a Public Open Space and Community Recreational Facilities Strategy	✓				✓	An initial draft report will be finalised following the recruitment of a Manager Community & Recreation during 2025/26.
		1.1.1.2	Liaise with user groups to optimise facility sharing and co-location opportunities in line with adopted strategy	✓	✓			✓	Once the draft Strategy is revised and endorsed further liaison with user groups will continue. Ongoing discussion between users of the Recreation Ground, Roche Park and the hockey grounds are occurring outside of the Strategy preparation process.
	Provide a signature attraction with access for all abilities at Soldiers Park.	1.1.2.1	Develop plans and achieve grant funding for a major inclusive expanded and upgraded play facility at Soldiers Park.		✓	✓	✓	✓	Following initial design, the project scope was changed after the announcement of reallocated State Government funding. Finalisation of new funding arrangements in progress.

OUR COMMUNITY									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Comment**
Community connection, engagement and participation	To conduct a biennial community satisfaction survey on public health and safety, services and facilities.	1.2.1.1	Formulate a community scorecard for benchmark against other local governments	✓				✓	Funding has not been allocated for involvement in a community scorecard benchmark project. A community survey will be undertaken as part of the Strategic Community Plan review.
		1.2.1.2	Implement survey of community against scorecard		✓		✓	✓	Pending completion of action 1.2.1.1.
	To work with sporting clubs and community groups to promote volunteering and increase participation	1.2.2.1	Encourage club and group involvement in community programs	✓	✓	✓	✓	✓	Everyclub program in third year of delivery with support of funding from DLGSC. Support has including strategic planning, workshops, newsletters, and one on one support for clubs.
		1.2.2.2	Engage clubs and groups with the annual community expo	✓	✓	✓	✓	✓	The expo was last held in October 2024. The next expo is scheduled for Feb 2026.
	Improve how we communicate with the community and other stakeholders	1.2.3.1	Progressively implement the communication methods set out in the adopted Plan	✓	✓	✓	✓	✓	Tasks are ongoing.

OUR ECONOMY									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Economic Development	Support the State Government Collie's Just Transition initiatives to achieve economic diversification and sustainability	2.1.1.1	Amend Local Planning Scheme No. 6 to increase land use flexibility and appropriate zoned land	✓	✓	✓	✓	✓	An Omnibus Scheme Amendment was approved by the Minister and has been gazetted.
		2.1.1.2	Work with Development WA to prepare the South West Industrial Land Study	✓	✓			✓	The Shire has contributed to the South West Industrial Land Study. Consultants have prepared a draft report that is with DevelopmentWA.
	To work with State Government, business and landowners to ensure appropriate serviceable industrial land availability	2.1.2.1	Progress the expansion of the Light Industrial Area	✓	✓	✓	✓	✓	Rezoning of Lots 2 and 51 Patstone Road from Rural to Industrial has been approved by the Minister for Planning and is now gazetted for final approval. Rezoning at 323 Patstone Road to Light Industry has been finalised.
		2.1.2.2	Progress the Coolangatta Structure Plan in collaboration with the State Government	✓	✓			✓	The Coolangatta Industrial Estate Structure Plan is with the Western Australian Planning Commission for final approval, which is expected prior to the end of 2025.

OUR ECONOMY									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Economic Development cont.	To prepare the Collie airstrip site for investment by the aviation industry.	2.1.3.1	Progressively implement the terms of the master plan to enable new industry investment.	✓				✓	The Master Plan was adopted by Council in March 2024. Discussions with DPLH ae continuing regarding land assembly.
		2.1.3.2	Identify commercial business opportunities at the airfield through the preparation of an airport masterplan.		✓	✓		✓	The Master Plan identifies opportunities for commercial business investment. Discussions in placed with regards to attraction of aviation events and training opportunities.
Tourism promotion and attractions	To increase the tourism and marketing capability within the Shire with a focus on destination marketing.	2.2.1.1	Engage tourism and marketing resources to implement strategy actions	✓	✓			✓	A tourism and marketing coordinator was employed to progress the delivery of the strategy. A report of the implementation of the strategy was provided to Council in June 2025. A review of the strategy is planned in 25/26. Discussions to extend funding arrangements are continuing.
		2.2.1.2	Collaborate with regional marketing agencies and local service providers to extend marketing reach	✓	✓	✓	✓	✓	Local tourism opportunities have been marketed through social media, BunGeo, ASW, state newspapers and radio, and Telethon in partnership with DPC CDU.

OUR ECONOMY									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Tourism promotion and attractions cont.	To optimise the value to the community of the various investments in trail installation.	2.2.2.1	Optimise awareness of trail opportunities and their attraction to the community and visitors through all marketing avenues.	✓	✓	✓	✓	✓	The Shire was accredited as a Trail Town on 19 April 2024. Implementation of the accreditation plan is being progressed with Trails WA, Collie Visitor's Centre and the Shire's marketing officer.
		2.2.2.2	Implement the Collie Trails Strategy to expand the trail network	✓	✓	✓	✓	✓	Collaboration is continuing with the Collie Adventure Trails Working Group in areas of trail construction, signage, marketing, trail heads, bike racks, parking at Wellington Dam, App and website development, campsites etc.
	To plan for a new cultural and heritage museum to celebrate Collie's unique history	2.2.3.1	Work with the Coalfields Museum to establish long term plans for the museum	✓	✓			✓	The Shire continues to work with the Coalfields Museum to progress long term plans for the museum. This project is now aligned with the Visitor Centre expansion project, which has delayed progress.
		2.2.3.2	Assist the Coalfields Museum to design and undertake a business plan for a new museum initiatives in readiness for funding applications	✓	✓			✓	Funding was received by the Coalfields Museum for the development of a Business Plan. The Shire has received the draft Plan. Initial timelines have been delayed due to site location determination. A report was provided to Council in July 2025.

OUR BUILT ENVIRONMENT									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Safe and well-maintained Shire owned facilities and infrastructure	To increase the Shire's capability to maintain and improve facilities and infrastructure	3.1.1.1	Progressively increase financial Reserves to provide for renewal, replacement and upgrade works	✓	✓	✓	✓	✓	A Reserve Management Strategy was adopted by Council in June 2025.
		3.1.1.2	Progressively improve management plans for all asset classes, enabling programmed maintenance and improvements	✓	✓	✓	✓	✓	Management plans for all asset classes continue to be developed and revised to inform budget allocations and works programming.
	To develop a pathway, streetscape, laneway and playground renewal program	3.1.2.1	Preparation of asset management plans for each class	✓	✓			✓	Management plans and renewal programmes continue to be developed for asset classes.
		3.1.2.2	Forecast expenditure requirements for renewal works	✓				✓	Indicative expenditure requirements are included in the Long Term Financial Plan adopted in June 2025.

OUR BUILT ENVIRONMENT									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Sound land planning and building strategies and schemes	To revise the Local Planning Strategy to update the residential and industrial chapters consistent with emerging needs	3.2.1.1	Prepare a Housing Strategy for Collie		✓	✓		✓	A Housing Options Paper was completed by the Collie Delivery Unit
		3.2.1.2	Update the housing chapter of the Local Planning Strategy		✓	✓		✓	The Town Planning Scheme is scheduled for review in the 25/26 year.
		3.2.1.3	Prepare business case feasibility and demonstration projects for infill housing projects	✓	✓			✓	Work is 85% completed on 'Collie Urban Infill Toolkit' and it is expected to be released in 25/26.
	To evaluate public/private partnerships to facilitate appropriate affordable housing	3.2.2.1	Advocate on behalf of the private sector to plan and build new housing	✓	✓	✓	✓	✓	Advocacy continuing to encourage private sector investment in housing renewal and new housing including the development of a new investment prospective through the Just Transition working groups.
		3.2.2.2	Partner with government and/or the private sector to build housing on Shire owned land	✓	✓	✓	✓	✓	The Shire's funding submission to the Federal Government was unsuccessful. Further funding opportunities will be investigated..

OUR BUILT ENVIRONMENT									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Sound land planning and building strategies and schemes cont.	To prepare a car parking and access strategy addressing commercial and visitor needs in the town centre	3.2.3.1	Progress initiatives to optimise customer and visitor parking in town centre locations	✓	✓			✓	Disabled parking and timed parking has been investigated and reported to Council. Further work on the parking review is scheduled for 25/26.
		3.2.3.2	Evaluate taxi and other special needs parking or pick-up/set-down areas within the town	✓	✓			✓	Taxi and special needs vehicles within the town has been investigated and reported to Council in April 2023.

OUR NATURAL ENVIRONMENT									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
A high standard of sustainable waste services	To integrate and optimise use of pyrolysis waste technology within Shire operations	4.1.1.1	Establish an operational agreement with Renergi to enable integrated waste management practices	✓				✓	Terms of an operational agreement between the Shire and Renergi are pending commissioning of the plant. Timing is delayed due to external factors.
		4.1.1.2	Evaluate opportunities to increasing waste receival		✓	✓		✓	Review of waste receival optimisation is pending Renergi plant commissioning.
	To substantially reduce waste to landfill	4.1.2.1	Optimise redirection of waste from landfill to pyrolysis		✓	✓		✓	Review of waste redirection optimisation is pending Renergi plant commissioning.
	To prepare a landfill site closure plan	4.1.3.1	Prepare a landfill closure plan with optimal fill levels and staged remediation	✓	✓			✓	Landfill closure plan is expected prior to the end of 2025.
Conservation of our natural environment	To facilitate measures to optimise the quality and amenity of the river and its surrounding environment.	4.2.1.1	Progressively implement the recommendations of the river strategy on advice of the Townscape and Environment Committee within the financial constraints of Council	✓	✓	✓	✓	✓	The Committee is meeting to oversee strategy implementation. The Shire has entered into an arrangement with the Leschenault Catchment Council to assist with implementing the Collie River Revitalisation Strategy

OUR NATURAL ENVIRONMENT									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Conservation of our natural environment cont.	To obtain funding and increase community capacity to remove weeds and pests on Shire reserves	4.2.2.1	Seek State and Federal government and private sector funding	✓	✓	✓	✓	✓	Funding is progressively sought on project basis to advance environmental management projects.
		4.2.2.2	Collaborate with adjacent local authorities and natural resource management agencies to deliver environmental enhancement and mitigation projects	✓	✓	✓	✓	✓	The Shire continues to work with the Leschenault Catchment Council for environmental improvements at the Collie River south branch. Collaborative partnerships are in place with other local government with regards to Blackberry eradication and fire mitigation.
		4.2.2.3	Support existing and new local community groups to undertake local open space restoration projects	✓	✓	✓	✓	✓	The Shire has entered into an arrangement with the Leschenault Catchment Council to assist with implementing the Collie River Revitalisation Strategy, which includes community engagement and the use of local community groups such as the Friends of the Collie River.

OUR ORGANISATION									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Innovative leadership, forward planning, and mutually beneficial partnerships	To develop a long-term financial plan based on industry best practice	5.1.1.1	Develop an initial 10-year budget	✓				✓	A long term financial plan incorporating a 10 year budget was adopted by Council in June 2025.
		5.1.1.2	Integrate asset management plan requirements into Long Term Financial Plan		✓	✓		✓	As Plans are updated and revised they will be further integrated into the Long Term Financial Plan.
	To progressively improve the Shires financial health indicators	5.1.2.1	Financial management decisions that align with financial health index ratios	✓	✓	✓	✓	✓	Recommendations and financial decisions are referenced against financial health implications.
		5.1.2.2	Progressively increase financial Reserve balances and increase renewal expenditure	✓	✓	✓	✓	✓	Council adopted a Reserve Strategy in June 2025.
	To develop and share a quarterly achievements report against community strategic priorities	5.1.3.1	Publish quarterly progress reports	✓	✓	✓	✓	✓	Following receipt by Council, progress reports are published on the Shire website.
	To collaborate and build partnerships with the Government sector to optimise resources and service delivery	5.1.4.1	Ongoing collaboration through Just Transition initiative, southwest local governments, emergency service and community based agencies	✓	✓	✓	✓	✓	The Shire is an active participant in the Just Transition initiative, and actively collaborates with southwest local governments and agencies.

OUR ORGANISATION									
Objective	**Strategic Priority**	**#**	**Actions**	**2023**	**2024**	**2025**	**2026**	**Status**	**Quarterly Update**
Innovative leadership, forward planning, and mutually beneficial partnerships cont	To imbed our strategic priorities throughout the organisation	5.1.5.1	Incorporate strategic priorities within divisional key performance indicators	✓				✓	Strategic priorities of this plan are incorporated into key performance indicators.
		5.1.5.2	Monitor progress through regular executive meetings	✓	✓	✓	✓	✓	Structured executive meeting agendas review progress of priority actions.
	To provide Good Governance across the organisation.	5.1.6.1	Monitor compliance with statutory legislative and reporting requirements				✓	✓	Progress improvements are being made to the Shire's statutory legislative and reporting requirements. Through a restructure the role of Governance Coordinator has been created to assist with this action.
		5.1.6.2	Implement a Risk Management Governance Framework and increased risk awareness				✓	✓	To be progressed by the Administration and Safety Officer through 25/26.
		5.1.6.3	Develop and implement an Information Communications Technology Plan and Cyber Security Strategy				✓	✓	Through restructure the role of ICT Coordinator has been created. To be progressed by ICT Coordinator commencing in August 2025.
		5.1.6.4	Integrate the Office of Auditor General Best Practice Guidelines into the Shire's operations.				✓	✓	OAG Guidelines and Audits being reviewed and informing review of systems and procedures.

Measuring Success

The intended outcome of the Plan is to align the community's vision and aspirations for the future of the Shire of Collie to the Shire's objectives. The actions set out in this plan against each strategic priority are aimed at achieving this.

For each key strategic objective, we will know when we are succeeding when:

Our Community

- The community is satisfied with the delivery of the priorities outlined in the Shire's Public Health Plan
- We collaboratively plan and respond with the LEMC and the community to emergency situations
- We provide sport and recreational facilities that support an active lifestyle
- There are a variety of meeting places and things to do which bring people together
- We are seen as a shire that effectively engages and communicates with our community
- Community events and programs are popular and well attended
- Volunteer groups are supported, leading to an increase in shire partnerships with community groups

Our Economy

- The Just Transition process ensures investment, a sustainable population and diverse economy into the future
- Economic growth is achieved by attracting investment, and through local and regional partnerships
- We have a vibrant central business district
- New investment enhances the quality of life in Collie
- Our profile is well branded and recognised
- We continue to develop and effectively promote our tourism attractions and experiences

Our Built Environment

- The maintenance, preservation and enhancement of Shire owned facilities is in line with community needs and Shire financial resources
- We deliver a safe and fit for purpose road and footpath network that continually improves connection and accessibility
- Upgrades and improvements to facilities and infrastructure are delivered to a high standard on time and on budget
- Land planning provides future opportunities for business growth and jobs
- There is a variety of housing options and rental stock to suit the future needs of the community and to attract people to Collie
- We are viewed as a great place to invest due to industrial and housing land availability and a can-do attitude towards sustainable development

Our Natural Environment

- We are widely recognised for our innovative and cutting edge approach to waste management
- We deliver strategies and facilities that reduce, reuse and recycle waste
- Management of invasive species and our nature reserves to improve biodiversity
- Our parks, gardens and streetscapes are maintained in a manner that attracts locals and visitors
- Our rivers and waterways provide a sound balance of nature based and recreational activities

Our Organisation

- We deliver sound and sustainable financial management
- We report progress against the priorities in our strategic plans
- We are recognised for our innovative and collaborative approach by local and regional stakeholders, and government agencies

Success will be measured against both quantifiable and non-quantifiable outcomes. Progressive performance assessments are intended to report against achievement of the actions set out in this plan and the outcomes that describe when we have succeeded.

Acknowledgement

The Shire of Collie acknowledges the Traditional Custodians of the land, the Wiilman and Kaniyang people of the Noongar Nation, and pays our respects to Elders, past, present and emerging. We thank them for the contributions they have made to life in the Shire of Collie and to this region.

Thanks to the community

This document has been prepared based on the input from our community through the preparation of the Strategic Community Plan and we thank those who have participated in the surveys, conversations and workshops. The Shire looks forward to continuing to engage with our community in the delivery of our vision.

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 11.3.A

CP1-019 Elected Member Code of Conduct

Complaints Management Process Policy

POLICY NO:-
CP1-019 – ELECTED MEMBER CODE OF CONDUCT BEHAVIOUR COMPLAINTS MANAGEMENT PROCESS

GOVERNANCE INFORMATION					
Procedure Link:	N/A		**Administrative Policy Link:**		

ADMINISTRATION INFORMATION					
History	1	CP1-019	OCM XX/XX/25 Res: XXXX	**Synopsis:**	Policy created.
Version:	2				

1. RESPONSIBLE DIRECTORATE

Chief Executive Officer

2. PURPOSE OR OBJECTIVE

To establish, in accordance with Clause 15(2) of the *Local Government (Model Code of Conduct) Regulations 2021* and the Shire of Collie Code of Conduct for Council Members, the procedure for dealing with complaints about alleged breaches of the behaviour requirements included in Division 3 of the Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates 2021.

This policy gives effect to the Shire's commitment to an effective, transparent, fair and accessible complaints handling process that supports high standards of behaviour of Council Members, Committee Members and Candidates, and ensures that a Complaint received in relation to an alleged breach is managed on the basis of –

- Confidentiality
- Timeliness
- Natural justice and due process
- Fairness and impartiality

Clause 15(2) of the Code of Conduct provides that the procedure for dealing with Complaints may be determined by the local government to the extent that it is not dealt with by the *Local Government (Model Code of Conduct) Regulations 2021* (Regulations). This policy (Policy) meets this objective.

3. SCOPE

This Policy applies to complaints made in accordance with Clause 11 of the Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates.

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This Policy applies to Council Members, Committee Members, Candidates and any person who submits a complaint in accordance with this Policy.

4. DEFINITIONS

Act means the *Local Government Act 1995*.

Behaviour Complaints Committee means the Committee established by the Council in accordance with s.5.8 of the Act for the purpose of dealing with Complaints. The role of the Behaviour Complaints Committee is outlined in Part 5.2.3 of this Policy.

Behaviour Complaints Officer means a person authorised in writing *[by Council resolution or by the CEO exercising delegated authority]* under clause 11(3) of the Code of Conduct to receive complaints and withdrawals of complaints. The role of the Behaviour Complaints Officer is addressed in Part 5.2.1 of this Policy.

Breach means a breach of Division 3 of the Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates 2021.

Candidate means a candidate for election as a Council Member, whose nomination has been accepted by the Returning Officer under s.4.49 of the Act, but does not include a Council Member who has nominated for re-election. A person is a Candidate from the date on which their nomination is accepted, until the Returning Officer declares the election result in accordance with s.4.77 of the Act.

Candidate Complaint means a Complaint alleging a Breach by a Candidate. Candidate Complaints are dealt with in Part 5.3.2 of this Policy.

Code of Conduct means the Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates 2021, or as amended.

Committee means a committee of Council, established in accordance with s.5.8 of the Act.

Committee Member means a Council Member, employee of the Shire of Collie or other person who has been appointed by the Council to be a member of a Committee, in accordance with s.5.10(1) of the Act. A person is a Committee Member from the date on which they are appointed, until their appointment expires or is terminated by Council resolution.

Complaint means a complaint submitted under Clause 11 of the Code of Conduct.

Complainant means a person who has submitted a Complaint in accordance with this Policy.

Complaint Assessor means a person appointed by the Behaviour Complaints Officer in accordance with Part 5.2.2 and Part 5.3.8 of this Policy.

Complaint Documents means the Complaint Form and any supporting information, evidence, or attachments provided by the Complainant.

Complaint Form means the form approved under clause 11(2)(a) of the Code of Conduct *[by Council resolution or by the CEO exercising delegated authority]*.

Council means the Council of the Shire of Collie.

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Council or Committee Meeting means a formal meeting of the Council or a Committee that is called and convened in accordance with the Act. It does not include informal meetings, such as workshops or briefings.

Council Member means a person who is currently serving a term of office as an elected member of the Council in accordance with the Act.

Finding means a finding made in accordance with clause 12(1) of the Code of Conduct as to whether the alleged Breach has or has not occurred.

Plan means a Plan that may be prepared and implemented under clause 12(4)(b) of the Code of Conduct, to address the behaviour of the person to whom the complaint relates (the Respondent), if a Finding has been made that a Breach has occurred.

Response Documents means the response provided by the Respondent to the Complaint and includes any supporting information or evidence that is supplied.

5. POLICY

5.1 Principles

5.1.1 Procedural fairness

The principles of procedural fairness and natural justice will apply when dealing with a Division 3 Complaint under this Policy. In particular:

- the Respondent will be afforded a reasonable opportunity to be heard before any findings are made, or a plan implemented;
- the decision maker should be objective and impartial, with an absence of bias or the perception of bias; and
- any findings made will be based on proper and genuine consideration of the evidence.

5.1.2 Consistency

The application of this Policy should lead to consistency in process and outcomes. While each Complainant and Respondent will be dealt with according to their circumstances, and each Complaint considered and determined on its merits, similar circumstances will result in similar decisions.

5.1.3 Confidentiality

The Shire of Collie will take all reasonable steps to maintain confidentiality when dealing with the Complaint, in order to protect both the Complainant and Respondent.

Council Members, Local Government employees and contractors who have a role in handling a specific complaint will be provided with sufficient information to fulfil their role. They must manage this information securely, and must not disclose or inappropriately use this information.

Complainants will be advised of the level of confidentiality they can expect, and that breaches of confidentiality on their part may prejudice the progress of their Complaint.

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5.1.4 Accessibility

The Shire of Collie will ensure that information on how to make a complaint, including this Policy, is available at the Shire's Administration Building and on the Shire's website. The Shire will make information available in alternative formats if requested.

Any person wishing to make a Complaint may contact the Complaints Officer if they require assistance in completing the complaint form or otherwise navigating the complaints process.

5.2 Roles

5.2.1 Behaviour Complaints Officer

The Behaviour Complaints Officer is authorised in accordance with clause 11(3) of the Code of Conduct to accept complaints and withdrawal of complaints.

The Behaviour Complaints Officer is not an advocate for the complainant or the respondent. The Behaviour Complaints Officer provides procedural information and assistance to both Complainant and Respondent.

The Behaviour Complaints Officer will liaise with and provide administrative support to a Complaint Assessor appointed under this Policy.

The Behaviour Complaints Officer will liaise with the Local Government to facilitate the calling and convening of Council or Behaviour Complaints Committee meetings if required.

In undertaking their functions, the Behaviour Complaints Officer will apply the Principles of this Policy.

5.2.2 Complaints Assessor

The Complaint Assessor is appointed by the Behaviour Complaints Officer in accordance with Part 5.3.8 of this Policy.

The Complaint Assessor is an impartial third party who will undertake the functions specified in this Policy. In undertaking their functions, the Complaint Assessor will apply the Principles of this Policy.

The Complaint Assessor will liaise with the Behaviour Complaints Officer to manage the administrative requirements of dealing with the Complaint in accordance with this Policy.

5.2.3 Behaviour Complaints Committee

The Behaviour Complaints Committee is a Committee of Council that may be established in accordance with s.5.8 of the Act for the purpose of dealing with Complaints.

Where established, the Behaviour Complaints Committee is a Committee of Council, comprising all Council members. An appointed Committee member must recuse themselves if they are a Complainant or a Respondent.

The authority delegated to the Behaviour Complaints Committee will be specified by Council delegation and may include:

- Conditions to which the delegation is subject.

- Dismissing a Division 3 Complaint in accordance with clause 13 of the Code of Conduct and providing reasons for any such dismissal.
- Making a finding as to whether the conduct specified in a Complaint did or did not occur, and whether a contravention of the Code of Conduct has been established, based upon evidence from which it may be concluded that it is more likely that the breach occurred than it did not occur (Finding) *[clause 12(3) of the Code of Conduct].*
- Determining reasons for such a Finding.
- Where a Finding is made that a breach has occurred, determining:
    - To take no further action; or
    - To Prepare and implement a Plan to address the behaviour of the person to whom the Complaint relates.

The membership and purpose of the Behaviour Complaints Committee is outlined in this Policy.

5.3 Complaint process

5.3.1 Making a complaint

Any person may make a Complaint alleging that a Council Member, Committee Member or Candidate has behaved in a way that constitutes a breach of Division 3 of the Code of Conduct *[clause 11(1) of the Code of Conduct].*

A Complaint must be made within one (1) month after the alleged Breach *[clause 11(2)(c) of the Code of Conduct].* Where a Complaint is made more than 1 month after the alleged breach, the Behaviour Complaints Officer will give the Complainant written notice that the Complaint cannot be made [clause 11(2)(c) of the Code of Conduct].

A Complaint must be made by completing the Behaviour Complaint Form in full and providing the completed forms to the Complaints Officer.

A Complaint must be made in accordance with the Behaviour Complaint Form and specify which requirement(s) of the Code of Conduct is alleged to have been breached.

A Complaint is required to include the name and contact details of the Complainant therefore anonymous complaints cannot be accepted. Where a Complaint Form omits required details, the Behaviour Complaints Officer will invite the Complainant to provide this information in order for the Complaint to be progressed.

Save where this Policy otherwise provides, a Complaint will usually be determined by reference to the information provided by the Complainant and the Respondent.

A Complaint must:

- Be specific (including identifying the provisions of the Code of Conduct which the complainant alleges have been breached).
- Provide as much supporting evidence as possible to assist an investigation (including the grounds and circumstances of the Complaint). This may include Statutory Declarations and witness statements.
- Provide the name of the Council Member, Committee Member or Candidate who has allegedly breached the Code of Conduct.
- Provide the name and contact details of the complainant and the name and contact details of the person submitting the complaint (if different to the complainant).

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5.3.2 Candidate Complaints

A Complaint in relation to a Candidate must be made in accordance with 5.3.1, above, but cannot be dealt with unless the Candidate is subsequently declared elected as a Council Member.

Within 7 days after receiving a Candidate Complaint, the Complaints Officer will provide written notice:

- To the Complainant confirming receipt, and advising of the procedure for candidate complaints; and
- To the Respondent, including a summary of the complaint, and advising of the procedure for candidate complaints.

No action will be taken until the results of the election are declared by the Returning Officer. If the respondent is elected, then the complaint will be dealt with in accordance with this Policy. Timeframes that would otherwise commence on the receipt of a Complaint will be taken to commence on the election date.

If the Respondent is not elected, the Complaints Officer will provide the Complainant with notice that the Respondent has not been elected and that the Complaint cannot be dealt with *[clause 15(1) of the Code of Conduct]*.

5.3.3 Withdrawing a Complaint

A Complainant may withdraw their Complaint at any time before a Finding has been made in relation to the Complaint *[clause 14 of the Code of Conduct]*.

A Complainant may withdraw a Complaint by advising the Complaints Officer in writing that they wish to do so.

After receiving a written withdrawal of the Complaint, the Complaints Officer will take all necessary steps to terminate the process commenced under this Policy.

5.3.4 Notice to Complainant

Within 7 days after receiving a Complaint, the Complaints Officer will provide written notice to the Complainant that:

- confirms receipt of the Complaint;
- outlines the process that will be followed and possible outcomes;
- explains the application of confidentiality to the complaint;
- includes a copy of this Policy; and
- if necessary, seeks clarifications or additional information.

If the Complaint Form indicates that the Complainant agrees to participate in Alternative Dispute Resolution, the Behaviour Complaints Officer will advise the Complainant of the process in accordance with Part 5.3.6 of this Policy.

5.3.5 Notice to Respondent

Within 14 days after receiving a Complaint, the Complaints Officer will provide written notice to the Respondent that:

- advises that a Complaint has been made in accordance with the Code of Conduct and this Policy;
- includes a copy of the Complaint Documents;

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- outlines the process that will be followed, the opportunities that will be afforded to the Respondent to be heard and the possible outcomes;
- includes a copy of this Policy; and
- if applicable, advises that further information has been requested from the Complainant and will be provided in due course.

If the Complainant has agreed to participate in Alternative Dispute Resolution, the Behaviour Complaints Officer will ask the Respondent if they are also willing to participate in accordance with Part 5.3.6 of this Policy.

5.3.6 Alternative Dispute Resolution

The Shire of Collie recognises that Alternative Dispute Resolution may support both parties reach a mutually satisfactory outcome that resolves the issues giving rise to the Complaint.

Alternative Dispute Resolution requires the consent of both parties to the Complaint and may not be appropriate in all circumstances.

To commence the process, the Behaviour Complaints Officer will, as the first course of action upon receiving a complaint, offer the Complainant and the Respondent the option of Alternative Dispute Resolution. If both parties agree to participate in Alternative Dispute Resolution, the Behaviour Complaints Officer will pause the formal process.

The objective of Alternative Dispute Resolution will be to reach an agreed resolution that satisfies the Complainant that the formal process is no longer required, allowing them to withdraw the Complaint, in accordance with Part 5.3.3 of this Policy. For example, an offer by a Respondent to issue a voluntary apology in response to a Complaint, even in the absence of a request from the Complainant, qualifies for consideration as Alternative Dispute Resolution.

If Alternative Dispute Resolution is commenced, both the Complainant and Respondent may decline to proceed with the process at any time. The process may also be terminated on the advice of a third party who is providing assistance to the Local Government, such as a facilitator or mediator.

If Alternative Dispute Resolution is terminated or does not achieve an agreed outcome that results in the withdrawal of the Complaint, the Behaviour Complaints Officer will resume the formal process required under this Policy.

Examples of Alternate Dispute Resolution include –

- negotiation with the assistance of the Complaints Officer or other appropriate person as intermediary;
- facilitation with a contracted service provider such as a mediator or conciliator;
- other mutually agreed process.

5.3.7 Order of Complaints

Complaints will normally be dealt with in the order in which they are received.

If more than one Complaint is received that relates to the same alleged behaviour, the Behaviour Complaints Officer may decide to progress those Complaints concurrently.

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5.3.8 Appointment of Complaints Assessor

If Alternative Dispute Resolution is not commenced, is terminated or does not achieve an agreed outcome resulting in the withdrawal of the Complaint, the Behaviour Complaints Officer may appoint a suitably qualified and experience Complaints Assessor, in accordance with the Shire of Collie Procurement Framework.

A Behaviour Complaints Assessor may be appointed under the following circumstances –

- Where a complaint relates to a Council Member;
- Where a complaint relates to a Candidate who is elected as a Council Member; and
- Where internal resources are limited and/or the nature of the complaint requires specific expertise.

In appointing a Complaints Assessor, the Complaints Officer will have regard to the qualifications and independence of the person appointed.

The Complaints Officer will endeavour to appoint a Complaint Assessor within a reasonable period. The Complaints Officer will provide written notice of the appointment to the Complainant and the Respondent.

5.3.9 Search of Local Government Records

The Complaint Assessor may request the Behaviour Complaints Officer to search for any relevant records in the Shire of Collie's Record Management System.

In particular, if the behaviour is alleged to have occurred at a Council or Committee Meeting, the Behaviour Complaints Officer will be requested to identify any Local Government records that provide evidence that may support a decision as to whether:

- the behaviour occurred at a Council or Committee Meeting,
- the behaviour was dealt with by the person presiding at the meeting, and/or
- the Respondent has taken remedial action in accordance with the Shire of Collie Standing Orders Local Law 2017.

The Complaints Assessor must provide the Respondent with a copy of any records that are identified. In addition, where a clarification or additional information has been sought from the Complainant by either the Behaviour Complaints Officer or the Complaint Assessor, copies must also be provided to the Respondent.

5.3.10 Assessment of the Complaint

The Behaviour Complaints Officer or where appointed, the Complaint Assessor will undertake an assessment of the Complaint in accordance with the process outlined in the Notices given under Part 5.3.4 and Part 5.3.5 of this Policy.

The Behaviour Complaints Officer or where appointed, the Complaints Assessor must ensure that the Respondent is provided with a reasonable opportunity to respond to the Complaint before forming any opinions, or drafting the Complaint Report or recommendations.

5.3.11 Complaint Report

The Behaviour Complaints Officer or where appointed, the Complaint Assessor will prepare a Complaint Report that will:

- outline the process followed, including how the Respondent was provided with an opportunity to respond;
- include the Complaint Documents, the Response Documents and any relevant Local Government Records as attachments; and
- include recommendations on each decision that may be made by the Local Government or a Complaints Committee; and
- include reasons for each recommendation, with reference to Part 5.5.4 of this Policy.

If the Complaint Report recommends that a Plan is prepared and implemented in accordance with clause 12(4)(b) of the Code of Conduct and Part 5.4.4 of this Policy, the Complaint Report must include a Proposed Plan.

The Behaviour Complaints Officer or where appointed, the Complaint Assessor will include the Complaint Report in the Agenda for a meeting of the Council or where established, the Behaviour Complaints Committee. The Behaviour Complaints Officer or where appointed, the Complaint Assessor will be responsible for preparation of an Officer Report with the Complaint Report provided as a confidential attachment. The recommendations of the Complaint Report will be provided as the Officer Recommendations.

5.3.12 Complaint Determination Meeting

The Agenda will be prepared on the basis that the part of the meeting that deals with the Complaint Report will be held behind closed doors in accordance with s.5.23(2) of the Act.

The Council or the Behaviour Complaints Committee will consider the Complaint Report and attachments and give due regard to the recommendations.

In accordance with Regulation 11(d)(a) of the *Local Government (Administration) Regulations 1996*, reasons for any decision that is significantly different from the Officer Recommendation must be recorded in the meeting minutes.

If the behaviour that is the subject of the Complaint is alleged to have occurred at a Council or Committee Meeting, the Council or the Behaviour Complaints Committee will determine whether or not to dismiss the Complaint in accordance with Clause 13 of the Code of Conduct and Part 5.4.2 of this Policy.

If the Council or the Behaviour Complaints Committee dismisses a Complaint, the Complaints Officer must give the Complainant and the Respondent written notice of the decision and the reasons for the decision in accordance with clause 13(2) of the Code of Conduct. This concludes the process for this Complaint.

If the Complaint is not dismissed, the Council or the Behaviour Complaints Committee will consider the Complaint and make a Finding as to whether the alleged Breach that is the subject of the Complaint has or has not occurred, in accordance with clause 12 of the Code of Conduct and Part 5.4.3 of this Policy.

If the Council or the Behaviour Complaints Committee finds that the alleged Breach **did not** occur, the Complaints Officer must give the Complainant and the Respondent written notice of the Finding and the reasons for the Finding in accordance with clause 12(7)(a) of the Code of Conduct. This concludes the process for this Complaint.

If the Council or the Behaviour Complaints Committee finds that the alleged breach **did** occur, the Council or the Behaviour Complaints Committee will decide whether to take no further action

in accordance with clause 12(4)(a) of the Code of Conduct or prepare a plan to address the behaviour in accordance with clause 12(4)(b) of the Code of Conduct and Part 5.4.4 of this Policy.

If the Council or the Behaviour Complaints Committee decides to take no further action, the Behaviour Complaints Officer must give the Complainant and the Respondent written notice of this decision and the reasons for the Finding in accordance with clause 12(7)(a) of the Code of Conduct. This concludes the process for this Complaint.

If the Council or Behaviour Complaints Committee decides to prepare a Plan, it will first consult with the Respondent in accordance with clause 12(5) of the Code of Conduct. Council or the Behaviour Complaints Committee will consider any submissions made by the Respondent before preparing and implementing a Plan.

5.3.13 Compliance with Plan Requirement

The Behaviour Complaints Officer will monitor the actions in timeframes set out in a Plan.

Failure to comply with a requirement included in a Plan is a minor breach under section 5.105(1) of the Act and clause 23 of the Code of Conduct.

The Behaviour Complaints Officer must provide a report advising the Council of any failure to comply with a requirement included in a Plan.

5.4 Decision Making

5.4.1 Objectives and Principles

All decisions made under this Policy will reflect the Policy Objectives and the Principles included in Part 5.5.1 of this Policy.

5.4.2 Dismissal

The Council or the Behaviour Complaints Committee must dismiss a Complaint in accordance with clause 13(1)(a) and (b) of the Code of Conduct if it is satisfied that -

(a) the behaviour to which the Complaint relates occurred at a Council or Committee Meeting; and
(b) either —
    (i) the behaviour was dealt with by the person presiding at the meeting; or
    (ii) the Respondent has taken remedial action in accordance with the Shire of Collie Standing Orders Local Law 2017.

5.4.3 Finding

A Finding that the alleged breach has occurred must be based on evidence from which it may be concluded that it is more likely that the breach occurred than that it did not occur *[clause 12(3) of the Code of Conduct].*

This may involve first considering whether the behaviour occurred, on the balance of probabilities, and then whether that behaviour constituted a breach of a requirement of Division 3 of the Code of Conduct.

5.4.4 Action

In deciding whether to take no further action, or prepare and implement a Plan, the Council or the Behaviour Complaints Committee may consider:

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- the nature and seriousness of the breach(es);
- the Respondent's submission in relation to the contravention;
- whether the Respondent has breached the Code of Conduct knowingly or carelessly;
- whether the Respondent has breached the Code of Conduct on previous occasions;
- likelihood or not of the Respondent committing further breaches of the Code of Conduct;
- personal circumstances at the time of conduct;
- need to protect the public through general deterrence and maintain public confidence in Local Government; and
- any other matters which may be regarded as contributing to or the conduct or mitigating its seriousness.

5.4.5 Plan Requirement

The Proposed Plan may include requirements for the Respondent to do one (1) or more of the following:

- engage in mediation;
- undertake counselling;
- undertake training;
- take other action the Complaints Committee considers appropriate (e.g. an apology).

The Proposed Plan should be designed to provide the Respondent with the opportunity and support to demonstrate the professional and ethical behaviour expected of elected representatives expressed in the Code of Conduct.

The Proposed Plan may also outline:

- the actions to be taken to address the behaviour(s);
- who is responsible for the actions;
- any assistance the Local Government will provide to assist achieve the intent of the Plan; and
- a reasonable timeframe for the Plan action(s) to be addressed by the Respondent.

5. REFERENCE DOCUMENTS

Local Government Act 1995 – Section 5.104 Adoption of model code of conduct:
Local Government Act 1995 – Section 5.105 Breaches by council members
Local Government (Model Code of Conduct) Regulations 2021
WALGA Template – Code of Conduct Complaints Management Policy
Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates.

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Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 11.3.B

Guidelines on the Model Code of Conduct for Council Members, Committee Members and Candidates – March 2021

Department of
Local Government, Sport
and Cultural Industries

GOVERNMENT OF
WESTERN AUSTRALIA

Local Government Act 1995 Review
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LOCAL GOVERNMENT ACT REVIEW ››› DELIVERING FOR THE COMMUNITY

Guidelines on the Model Code of Conduct for Council Members, Committee Members and Candidates

March 2021

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Model Code of Conduct

Introduction

Local government is vital for the delivery of key services and infrastructure in the community. Individuals who are, or seek to be, members of local councils and council committees are entrusted by their community to represent local views, make sound decisions, and utilise public funds effectively to deliver services and amenities for their community. As such, a high standard of professional and ethical conduct is expected of council members and committee members in local governments, as well as candidates in local government elections.

A review of the *Local Government Act 1995* (Act), including consultation with community and sector stakeholders, led to the implementation of priority reforms under the *Local Government Amendment Act 2019* (Amendment Act).

The Amendment Act was developed in response to stakeholder feedback that there was a need for governance reforms, including a Code of Conduct for council members, committee members and candidates that clearly reflects community expectations of behaviour and supports consistency between local governments in relation to the overall process for managing alleged breaches of that Code.

As a result, key reforms under the Amendment Act include the introduction of a Model Code of Conduct (Model Code) that must be adopted by local governments and applied to council members, committee members and candidates; as well as a separate Code of Conduct for Employees.

The Model Code replaces the previous statutory requirement for local governments to develop and implement an individual code of conduct for their council members, committee members and employees.

The *Model Code of Conduct Regulations 2021* (Regulations) have been developed to give effect to the Amendment Act, and provide for:

- overarching principles to guide behaviour;
- behaviours and complaints which are managed by local governments; and
- rules of conduct, contraventions of which are considered by the independent Local Government Standards Panel (Standards Panel) where appropriate.

Definitions

The Model Code defines key terms to aid understanding and compliance. Where a term is not defined in either the Regulations or the Act, then the generally accepted meaning of the term applies. Some additional guidance is provided as follows:

Candidate: an individual is considered a candidate when their nomination for election is accepted by a Returning Officer under section 4.49 of the Act. The Model Code applies to the individual from that point. Any alleged breach of the Model Code may only be addressed if and when the individual is elected as a council member.

Council member: references to ‘council member’ in the Regulations mean an individual who has been elected as a council member under the Act. The requirements of the Regulations also apply to a council member who is a committee member on a council committee.

Committee member: under the Regulations, a ‘committee member’ includes any council member, local government employee or unelected member of the community who has been engaged by the council to participate in a council committee.

Evidence: references to ‘evidence’ in the Regulations means the available facts or information indicating whether an allegation is true or valid. Local governments must use evidence provided by the complainant and by the person to whom the complaint relates, as well as other relevant information, to decide whether an alleged breach of the Model Code has occurred.

Local government(s): per the approach in the Act, references to ‘local government’ in the Regulations mean the body corporate that is the local governing body made up of the council, Chief Executive Officer (CEO) and administrative staff appointed and managed by the CEO.

Where a statutory function entails decision-making on governance matters, the council is responsible for making those decisions unless the matter is delegated. This includes decisions on complaints regarding the conduct of council members, committee members and candidates, as set out in the Regulations.

Further guidance on certain terms in the Model Code is provided in these Guidelines.

Purpose

The purpose of the Model Code is to guide the decisions, actions and behaviours of members, both in council and on council committees, and of candidates running for election as a council member.

Members must comply with the provisions in the Model Code in fulfilling their role and responsibilities in council and on council committees, as set out in the Act.

An individual who has nominated as a candidate for election as a council member is also required to demonstrate professional and ethical behaviour during their election campaign. If elected, the individual must continue to comply with the Model Code in council and on council committees.

It is the individual responsibility of council members, committee members and candidates to become familiar with the Model Code, these Guidelines and any relevant policies of their local government, and to follow the Code at all times.

Where the behaviour of a council member, committee member or candidate does not comply with the Code, it is intended that the local council address the behaviour through education and other remedial actions that the council considers appropriate, rather than formal sanctions.

Where an individual does not comply with any action required by the council, then the council may determine that the matter is to be referred to the Standards Panel as an

alleged contravention of a rule of conduct. The Standards Panel has the authority to make binding decisions regarding allegations of minor misconduct.

Adoption

Section 5.104 of the Act requires that local governments adopt the Model Code as their Code of Conduct within three months of the Regulations coming into operation (by 3 May 2021).

In accordance with section 5.104(4), the Model Code applies until the local government adopts it as their Code. This means that the principles, behaviour requirements and rules of conduct of the Regulations apply to council members, committee members and candidates even if their local government has not yet adopted the Model Code.

While local governments may not amend Division 2 (Principles) or Division 4 (Rules of Conduct), additional behaviour requirements can be included in Division 3 (Behaviours) if deemed appropriate by the local government. Any additions must be consistent with the Model Code of Conduct (section 5.104(3) of the Act).

In preparing the Code for adoption, local governments are encouraged to review their existing Code and consider incorporating any additional behaviour requirements that are not represented in the Model Code. This may include specific dress standards or the appropriate use of technology.

To adopt the Code, a resolution passed by an absolute majority of the council is required. Once the Code is adopted, it must be published on the local government's official website (section 5.104(7)).

Division 2 – General Principles

This section of the Regulations set out the fundamental rules that council members, committee members and candidates are expected to adhere to, promote and support. Adhering to these rules will assist individuals to comply with the behaviours outlined in Division 3 and 4.

The principles outline the overarching approach that members and candidates should demonstrate in their role as public representatives, or potential public representatives. Individuals should consider all behaviours in light of these principles, including any behaviour and conduct that is not covered specifically in Division 3 and 4.

The principles are grouped into three key areas: Personal Integrity; Relationships with others and Accountability. Additional guidance on these areas is provided as follows:

Integrity and conflicts of interest

Members and candidates are generally active in their local area which may lead to a conflict between the public interests of the community and the personal interests of the individual, their family members and associates.

It is the individual responsibility of members and candidates to disclose any such conflicts and ensure that they are managed appropriately to comply with the Model Code and serve their community as expected by the local electors.

Individuals should also consider perceived and potential conflicts of interest. While an individual may be confident of the integrity of their actions, it is important to reflect on how their actions may appear to others, and/or how an action taken now could lead to a conflict of interest in future. If an interest is identified, the individual should disclose and manage this to avoid a conflict with the public interest.

Avoidance of reputational damage

Elected members and candidates may hold strong concerns in relation to actions, or a lack of action, by their local government on certain matters.

It is the individual responsibility of members to ensure that they comply with the Model Code by raising concerns in a respectful and constructive manner and working effectively with their colleagues for their community, as expected by the local electors.

During an election campaign, it is the individual responsibility of candidates to ensure that any concerns they raise regarding the current local government is based on accurate information and expressed in a respectful and constructive manner that demonstrates to local electors their suitability as a potential public representative.

Decision-making and accountability

Council and committee members regularly make decisions that impact on their local area. The community expects that members will make council and committee decisions based on information that is relevant and factually correct. This will vary according to the decision to be made and the information available to the council members and committee members at that time.

In general, individuals are responsible for ensuring their decisions are based on information that is accurate and pertinent to the matter at hand; and can be reasonably considered accurate and relevant by others.

As part of being accountable to their community, council members and committee members should accept responsibility for the decisions they make in the performance of their role.

Division 3 – Behaviour

This section of the Regulations sets the standards of behaviour which reflect the general principles outlined in Division 2.

It is the individual responsibility of members and candidates to demonstrate, promote and support professional and ethical behaviour as provided in the Model Code.

Complaints regarding alleged breaches of the Model Code in Division 3 are managed by the local council as the decision-making body of the local governments, unless this function has been delegated.

The division also provides a principles-based process for responding to alleged breaches. The emphasis is on education and development, rather than punitive sanctions, with the aim of establishing or restoring positive working relationships and avoiding further breaches.

Failure to comply with this Division may give rise to a complaint regarding the conduct of a council member, committee member or candidate, which may lead to the council making a formal finding of a breach and requiring remedial action by the individual.

It is recommended that local governments develop further guidance on dealing with complaints through the introduction of a complementary policy or procedure on complaints management to the extent it is not provided for in the Regulations. There are resources on effective complaints management available on the Ombudsman WA's website at www.ombudsman.wa.gov.au.

Complaints

Process for making a complaint

Clause 11 of the Regulations provides that a person can make a complaint alleging a breach of Division 3 within one month of the alleged breach occurring.

Local governments should ensure that making a complaint is a simple and accessible process so that any member of the local community can raise concerns about the conduct of council members, committee members and candidates.

Local governments should make it clear that it is important a complainant provides details in their complaint, with supporting information where feasible to do so, because the complaint will form part of the evidence considered by the council when deciding whether a breach of the Model Code has occurred.

Action required
Local governments must authorise at least one person to receive complaints regarding members and candidates. While the Regulations do not include specific requirements and a local government may decide that the complaints officer is appropriate, other options could include:

- President or Mayor,
- Deputy President or Mayor (especially for complaints about the President or Mayor),
- Chief Executive Officer, or
- External consultant

The Regulations also provide that complaints are to be made in writing in a form approved by the local government.

Action required
Local governments must determine whether there will be a specific template for complaints and process for how they are to be lodged.

Local governments may choose to:

- establish a specific email address for conduct complaints
- provide a name/position to whom complaints should be addressed
- prepare an online complaint form
- engage an independent person to support the resolution of a complaint. Local governments may consider sharing the services of an independent person.

The Department has prepared a template form for complaints to assist local governments. The template is available on the department's website at www.dlgsc.wa.gov.au.

The authorised person(s) should acknowledge the receipt of every written complaint in a timely manner. As part of the acknowledgment process, the complainant should be provided information on how the complaint will be progressed and an expected timeframe for the matter to be finalised. This may include providing the complainant with a copy of the complaint policy.

The local government may determine that the person who is authorised to receive complaints takes responsibility for the administrative process. This may include preparing the necessary report to the council or committee tasked with making a decision on the complaint.

The report should contain a summary of the alleged breach, including evidence provided by the complainant. It should also contain information from the person to whom the complaint relates.

Dealing with a complaint

The Regulations do not specify a timeframe by when complaints should be dealt with, however, a timeframe could be included in a local government's policy.

In the interests of procedural fairness, all complaints should be dealt with in a timely manner and allow all parties the opportunity to provide information regarding the alleged conduct.

Clause 12 of the Regulations outlines the process for dealing with complaints regarding the conduct of elected members and candidates. The Model Code leaves it open to local governments to determine the most appropriate and effective process for how this is undertaken. Possible options could include:

<u>Council considered</u>

Under this option, all complaints received are considered by the council. This would require a report to be provided to the council – either with or without a recommendation (this is a matter for the Council to determine).

The council may choose to appoint a independent/external consultant to review complaints and provide a report to the council. If an independent consultant is tasked with reviewing complaints, it may be preferable that they also make a recommendation as to whether a breach has occurred.

If the person authorised to receive complaints prepares the report, it may be more appropriate that no recommendation is made, and council make a finding on the basis of the information they are provided.

Committee considered

Under this option, a committee is established to consider complaints. The makeup of the committee will depend on whether the power to make a finding can be delegated to the committee, or whether they are tasked with making a recommendation for council consideration.

In establishing a committee, local governments may like to consider forming a behaviour review committee that contains a member from some surrounding local governments and an independent person, to review all complaints for those local governments. The committee would prepare a recommendation which is submitted to the relevant council for consideration.

If the committee is tasked with making a recommendation for council consideration, and the council do not accept the recommendation, the reasons why it is not accepted should be noted in the minutes.

CEO considered

As with a number of functions in the Act, this function can be delegated to the CEO. Councils may choose to make it the responsibility of the CEO so as to remove council members from the decision-making process. However, consideration also needs to be given as to whether it is appropriate for the CEO to be responsible for making findings on council members behaviour.

Triaging complaints

Local governments should consider how they are going to respond to complaints, and whether complaints are going to be addressed based on seriousness or impact of the allegation or on the order in which complaints are received. This should be outlined in the complaint policy.

Action required Local governments must determine who will be considering complaints received and how complaints will be prioritised and managed.

Clause 12(2) of the Regulations require that the person to whom the complaint relates is given a reasonable opportunity to be heard. This should include providing a copy of the complaint to that person in a timely manner and allowing them an opportunity to respond to the allegations in writing. The information provided by that person will assist the local government in forming a view as to whether a breach has occurred.

Mediation

Local governments may choose to introduce mediation following the receipt of a complaint. This could be in the form of informal or formal mediation, conducted either internally or with an external mediator. Mediation may prove to be a valuable tool to resolve matters quickly, before they escalate. If mediation is successful, there is the ability for a complaint to be withdrawn.

Making a finding

Clause 12(1) requires the local government (which could be the council or a committee) to consider whether the alleged matter which is the subject of a complaint, did occur and make a finding on whether the matter constituted a breach of the Code of Conduct.

The same approach should be used as the Standards Panel in their deliberations and decision-making; that is, based on the complaint and other evidence received by the council, the council must be satisfied that, on the balance of probabilities, it is more likely than not that a breach occurred.

At a minimum, the information used to make a finding will include the information provided by the complainant and the person to whom the complaint relates. While not mandatory, there is nothing that prohibits local governments seeking further evidence to assist in making a decision, such as statements from witnesses.

Conflicts of interest

Members will be required to disclose an impartiality interest. This will include the complainant (if applicable) and person to who the alleged breach applies.

An impartiality interest does not require a member to leave the room for the debate or decision. By having both the complainant and accused in the room, it may also allow further input and clarification around the circumstances of the complaint.

The Presiding Member must keep control of the meeting and ensure everyone is provided with an opportunity to speak. Members should remain respectful and open-minded and make a decision on whether a breach has occurred or not using the information available.

Action Plans

Clause 12(4) provides that if a finding that a breach of the Code of Conduct did occur, the local government may determine that no further action is required; or that an action plan must be prepared and implemented.

An action plan should be designed to provide the member with the opportunity and support to demonstrate the professional and ethical behaviour expected of elected representatives.

The action plan does not need to be complex. The plan should outline:

- the behaviour(s) of concern;
- the actions to be taken to address the behaviour(s);
- who is responsible for the actions; and
- an agreed timeframe for the actions to be completed.

An action plan should not include measures that are intended to be a punishment, and instead should focus on mechanisms to encourage positive behaviour and prevent negative behaviour from occurring again in future.

The Code requires that in preparing the action plan, consultation must be undertaken with the elected member to whom the plan relates. This is designed to provide the member with the opportunity to be involved in matters such as the timing of meetings or training. Note: some members may not be willing to engage with the opportunity to participate in the process.

The council or a delegated person should monitor the actions and timeframes set out in the action plan. This is important because if the member does not comply with the action/s within the agreed timeframe, then under the Regulations it is considered a contravention of a rule of conduct.

Dismissal of complaints

While local governments are required to consider all complaints, they can be dismissed if:

- the behaviour occurred at a council or committee meeting and the behaviour was dealt with at that meeting (clause 13), or
- the complaint is withdrawn (clause 14).

Clause 13 allows a complaint to be dismissed if the behaviour occurred at a council or committee meeting, and that behaviour was addressed at the time. This could have been by the presiding member, or remedial action was taken in accordance with the local government's standing orders or local law.

Where agreement cannot be reached

Circumstances may arise when a local council cannot agree on a finding, whether the complaint can be dismissed under clause 13, or an appropriate course of action following a finding of breach.

While the presiding member has the casting vote, in a divided situation, the local government may decide to engage an independent person/consultant to review the evidence and make a recommendation. If this occurs, the council (or committee) should give due consideration to the advice and recommendation, and if they don't accept the recommendation they should state the reasons why in the minutes.

Withdrawal of a complaint

Clause 14 provides the option for a complaint to be withdrawn before it is considered by the council.

Local governments may elect to include in their complaints policy the option for mediation between the complainant and the member. Mediation may resolve any specific issues before the council is required to make a finding and may lead to the complainant withdrawing the complaint. Clause 14 requires a withdrawal to be made in writing and provided to the person(s) authorised to receive complaints.

Division 4 – Rules of Conduct

Contraventions of rules of conduct are matters that:

- negatively affect the honest or impartial performance of an elected member;
- involve a breach of trust placed in the elected member; or
- involve the misuse of information or material.

Division 4 sets out rules of conduct for elected members and candidates that relate to the principles in Division 2 and the behaviours in Division 3. This Division also introduces a new rule of conduct to address situations where an elected member does not undertake the actions required by the local council following a breach of the Model Code. A contravention of this rule of conduct is considered a minor breach, as defined in the Act.

The process for complaints under Division 4 is outlined in the Act. Complaints in the first instance are directed to the complaints officer at the local government. The Act provides that the complaints officer is the CEO or another officer with delegated responsibility.

A council may decide to refer an alleged contravention of Division 4 to the independent Standards Panel in accordance with the Act. As the Panel does not have investigative powers, decisions are made based on the information received by the Panel from the local government. The Standards Panel must be satisfied that, on the balance of probabilities, it is more likely than not that a breach has occurred for the Standards Panel to make a finding of breach.

Where the Standards Panel makes a finding against an elected member or candidate, sanctions will be imposed in accordance with the Part 5 Division 9 of the Act.

Nothing in this Division removes the obligations placed upon council members and employees (including the CEO) of the local government under the *Corruption, Crime and Misconduct Act 2003*.

Further information on the Standards Panel process is available on the Department's website.

Further information

The aim of the Model Code of Conduct is to foster a high standard of professional and ethical conduct by council members and candidates, and to support consistency across local governments in relation to their response to complaints regarding conduct.

Local governments are encouraged to seek guidance and advice on specific matters whenever necessary. For queries, please contact: actreview@dlgsc.wa.gov.au

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Appendix 11.3.C

Complaint Form (2025)

Behaviour Complaint Form

Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates

Name of Person Making the Complaint				
Complainant Name: *Given Name/s and Family Name*				
Contact Details				
Residential Address:				
Postal Address:				
Phone:	Day-time:		Mobile:	
Email:				

Complaint Details:		
1.	**Insert Name of Person alleged to have committed a behavior breach:**	

2.	**Select the position that the person was fulfilling at the time the person committed the alleged behaviour breach:**	Council Member of the Shire of Collie	☐
		Member of a Committee of the Shire of Collie	☐
		Candidate for election at the Shire of Collie	☐

3.	**Date that the alleged behaviour breach occurred:**	

4.	**Location where the alleged behaviour breach occurred:**	

5.	**Which of the behaviours prescribed in Division 3 of the Shire of Collie's Code of Conduct do you allege this person has breached?**	
	Clause 8. Personal integrity (1) A council member, committee member or candidate —	
	(a) must ensure that their use of social media and other forms of communication complies with this code; and	☐
	(b) must only publish material that is factually correct	☐
	(2) A council member or committee member —	
	(a) must not be impaired by alcohol or drugs in the performance of their official duties; and	☐
	(b) must comply with all policies, procedures and resolutions of the local government.	☐
	Clause 9. Relationship with others A council member, committee member or candidate —	
	(a) must not bully or harass another person in any way; and	☐
	(b) must deal with the media in a positive and appropriate manner and in accordance with any relevant policy of the local government; and	☐
	(c) must not use offensive or derogatory language when referring to another person; and	☐
	(d) must not disparage the character of another council member, committee member or candidate or a local government employee in connection with the performance of their official duties; and	☐
	(e) must not impute dishonest or unethical motives to another council member, committee member or candidate or a local government employee in connection with the performance of their official duties.	☐
	Clause 10. Council or committee meetings When attending a council or committee meeting, a council member, committee member or candidate —	
	(a) must not act in an abusive or threatening manner towards another person; and	☐
	(b) must not make a statement that the member or candidate knows, or could reasonably be expected to know, is false or misleading; and	☐
	(c) must not repeatedly disrupt the meeting; and	☐
	(d) must comply with any requirements of a local law of the local government relating to the procedures and conduct of council or committee meetings; and	☐
	(e) must comply with any direction given by the person presiding at the meeting; and	☐
	(f) must immediately cease to engage in any conduct that has been ruled out of order by the person presiding at the meeting.	☐

6.	**State the full details of the alleged breach.**

7	**List any additional information you have provided as part of this complaint:** *Please ensure all information relevant to the alleged breach has been attached. This information will be the basis on which the complaint is considered.*

9	**Have you made any efforts to resolve the complaint with the Respondent?** *Please note, you MUST complete this section*	
YES	☐	*If yes, please describe the efforts that you have made.*
NO	☐	*If no, please include a brief statement explaining why you have not made any efforts to resolve the issue with the person complained about.*

10	*The Shire of Collie has a policy that the Complainant and the Respondent be offered the opportunity to participate in an Alternative Dispute Resolution process, that if agreed to by BOTH parties, will be undertaken before the complaint is dealt with.* *The objective is to support both parties to reach a mutually satisfactory outcome that resolves the issues and restores the relationship between them. An outcome may be that as the Complainant, you will have absolute discretion to withdraw or continue with this Complaint.* *Please contact the Behaviour Complaints Officer if you would like more information.*		
	Would you agree to participate in an Alternative Dispute Resolution process?	**YES**	☐
		NO	☐

11	**Desired outcome of the Complaint** *Please explain what you would like to happen as a result of lodging this complaint, including the opportunity to participate in Alternative Dispute Resolution.*

COMPLAINANT *please sign and date*	
Signature:	
Date:	

Please submit completed Behaviour Complaint to:

The Shire of Collie's Behaviour Complaints Officer:

Mailing Address: Shire of Collie, Locked Bag 6225, Collie WA 6225

In person: Shire of Collie, 87 Throssell Street, Collie WA 6225

NOTE TO PERSON MAKING THE COMPLAINT:

This Behaviour Complaint Form (2025) should be completed, dated and signed by the person making a complaint of an alleged breach of the Code of Conduct. The complaint is to be specific about the alleged breach and include the relevant section/subsection of the alleged breach.

The complaint must be made to the authorised officer within one month after the occurrence of the alleged breach.

OFFICE USE ONLY: *Received by the Council appointed Behaviour Complaints Officer*	
Authorised Officer's Name:	
Authorised Officer's Signature:	
Date received:	

Instructions for: Making a complaint about an alleged breach of the Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates

Behaviour Complaint

Please read the Shire of Collie's CP1-019 – Elected Member Code of Conduct Behaviour Complaints Policy on our website www.collie.wa.gov.au before submitting a complaint. This Policy details:

- How the Shire of Collie will process and determine a Behaviour Complaint; and
- How confidentiality of the complaint will be handled.

To make a valid **Behaviour Complaint**:

☐	The allegation must relate to a breach of the behaviour standards in Division 3 of the Shire of Collie's Code of Conduct for Council Members, Committee Members and Candidates.
☐	Complete all sections of the Behaviour Complaint Form attached, including any additional information that will support assessment of the complaint. *The Behaviour Complaints Officer may contact you to clarify or ask for more information.*
☐	The completed Behaviour Complaint Form MUST be lodged with the Shire of Collie Behaviour Complaints Officer within one (1) month of the alleged behaviour breach.

Rules of Conduct Complaint

A **Rules of Conduct Complaint** refers to a breach of the Rules of Conduct outlined in Division 4 of the Shire of Collie's Code of Conduct for Council Members and Candidates, including Council Members when acting as a Committee Member. This type of complaint is determined by the Local Government Standards Panel, administered through the Department of Local Government, Sport and Cultural Industries. Further information about Rules of Conduct Complaints may be obtained from:

- Department of Local Government, Sport and Cultural Industries: (08) 6552 7300 or www.dlgsc.wa.gov.au; OR
- The Shire of Collie's Rules of Conduct Complaints Officer: (08) 9734 9000 or ceo@collie.wa.gov.au/

Need Advice?

If you require advice in making a Behaviour Complaint, please contact the Shire of Collie's Behaviour Complaints Officer on (08) 9734 9000 or by email ceo@collie.wa.gov.au.

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Appendix 11.4.A

CP1 – 020 Councillor Induction, Training & Professional Development Policy

POLICY NO:-
CP1-020 – COUNCILLOR INDUCTION, TRAINING & PROFESSIONAL DEVELOPMENT

GOVERNANCE INFORMATION			
Procedure Link:	N/A	**Administrative Policy Link:**	

ADMINISTRATION INFORMATION					
History	1	CP1-020	OCM XX/XX/25 Res: XXXX	**Synopsis:**	Policy created.
Version:	2				

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1. RESPONSIBLE DIRECTORATE

Chief Executive Officer

2. PURPOSE OR OBJECTIVE

This policy is to provide a framework within which Elected Members can meet their statutory obligations and have access to a range of professional development opportunities that will assist them to undertake their role, including but not limited to pre-election information sessions, induction programs, training programs, attendance at conferences & seminars and other development opportunities throughout the elected term of office.

The Shire of Collie has a budget allocation for the purpose of enabling Elected Members to participate in development opportunities that will assist them to undertake their role and/or develop skills and competencies.

The policy encourages Elected Members to participate in professional development and training opportunities during their elected term of office leading up to the Caretaker Period before their term ends, noting that where a term of office is less than the usual four year term, access to a full range of opportunities may not be available within the term.

3. SCOPE

This Policy applies to elected members of the Shire of Collie.

4. POLICY

4.1 Pre-Election

The Chief Executive Officer or his/her delegate, in conjunction with the Western Australian Electoral Commission and/or WALGA, will conduct a seminar for aspiring Elected Members to be held prior to a Local Government election. The aim of this seminar(s) would be to provide

aspirants with an insight to the role of an Elected Member and better prepare them for what lays ahead.

All candidates for Council will be required to declare that they have completed the candidate induction at the time of nomination. There are penalties under the *Local Government Act 1995* for making false or misleading statements on the nomination form.

4.2 Induction

Upon election to Council, the Shire will provide an induction, training and development program for Elected Members modelled on the Department of Local Government Elected Member Induction Checklist, to provide them with all the information relevant to commencing their role as an Elected Member. Attendance at in-house information and training sessions is also encouraged after the completion of the induction program.

The induction program contributes to the corporate objectives by:

- Assisting new Elected Members to assimilate into the role;
- Assisting Elected Members meet the demands upon them by developing the necessary skills through recognised training;
- Assisting Elected Members achieve excellence in performance; and
- Ensuring Elected Members work professionally in a team environment for the betterment of their constituents.

4.3 Council Member Training

Upon election to Council, the Shire of Collie will facilitate the conducting and participation by Councillors at the Councillor Member Essential training. This will comprise of five foundational competencies that will need to be completed within 12 months of being elected. The five units include:

- Meeting Procedures;
- Conflicts of Interest;
- Understanding Local Government;
- Serving on Council; and
- Understanding Financial Report.

All Council Members will have to complete the Council Member Essentials course unless, in the previous five years, they have passed the Diploma of Local Government 52756WA (Elected Member) or the course titled LGASS00002 Elected Member Skill Set.

This training will be generally be delivered face to face, but may be completed on-line where required. The training is valid for five (5) years, requiring a Council member to undertake the training again every second election. The training undertaken by Councillors is required to be reported annually and published on the Council's website.

This policy is required under Regulations to be reviewed after each election, which provides an opportunity to consider the needs and skill sets of new and returning Councillors.

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4.4 Annual Allocation for Training and Development

Elected Members are encouraged to attend various programs during their term of office to assist their professional development and to provide them with enhanced skills to effectively maximise the benefits of the commitment they have given to their elected position.

Each Elected Member is equally allocated an annual sum as specified in each annual budget for attendance at training and development programs and courses. The amount should not, in normal circumstances be exceeded and registration will not be effected if there are insufficient funds available to be used. The Chief Executive Officer shall monitor the budget to appropriately manage the allocation.

4.5 Conferences & Training Courses

The annual budget allocation may be used for any of the following:

a) Councillor Member Essentials training required under the Act.

b) Western Australian Local Government Association (WALGA) Training Program - WALGA offers a module-based training program that is standardised for WA Local Governments. Progressive participation in this program is encouraged and is considered to be the best opportunity outside of the organisation to develop relevant local government knowledge, including the opportunity to obtain a Diploma in Local Government by the completion of the course modules. Elected Members are encouraged to support this training particularly when held in South West venues.

c) Local Government Week - Local Government Week (Convention) is an annual networking and development opportunity provided by WALGA. This is undertaken in conjunction with the Association's Annual General Meeting at which the Shire of Collie is entitled to have two delegates. It is usual that this will be the President and Deputy President, however this may be passed to another Elected Member (by resolution of Council) when one or both of the President and Deputy President are not in attendance.

   In addition to the two delegate participants, opportunity exists for other Elected Members and the Chief Executive Officer to attend Local Government Week.

d) Examples of other conferences include:-

   - National General Assembly of Local Government (Shire President and Chief Executive Officer);
   - Annual Road Conference;
   - Special "one off" conferences sponsored by WALGA or the Department of Local Government, Sport and Cultural Industries.

e) Other training and development - Other training and development opportunities are identified from time to time by either an individual Elected Member or the organisation, attendance at which may be approved where:

   - The course or development opportunity is relevant to the functions of an Elected Member;
   - The course or development opportunity is relevant to an Elected Member's role or as a member of a Council approved representative on a Council Committee or external body;

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- There is scope for the attendee to acquire skills beneficial to the Shire; and
- The budget remains available to cover the associated costs.

4.6 Restrictions and Exclusion on Travel

No more than two Elected Members may attend the same Interstate event and no more than three Elected Members exclusive of the President and Deputy President may attend the same intrastate event (authorised training and development courses excluded).

Travel Interstate is not permitted without the prior approval of Council; and within three months of being elected as an Elected Member and is not permitted within the Caretaker Period leading up to an elected members expiry of office, unless approved in advance by a resolution of Council. Attendance at any overseas conference, seminar or other development event requires the specific approval of Council.

4.7 Accommodation

Council staff will arrange and make payment for reasonable accommodation for the Councillor for a room at or in close proximity to the event venue.

4.8 Elected Representatives/Delegate Accompanying Person

Where an Elected Member or Officer is accompanied at a conference or training event, all costs for, or incurred by, the accompanying person are to be borne by the Elected Member, Officer or accompanying person and not by the Shire. The exception being the cost of attending an official event dinner where partners would normally attend. An example of an official event is the Annual Local Government Week Gala Dinner or "sundowner drinks" at the event.

4.9 Out of Pocket Expenses

a) Meals and incidental expenses – An allowance maximum of $100 per day is provided for the full duration of the training or conference event. This expense would generally include breakfast, lunch, dinner, incidentals and transport (taxi, bus, train), excluding car parking. This allowance cannot be used when the costs of meals etc. are included in the registration fee and the elected member chooses to eat elsewhere.

b) Travel by car – Where it is available and convenient Elected Members will be encouraged to use one of the Council's fleet vehicles for intrastate travel. Where an Elected Member uses their own vehicle they shall be reimbursed for fuel costs by providing the Chief Executive Officer with a reimbursement of expenses claimed (ie: car parking) and the receipt. Elected Members are encouraged to "car pool".

c) All out of pocket expenses claimed shall be supported by applicable receipts and provided to the Chief Executive Officer for reimbursement.

4.10 Reporting Requirements

On return from attending a training & development opportunity, attendees shall provide a written report to the Shire within 21 days to facilitate knowledge sharing. The report should detail skills and competencies gained, benefits for the Shire, Council and community and relevant recommendations.

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The President or Chief Executive Officer may approve an extension in circumstances deemed appropriate. Regard may be given to the technicality of the information to be prepared into a report, workloads or other factors.

Failure to provide a report or presentation within the approved timeframe may result in the Elected Member being required to reimburse costs associated with attendance to the Shire.

4.11 Approval Process

Applications from Elected Members for attendance at interstate training, seminars and conferences will be considered by the President and Deputy President in consultation with the Chief Executive Officer with regard to applicability of the development opportunity to the Councillor's role and budget availability, and a report to Council to seek approval.

The application can only be approved where the costs including registration fees, travel, accommodation and an estimation of other expenses can be accommodated within the approved allowance allocated to the Elected Representative for this purpose in accordance with the annual budget provision. The annual training budget determined by the Council will be equally allocated to each Elected Representative on a pro-rata basis in accordance with election dates. An individual's unspent funds can be carried forward for use within the biennial election cycle.

The Chief Executive Officer is authorised to approve requests from Elected Members for professional development training and conferences without referral to Council provided that:

a) The event is within the state
b) The cost does not exceed the annual allowance; and
c) The course of conference is organised by an identified, industry recognised training provider.

The Chief Executive Officer is to maintain a register of each Elected Members' training and professional development expenses.

Nothing in this policy provision prevents the Council from approving additional funds to be accessible or the Council from approving a specific application that is outside of the existing budget.

This Policy does not apply to meetings or workshops attended by an Elected Member, where they are the approved Council delegate or representative.

5. REFERENCE DOCUMENTS

Local Government Act 1995 5.36 and 5.42, 5.126, 5.127 and 5.128.
Local Government (Administration) Regulations 1996.

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Appendix 11.4.B

CS3.2 Conference & Training Policy

CS3.2 Conference & Training

Policy Objective:

To Establish clear guidelines for elected members and staff attendance at conference and training courses for professional development.

Policy Definition:

"Conference"- A conference is defined as a training course, conference or skills development program related to and/or approved by the Local Government.

Policy Statement:

This policy acknowledges the obligations on staff and elected members to be properly informed on all matters pertaining to Council. Council encourages staff and elected members to attend training courses and conferences for professional development, which may be of benefit to the individual staff and elected members and Council as a whole.

This Policy establishes to:

- Provide clear guidelines on staff and elected members attendance to any training courses and/or conferences.
- Ensure that appropriate processes are followed for all associated expenditure; and
- Ensure that all staff and elected members attendance at any training courses and/or conferences comply with the Local Government Principles as contained with the *Local Government Act 1995*.

Elected Members

1. Elected Members may be nominated and authorised to attend conferences by a direct resolution of the Council, passed at a Council meeting.
2. Council shall authorise an elected member to attend a conference or training if it is considered to be beneficial to the Council and in line with the annual budget provisions.
3. Upon returning from a conference or training the elected member is required to provide a brief oral or written report to Council on the merits of attendance.
4. A copy of the aforementioned acquittal shall be placed on the Councillor's record.
5. The CEO shall cause for a register of all conference and training acquittals to be kept for future reference.
6. The following shall apply to elected members who are authorised to attend conferences or training under this policy:

6.1 Registration:
The Council will pay all normal registration costs for elected members (or any other delegate) which are charged by the organisers, including those relating to official luncheons, dinners and tours/inspections which are relevant to the interests of Council.

6.2 Accommodation:
Council will pay reasonable accommodation costs for Councillors including the night before and/or after the conference where this is necessary because of training and/or conference timetables.

6.3 Travel:
Council will be responsible for the payment of all reasonable costs associated with the travel to/from authorised conferences and/or training.

6.3.1 Travel by motor vehicle:

Elected members shall be provided with a Council vehicle to attend conferences and training where this is practical and appropriate. In the event that a Council vehicle is unavailable the Councillor shall be reimbursed for the cost of a hire car or the use of a vehicle in accordance with the kilometre rate as specified by the Australian Taxation Office.

6.3.2 Travel by other means:

Where it is deemed inappropriate to attend a conference or training by motor vehicle an alternative mode of transport shall be arranged, i.e. airplane, train, bus. Where one of the alternative methods of transport is utilised it shall be done based on the economy class. In the case where an elected member is either disabled or is willing to pay the costs associated with upgrading the status of travel Council shall approve the upgrade by an advance resolution.

6.4 Out of pocket expenses:
Council recognises that elected members attending conferences and/or training may be required to make related purchases and payments during the course of the conference or training.

In respect of this Council will make payment for reasonable day to day expenses. This payment shall be made to the elected member on presenting the appropriate receipts or invoices satisfying the requirements of a tax invoice.

6.5 Out of State Conferences and/or Training:
Council must resolve by an absolute majority to authorise for an elected member to attend conferences and/or training outside of Western Australia.

An elected member who has been authorised to attend an interstate or international conference is required to book a return flight at the earliest possible time and endeavor to achieve the most cost effective outcome. In the event that the elected member wishes to extend their stay they may do so notwithstanding that Council shall not pay for any expenses incurred after the conference and/or training has ceased. The elected member shall pay for all his/her expenses in the first instance; that is Council will not pay costs initially for the elected member to reimburse at a later date.

6.6 Where the elected member has been authorised to attend a conference and/or training and another person accompanies the elected member the following shall apply:

The “accompanying person” shall be solely responsible for paying all travel, breakfast & meals not associated with registration and/or participation in any conference programs. Council may make the initial payment to the conference and/or training provider, which shall be reimbursed to Council within 7 days of the payment being made.

Staff Members

1. Staff members may be authorised to attend conference and/or training if it:-
1.1 is in accordance with annual budget provisions,
1.2 has been authorised by the CEO or Directors,
1.3 is within the state of Western Australia or authorized by the Council if outside Western Australia (as per Clause 6.5)

2. The following shall apply to staff members who are authorised to attend conferences or training under this policy:
2.1 Registration:

The Council will pay all normal registration costs for staff members that are charged by the organisers, including those relating to official luncheons, dinners and tours/inspections and which are relevant to the interests of Council.

2.2 Accommodation:
Council will pay reasonable accommodation costs for employees including the night before and/or after the conference, where this is necessary because of training and/or conference timetables.

2.3 Travel:
Council will be responsible for the payment of all reasonable costs associated with the travel to/from authorised conferences and/or training.

2.3.1 Travel by motor vehicle:-

Staff members shall be provided with a Council vehicle to attend conferences and/or training where this is practical and appropriate. In the event that a Council vehicle is unavailable the staff member shall be reimbursed for the cost of a hire car or the use of a vehicle in accordance with the kilometre rate as specified by the Australian Taxation Office.

2.3.2 Travel by other means:-

Where it is deemed inappropriate to attend a conference and/or training by motor vehicle an alternative mode of transport shall be arranged, i.e. Aeroplane, train, bus. Where one of the alternative methods of transport is utilised it shall be done based on the economy class. In the case where a staff member is either disabled or is willing to pay the costs associated with upgrading the status of travel Council shall approve the upgrade by an advance resolution.

2.4 Out of pocket expenses:
Council recognises that staff members attending conferences and/or training may be required to make related purchases and payments during the course of the conference or training.

In respect of this Council will make payment for reasonable day to day expenses. This payment shall be made to staff members on presenting the appropriate receipts or invoices satisfying the requirements of a tax invoice.

Any exceptional amounts claimed shall be paid upon a resolution of Council.

2.5 Out of State Conferences and/or Training:
Council must resolve by an absolute majority to authorise for a staff member to attend conferences and/or training outside of Western Australia.

A staff member who has been authorised to attend an interstate or international conference is required to book a return flight at the earliest possible time and endeavor to achieve the most cost effective outcome. In the event that the staff member wishes to extend their stay they may do so notwithstanding that Council shall not pay for any expenses incurred after the conference and/or training has ceased. The staff member shall pay for all his/her expenses in the first instance, that is Council will not pay costs initially for the staff member to reimburse at a later date.

2.6 Where the staff member has been authorised to attend a conference and/or training and another person accompanies the staff member the following shall apply:

The “accompanying person” shall be solely responsible for paying all travel, breakfast & meals not associated with registration and/or participation in any conference programs. Council may make the initial payment to the conference and/or training provider, which shall be reimbursed, by the employee

to Council, within 7 days of the payment being made.

Policy adoption and review

Council meeting held:	**14 July 2020**
Adopted by Minute No:	**8495**
Date to be reviewed:	**July 2023**

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Appendix 11.5.A

CP1-013 Forums of Council, Workshops & Agenda Briefings Policy

POLICY NO:-
CP1-013 – FORUMS OF COUNCIL, WORKSHOPS & AGENDA BRIEFINGS

GOVERNANCE INFORMATION			
Procedure Link:	N/A	**Administrative Policy Link:**	

ADMINISTRATION INFORMATION					
History	1	CP1-013	OCM XX/XX/25 Res: XXXX	**Synopsis:**	New Policy created. Previous Policy CS1.11 Councillor Forum Meeting Procedures deleted.
Version:	2				

1. RESPONSIBLE DIRECTORATE

Chief Executive Officer

2. PURPOSE OR OBJECTIVE

Local government forums range from a once-only event to discuss and explore a particular issue, to a number of sessions to address matters such as a specific project; or the compilation of a report for internal or external use, through to forums held at regular intervals with a consistent structure and objectives.

3. SCOPE

This Policy applies to Forums, Workshops and Agenda Briefings conducted with elected members of the Shire of Collie.

4. POLICY

4.1 Concept Forums

Background

Concept forums involve Council members and employees meeting to propose, discuss and formulate philosophies, ideas, strategies and concepts for the development of the local government and the district. Such forums often involve projects that are in the early planning stage and are some-time away from being presented to Council for decision.

In discussing such issues, employees are looking for general guidance from the Council members as they research the matter and draft the report. Council members and employees are also looking to present ideas and concepts for future consideration. If the response is favourable employees can proceed with their research and eventual report on the matter.

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Examples of the type of issues concept forums may cover include –

- Current matters of a local or regional significance;
- Matters relating to the future development of the local government;
- Significant revenue-raising requirements or expenditure needs;
- The development of internal strategic, planning, management and financial documents;
- Development of the selection criteria and performance objectives for the Chief Executive Officer (CEO).
- Reports from Advisory Groups, Community Engagement Outcomes or other non-formal activities involving Councillors or employees.

Behind Closed Doors:

Behind closed doors and in a relatively informal manner are the two notable characteristics of concept forums. Holding such meetings behind closed doors is justified in that many of the ideas and concepts are preliminary and while looking for that creative gem some may be extreme, expensive or impractical and never adopted.

Managing Concept Forums:

Unless otherwise determined by the Chief Executive Officer in consultation with the Shire President, Concept Forums will be held on the fourth Tuesday of each month. Preference will be for a start time of 4.00pm.

The Shire President shall Chair these meetings or if the Shire President is not available then the Deputy Shire President. If either is not available the Council members' present shall choose a person who shall preside over the Concept Forum so as to ensure the guidelines as addressed in this policy are adhered to.

The Shire President or Deputy Shire President if applicable, may delegate to another Council member the opportunity to Chair one of these meetings to support Councillor learning and development, or based on their experience on a certain matter under discussion.

A general record should be kept of the Concept Forum noting attendance, requests for further information and interests declared. No minutes as such will be taken, nor will specific discussions, actions or outcomes be recorded, received or adopted at a later date.

Conduct at Concept Forums

Councillors and employees shall adhere to the provisions of the *Local Government (Model Code of Conduct) Regulations 2021* and the Shire of Collie Code of Conduct for Council Members, Committee Members and Employees, in relation to their conduct at Concept Forums.

The forums shall run in a formal manner with all questions being directed through the Chair.

Project Updates:

The Chief Executive Officer shall cause presentations to be made in relation to the following;

a) Presentations on achieving major projects; progress updates regarding major projects.

b) New Ideas - Concept Forums are a place for which new ideas and projects are to be discussed.

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Councillor Reports

At every Concept Forum each Councillor may raise issues that have arisen since the last meeting. This may include discussions that have come from ratepayers/electors or third parties that require further information, clarification on employee's actions to date or general information.

Managing Conflicts of Interest

No Council member or staff member shall raise any matter at a Concept Forum for which they have or may perceive to have a Financial or Proximity Interest.

As a matter of probity and integrity, members and employees are required to make disclosures of interest in accordance with sections 5.59 – 5.90 of the *Local Government Act 1995* (Financial and Proximity Interests) and the *Local Government (Model Code of Conduct) Regulations 2021*.

It is noted that this is above and beyond the scope of the legislation, however is required to ensure a high level of governance and transparency.

Members shall make verbal and written disclosures of interest to the Chief Executive Officer at Concept Forums.

If a Member discloses a financial or proximity interest in a matter under consideration by the Group and wishes to remain and participate in the meeting, the Member may seek approval from the Chairperson and meeting to determine whether the interest is:

- Trivial or insignificant; or
- An interest in common to a significant number of electors or ratepayers.

The Member should make that request to the Chairperson at the meeting and not only disclose the nature of their interest, but also the extent of that interest. The Member may then be asked to depart the meeting, whilst the meeting considers the request. The meeting should then be in a position to:

- determine that the Member should not participate in that part of the meeting;
- remain in the meeting and participate in discussion; or
- remain in the meeting only, but not participate in discussion on the matter.

(Note: If the Disclosing Member is the Chairperson, such disclosure shall be made to the meeting.)

Once the meeting has made a decision concerning a request, the Chairperson shall inform the Member of the decision and the Member shall comply with the Meeting's decision.

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4.2 Agenda Forums

Background

For proper decision-making, Council members should have the opportunity to gain maximum knowledge and understanding of any issue presented to the Council on which they must vote. It is reasonable for Council members to expect that they will be provided with all the relevant information they need to understand issues listed on the agenda for the next or following Ordinary Council meetings.

The complexity of many items means that Council members may need to be given information additional to that in an employees report and/or they may need an opportunity to ask questions of relevant employees.

Many local governments have determined that this can be achieved by the Council members convening as a body to become better informed on issues listed for Council decision. Such assemblies have been termed Agenda Forums. It is considered they are much more efficient and effective than Council members meeting employees on an individual basis for such a purpose with the added benefit that all Council members hear the same questions and answers. To protect the integrity of the decision-making process it is essential that Agenda Forums are run with strict procedures.

Managing Agenda Forums

Agenda Forums will not be convened every month but will be convened when the agenda contains large and/or complex agenda items. The Chief Executive Officer in consultation with the Shire President, or upon application by a Councillor(s), shall determine when an Agenda Forum is convened.

When convened, Agenda Forums will be held on the Monday afternoon prior to the Tuesday Ordinary Council Meetings. Preference will be for a start time of 4.00pm.

Agenda Forums will allow for questions on agenda item that are considered to be complex and may require further clarification.

As an alternative to Agenda Forums, Councillors can send an email to the Governance Coordinator to seek further information or clarification with regards to an item. When sending such an email it is requested that all Councillors be copied into the original email and will also be copied into the reply.

The Shire President shall Chair these meetings or if the Shire President is not available, then the Deputy Shire President. If either is not available the Council members present shall choose a person who shall preside over the Agenda Forum so as to ensure the guidelines as addressed in this policy are adhered to.

The Shire President or Deputy Shire President if applicable, may delegate to another Council member the opportunity to Chair one of these meetings to support Councillor learning and development, or based on their experience on a certain matter under discussion.

Agenda Forums shall not be open to the public and therefore no debate on the items shall be entered into during the Agenda Forum. There shall be no opportunity for a collective Council decision or implied decision that binds the local government. Fundamental to this decision is

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that any debate shall be held at Council meetings so as to ensure the public in attendance at a Council meeting can see and hear the decisions and debate around Council decisions.

The purpose of the Agenda Forum is to allow questions in relation to the item or to request further information from the Chief Executive Officer in relation to the item in a collective environment. Where questions are 'Taken on Notice', answers will be distributed to all Councillors prior to the Council meeting.

A Councillor may still choose to raise issues associated with the Agenda independently through the Chief Executive Officer or another Senior Officer as defined in the Shire of Collie's Code of Conduct.

A general record should be kept of the Agenda Forum noting attendance, requests for further information and interests declared. No minutes as such will be taken, nor will specific discussions, actions or outcomes be recorded, received or adopted at a later date.

Conduct at Agenda Forums

Councillors and employees shall adhere to the provisions of the *Local Government (Model Code of Conduct) Regulations 2021* and the Shire of Collie Code of Conduct for Council Members, Committee Members and Candidates, in relation to their conduct at Agenda Forums.

The forums shall run in a formal manner with all questions being directed through the Chair.

Managing Conflicts of Interest

As a matter of probity and integrity, members and employees are required to make disclosures of interest in accordance with sections 5.59 – 5.90 of the *Local Government Act 1995* (Financial and Proximity Interests) and the *Local Government (Model Code of Conduct) Regulations 2021*.

It is noted that this is above and beyond the scope of the legislation, however is required to ensure a high level of governance and transparency.

Members shall make verbal and written Disclosures of Interest to the Chief Executive Officer at Agenda Forums.

If a Member discloses a financial or proximity interest in a matter under consideration by the Group and wishes to remain and participate in the meeting, the Member may seek approval from the Chairperson and meeting to determine whether the interest is:

- Trivial or insignificant; or
- An interest in common to a significant number of electors or ratepayers.

The Member should make that request to the Chairperson at the meeting and not only disclose the nature of their interest, but also the extent of that interest.

The Member may then be asked to depart the meeting, whilst the meeting considers the request. The meeting should then be in a position to:

- determine that the Member should not participate in that part of the meeting;
- remain in the meeting and participate in discussion; or
- remain in the meeting only, but not participate in discussion on the matter.

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(Note: If the Disclosing Member is the Chairperson, such disclosure shall be made to the meeting.)

Once the meeting has made a decision concerning a request, the Chairperson shall inform the Member of the decision and the Member shall comply with the Meeting's decision.

4.4 Workshops

Background

Council Workshops are held to 'workshop' matters prior to presentation to Council. They are not to be confused with Concept or Agenda Forums.

Council Workshops may be convened on an occasional basis as a forum for information exchange and discussion between Council Members and Council employees and if appropriate, other relevant stakeholders. A Workshop provides an opportunity for employees or engaged consultants to provide a detailed presentation on specific matters/projects.

Workshops can be called by a resolution of Council, or at the request of the Shire President or the Chief Executive Officer and may be conducted as required.

Managing Workshops

The preferred scheduling of Workshops is on a Tuesday that is not prior to a Council meeting. Debating, collective decision making or revelation of one's intention on how they will vote at a future Council or Committee Meeting is not permitted. Expressing an opinion or seeking clarification on matters under discussion generally however, is appropriate and welcome.

The Shire President shall Chair these meetings or if the Shire President is not available then the Deputy Shire President. If either is not available the Council members present shall choose a person who shall preside over the Workshop so as to ensure the guidelines as addressed in this policy are adhered to.

Discussion is limited to the subject on the Workshop Agenda.

A general record should be kept of the workshop noting attendance, requests for further information and interests declared. No minutes as such will be taken, nor will specific discussions, actions or outcomes be recorded, received or adopted at a later date.

Conduct at Workshops

Councillors and employees shall adhere to the provisions of the *Local Government (Model Code of Conduct) Regulations 2021* and the Shire of Collie Code of Conduct for Council Members, Committee Members and Employees, in relation to their conduct at Workshops.

The Workshops shall run in a formal manner with all questions being directed through the Chair.

Quorum (Non-Technical):

To ensure integrity of information flow/guidance and to avoid repetition, there shall be a requirement that a minimum of four Council members are to be in attendance for a Workshop to proceed. If a non-technical quorum is unable to be achieved the forum is to lapse and may be reconvened again at another opportunity.

Managing Conflicts of Interest

As a matter of probity and integrity, members and employees are required to make disclosures of interest in accordance with sections 5.59 – 5.90 of the *Local Government Act 1995* (Financial and Proximity Interests) and the *Local Government (Model Code of Conduct) Regulations 2021*.

It is noted that this is above and beyond the scope of the legislation, however is required to ensure a high level of governance and transparency.

Members shall make verbal and written Disclosures of Interest to the Chief Executive Officer at Agenda Forums.

If a Member discloses a financial or proximity interest in a matter under consideration by the Group and wishes to remain and participate in the meeting, the Member may seek approval from the Chairperson and meeting to determine whether the interest is:

- Trivial or insignificant; or
- An interest in common to a significant number of electors or ratepayers.

The Member should make that request to the Chairperson at the meeting and not only disclose the nature of their interest, but also the extent of that interest.

The Member may then be asked to depart the meeting, whilst the meeting considers the request. The meeting should then be in a position to:

- determine that the Member should not participate in that part of the meeting;
- remain in the meeting and participate in discussion; or
- remain in the meeting only, but not participate in discussion on the matter.

(Note: If the Disclosing Member is the Chairperson, such disclosure shall be made to the meeting.)

Once the meeting has made a decision concerning a request, the Chairperson shall inform the Member of the decision and the Member shall comply with the Meeting's decision.

4.5 Attendance Records

Elected member attendance at Council Meetings and Forums of Council including Concept Forums, Agenda Forums, Workshops and Official Functions to which all Councillors are invited, will be recorded at each Ordinary Council Meeting under Attendance and Apologies and listed as Previous Attendance. Record to show all elected members names and record if they were Present, an 'Apology; had a Leave of Absence or Non-attendance' – Note, this will be an annual ongoing record to be provided in the Agenda from October to October each year.

5. REFERENCE DOCUMENTS

Local Government Operational Guidelines Number 05 – January 2004 - Council Forums.
Local Government Act 1995, Part 5, Division 6.

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Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 11.5.B

CS 1.11 Councillor Forum Meeting Procedures

CS1.11 Councillor Forum Meeting Procedures

Policy Objective

To ensure Council Forums are held in a way that is consistent with the principles of transparency and accountability. The policy also provides procedural guidance on the conduct and administration of forums.

Scope

This policy applies to all Councillor Forums.

Policy Statement

1 Purpose

The purpose of a Councillor Forum is to:

- Provide an opportunity for elected members and staff to present ideas and concepts for future consideration;
- Provide an opportunity for staff to gain input from elected members as they research matters and draft reports for presentation to Council; and
- Provide a forum for two-way communication between elected members and key staff members on important Council and public interest related matters.

More specifically, the forums will allow:

Concept Consideration
This involves Councillors and Shire staff meeting to discuss and explore ideas, strategies and concepts relating to the business of local government. Examples of the types of matters that might be canvassed are:

- Current matters of a local or regional significance
- Matters relating to the future development of the Shire
- Emerging changes to the local government sector and implications for the Shire
- Cross-agency matters

Agenda Considerations
These are opportunities for the Chief Executive Officer and Shire staff to brief Councillors on upcoming agenda items for formal meetings.

Public Interest Considerations
The Council may address matters whereby members of the public can hear information about a particular issue.

2 Principles

Councillor Forums operate under the following principles:

1. Debate does not occur at a Councillor Forum.
2. Decisions will not be made at a Councillor Forum.
3. Councillors and officers will be required to adhere to the same Codes of Conduct that apply to Elected Members and officers.

3 Forum Conduct and Administration

The objectives of this policy will be met through the observance of the following arrangements:

1. The meeting is chaired by the Shire President, Deputy Shire President, or in absence of both, an Elected Member.
2. All questions from Councillors are directed through the Chair.
3. The Chair may, at his or her discretion, allow questions from the public.
4. Members of the public do not have the right to speak unless invited to do so by the Chair.
5. Presentations may be received from any party on a matter relevant to Council as determined by the Chair.

The Shire President or Deputy Shire President, in collaboration with the Chief Executive Officer will/may:

1. determine the meeting agenda;
2. vacate the meeting where there are insufficient matters to warrant a meeting; and/or
6. call an urgent meeting when matters warrant such.

Public notice of a quarterly Councillor Forum will be given on the Shire's website with the same notice period as required for Ordinary Meetings of Council. Urgent meetings do not require prior notice.

Attendees include all Elected Members and staff as determined appropriate by the Chief Executive Officer. Members of the public may attend except where the Chair determines it necessary or appropriate to discuss a matter behind closed doors. This may include matters affecting an employee, personal affairs of any person, contracts, legal advice or other.

If, at a forum, the Chair is of the opinion that by reason of disorder or otherwise the business of the forum cannot effectively continue, the Chair may adjourn the forum to a time and date to be set.

As no decisions are made at forums, only a general record of items are documented, along with attendance and any interests declared. Records of meetings will be published on the Shire website.

4 Declaration of Interest

All Elected Members and officers in attendance are to disclose any financial and conflicts of interest in relation to matters to be discussed. Those who have a financial interest will not participate in that part of the forum. There is no opportunity for a person with a financial interest to remain in the meeting room when the relevant matter is discussed.

Policy adoption and review

Council meeting held: **12 March 2024**

Adopted by Minute No: **9376**

Date to be reviewed: **August 2024**

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 11.6.A

Annual Electors Meeting 8 July 2025 Minutes

Shire of Collie

MINUTES

of the

ANNUAL GENERAL MEETING OF ELECTORS

held on

Tuesday 8 July 2025

Contents

1. OPENING, WELCOME AND INTRODUCTION....2
2. ATTENDANCE AND APOLOGIES....2
3. 2023/24 ANNUAL REPORT....2
4. GENERAL BUSINESS....3
5. CLOSE OF MEETING....3

The Shire of Collie acknowledges the Traditional Custodians of the land, the Wiilman and Kaniyang people of the Noongar Nation, and pays our respects to Elders, past, present and emerging. We thank them for the contributions they have made to life in the Shire of Collie and to this region.

Minutes of the Annual General Meeting of Electors held in the Council Chambers on Tuesday 8 July 2025.

1. OPENING, WELCOME AND INTRODUCTION

The Shire President, Cr Ian Miffling, declared the meeting open at 6.01pm and welcomed members of the public, elected members and staff.

2. ATTENDANCE AND APOLOGIES

COUNCILLORS:	Ian Miffling OAM JP	Councillor (Presiding Member)
	Joe Italiano	Councillor (Deputy Member)
	John Kearney	Councillor
	Michelle Smith	Councillor
	Dale Hill-Power JP	Councillor
	Paul Moyses	Councillor
	Gary Faries	Councillor
	Brett Hansen	Councillor
	Shane Sadlier	Councillor
STAFF:	Phil Anastasakis	Chief Executive Officer
	Alex Wiese	Director Development Services
	Nicole Wasmann	Governance Coordinator
ELECTORS:	there were 5 members of the public	
PRESS:	there was 1 member of the press	
APOLOGIES:	Leonie Burton	Councillor

3. 2023/24 ANNUAL REPORT

Section 5.27 (3) of the *Local Government Act* 1995, and Regulation 15 of the *Local Government (Administration) Regulations 1996* identify that the matters to be discussed at the General Electors' Meeting are, firstly, the contents of the annual report for the previous financial year and then any other general business.

The Report has been prepared in accordance with statutory requirements and includes a report from the Shire President and Chief Executive Officer, the financial report for the financial year ending 30 June 2024, the auditor's report for the financial year, and other prescribed information.

The 2023/24 Annual Report has been made available on the Shire's website and from the Shire Office and the Collie Public Library. The availability of the Annual Report has been publicly advertised with the notice of this meeting.

Copies of the 2023/24 Annual Report were made available at the meeting.

The Shire President invited questions in relation to the Annual Report.

Motion:

Moved: *Tom Reardon* ***Seconded: Cr Smith***

That the General Meeting of Electors receives the 2023/24 Annual Report for the Shire of Collie.

CARRIED UNANIMOUSLY

4. GENERAL BUSINESS

4.1 Pedestrian Safety – Coalfields Road

Concern was raised about the safety of pedestrians crossing Throssell Street at the designated children's crossing. It was noted that there are a large number of road trains using this road and that many drivers forget that it is a 40km speed zone. It was suggested that flashing 40km per hour signs would be beneficial, especially during foggy mornings when it is difficult to see the flags of the traffic warden. Comment was made that Main Roads had indicated that the road was not eligible for the flashing 40km hour school signs, as the road was designated 40km hour at all times, and that discussions should be held with WA Police with regards to traffic speed enforcement.

Councillors advised that the pedestrian safety and traffic speed on Throssell Street had been raised with Main Roads previously and that they would continue to pursue options for improved signage and pedestrian safety.

5. CLOSE OF MEETING

Cr Ian Miffling thanked all for attending and declared the meeting closed at 6:16 pm.

Shire of

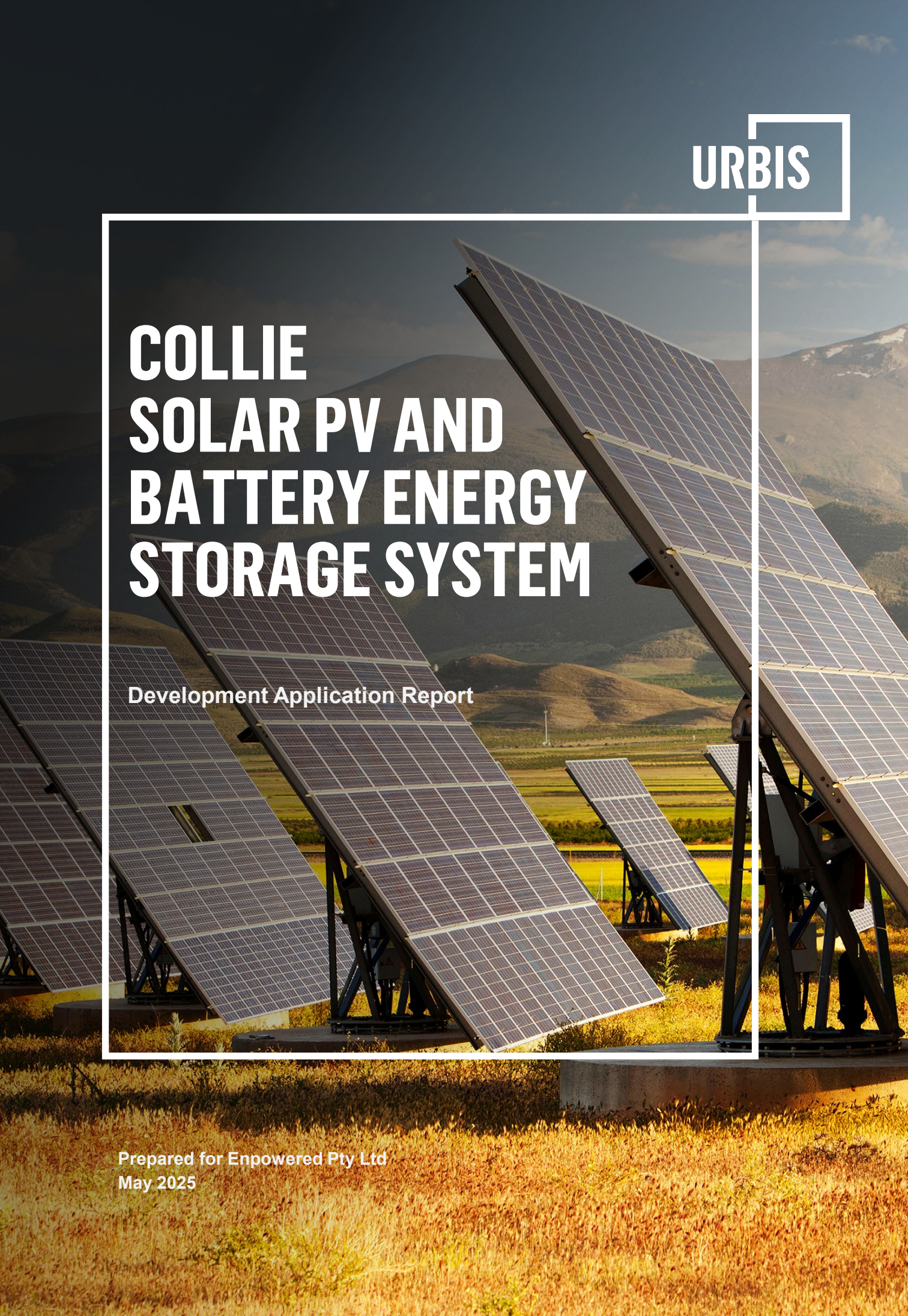
Collie

Ordinary Council Meeting
12 August 2025

Appendix 13.1.A

DAP Application - Battery Energy Storage System (BESS), No.4997 Collie-Williams Road, Collie

Development Application Package and Report



URBIS

COLLIE SOLAR PV AND BATTERY ENERGY STORAGE SYSTEM

Development Application Report

Prepared for Enpowered Pty Ltd
May 2025

PROJECT TEAM

ENPOWERED part of HESPERIA	URBIS	emerge ASSOCIATES
MOTT MACDONALD	LLOYD GEORGE Acoustics	SHAWMAC
archae-aus		

Urbis staff responsible for this report were:

Director	Karen Wright
Associate Director	Emma Dunning
Senior Consultant	Farida Farrag

Project code	P0058114
Report number	FINAL FOR LODGEMENT

This report is dated **21 May 2025** and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd's (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of **Enpowered Pty Ltd** (Instructing Party) for the purpose of a **Development Application** (Purpose) and not for any other purpose or use. Urbis expressly disclaims any liability to the Instructing Party who relies or purports to rely on this report for any purpose other than the Purpose and to any party other than the Instructing Party who relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events including wars, civil unrest, economic disruption, financial market disruption, business cycles, industrial disputes, labour difficulties, political action and changes of government or law, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or made in relation to or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

Urbis has made all reasonable inquiries that it believes is necessary in preparing this report, but it cannot be certain that all information material to the preparation of this report has been provided to it as there may be information that is not publicly available at the time of its inquiry.

In preparing this report, Urbis may rely on or refer to documents in a language other than English which Urbis will procure the translation of into English. Urbis is not responsible for the accuracy or completeness of such translations and to the extent that the inaccurate or incomplete translation of any document results in any statement or opinion made in this report being inaccurate or incomplete, Urbis expressly disclaims any liability for that inaccuracy or incompleteness.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading bearing in mind the necessary limitations noted in the previous paragraphs. Further, no responsibility is accepted by Urbis or any of its officers or employees for any errors, including errors in data which is either supplied by the Instructing Party, supplied by a third party to Urbis, or which Urbis is required to estimate, or omissions howsoever arising in the preparation of this report, provided that this will not absolve Urbis from liability arising from an opinion expressed recklessly or in bad faith.

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You must read the important disclaimer appearing within the body of this report.



ACKNOWLEDGEMENT OF COUNTRY

Urbis acknowledges the Traditional Custodians of the lands we operate on.

We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years.

We pay our respects to First Nations Elders, past and present.

The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

Title: Sacred River Dreaming
Artist: Hayley Pigram
Darug Nation
Sydney, NSW

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Appendix B Application Forms

Appendix C Development Plans

Appendix D Sustainability Statement

Appendix E Traffic Impact Assessment

Appendix F Environmental Noise Assessment

Appendix G Environmental Assessment and Management Plan (including Visual Impact)

Appendix H Bushfire Management Plan

Appendix I Water Management Plan

Appendix J Aboriginal Heritage Due Diligence

LIST OF ABBREVIATIONS

TERM	DESCRIPTION
ACH	Aboriginal Cultural Heritage
AEP	Annual Exceedance Probability
AHA	*Aboriginal Heritage Act 1972*
ATU	Aerobic Treatment Unit
BAL	Bushfire Attack Levels
BC ACT	*Biodiversity Conservation Act 2016*
BESS	Battery Energy Storage System
BMP	Bushfire Management Plan
CFA GUIDELINES	*CFA Design Guidelines and Model Requirements: Renewable Energy Facilities*
EAMS	Environmental Assessment and Management Strategy
EP ACT	*Environmental Protection Act 1986*
EPA	Environmental Protection Authority
EPBC ACT	*Environmental Protection and Biodiversity Act 1999*
GKBAC	Gnaala Karla Booja Aboriginal Corporation
GSP	Government Sewerage Policy
HDD	Horizontal Directional Drilling
KV	Kilovolt
LPP	Local Planning Policy
LPS	Shire of Collie Local Planning Scheme No.6
MRWA	Main Roads Western Australia
MW	Megawatt
OEM	Original Equipment Manufacturer
P&D ACT	*Planning and Development Act 2005*
PEC	Priority Ecological Communities
PV	Photovoltaic
SPP	State Planning Policy
SSD	Safe Sight Distance
SWIS	South West Interconnected System
TEC	Threatened Ecological Communities
TIS	Transport Impact Statement
VPH	Vehicular Trips During Peak Hours
WA	Western Australia
WAPC	Western Australian Planning Commission
WSD	Water Sensitive Design
XLPE	Cross-Linked Polyethylene

FOREWORD

As the global shift towards renewable energy accelerates, we are pleased to present this development application for a new Solar PV and Battery Energy Storage System (BESS) in the Shire of Collie.

The Western Australian State Government has set bold targets to transition to renewable energy sources, reduce carbon emissions and ensure energy security. The Shire of Collie, with its rich history in energy production, existing infrastructure and centrality to the south-west electricity grid, is uniquely positioned to lead this transition.

With the planned retirement of WA's state-owned coal-fired power stations by 2030, Collie is transitioning from its dependence on coal and coal-fired power generation, supported by the State Government through the Collie Just Transition Plan. This creates a need and opportunity for new generation from renewable sources to be developed, such as our Solar PV and BESS Project.

Enpowered, part of leading Western Australian developer Hesperia, is developing renewable energy projects to aid Western Australia's transition to renewables and support Hesperia's goal of 100% renewable energy in its developments. Our Solar PV and BESS Project will play an important role in the Shire of Collie's economy and Western Australia's renewable energy future by providing a source of firmed renewable energy to households and industry.

Through reduced emissions, improved security of energy supply, and contribution to economic transition in the region, this project supports both immediate and long-term outcomes for the Shire of Collie and Western Australia's decarbonisation ambitions.

We look forward to working closely with the Shire of Collie and key stakeholders to realise this vision and contribute to the State's renewable future.

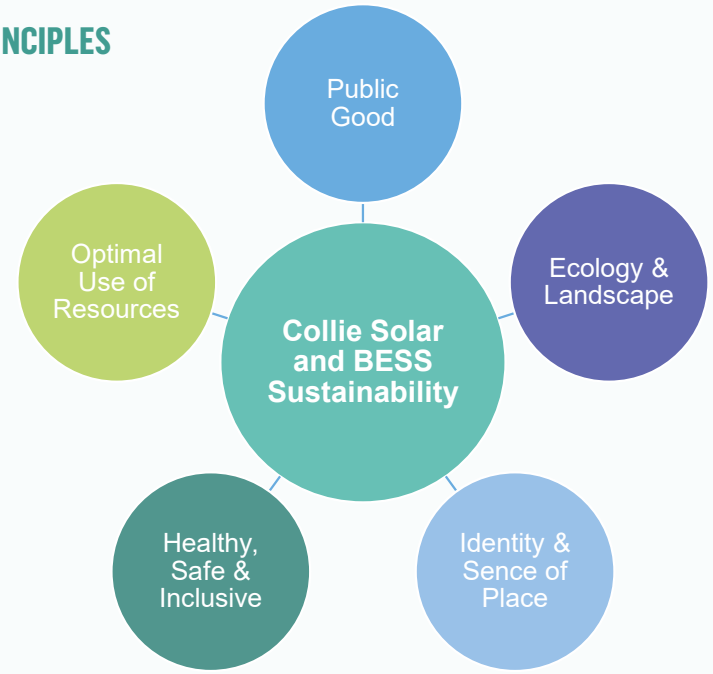
ENPOWERED
part of HESPERIA



SUSTAINABILITY

As part of Hesperia, Enpowered's operations and project delivery for the Collie Solar and BESS Project are guided by key Sustainability Principles and Objectives. The key sustainability drivers for the project are identified below and further detailed in the Sustainability Statement at **Appendix D**.

SUSTAINABILITY PRINCIPLES



SUSTAINABILITY OBJECTIVES

Net Zero Upfront Carbon (Construction)
Minimum 20% emission reduction and 100% carbon offsets.

Biodiversity
Ecology led approach minimising clearances and supporting revegetation

Reconciliation
Engagement with Traditional Owners and involvement of local Aboriginal people

Appropriate Land Use
Balancing rural/agricultural uses with renewable energy infrastructure

Circular Economy
Reduction and Reuse of materials, minimum of 90% diversion from landfill

Climate Change Adaptation
Climate change risk pre-screening assessments and Climate Change Adaption plans

Responsible Procurement
AS ISO 20400 aligned processes and ethical supply chains

Third Party Review
Review against relevant Infrastructure Sustainability Tools with associated certification

01
INTRODUCTION



1.0 INTRODUCTION

Urbis, on behalf of Enpowered Pty Ltd (Enpowered), a subsidiary company of Hesperia Property Pty Ltd, is pleased to submit this development application to the Shire of Collie for a '**Renewable Energy Facility**' as an '**A**' use within the 'Rural' Zone. This application seeks approval for the development of a Solar Photovoltaic (PV) Farm and Battery Energy Storage System (BESS) and transmission cable, located at Lots 100, 102, 787 and 788 Collie-Williams Road, Collie and unconstructed road reserves (**subject site**).

This application is made pursuant to the Development Assessment Panel Pathway under Part 11A of the *Planning and Development Act 2005* and we elect that it is determined by the Regional Development Assessment Panel.

The planning assessment contained within this report determines that the proposed development is consistent with the principles of orderly and proper planning and has regard to the development requirements and anticipated outcomes for the site, thereby reflecting an appropriate and desired development outcome.

The application outlines the merit for the proposal and specifically presents:

- A contextual description of the site including its immediate, local and broader context.
- A detailed description of the development proposal, including the construction, operation, and staging details.
- A description of the key technical elements of the proposal and compliance with variance standards including water management, traffic impact, acoustics, environmental assessments and bushfire management and aboriginal cultural impact considerations.
- An assessment of the development proposal against relevant State, regional and local planning frameworks.

The application is supported by the following technical reports:

- Sustainability Statement
- Traffic Impact Assessment
- Environmental Noise Assessment
- Environmental Assessment and Management Plan (including Visual Impact)
- Bushfire Management Plan
- Water Management Plan
- Aboriginal Heritage Due Diligence

We look forward to continuing to work with the Shire of Collie and relevant stakeholders to successfully deliver this proposal.



1.1 PRE-LODGEMENT ENGAGEMENT

Enpowered and the project team has undertaken a range of lodgement engagement with key stakeholders in the site selection and design process, as well as through the preparation of the Development Application and supporting technical documentation.

A summary of the key engagement streams is set out below. It is anticipated this will support the formal advertising period as part of the Development Application process.

FORMAL ENGAGEMENT

Shire of Collie

Enpowered and the project team have engaged with the relevant Shire of Collie officers on a number of matters in relation to the proposal including:

- Initial discussions relating to the proposed use and site identification
- Pre lodgement meeting to provide and outline of the proposal and determine specific development application requirements
- On site meeting with Shire of Collie Planning and Technical officers (Bushfire/Landscape)
- Liaison with Planning officers to confirm signatories for Development Application forms

State Government Departments

Liaison with DPLH, Lands division to determine signatories for Development Application forms. Additional engagement has occurred throughout the preparation of the technical reporting including liaison with:

- Department of Fire and Emergency Services
- Department of Biodiversity, Conservation and Attractions
- Department of Water and Environmental Regulation

INFORMAL ENGAGEMENT

Adjacent Landowners

Preliminary discussions and letter drops have been undertaken to inform adjacent landowners of the proposal and provide initial information ahead of the lodgement of the development application.

Traditional Owners (Elders)

Consultation between Enpowered and the local Traditional Owners Elders in relation to the site and proposal is ongoing and is held outside of the planning process.

TECHNICAL ENGAGEMENT

Western Power

Enpowered has submitted a grid application with Western Power and is progressing through the grid connection process, on the basis of a connection to Palmer Terminal.

Battery and Solar Original Equipment Manufacturers (OEM)

Enpowered has developed the layout and design in consultation with the prospective OEMs and consideration to the equipment specifications required.

02
SITE DETAILS



2.0 SITE DETAILS

2.1 REGIONAL CONTEXT

The subject site is in the Shire of Collie, situated approximately 200 kilometres south of the Perth Metropolitan Region.

The Shire is undergoing a significant transformation from a coal-dependent economy to a renewable energy hub and is emerging as a focal point for large scale solar and BESS projects. The Synergy Collie BESS and Neoen Collie BESS are located within 5km of the subject site and feed into the South West Interconnected System.

This shift is providing opportunities for economic diversification, including the creation of new jobs and investment aligned with clean energy industries.

2.2 LOCAL CONTEXT

The subject site is located in Palmer, approximately 14 kilometres northeast of the Collie townsite (refer to **Figure 1**).

It is strategically positioned amongst a diverse mix of rural, industrial, and energy-related land uses, reflecting the area's evolving economic base.

Immediately to the west lies the Harris River State Forest, a significant natural asset that contributes to the environmental value and rural character of the locality. This serves as a buffer between the site and other land uses.

The site benefits from its proximity to key energy infrastructure, including high-voltage transmission lines and energy storage facilities. Its location allows for potential seamless integration with the electricity grid, positioning the site as a strong candidate for future energy and infrastructure-related development.

The local community and broader Collie region are demonstrating increasing support for renewable energy initiatives, particularly as the area transitions from its historical reliance on coal-fired power generation.

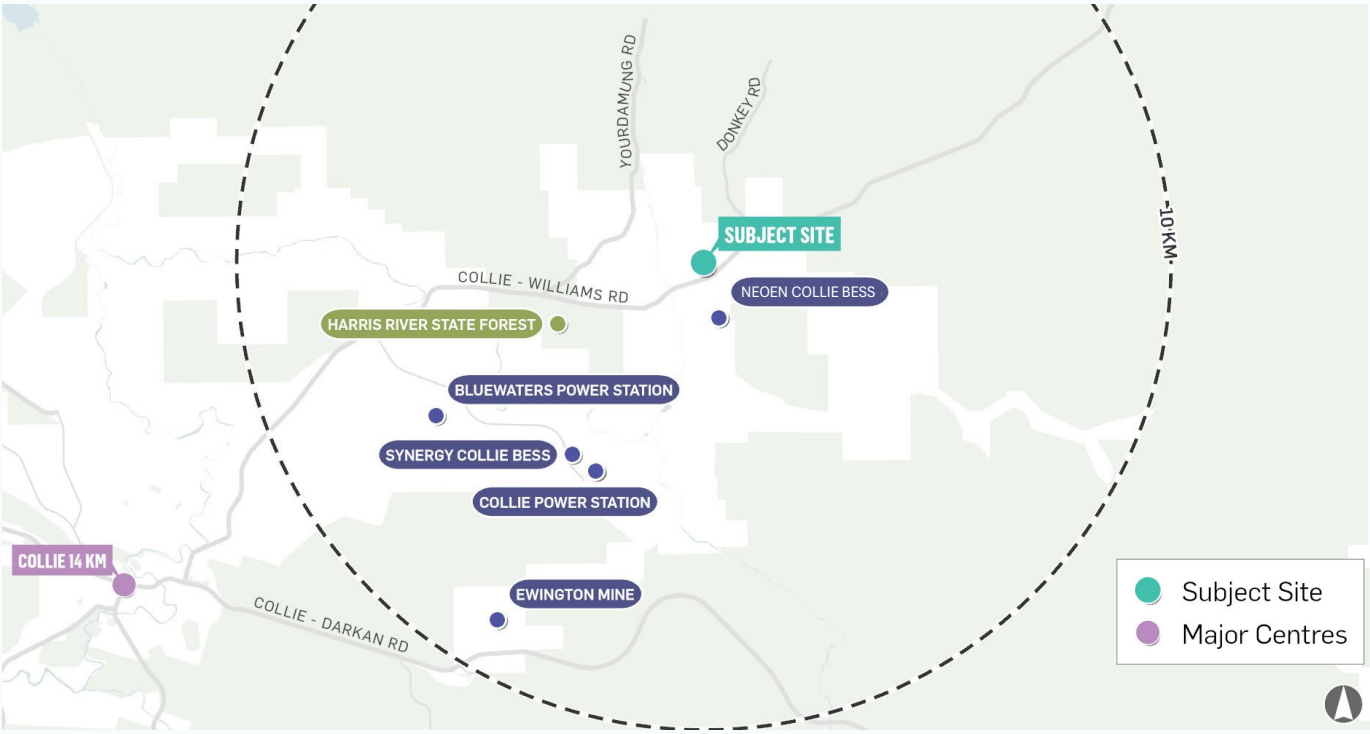


Figure 1 Local Context Plan

2.0 SITE DETAILS

2.3 LOT DETAILS

The proposal sits across four lots along Collie-Williams Road, Palmer and three unconstructed road reserves. Parallel to the lodgement of the development application a new deposited plan was lodged/executed over the site. The administrative update to the lot numbers has been reflected in the tables below. *For the purposes of the supporting technical reports the lots referenced as 785 and 786 are reflective of lots 100 and 102 detailed below.*

A summary of the subject site is provided in **Table 1** below. Refer to the cadastral map at **Figure 2**.

Table 1 Lot and Road Reserve Details

Lot	Plan	Vol	Folio	Street Address	Area (ha)	Proprietor
100*	426501	4073	655	4997 Collie-Williams Road, Palmer	119.5225	Semlot Nominees Pty Ltd
102**	426501	4073	655	4996 Collie-Williams Road, Palmer	39.6494	Semlot Nominees Pty Ltd
787	232871	2684	117	-	40.5117	Semlot Nominees Pty Ltd
788	232871	2101	12	-	40.6097	Semlot Nominees Pty Ltd

Road Reserve Land ID	Street Address	Area (ha)	Proprietor
Land ID 3539122	Unnamed unconstructed road	0.6191	State of WA
Land ID 3539123	Unnamed unconstructed road	3.1728	State of WA
Land ID 3539119	Unnamed unconstructed road	3.1543	State of WA

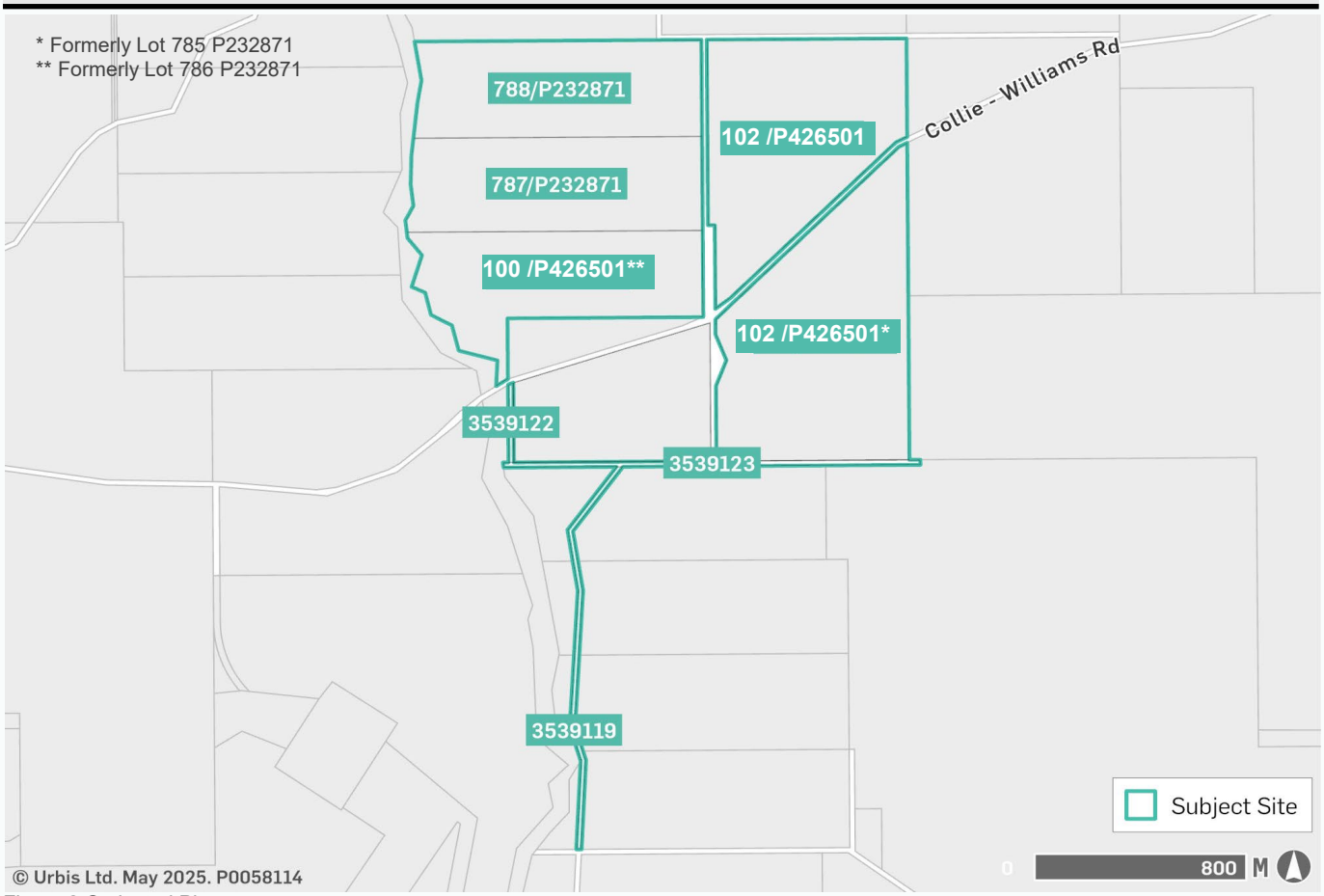


Figure 2 Cadastral Plan

2.0 SITE DETAILS

2.4 SITE DESCRIPTION

The subject site spans approximately 280ha, straddling both the northern and southern sides of Collie-Williams Road, with the project footprint being a smaller area within the site. It is situated within a predominantly rural setting and forms part of the Shire of Collie. The site is bounded by rural properties to the east and west, and State Forest to the north (refer **Figure 3**).

Collie-Williams Road is the primary access point to the site and is managed by the Main Roads WA. The road has recently undergone clearing works to improve sightlines and safety.

The surrounding landscape is dominated by a juxtaposition of agricultural land uses and extensive native vegetation. The site itself largely consists of cleared agricultural land, however, also supports ecologically significant remnant eucalypt woodlands. This vegetation provides habitat for native fauna and contributes to regional biodiversity and environmental resilience.

Adjoining properties are primarily used for mixed farming and grazing, consistent with the area's rural zoning and land use planning framework. The broader locality includes energy infrastructure developments, such as the nearby Collie Battery Energy Storage System, positioning the site in proximity to key renewable energy projects and existing high-voltage transmission lines.

Overall, the site presents a strategic opportunity for rural development and infrastructure investment, given its scale, landscape character, ecological features, proximity to existing power infrastructure and established road

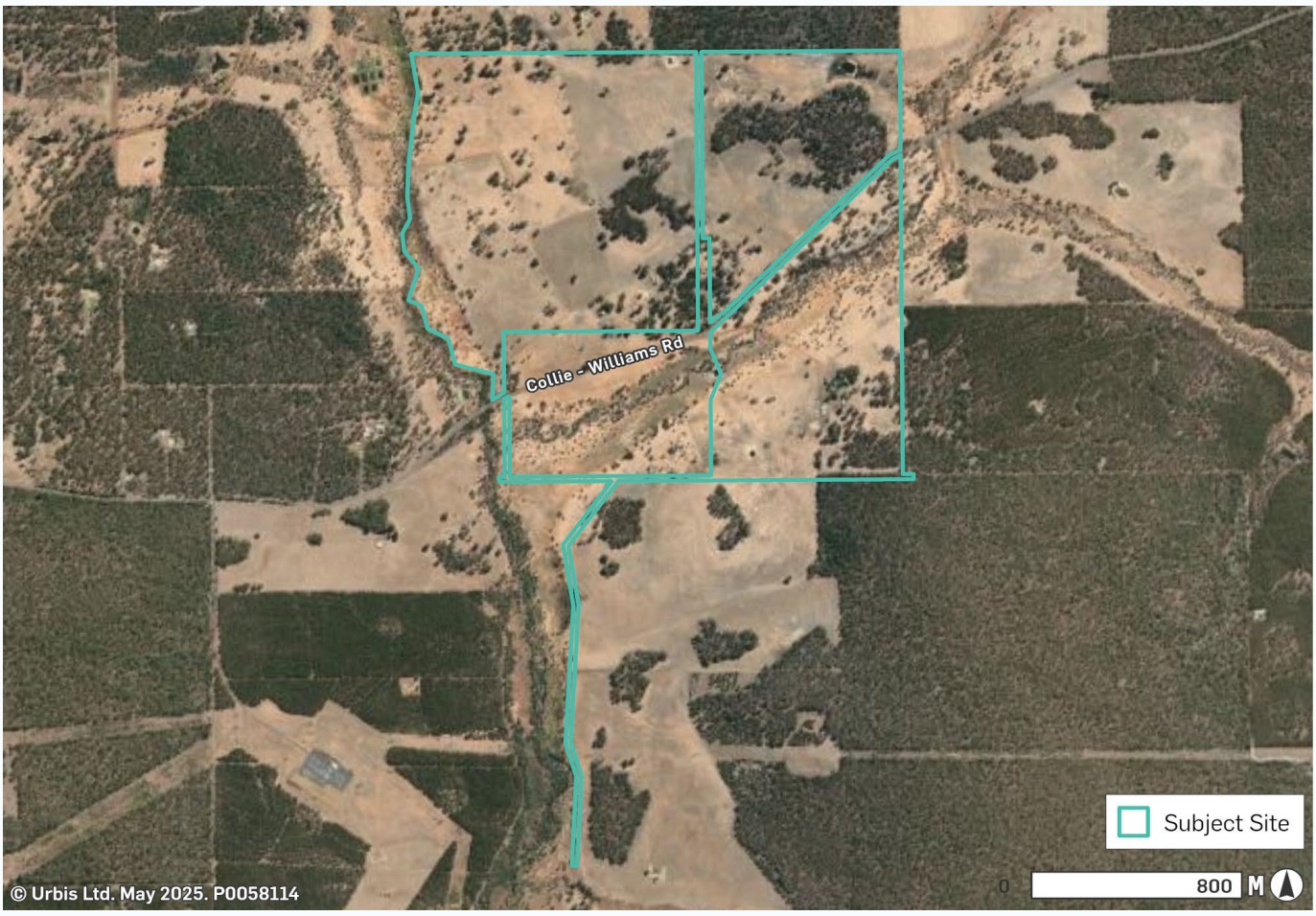


Figure 3 Aerial Plan

03
PROPOSED DEVELOPMENT



3.0 PROPOSED DEVELOPMENT

3.1 DEVELOPMENT OVERVIEW

The detailed layout of the proposed BESS and Solar PV facility and associated infrastructure is illustrated in **Appendix C** with the site layout concept included in **Figure 4.**

It is highlighted that this layout may be subject to minor refinement through the detailed design process and development of the site. Notwithstanding, the principles for the location and operation will remain as per this development application (i.e. setbacks from roads, sensitive receptors and environmental constraints and operating capacity).

In summary, the following assets are proposed for development approval through this application:

- 200MW BESS Facility
- Up to 66MW AC Solar Farm
- 330kV Underground Transmission Cable
- Facility Collector Substation
- Control Systems
- Water Storage Tanks
- Internal access roads/tracks/fencing
- Cabling
- Operations and Facilities Space

BESS Facility

The BESS facility can deliver 200MW of capacity into the Southwest Interconnected System (SWIS) at the point of connection. The BESS is comprised of skid-mounted power conversion units and battery cells housed in shipping containers.

The general arrangement of the BESS has been designed to address constructability, maintainability, operability, fire separation, sensitive receptors and environmental constraints.

The facility is proposed to be secured with a fence of 3m in height above ground for security purposes. The fence will consist of minimum 2.4m of weld mesh, with remaining 0.6m consisting of barbed wire at the top of the fence.

Facility Collector Substation

A collector substation will be integrated into the BESS facility. The facility will feature two 330/33kV power transformers with associated switchgear, a control building, and multiple 33kV switch rooms designated for the PV and BESS systems. An evaporation pond has been provisioned to accommodate transformer oil collection in the event of any system failures.

Solar Farm

The proposed Solar Farm will have a capacity of up to 66MW.

The solar farm will use bifacial single-axis tracking technology. The tracker configuration selected is a one-in-portrait system with a north-south single axis, rotating in a west-east direction with a turning angle range of 60˚ in each direction.

At the maximum tilt of 60˚, the array achieves a ground clearance ranging from 0.77m to 2.85m, which allows for sheep grazing in the vicinity of the solar panels.

Transmission Cable

A 330kV underground cable system is proposed to establish a connection between the Enpowered Facility collector substation and the Western Power Palmer Terminal, currently under construction. The cable, with an approximate length of 2km, will be direct-buried within an easement located within existing road reserves (20m width).

This system will utilise three single-core XLPE (cross-linked polyethylene) aluminum cables. Horizontal directional drilling (HDD) techniques are proposed to be employed to traverse roads and creeks. The cables will be enclosed in conduits for additional protection. There will also be a separate communication and earthing cable installed in a conduit, transversing the full length of the line route.

3.0 PROPOSED DEVELOPMENT

Site Layout Concept

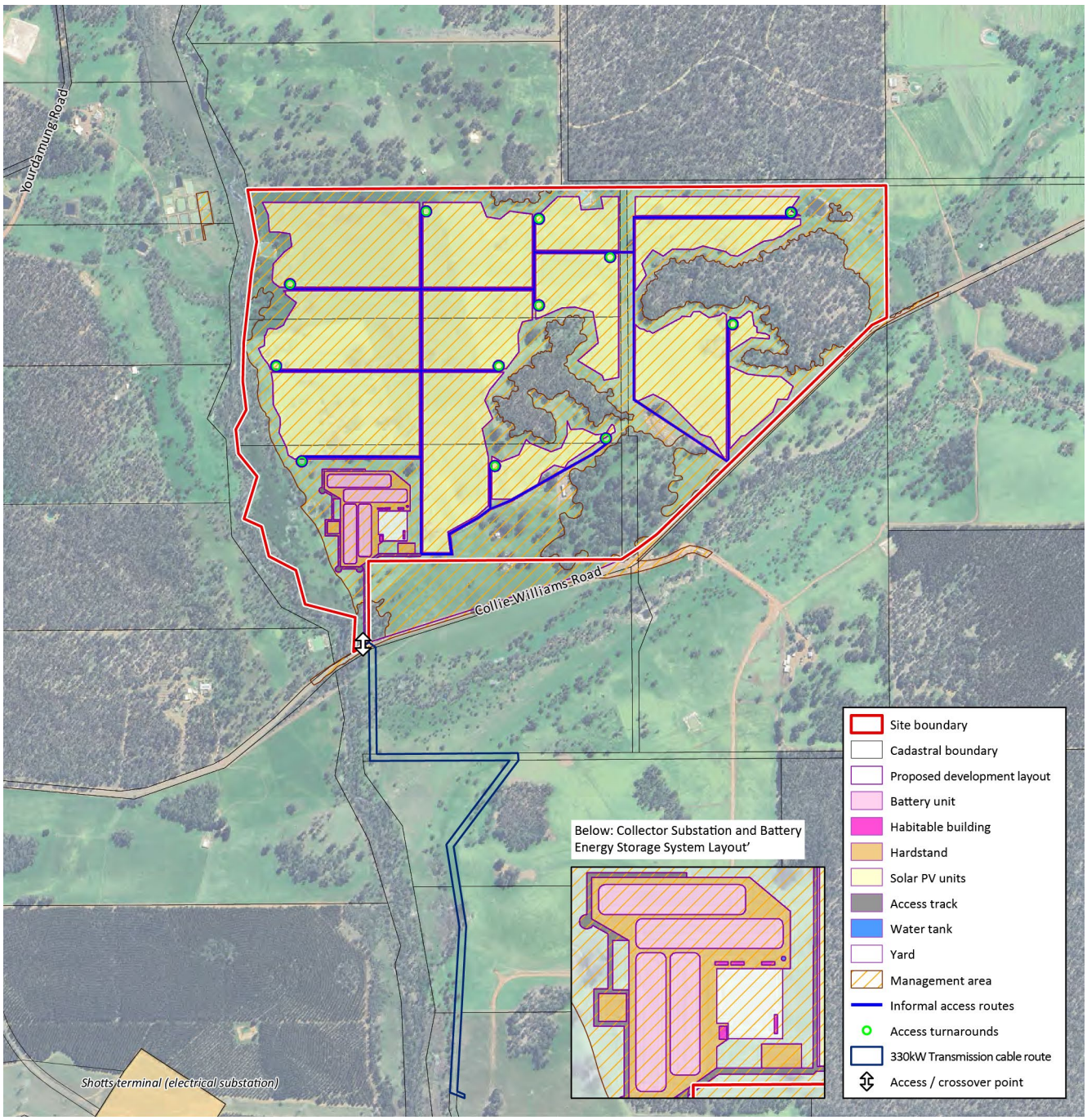


Figure 4 Site Layout Concept

Source: Emerge Associates

3.2 CONSTRUCTION PHASE

The construction phase for a Solar PV and BESS project is the highest intensity phase resulting from the mobilisation requirements in getting the materials and equipment to site and assembled. To allow for a streamlined process, construction of the Collie Solar and BESS Project is to be undertaken across the following phases:

Preliminaries (est. 12 months)

Site Preparation / Establishment / Long Lead Items

Works required to establish the site, undertaken in parallel with the initial works associated with the 330kV Transmission Cable. Also includes ordering of long lead items.

Construction (est. 12 months)

330kV Transmission Cable

Construction of the trench and horizontal directional drilling to traverse roads and water bodies from the primary BESS site through the identified road reserves to facilitate the laying of the transmission power cables and associated conduit.

Facility Collector Substation

Installation of the power transformers. These are to be transported to the collector substation location and craned into place.

Solar and BESS

These works include the delivery of equipment and components to site and the establishment and construction of the solar array and containerised BESS units onsite.

Facility Testing & Commissioning (est. 4 months)

Testing and Commissioning

Testing and commissioning of the facility to Western Power and Australian Energy Market Operator requirements.

3.3 OPERATIONAL PHASE

When operational, the solar and BESS project is a low intensity use. The facility will be continuously monitored through a combination of remote and on-site operators. Inspections combined with planned maintenance will be implemented to achieve high operational availability and efficiency. Inspection and maintenance will generally be undertaken at the following intervals (subject to final OEM recommendations):

330kV Transmission Cable

- Inspections: Monthly
- Maintenance: As required (determined via online condition monitoring)

Facility Collector Substation

- Inspections: Monthly
- Routine Maintenance: 6 yearly

Solar and BESS

- Inspections: Monthly
- PV Cleaning: 6 monthly
- Routine Maintenance: 6 yearly

3.4 PROJECT STAGING

The following provides indicative staging and timeframes associated with the construction and operation of the Collie Solar and BESS. Commercial considerations may bring forward the commencement of operations from the indicative timeframe below.

3.5 WORKFORCE ACCOMMODATION

Estimated peak workforce is in the order of 50-100 people, with this declining during the testing and commissioning stages. Workforce accommodation will focus initially on existing townsite and specialised workforce accommodation with the potential to approach the Shire to establish temporary on-site accommodation if required.



3.0 PROPOSED DEVELOPMENT

3.6 SITE & VEHICLE ACCESS

Access to the site is to be obtained via a crossover to Collie Williams Road. This crossover / access road follows the general alignment of the 330kV transmission line to allow for consolidated civils and minimisation of works in proximity to the Collie River tributary/Bingham River. The proposed access location and road provides direct access to the proposed laydown areas, BESS site and the wider solar array area. There are no formal access routes proposed through the solar arrays on the subject site.

As detailed in the Transport Impact Statement (summary in section 4.2 and attached at **Appendix E**) the sightlines and traffic volumes associated with Collie Williams Road ensure that the proposed access location meets the Safe Intersection Sight Distance and Stopping Site Distance requirements in both directions.

As Collie Williams Road is a Primary Distributor Road under the care and control of MRWA, the crossover will be constructed to MRWA requirements to facilitate RAV4 access (consistent with the RAV classification of Collie Williams Road) to the site as required during the construction phase. Swept path analysis confirms the anticipated vehicle types can enter and exit the site in both directions, and in forward gear.

It is acknowledged that RAV access to the site is restricted during the hours in which the school bus operations on Collie Williams Road, Williams Road, Palmer Road and Paul Road (being the route for vehicles to access Coalfields Road) as conditioned by MRWA. A construction traffic management plan will be prepared to manage heavy vehicle trips to address this restriction.

04
TECHNICAL CONSIDERATIONS



4.0 TECHNICAL CONSIDERATIONS

4.1 TRAFFIC, ACCESS & SERVICING MANAGEMENT

Prepared by Shawmac, Appendix E.

A Transport Impact Statement (TIS) has been prepared by Shawmac in accordance with the WAPC *Transport Impact Assessment Guidelines Volume 4 – Individual Developments*. The TIS assesses the impact of the proposal on the adjacent transport network, with a detailed focus on the vehicle access and traffic volumes associated with both the construction and operational phases of the proposed development.

The TIS confirms the following:

- According to WAPC guidelines, developments generating between 10-100 vehicular trips during peak hours (vph) are considered to have a low to moderate impact and can be suitably accommodated within the existing capacity of Collie Williams Road.
    - Construction Phase: The proposal is estimated to generate 39 to 41 vph and is considered to have a moderate impact and can be accommodated within the existing capacity of the road network.
    - Operational Phase: Less than 10 vehicles during any peak hour. The development traffic is considered to have a low impact and can be accommodated within the existing capacity of the road network.
- The proposed vehicle access point along Collie-Williams Roads can achieve SISD and SSD.
- Swept path analysis confirms the anticipated vehicle size can enter and exit the site via the proposed access in forward gear.
- Vehicle Access will be designed and constructed to MRWA requirements for a RAV4 network. The movement of RAV vehicles during the construction phase to and from the site will be required to have regard to the access condition imposed by MRWA for Collie Williams Road during the operational hours of the school bus.

The TIS confirms the ability for the proposal to meet the required standards under the WAPC guidance and MRWA standards. It is acknowledged that a construction traffic management plan will be required prior to the commencement of construction.

4.2 ENVIRONMENTAL NOISE ASSESSMENT

Prepared by Lloyd George Acoustics, Appendix F.

An environmental noise assessment has been prepared by Lloyd George Acoustics with regard to the potential noise impacts of the proposed operations on the surrounding sensitive receptors.

The noise assessment has considered the emissions from the BESS containers, Power Conversion Systems (PCS), solar photovoltaic inverters and high voltage substations. Specifically, noise is attributed to the HVAC and fans associated with cooling the equipment. Fan speeds of 100% are considered for the PCS during daytime operations (most likely during extreme heat and load conditions). Maximum run-speeds of 80% are considered for the PCS and BESS during the evening and 50% run-speeds considered during the night.

The noise assessment has identified 8 sensitive receptors (residential dwellings) in proximity to the subject site.

The reporting identifies that compliance is achieved by implementing the operating levels of 80% during the evening and 50% during the night (as detailed in the full report in **Appendix F**). These operating levels are confirmed to be consistent with the operational capacity and expectations of the proposed development.

4.3 ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLAN

Prepared by Emerge Associates, Appendix G.

An Environmental Assessment and Management Plan (EAMP) has been prepared by Emerge Associates in order to provide a consolidated consideration of the environmental factors associated with the subject site, and to guide the response to, and management of these within the development application. The EAMP determines that all potential impacts can be appropriately managed throughout the construction and operational phases of the proposal.

The design layout of the proposal has been undertaken having consideration to the key findings of the EAMP (in particular flora, fauna, water and bushfire) to ensure the development footprint has the potential for minimal disruption of the identified environmental constraints.

Key management strategies to ensure the development meets the environmental requirements include:

- Preparation of a Construction Environmental Management Plan (CEMP) as part of engineering design to mitigate the risk of soil erosion and impacts on retained native vegetation.
- Preparation of a Fauna Management Plan to outline key fauna management strategies for the development.
- Consistency with the hydrological outcomes set out in the Water Management Plan (detailed in section 4.8).
- Compliance with the “acceptable solutions” as set out in the Bushfire Management Plan (detailed in section 4.7).
- Consideration of additional vegetative screening to Collie Williams Road.
- Obtaining EPBC referrals / permits where applicable

Summaries of the key environmental considerations (flora and fauna, visual impact, water management and bushfire management) are outlined in the following sections of this report.

4.4 FLORA AND VEGETATION ASSESSMENT

Prepared by Emerge Associates, Appendix G.

A Flora and Vegetation Assessment has been prepared by Emerge Associates to characterise the vegetation across the survey area and determine the likelihood of occurrence of threatened and priority flora or ecological communities.

The outcomes of the assessment are summarised as follows:

- A total of 41 native and 21 non-native flora species were recorded.
- No threatened or priority flora species were recorded.
- No other threatened or priority flora species were considered likely to occur.
- A total of seven vegetation units were recorded, ranging from ‘completely degraded’ to ‘very good - good’ condition.
- No ‘threatened ecological communities’ (TECs) or ‘priority ecological communities’ (PECs) were recorded.

The site identification and detailed design layout has been undertaken having regard to the findings of the Flora and Vegetation Assessment. This process has allowed the location of the Solar PV panels and the BESS structures outside of any areas identified for vegetation retention.

It is highlighted that due to the site selection and initial design process, the location of the Solar PV panels and BESS structures are largely contained within the areas identified as ‘completely degraded’ or ‘degraded’ – being the areas historically cleared and grazed for farming purposes. Areas identified as ‘Good’ or above have largely been avoided in order to minimise potential impacts on vegetated areas. This extended to the decision to avoid development on the eastern portions of the subject site due to environmental considerations.

4.0 TECHNICAL CONSIDERATIONS

4.5 FAUNA AND BLACK COCKATOO ASSESSMENT

Prepared by Emerge Associates, Appendix G.

A Basic Fauna and Targeted Black Cockatoo Assessment has been prepared by Emerge Associates to determine the likelihood of occurrence of threatened, specially protected and priority fauna and to record habitat areas for threatened black cockatoo species.

A total of 36 native and five non-native fauna species were recorded within the site. Three threatened species were recorded during the survey:

- Carnaby's black cockatoo (endangered under the EPBC Act and the BC Act)
- Baudin's black cockatoo (endangered under the EPBC Act and the BC Act)
- Forest red-tailed black cockatoo (vulnerable under the EPBC Act and the BC Act)

In addition to providing suitable foraging habitat, the site is identified as having a number of trees suitable for roosting and providing breeding habitat for cockatoos.

As outlined in the previous section, the detailed design and layout has been undertaken having regard to the findings of the fauna and black cockatoo assessment. This, combined with the findings of the flora and vegetation assessmen, identified the areas most suitable for the establishment of Solar PV panels and the BESS structures. The location of the infrastructure on the portions of the site largely identified as 'completely degraded' or 'degraded' / 'grassland and bare ground' mitigates the potential impacts on the habitats identified within the fauna and black cockatoo assessment.

The siting of the panels in particular has been undertaken in cognisance of the potential roosting/breeding trees identified within the surveys. The proposal allows for the retention of these trees and provides a suitable buffer distance from the nearest Solar PV panels to ensure there is no disturbance of the flora or fauna. This approach mitigates any significant impacts on the potential breeding habitats on the site.

4.6 VISUAL IMPACT ANALYSIS

Prepared by Emerge, Appendix G.

A Visual Impact Analysis was undertaken by Emerge Associates and is incorporated into the EAMP in **Appendix G**.

A viewshed analysis was undertaken in regard to the existing landscape character (topography and vegetation) and proposed development. The viewshed analysis identifies that along with users of Collie Williams Road, there are 6 potential sensitive receptors within 2km of the subject site.

The potential impacts from views experienced from Collie-Williams Road are considered to be largely insignificant due to the landscape character combined with the 100km/hr speed limit resulting in the proposal only being glimpsed by road users for a short period of time. Notwithstanding this, the visual impact outcomes identify the consideration of additional vegetative screening to Collie Williams Road to mitigate further visual impacts if required.

The viewshed analysis identified that the views from the sensitive receptors are largely limited to those dwellings to the west of the subject site. Having regard to the density of the existing vegetation (proposed for retention) the analysis has determined there are significant portions the site that are suitably screened and therefore the potential for visual impacts are decreased, or do not exist.

It is acknowledged that there will be some ongoing change to the viewing experience where there is no existing vegetation to screen the solar array, although this is very limited given the presence of remnant vegetation within and on adjacent sites.

Consideration of the potential reflection and glare has been considered through the visual impact assessment. The assessment notes the nature of the solar PVs is to absorb light to ensure operational efficiency, therefore the potential reflection/glare is generally considered to be minimal (between 2% to 10% of light reflected).

Overall, the visual impact assessment indicates that there are minimal visual impacts on the adjacent sensitive receptors or users of Collie Williams Road.

The changing landscape ensures that the proposal will not be out of character within the broader region which experiences a degree of visual impact already. The Coolangatta Estate and surrounding renewable developments represent a transition to new industries in the locality and will continue to realise significant development in the future.

4.7 BUSHFIRE MANAGEMENT PLAN

Prepared by Emerge, Appendix H.

A Bushfire Management Plan (BMP) and BAL Contour Map have been prepared by Emerge Associates to provide an assessment of bushfire risk and to confirm the development is fully compliant with all applicable acceptable solutions under State Planning Policy 3.7 – Planning in Bushfire Prone Areas.

Noting Western Australia does not have any specific guidelines on renewable energy facilities, the BMP assessment has also considered the *CFA Design Guidelines and Model Requirements: Renewable Energy Facilities* (CFA 2023) as a guide for best practice development. The CFA Guidelines are currently considered the most appropriate framework for the assessment of the proposed BESS.

The BMP outlines the following measures proposed to manage the proposal's bushfire risk:

- None of the proposed habitable structures are sited with the bushfire prone portions of the site, only portions of the PV cells (not habitable) are within bushfire prone areas. Notwithstanding, an assessment of the PV cells for bushfire risk has still been undertaken.
- Bushfire risk associated with the proposal can be managed through the siting of the development in areas subject to BAL-29 or less, the isolation and separation of the battery with a 10m separation from other assets within low threat land, and through provision of access for fire-fighting appliances and a reticulated water and static tank supply.
- Battery storage units are proposed in areas subject to BAL-19 or less. In the event of a battery fire, the battery units will be allowed to burn out in a controlled manner. A dedicated water supply will be available to prevent the fire from spreading to surrounding vegetation.
- The development footprint will include a mix of hardstand areas and areas of managed grass. These areas will be designed and managed to achieve low-threat vegetation.

4.8 WATER MANAGEMENT PLAN

Prepared by Emerge, Appendix I.

A Water Management Plan (WMP) has been prepared by Emerge Associates to provide an assessment of the hydrological considerations associated with the subject site and implications on/of the proposed development in regard to water management. The WMP confirms the development is fully compliant with all applicable acceptable water management considerations and maintains predevelopment characteristics so far as practicable.

Key hydrological considerations relating to the project are detailed in the WMP and summarised as below:

- Flood modelling assessment has been undertaken to determine the spatial extent of inundation in response to a major (1% AEP) rainfall event due to the proximity of the Bingham River and Pollard Brook.
- Water movements around the Solar PV area will remain unchanged as any rainfall falling over the solar panels will be dispersed and will flow directly into the underlying pasture and soils therefore maintaining the status quo.
- Additional stormwater generated as a result of the land change (i.e. access tracks, paved internal roads and impervious areas within the substation area) will be intercepted by WSD features that will follow the natural topography whilst maintaining the existing hydrological regime.
- The WSD features (i.e. roadside swales/v-drains and sediment traps) will be utilised to safely convey excess runoff as well as providing treatment prior to discharging into the downstream environment.
- Wastewater generated within the site during maintenance operations will be treated using a secondary treatment ATU and infiltrated by the use of flatbed leach drains. The effluent disposal area has been selected to comply with the GSP and to ensure that the downstream environment is not impacted and DWER and Department of Health standards are met onsite.

4.9 ABORIGINAL HERITAGE

Prepared by Archae-Aus, at Appendix J.

An Aboriginal and Heritage Due Diligence Assessment has been prepared to provide a review of the known Aboriginal cultural heritage within the subject site and any places or objects that may have overlapping Aboriginal Cultural Heritage (ACH) value. The Assessment includes an outline of the known heritage and potential risks and constraints associated with the development proposal, in accordance with the Aboriginal Heritage Act 1972.

This Assessment is documented in detail throughout this report, concluding that:

- The subject site comprises areas previously disturbed by agricultural land use, predominantly stock grazing, with the transmission line intersecting a smaller area previously used for forestry plantations.
- Despite the overall high level of past disturbances, some areas within the broader study area contain pockets of remnant native vegetation, water sources and tributaries of the Collie River. The Collie River Waugal (ID 16713) is a known ACH Registered Site partially intersects the subject site.
- Archaeological and ethnographic surveys and engagement with the Gnaala Karla Booja Aboriginal Corporation (GKBAC) have been recommended as part of the next stage of Aboriginal Heritage Assessment.

In acknowledgement of the findings of the Aboriginal and Heritage Due Diligence reporting, ongoing liaison is occurring with Traditional Owners outside of the Development Application process.

Should any works require Section 18 clearances, this will be identified through the further stages of Aboriginal Heritage Assessment and will be undertaken in parallel with the Development Application.

05
STATE PLANNING ASSESSMENT



5.0 STATE PLANNING ASSESSMENT

5.1 LEGISLATIVE CONSIDERATIONS

Planning and Development Act 2005

The *Planning and Development Act 2005* (P&D Act) was enacted by the Parliament of Western Australian to provide for a system of land-use planning and development in the State and for related purposes.

Aboriginal Heritage Act 1972

The *Aboriginal Heritage Act 1972* (AHA) protect Aboriginal cultural heritage in Western Australia and is currently administered by the DPLH.

One known Aboriginal cultural heritage registered site partially intersects the study area, being the Collie River Waugal (ID 16713). In accordance with the AHA, an Aboriginal Heritage Due Diligence Assessment has been prepared by Archae-Aus (refer **Appendix J**) to:

- Assess any potential impacts the proposed development will have on any Aboriginal Cultural Heritage that may be protected under the AHA.
- Identify measures to avoid, mitigate, or manage impacts to Aboriginal Cultural Heritage in accordance with the AHA and best practice standards.

If a development proposal cannot be redesigned to avoid places of Aboriginal cultural heritage significance and the impact is unavoidable, then proponent must seek Section 18 approval under the AHA and develop a co-designed Cultural Heritage Management Plan.

As per the requirements of the AHA, prior to the commencement of any development works, an application for a Section 18 approval will be sought and a Cultural Heritage Management Plan will be prepared in consultation and engagement with Aboriginal Corporations.

Environmental Protection Act 1986

The *Environmental Protection Act 1986 (*EPA Act*)* establishes a framework for the protection and management of the environment. It aims to prevent, control, and abate pollution and environmental harm, ensuring sustainable development and the conservation of natural resources.

A summary of key relevant sections of the EPA Act include:

- Section 38 – Which sets out the requirements for 'significant proposals' to the Environmental Protection Authority (EPA) for assessment.
- Division 2 – Which outlines key development implementations, such as the clearing of native vegetation during development.

Development will wholly consider and comply with the requirements of the EP Act and obtain any required approvals for development.

Environmental Protection (Noise) Regulations 1997

The *Environmental Protection (Noise) Regulations 1997* (Noise Regulations) seek to manage and minimise noise pollution to protect community amenity. They set clear standards and guidelines for acceptable noise levels across various environments and activities.

An Environmental Noise Assessment has been prepared by Lloyd George Acoustics (refer **Appendix F**) to assess noise from the proposed development against the prescribed standards of the Noise Regulations.

The noise assessment confirms that noise levels and the proposed development can meet the assigned levels at the nearest residences, subject to restricting the operating speeds of the equipment at night.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth and lists flora and fauna species that are threatened, extinct or specially protected.

In accordance with the requirements of the EPBC Act, flora and fauna assessments have been undertaken by Emerge Associates (refer **Appendix G**).

5.0 STATE PLANNING ASSESSMENT

5.2 STATE STRATEGIC FRAMEWORK

State Planning Strategy 2050

The Western Australian State Planning Strategy 2050 aims to guide the long-term development of the State, ensuring sustainable growth, economic prosperity, and enhanced quality of life for its residents. It focuses on integrating land use, transport, and infrastructure planning to create resilient and liveable communities. The Strategy emphasises the importance of renewable energy, innovation, and environmental stewardship.

In line with the vision of the Strategy, the proposed development will support the State's transition to renewable energy, reduce carbon emissions and will promote energy security. It also contributes to the local economy by creating jobs and fostering technological advancements. Through its alignment with the Strategy, the proposal ensures that the Shire of Collie can thrive sustainably and resiliently into the future.

Western Australian Climate Policy

The Western Australian Climate Policy sets out the high-level priorities the State Government will implement to support a more climate-resilient community.

It focuses on actions across six themes, identifying key outcomes for the State's vision of enhanced climate resilience and net zero greenhouse gas emissions by 2050. The themes are:

- Clean manufacturing and future industries
- Transforming energy generation and use
- Storing carbon and caring for our landscapes
- Lower-carbon transport
- Resilient cities and regions
- Government leadership

Bunbury-Geographe Sub-Regional Strategy

The Bunbury-Geographe Sub-Regional Strategy was adopted in January 2022, and plans for a step change in the magnitude of Bunbury-Geographe's population and economy, in a manner that leverages the sub-region's strengths and uniqueness.

Collie is identified in the Strategy as a 'sub-regional centre'. A key issue identified in the Strategy is the need to support government initiatives to help Collie manage the transition away from coal-powered electricity generation by encouraging the diversification of the employment base and the economy.

The Strategy recognises that the future role of renewable resources in the energy sector is will continue to grow in response to improvements in technology and the associated lowering of costs.

In line with the Strategy, the proposed development directly supports the transition and diversification of Collie through provision of renewable energy assets.

Energy Transformation Strategy

The Energy Transformation Strategy is the WA Government's work program to ensure the delivery of secure, reliable, sustainable and affordable electricity to Western Australians for years to come. The strategy focuses on integrating renewable energy sources, enhancing grid stability, and promoting energy efficiency

The Strategy aims to transition the energy system to accommodate increasing levels of renewable energy, such as solar and wind, while maintaining a secure and resilient power supply.

Key components of the strategy include:

- Developing a power system that can efficiently integrate renewable energy and new technologies, ensuring a stable and reliable electricity supply.
- Ensuring energy consumers can benefit from the transition to a cleaner energy system.
- Implementing reforms to the electricity market to support the integration of renewable energy and encourage innovation.
- Investing in infrastructure to support the growth of renewable energy and improve grid resilience.

The proposal directly supports the Strategy by contributing to the renewable energy mix, enhancing grid stability through energy storage, and promoting sustainable energy practices.

5.3 STATE PLANNING POLICIES

State Planning Policy 2.0 – Environment and Natural Resource Policy

SPP 2.0 outlines aspects of State level planning policies concerning the environment and natural resources which should be considered in planning decision-making, while acknowledging the inherent difficulties of balancing conflicting needs.

An assessment of the development proposal against the relevant environmental policies has been undertaken and is outlined below.

State Planning Policy 2.5 – Rural Planning

SPP 2.5 seeks to protect and preserve the State's rural land assets, recognising the importance of their economic, natural resource, food production, environmental and landscape values. The policy emphasises that ensuring compatibility between land uses is essential to delivering this outcome.

This policy applies to land zoned for rural purposes in a region or local planning scheme and is therefore applicable to the subject site.

The proposed development's response to the matters considered by SPP 2.5 is outlined as follows:

- Land Use Compatibility: The proposed development will not adversely impact existing agricultural activities or rural character. The proposed PV arrays have been designed to have a ground clearance ranging from 0.77m to 2.85m at its maximum tilt of 60 degrees, which is deemed acceptable to allow for sheep grazing in the vicinity of the solar panels.
- Environmental Impact: An Environmental Assessment and Management Plan has been prepared (refer **Appendix G**) that assesses the proposal against the effects on natural resources, including soil, water, and biodiversity, and measures to be implemented to mitigate any negative impacts.
- Economic and Social Benefits: The project will contribute to the local economy and community, including job creation during both the construction and operational phases, and aiding in the provision of energy security. The additional employment opportunities will in part stimulate the local economy, providing a boost to the community of Collie and surrounding areas.
- Infrastructure and Services: The proposed development considers the adequacy and suitability of existing infrastructure and services to support the development, and necessary upgrades required. The proposed development's connection to Western Power's 330 kV transmission network at Palmer Substation will enhance the integration of renewable energy into the grid. This connection will facilitate the efficient distribution of clean energy across the region, supporting both residential and industrial energy needs.

State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP 3.7)

SPP 3.7 and the associated Planning for Bushfire Guidelines (the Guidelines) provide a comprehensive framework for managing bushfire risks in land use planning and development. The primary objective of these policies is to implement effective, risk-based land use planning and development that avoids bushfire risk where possible, and where unavoidable, manages and mitigates the risk to people, property, and infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are key considerations in these guidelines.

The subject site is located within bushfire prone 'Area 2' in accordance with SPP 3.7. The development proposal seeks to achieve a rating of BAL-29 or less for all future constructed elements of the solar and battery storage facility. This approach ensures a high level of bushfire protection for both habitable and non-habitable structures, aligning with the intent of SPP3.7 to minimise bushfire risks.

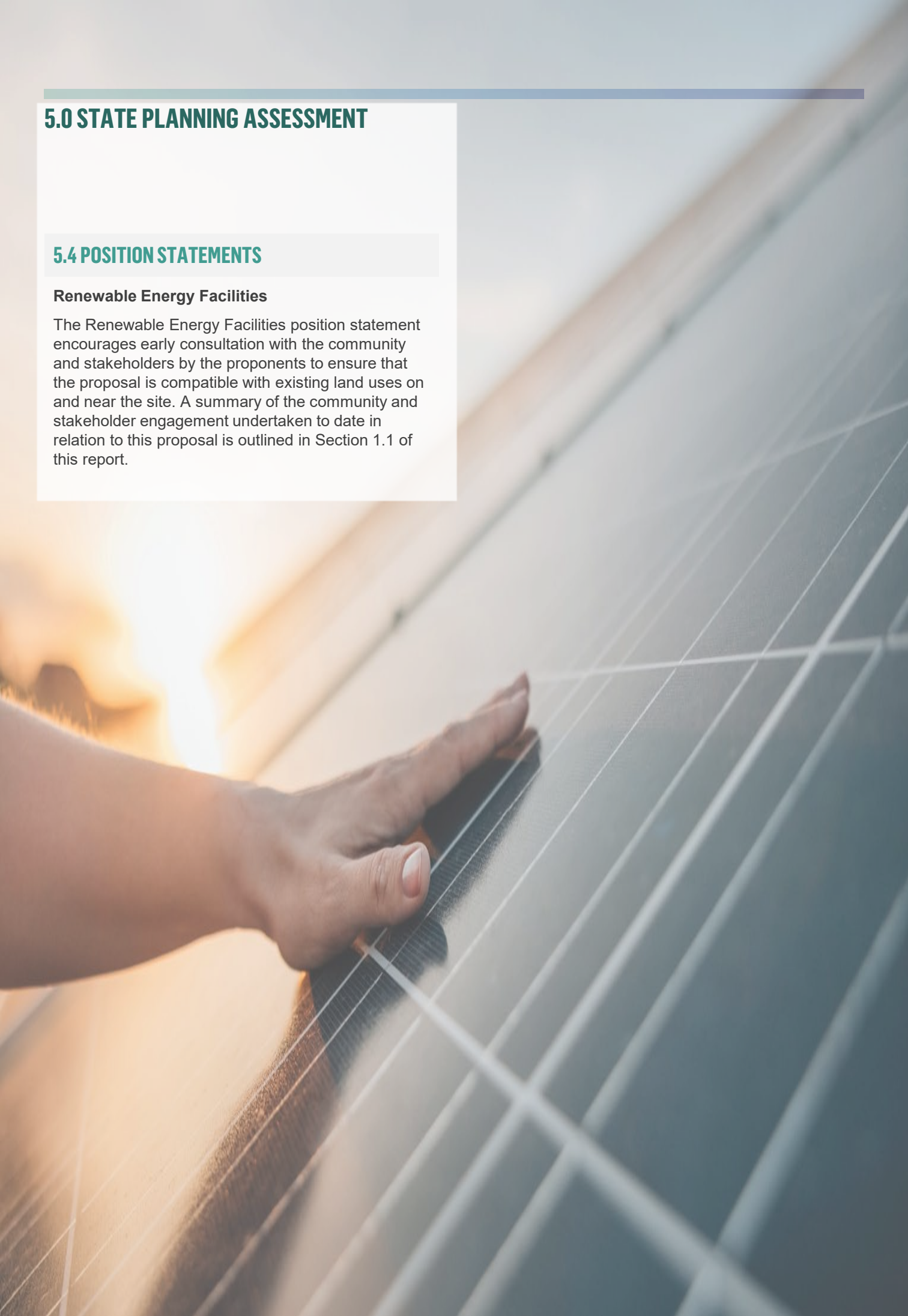
A Bushfire Management Plan and BAL Assessment have been prepared by Emerge and is provided as **Appendix H** in support of this proposal.

5.0 STATE PLANNING ASSESSMENT

5.4 POSITION STATEMENTS

Renewable Energy Facilities

The Renewable Energy Facilities position statement encourages early consultation with the community and stakeholders by the proponents to ensure that the proposal is compatible with existing land uses on and near the site. A summary of the community and stakeholder engagement undertaken to date in relation to this proposal is outlined in Section 1.1 of this report.



06
LOCAL PLANNING ASSESSMENT



6.0 LOCAL PLANNING ASSESSMENT

6.1 SHIRE OF COLLIE LOCAL PLANNING STRATEGY

The Shire of Collie Local Planning Strategy (the **Strategy**) was endorsed by the WAPC in April 2020 and provides a guide to land use planning and development decision making.

The Strategy recognises the Shire's significant economic reliance on coal mining and has therefore progressed investigations into opportunities for diversification of the economy, with renewable power generation such as solar being a key avenue.

To continue to recognise the potential for economic diversification through natural resources, a key action of the Strategy was to include a definition for '**renewable energy facility**' as a land use in Local Planning Scheme No. 6.

The land use classification applicable to the subject site under the Strategy Map is 'Rural'.

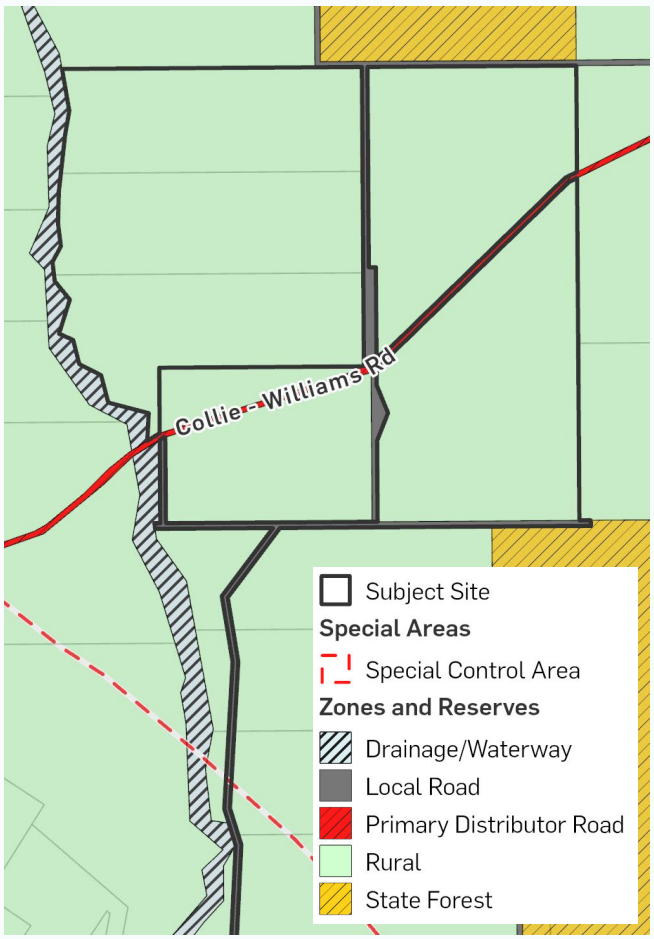


Figure 5 Shire of Collie Local Planning Scheme No. 6

6.2 SHIRE OF COLLIE LOCAL PLANNING SCHEME

The Shire of Collie Local Planning Scheme No. 6 (**LPS 6**) was gazetted in December 2021 and provides development controls and processes for the assessment and determination of development applications. The subject site is zoned 'Rural' under LPS 6 (refer **Figure 5**).

The objectives of the Rural zone are as follows:

- *To provide for the maintenance or enhancement of specific local rural character.*
- *To protect broad acre agricultural activities such as cropping and grazing and intensive uses such as horticulture as primary uses, with other rural pursuits and rural industries as secondary uses in circumstances where they demonstrate compatibility with the primary use.*
- *To maintain and enhance the environmental qualities of the landscape, vegetation, soils and water bodies, to protect sensitive areas especially the natural valley and watercourse systems from damage.*
- *To provide for the operation and development of existing, future and potential rural land uses by limiting the introduction of sensitive land uses in the Rural zone.*
- *To provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses.*

The proposed development has been carefully designed to integrate with the site's rural context and landscape, minimising visual impact and preserving the area's rural character.

Agricultural activities such as sheep grazing currently being undertaken at the subject site will be protected and will continue within the vicinity of the proposed solar panels. The proposal will maximise land productivity, support traditional agricultural practices, ensuring that the primary rural land use is not compromised.

The proposed development will maintain adequate distances from vegetation and water bodies to ensure they are protected in accordance with the EAMP (refer **Appendix G**).

The proposed Solar PV and BESS facility has been demonstrated to be a compatible and complementary use to the existing function of the subject site and surrounding rural lands.

6.2 SHIRE OF COLLIE LOCAL PLANNING SCHEME

Land Use Permissibility

The proposed development is best characterised as a '**Renewable Energy Facility**' land use, defined under LPS 6 as follows:

> *means premises used to generate energy from a renewable energy source predominantly and includes any building or other structure used in, or relating to, the generation of energy by a renewable resource. It does not include renewable energy electricity generation where the energy produced principally supplies a domestic and/or business premises and any on selling to the grid is secondary.*

A '**Renewable Energy Facility**' is a '**A**' Use in the Rural zone meaning the proposal can be approved subject to the discretion of the local government, provided it is satisfied that the proposal is consistent with the development requirements and is advertised.

The proposed development will facilitate the efficient distribution of clean energy across the Southwest region, supporting both residential and industrial energy needs and is not restricted to a domestic or business premises.

Development Requirements

The following development requirements apply to the Rural zone:

a) *In considering any rezoning or subdivision within the Rural zone the local government will have due regard to State Planning Policy 2.5 Rural Planning and whether the proposal may prejudice current or potential agricultural activities and production within the zone.*

b) *Subdivision will only be considered in accordance with the Western Australian Planning Commission's Development Control Policy 3.4: Subdivision of rural land and there is a general presumption against the further subdivision of land in the Rural zone.*

c) *The existence of a second dwelling on a rural lot is not considered a justification for subdivision.*

d) *The local government will not recognise the existing historic pattern of subdivision in a locality as justification to support further subdivision.*

e) *No more than one single house may be developed on a lot.*

The proposed development does not relate to additional dwelling developments or further subdivision of the site aligning with the Development Requirements set out for the Rural zone.

Development Controls

The development controls applicable to the Rural zone under Schedule 1 and 2 of LPS 6 are outlined in the table below.

Element	Requirement	Proposed Development
Front Setback	30m	The proposed BESS and substation are located internally within Lot 786 and a suitably located in excess of the required setbacks to the adjacent lots and the Bingham River. The proposed solar array is confirmed to be a minimum setback of 30m from Collie Williams Road where the interface occurs on Lot 785.
Side Setback	15m	
Rear Setback	30m	
Car Parking	1 bay per employee plus 2 bays visitor parking	16 formal bays provided directly reflective of the bays required during the operational phase for monitoring and maintenance.

The formal car parking provided on site is located in proximity to the BESS and substation site and is intended to cater for the vehicles associated with the operational phase. Additional informal on-site parking may be provided on a temporary basis during the construction phase to accommodate workforce vehicles. Additionally, provision of consolidated transportation options (i.e workforce buses) may be considered. These items will be addressed through a construction traffic management plan prior to the commencement of construction.

6.0 LOCAL PLANNING ASSESSMENT

6.3 LOCAL PLANNING POLICIES

Local Planning Policy 2.7 – Assessment of Cultural Heritage Significance

LPP 2.7 applies to any place being considered for inclusion, or retention, on the Shire of Collie Local Heritage Survey, Heritage List, or any other place considered to have cultural heritage significance.

The policy seeks to facilitate the conservation of place of heritage value, provide procedural guidance for heritage assessments conducted within the Shire and ensure development occurs with due regard to heritage values.

There is one known Aboriginal Cultural Heritage Registered Site that partially intersects the study area, being the Collie River Waugal (ID 16713).

An Aboriginal Heritage Due Diligence Assessment has been undertaken by Archae-Aus (refer **Appendix J**). The Assessment involved the following scope of works:

- Desktop research and consideration of the results from the relevant registers and databases.
- Consideration of the coverage and reliability of previous surveys and associated reports.
- Identification and outline of engagement requirements and timeframes.
- Assessment of any potential impacts the proposed Activity will have on any Aboriginal Cultural Heritage that may be protected under the *Aboriginal Heritage Act 1972*.
- Identification of measures to avoid, mitigate, or manage impacts to Aboriginal Cultural Heritage in accordance with the *Aboriginal Heritage Act 1972* and best practice standards (see Legislation and Guiding Principles section).

In acknowledgement of the findings of the Aboriginal and Heritage Due Diligence reporting, ongoing liaison is occurring with Traditional Owners outside of the Development Application process.

Should any works require Section 18 clearances, this will be identified by the further stages of Aboriginal Heritage Assessment and will be undertaken in parallel of the Development Application. This will ensure compliance with LPP2.7

07
CONCLUSION



7.0 CONCLUSION

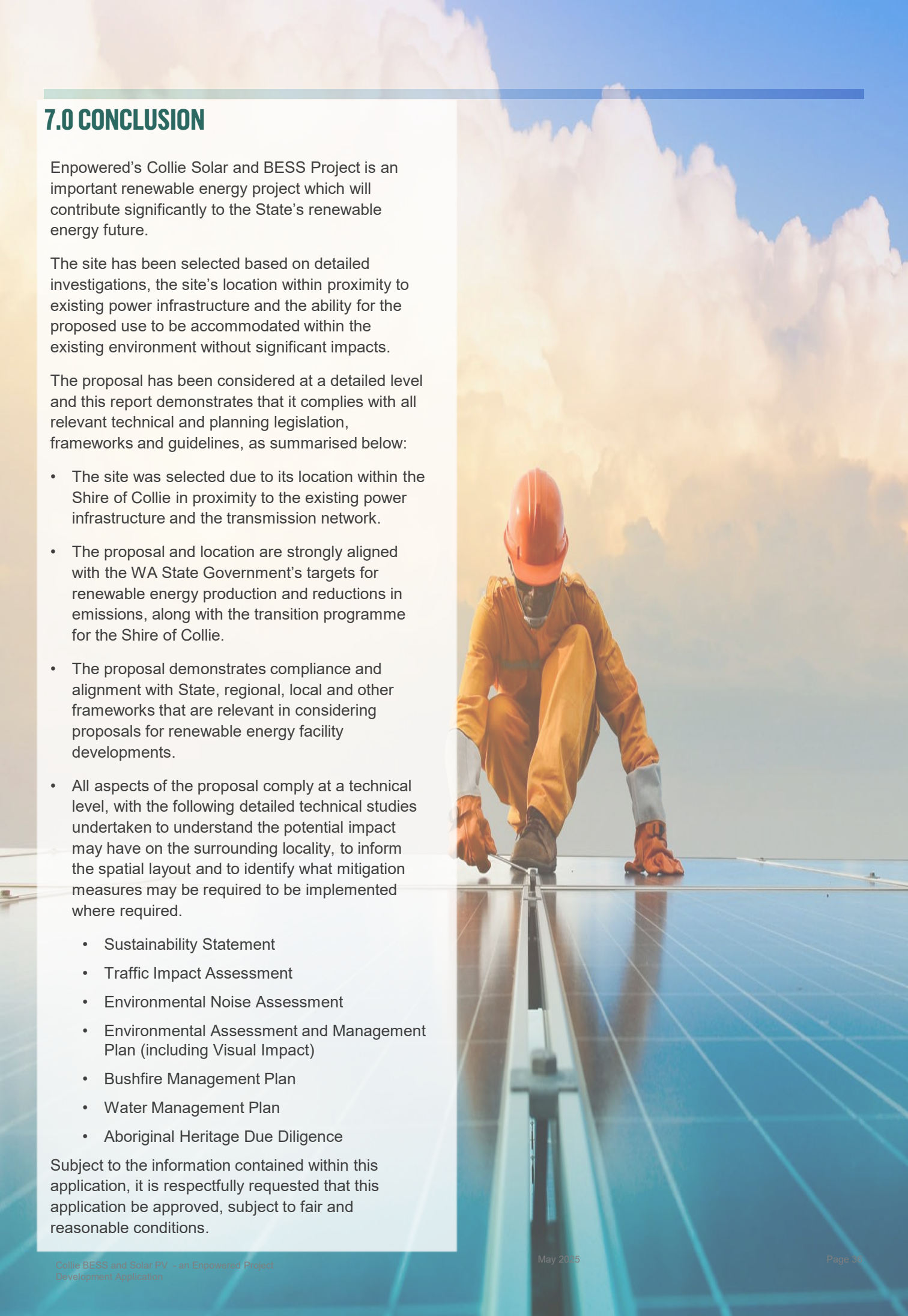
Enpowered's Collie Solar and BESS Project is an important renewable energy project which will contribute significantly to the State's renewable energy future.

The site has been selected based on detailed investigations, the site's location within proximity to existing power infrastructure and the ability for the proposed use to be accommodated within the existing environment without significant impacts.

The proposal has been considered at a detailed level and this report demonstrates that it complies with all relevant technical and planning legislation, frameworks and guidelines, as summarised below:

- The site was selected due to its location within the Shire of Collie in proximity to the existing power infrastructure and the transmission network.
- The proposal and location are strongly aligned with the WA State Government's targets for renewable energy production and reductions in emissions, along with the transition programme for the Shire of Collie.
- The proposal demonstrates compliance and alignment with State, regional, local and other frameworks that are relevant in considering proposals for renewable energy facility developments.
- All aspects of the proposal comply at a technical level, with the following detailed technical studies undertaken to understand the potential impact may have on the surrounding locality, to inform the spatial layout and to identify what mitigation measures may be required to be implemented where required.
    - Sustainability Statement
    - Traffic Impact Assessment
    - Environmental Noise Assessment
    - Environmental Assessment and Management Plan (including Visual Impact)
    - Bushfire Management Plan
    - Water Management Plan
    - Aboriginal Heritage Due Diligence

Subject to the information contained within this application, it is respectfully requested that this application be approved, subject to fair and reasonable conditions.



08
APPENDICES



APPENDIX A – CERTIFICATE OF TITLE AND DEPOSITED PLAN

WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
4073	**655**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

THIS IS A MULTI-LOT TITLE

LAND DESCRIPTION:

LOTS 775, 784 & 787 ON DEPOSITED PLAN 232871
LOTS 100, 101 & 102 ON DEPOSITED PLAN 426501

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

SEMLOT NOMINEES PTY LTD OF 18 SAINT GEORGE'S TERRACE, PERTH
(TO Q406612) REGISTERED 1/5/2025

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. P545679 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. AS TO LOTS 775 & 784 ON DP232871 AND LOT 102 ON DP426501 ONLY. LODGED 11/5/2023.
2. P582802 CAVEAT BY HESPERIA PROPERTY PTY LTD AS TO LOT 787 ON DP 232871, LOTS 100 & 102 ON DP 426501 ONLY LODGED 12/6/2023.
3. P887212 CAVEAT BY COLLIE BATTERY PTY LTD AS TO LOTS 775 & 784 ON DP 232871, LOTS 101 & 102 ON DP 426501 ONLY LODGED 15/2/2024.

P947602 PARTIAL WITHDRAWAL AS TO LOTS 100 ON DP426501 & LOT 787 ON DP232871 ONLY, LODGED 10/4/2024.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	76-31A (775/DP232871), 76-31A (784/DP232871), 76-31A (787/DP232871), DP426501
PREVIOUS TITLE:	4073-639, 4073-650, 4073-651, 4073-652
PROPERTY STREET ADDRESS:	4996 COLLIE-WILLIAMS RD, PALMER (100/DP426501). 4997 COLLIE-WILLIAMS RD, PALMER (102/DP426501).

END OF PAGE 1 - CONTINUED OVER

LANDGATE COPY OF ORIGINAL NOT TO SCALE 28/05/2025 10:13 AM Request number: 68256989

Landgate
www.landgate.wa.gov.au

LOCAL GOVERNMENT AUTHORITY: SHIRE OF COLLIE

LANDGATE COPY OF ORIGINAL NOT TO SCALE 28/05/2025 10:13 AM Request number: 68256989

Landgate
www.landgate.wa.gov.au

WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
2101	**12**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 788 ON DEPOSITED PLAN 232871

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

SEMLOT NOMINEES PTY LTD OF POST OFFICE BOX 298, COLLIE

(A G434094) REGISTERED 27/3/1997

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. P582802 CAVEAT BY HESPERIA PROPERTY PTY LTD LODGED 12/6/2023.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	2101-12 (788/DP232871)
PREVIOUS TITLE:	1500-663
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	SHIRE OF COLLIE

LANDGATE COPY OF ORIGINAL NOT TO SCALE 02/04/2025 03:20 PM Request number: 68013501

Landgate
www.landgate.wa.gov.au

APPENDIX B – DEVELOPMENT APPLICATION FORMS

Shire of Collie
Explore. Discover. Connect.

ABN 80 581 297 683
87 Throssell Street, Collie WA 6225
Mail to: Locked Bag 6225, Collie WA 6225
P (08) 9734 9000 E colshire@collie.wa.gov.au
www.collie.wa.gov.au

APPLICATION FOR DEVELOPMENT APPROVAL FORM

Owner/s details		
Name/s: Semlot Nominees Pty Ltd		
Residential Address: 4996 Collie Williams Rd, Colliw WA 6225		
ABN (if applicable): 69 008 940 850		
Phone: 0417 098 963 (work): (home): (mobile):	Fax:	E-mail: myareefarm@gmail.com
Contact person: Florian Popp (Managing Director)		
Signature: Florian Popp		Date: 14.5.2025
Signature: P. Lowry		Date: 14-5-2025

The signatures of all of the owner(s) is required on all applications. This application will not proceed without that signature and may not be signed by an unauthorised person.
For the purpose of signing this application an owner includes the persons referred to in the* Planning and Development (Local Planning Schemes) Regulations 2015 *Schedule 2 clause 62(2).

Applicant details (if different from owner)		
Name: Urbis		
Address: Level 8, 1 William Street, Perth		
Phone: (work): 93460518 (home) (mobile):	Fax:	E-mail: ffarrag@urbis.com.au
Contact person for correspondence: Farida Farrag		
The information and plans provided with this application may be made available by the local government for public viewing in connection with the application. ☑ Yes ☐ No		
Signature: Farida Farrag		Date: 02/04/2025

Property details		
Lot No: Refer to Attachment A	House/Street No:	Location No:
Diagram or Plan No: Refer to Attachment A	Certificate of Title Vol. No:	Folio:
Title Encumbrances (Easements, restrictive covenants): Attach relevant documents.		
Street name: Collie-Willliams Road	Suburb: Collie	
Nearest street intersection:		

Proposed Development	
Nature of development:	☐ Works ☐ Use ☑ Works and Use

Is an exemption from development claimed for part of the development? ☐ Yes ☐ No
If yes, is the exemption for: ☐ Works ☐ Use
Description of proposed works and/ or land use: Solar PV and Battery Energy Storage Systems
Description of exemption claimed (if relevant): N/A
Nature of any existing buildings and/ or land uses: Vegetation and rural land uses
Approximate cost of proposed development: $500 million
Estimated time of completion: 2028 (staged approach)

ATTACHMENT A – Property Details

Lot No	Diagram or Plan No	Volume	Folio	Landowner
785	232871	2684	117	Semlot Nominees Pty Ltd
786	232871	2684	117	Semlot Nominees Pty Ltd
787	232871	2684	117	Semlot Nominees Pty Ltd
788	232871	2101	12	Semlot Nominees Pty Ltd

Shire of Collie
Explore. Discover. Connect.

ABN 80 581 297 683
87 Throssell Street, Collie WA 6225
Mail to: Locked Bag 6225, Collie WA 6225
P (08) 9734 9000 E colshire@collie.wa.gov.au
www.collie.wa.gov.au

APPLICATION FOR DEVELOPMENT APPROVAL FORM

Owner/s details		
Name/s: Shire of Collie		
Residential Address: 87 Throssell St, Collie		
ABN (if applicable): 80 581 297 683		
Phone: 97349000 (work): (home): (mobile):	Fax:	E-mail: colshire@collie.wa.gov.au
Contact person: Phil Anastasakis, CEO		
Signature:		Date: 14.5.2025
Signature:		Date:

The signatures of all of the owner(s) is required on all applications. This application will not proceed without that signature and may not be signed by an unauthorised person.
For the purpose of signing this application an owner includes the persons referred to in the* Planning and Development (Local Planning Schemes) Regulations 2015 *Schedule 2 clause 62(2).

Applicant details (if different from owner)		
Name: Urbis		
Address: Level 8, 1 William Street, Perth		
Phone: (work): 93460518 (home) (mobile):	Fax:	E-mail: ffarrag@urbis.com.au
Contact person for correspondence: Farida Farrag		
The information and plans provided with this application may be made available by the local government for public viewing in connection with the application. ☑ Yes ☐ No		
Signature: Farida Farrag		Date: 7/05/2025

Property details		
Lot No: Refer to Attachment B	House/Street No:	Location No:
Diagram or Plan No:	Certificate of Title Vol. No:	Folio:
Title Encumbrances (Easements, restrictive covenants): Attach relevant documents.		
Street name:	Suburb: Collie	
Nearest street intersection:		

Proposed Development	
Nature of development:	☐ Works ☐ Use ☑ Works and Use

Is an exemption from development claimed for part of the development? ☐ Yes ☒ No
If yes, is the exemption for: ☐ Works ☐ Use
Description of proposed works and/ or land use: An underground power transmission line is proposed to connect the BESS and Solar PV infrastructure located at Lots 785, 786, 787, 788 on Deposited Plan 232871, to the future Western Power 'Palmer Terminal' located at Lot 782 on Deposited Plan 232871. The underground power transmission line will be located within the following road reserves: •3539122 •3539123 •3539119
Description of exemption claimed (if relevant):
Nature of any existing buildings and/ or land uses: N/A
Approximate cost of proposed development: $500 million
Estimated time of completion: Early 2028

	(vii) the location, number, dimensions and layout of all car parking spaces intended to be provided; (viii) the location and dimensions of any area proposed to be provided for the loading and unloading of vehicles carrying goods or commodities to and from the site and the means of access to and from those areas; (ix) the location, dimensions and design of any open storage or trade display area and particulars of the manner in which it is proposed to develop the open storage or trade display area; (x) the nature and extent of any open space and landscaping proposed for the site; and (b) plans, elevations and sections of any building proposed to be erected or altered and of any building that is intended to be retained; and (c) a report on any specialist studies in respect of the development that the local government requires the applicant to undertake such as site surveys or traffic, heritage, environmental, bushfire attack level assessment, engineering or urban design studies; and (d) any other plan or information that the local government reasonably requires. **All plans and details must be legible, drawn to scale and include the lot and street address and owners details**	

Applications that are accompanied by the complete package of information as detailed above, including this Checklist, and signed by the Applicant below will be processed more efficiently and expediently.

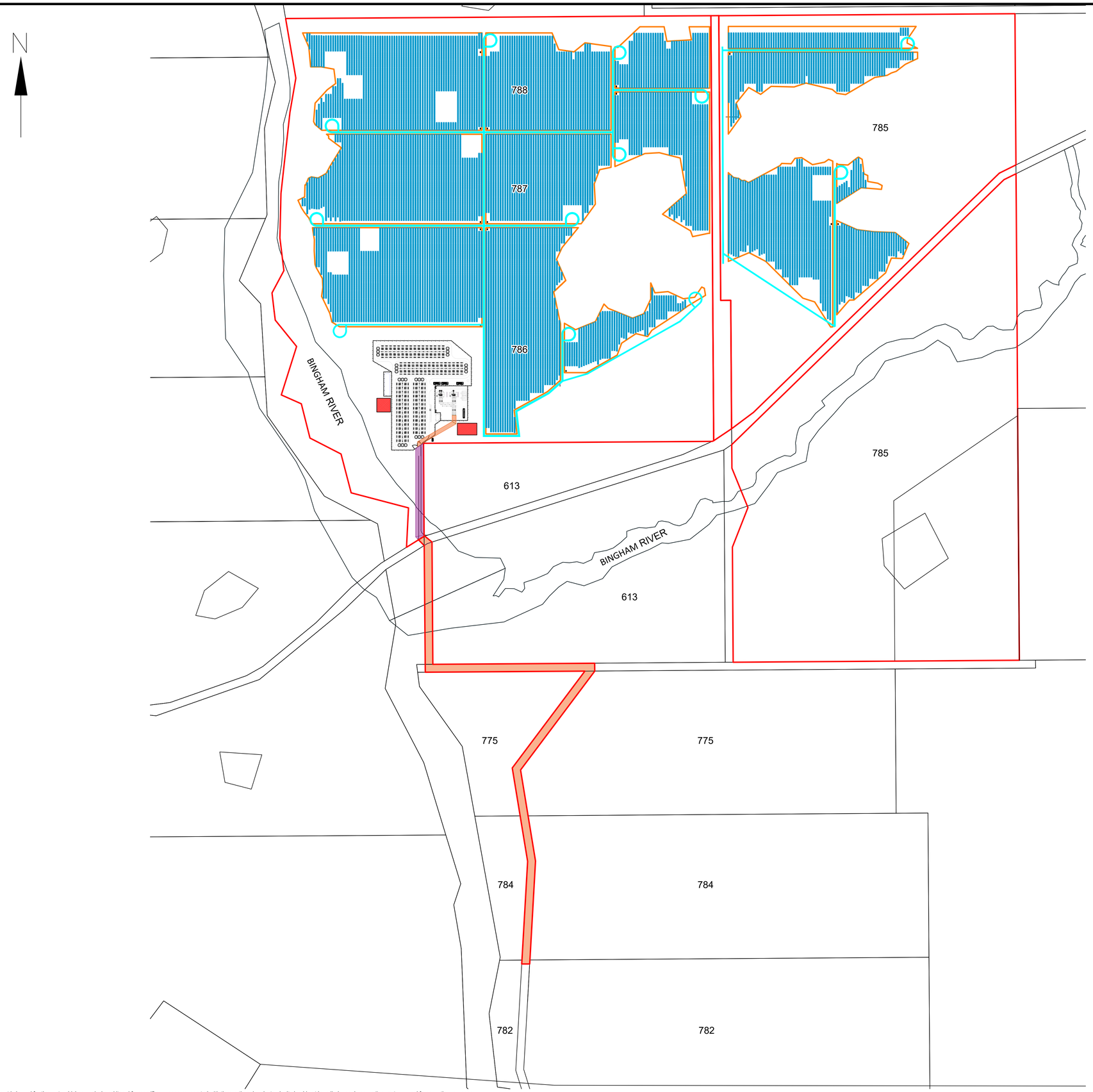
Farida Farrag FARIDA FARRAG 21/05/2025

Applicants Signature/s **Printed Name** **Date**

Notes:

1. *The above information is required to enable an initial assessment of the application only.*
2. *If required, the Shire may make a further request for additional supporting information to facilitate the assessment process. Compliance with the checklist does not necessarily mean that the proposal will be approved.*
3. *This is **not** an application for a Building Permit. A Separate application for a Building Permit must be made and granted before development commences.*

APPENDIX C – DEVELOPMENT PLANS



Notes

Key to symbols

SUBSTATION & BESS

PV SOLAR PANELS

LAYDOWN AREA

PROJECT BOUNDARY

ACCESS ROAD & TRANSMISSION CABLE EASMENT

330kV TRANSMISSION CABLE ROUTE

EXTENT OF PV CASE AREA

FENCE

GRAVEL ACCESS ROADS

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

Rev	Date	Drawn	Description	Ch'k'd	App'd
A	24.04.2025	MDP	Issued for Information	DB	AM

Status Stamp

MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR DEVELOPMENT
COLLIE-WILLIAMS ROAD, PALMER
SITE PLAN

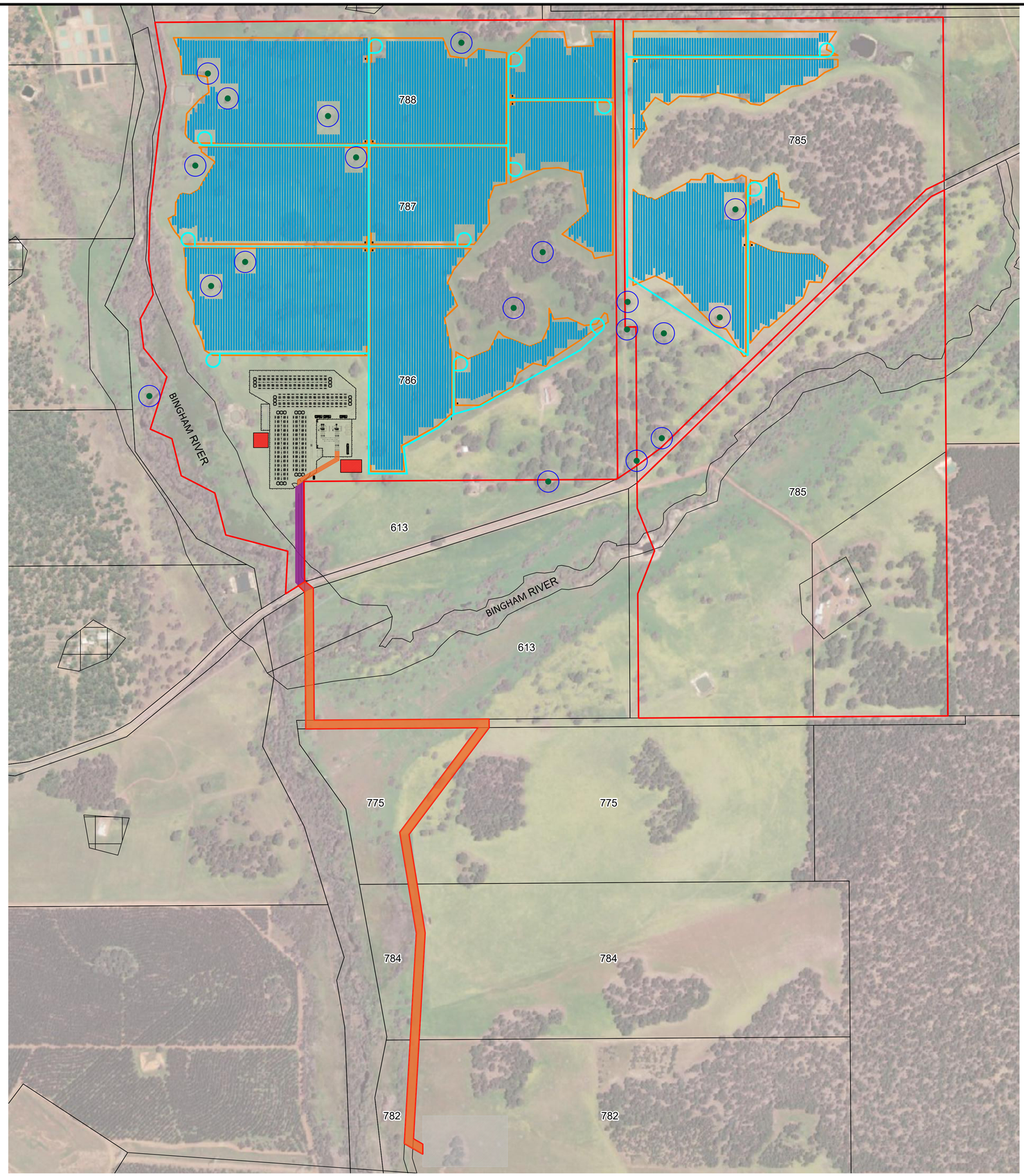
Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number	Scale at A1	Security
-	1:5000	STD

Suitability Description	Suit. Code
-	-

Drawing Number	Rev
703104876-DRG-001_A	A

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We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.



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Notes

Key to symbols

SUBSTATION & BESS

EXTENT OF PV CASE AREA

LAYDOWN AREA

PV SOLAR PANELS

PROJECT BOUNDARY

ACCESS ROAD & TRANSMISSION CABLE EASEMENT

330kV TRANSMISSION CABLE ROUTE

FENCE

GRAVEL ACCESS ROADS

WESTERN POWER PALMER SUBSTATION

POTENTIAL BLACK COCKATOO NESTING SITE

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

Rev	Date	Drawn	Description	Ch'k'd	App'd
C	28.04.2025	MDP	Issued for Information	DB	AM
B	15.04.2025	MDP	Issued for Information	DB	AM
A	11.04.2025	MDP	Issued for Information	DB	AM

Status Stamp

MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

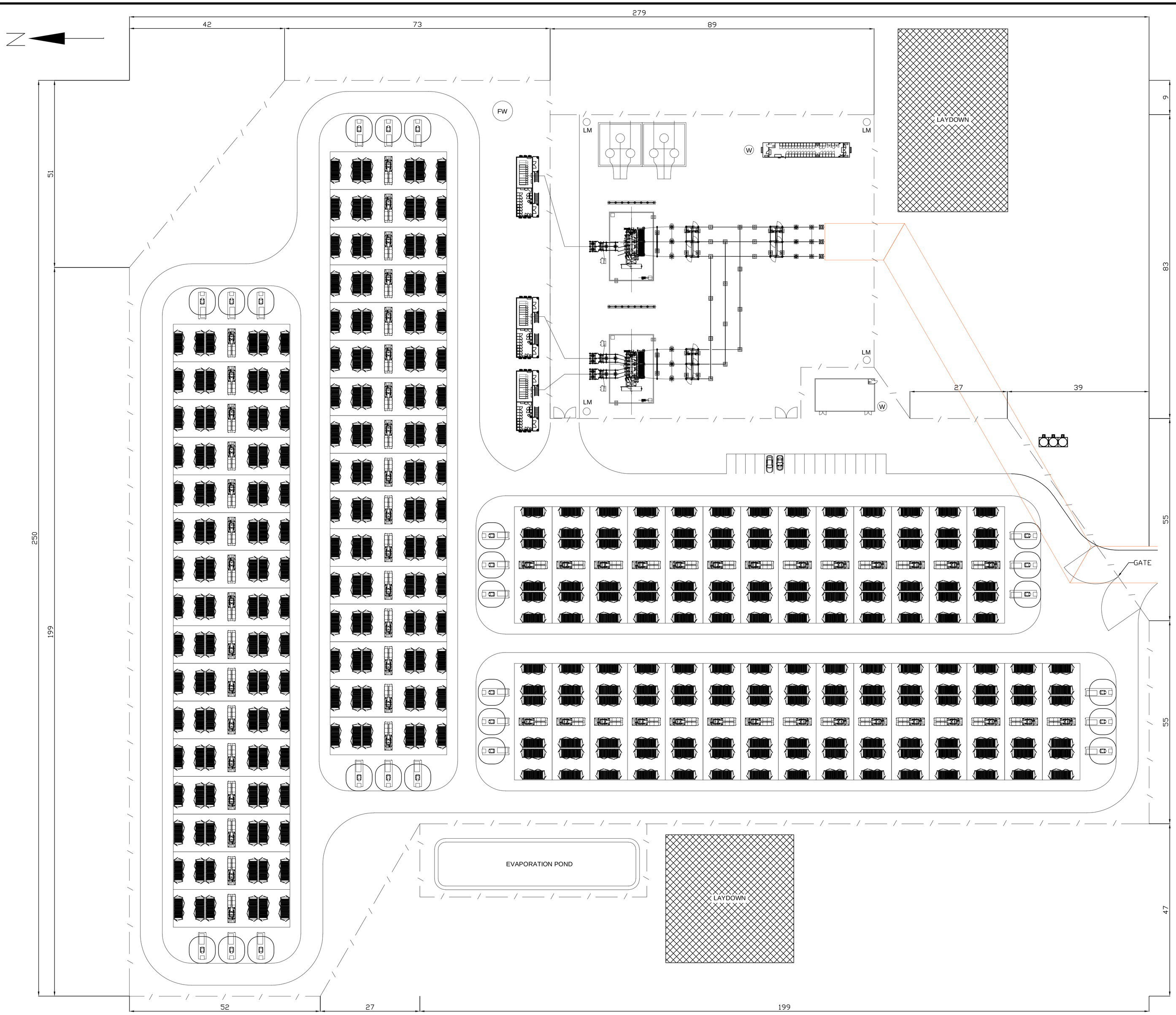
Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR FARM OVERALL PV, BESS & COLLECTOR SUBSTATION LAYOUT

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number -	Scale at A1 1:5000	Security STD
Suitability Description -		Suit. Code -
Drawing Number 703104876-DRG-001		Rev C



Notes

Key to symbols

POWER ISLAND
CATL BATTERY CONTAINER
PCS POWER CONVERSION SYSTEM
AUXILIARY TRANSFORMER ON SKID
TOILET
POWER TRANSFORMER
CONTROL ROOM
SWITCHROOM
MAINTENANCE SHED
LM LIGHTING/LIGHTNING MAST
W RAIN WATER TANK
FW FIRE WATER TANK
SEPTIC TANK
TRANSMISSION CABLE ROUTE
FENCE

Reference drawings

703104876-DRG-001 - OVERALL SITE LAYOUT

Rev	Date	Drawn	Description	Ch'k'd	App'd
C	24.04.2025	MDP	Issued for Information	DB	AM
B	15.04.2025	MDP	Issued for Information	DB	AM
A	11.04.2025	MDP	Issued for Information	DB	AM

Status Stamp

MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE BESS & SOLAR FARM COLLECTOR SUBSTATION & BESS LAYOUT

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number	Scale at A1	Security
-	1:500	STD

Suitability Description	Suit. Code
-	-

Drawing Number	Rev
703104876-DRG-002	C

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N



Notes

Key to symbols

PV SOLAR PANELS

POTENTIAL
BLACK COCKATOO
NESTING SITE

EXTENT OF
PV CASE AREA

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

Rev	Date	Drawn	Description	Ch'k'd	App'd
B	28.04.2025	MDP	Issued for Information	DB	AM
A	11.04.2025	MDP	Issued for Information	DB	AM

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MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR FARM
SOLAR PV
LAYOUT

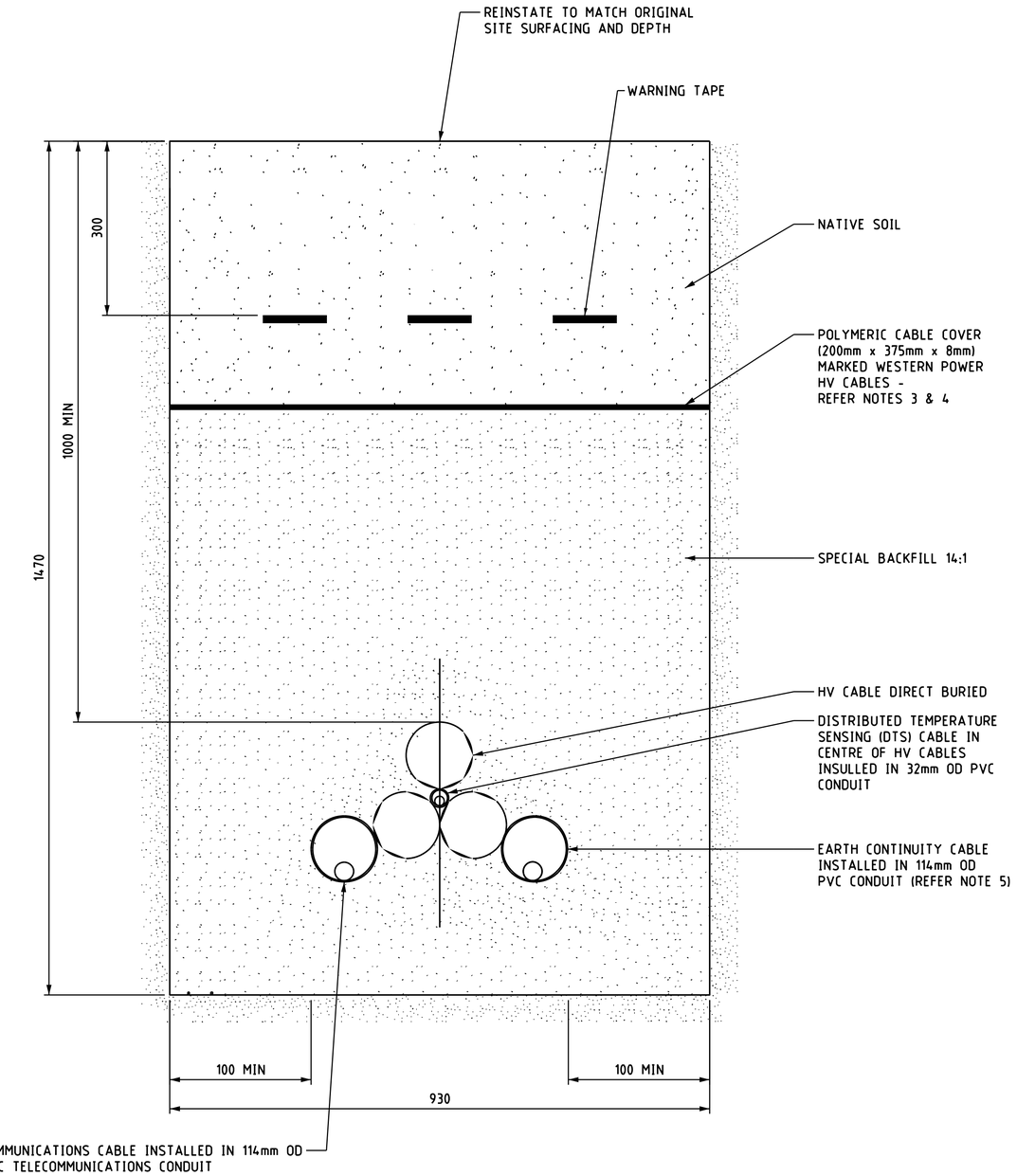
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Dwg. Check	-	-	Approved	-	-

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-	1:5000	STD

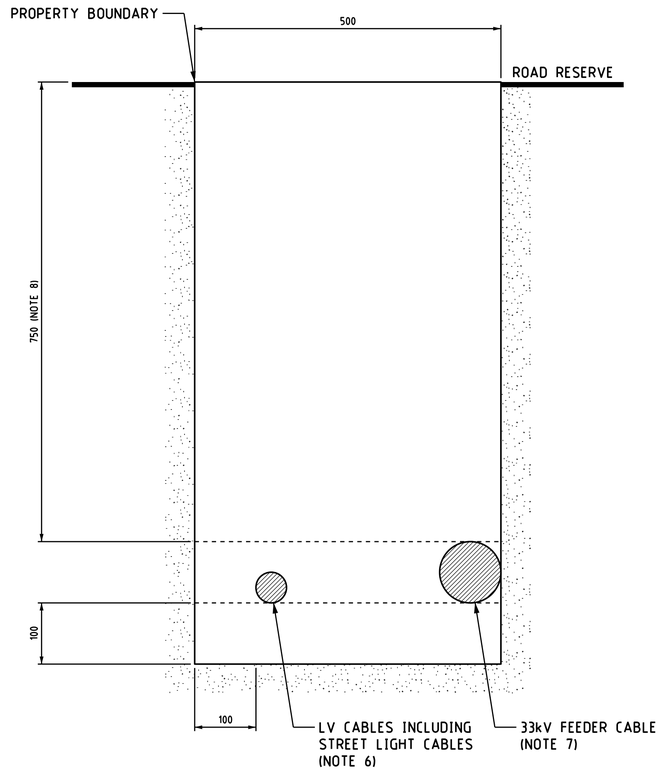
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TYPICAL 330kV DIRECT BURIED TREFOIL FORMATION



TYPICAL 33kV & LV CABLES DIRECT BURIED

NOTES:

1. ALL DIMENSIONS IM METERS "mm" UNLESS NOTED OTHERWISE.
2. ALL CROSSINGS SHALL COMPLY WITH RELEVANT AUTHORITY REQUIREMENTS.
3. POLYMERIC COVERS TO COVER FULL WIDTH OF TRENCH.
4. EXTENDED POLYMERIC COVER ON EACH SIDE OF SERVICE CROSSING MINIMUM OF 1.0m.
5. EARTH CONTINUITY CABLE TO BE TRANSPOSED FOR HALF CABLE SECTION LENGTH.
6. LV CABLE JOINT IS APPROXIMATELY 170mm MAXIMUM IN DIAMETER.
7. LAYOUT OF 33kV CABLE MUST START FROM THE ROAD SIDE OF THE TRENCH.
8. THE MINIMUM DEPTH OF COVER IS 750mm HOWEVER, THE DEPTH OF COVER OF CABLES IN A NOMINAL CABLE ALLIGNMENT SHALL BE INCREASED AS REQUIRED SO THAT CABLE JOINTS WILL HAVE A MINIMUM DEPTH OF 750mm COVER AND ALLOW FOR FINISHED GROUND LEVEL TOLERANCES.

Rev	Date	Drawn	Description	Ch'k'd	App'd
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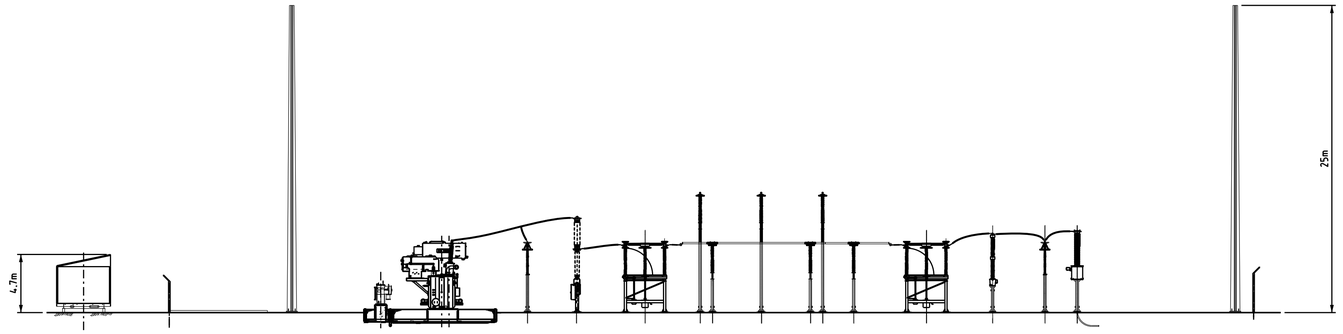
MOTT MACDONALD
One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia
T +61 (0)8 7325 7325
W mottmac.com

Client
ENPOWERED
Level 3, 338 Barker Road
Subiaco, WA
Australia

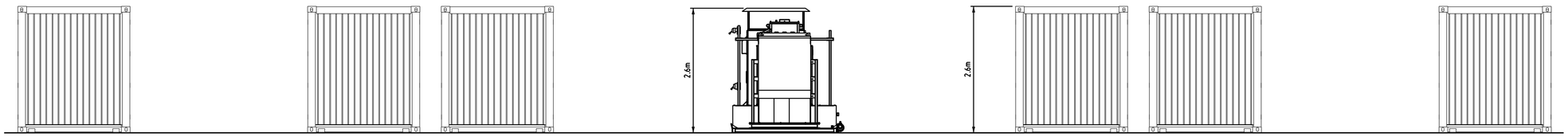
Title
COLLIE
BESS & SOLAR FARM
330kV & 33kV CABLE TRENCH
TYPICAL DETAILS

Designed	DB	-	Eng. Check	AM	-
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Dwg. Check	-	-	Approved	-	-

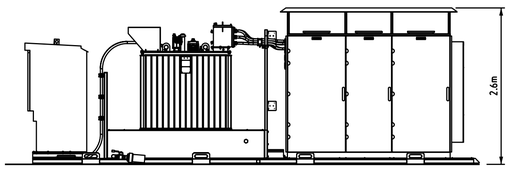
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Security: STD
Suitability Description: -
Suit. Code: -
Drawing Number: 703104876-DRG-005
Rev: B



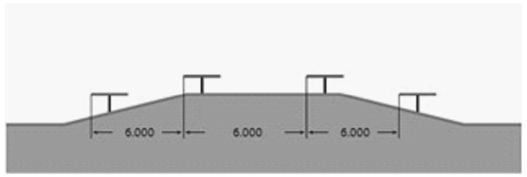
ELEVATION COLLECTOR SUBSTATION
SCALE 1:250



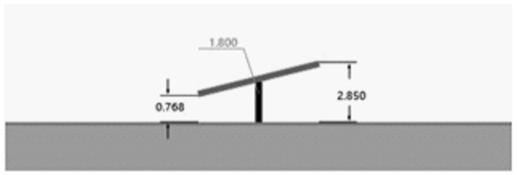
ELEVATION POWER ISLAND
SCALE 1:50



ELEVATION AUXILIARY SKID
SCALE 1:50



ELEVATION PITCH OF PV TRACKER
SCALE N.T.S.



ELEVATION HEIGHT OF PV TRACKER IN MAX TILT POSITION
SCALE N.T.S.

NOTES:

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MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client
ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title
COLLIE
BESS & SOLAR FARM
PV, BESS & COLLECTOR SUBSTATION
ELEVATION

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination	-	-
Dwg. Check	-	-	Approved	-	-

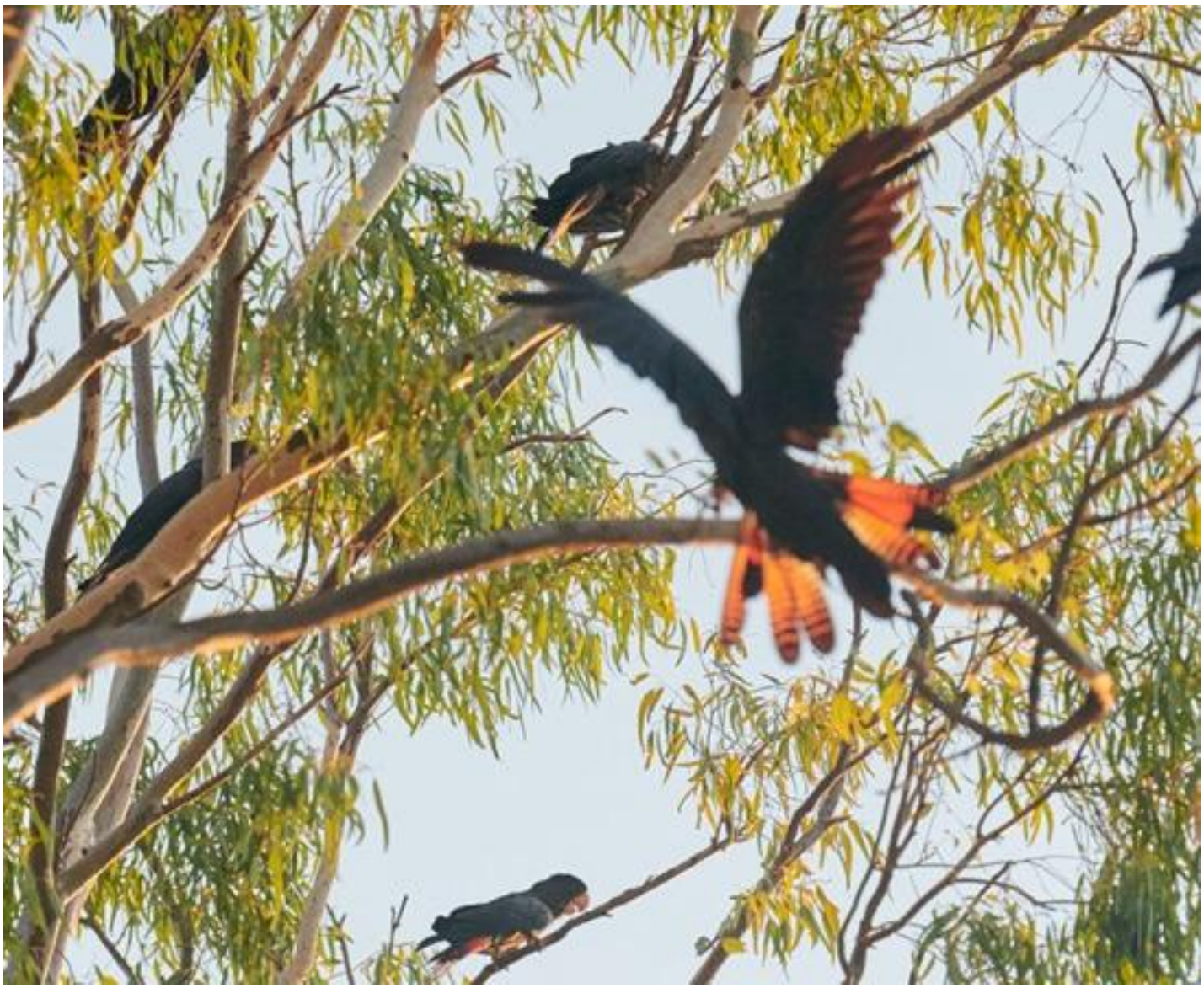
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703104876	1:250 & 1:50	STD

Suitability Description	Suit. Code
-	-

Drawing Number	Rev
703104876-DRG-006	B

APPENDIX D – SUSTAINABILITY STATEMENT

ENPOWERED
part of HESPERIA



Sustainability Statement

Collie Solar PV & BESS Project

Version 1.0

Prepared by: MT

Purpose of this Document

This Sustainability Statement relates to the Collie Solar Photovoltaic (PV) and Battery Energy Storage System (BESS) Project (the **Project**). It is a high-level summary of the Principles and Practices that Enpowered, as part of the Hesperia Group, brings to project design, delivery and operation.

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1.1 Alignment 3

2. Sustainability Objectives 5

3. Next Steps 6

4. Attachments 7

1. Enpowered Sustainability Principles

Enpowered operations and project delivery are guided by five Sustainability Principles:

- **Public Good**: Philanthropic donations and community programs, research, generation of economic activity, jobs and delivery of public infrastructure.
- **Ecology and Landscape Led**: Protecting and enhancing our environment through retention and enhancement of biodiversity, planting and offsets, enhancing connections to local and regional ecology, emission minimisation through low carbon materials, use of renewable energy in construction, and groundwater management.
- **Identity and Sense of Place**: Protection and celebration of First Nations and other cultural heritage through engagement and consultation in project design and delivery.
- **Healthy, Safe, and Inclusive**: Delivery of healthy places that are culturally and physically safe with consideration of air quality, noise and light pollution. Inclusion and accessible design of workplaces.
- **Optimal Use of Resources**: Efficient and sustainable use of resources through efficient design, low carbon and sustainable construction materials, energy efficient design, efficient use of water. Recycling and resource recovery.

1.1 Alignment

Enpowered is part of Hesperia Group. As such, Enpowered is a part of core Hesperia corporate initiatives, including:

Annual Sustainability Performance Reporting

an annual report including disclosure of a large number and spectrum of performance metrics categorised against Environmental, Social and Governance.

Annual Sustainability Performance Report for reference:

Sustainability Performance Report | Hesperia
(https://www.hesperia.com.au/purpose/sustainability/sustainability-performance-report/)

B Corporation

Hesperia, including Enpowered, has been a B Corporation since 2021. Being a B Corporation positions the company as part of a community that uses business as a force for good, is purpose-driven and creates benefit for all stakeholders.

B Corporation Profile Listing for reference:

Hesperia - Certified B Corporation - B Lab Global
(https://www.bcorporation.net/en-us/find-a-b-corp/company/hesperia/)

Carbon Neutral

Hesperia is Western Australia's first property group to be certified as a Carbon Neutral Organisation by Climate Active. A Federal government initiative, the Climate Active certification is the established national standard for carbon neutral claims. This certification covers operational emissions as part of our commitment to addressing our impacts on climate change.

Carbon Neutral Organisation Public Disclosure Statements for reference:

Hesperia | Climate Active
(https://www.climateactive.org.au/buy-climate-active/certified-members/hesperia)

2. Sustainability Objectives

Each project, including the Collie Solar PV and BESS Project, targets minimum performance requirements in the context of the Principles:



Net Zero Upfront Carbon (Construction): Enpowered conducts a Life Cycle Analysis (LCA) of the project works to establish a strategy to reduce embodied emissions by at least 20%. Remaining carbon emissions that cannot be avoided to be 100% offset with high quality carbon offsetting projects. A Net Zero report will be published summarising the strategy and outcomes.



Reconciliation: Engagement with Traditional Owners has already begun and will continue to inform the project. Enpowered follows an established process to involve local Aboriginal people, give opportunities to Aboriginal-owned suppliers, and include local knowledge in the design and delivery of the project.



Circular Economy: A process is undertaken to review opportunities to reduce the material intensity of the project, optimise the eventual reuse of materials, and achieve a minimum 90% diversion from landfill of any remaining waste streams.



Responsible Procurement: A process aligned to AS ISO 20400 is followed to ensure that supply chain risks are identified and mitigated in design. A Supplier Code of Ethical Conduct will be in place for key elements of the supply chain.



Biodiversity: An ecology-led approach has been in place from the earliest planning and design decisions. Avoiding unnecessary clearing and retaining the maximum number of established trees and vegetative communities is the core approach, which will be augmented with appropriate revegetation and landscape interventions to achieve a net positive overall approach.



Appropriate Land Use: The design intention for this project is to achieve the delivery of important renewable energy infrastructure without unnecessarily compromising the agricultural function of the land. The project will seek to achieve a balance between multiple land uses.



Climate Change Adaptation: Enpowered undertakes a Climate Change Risk Pre-Screening Assessment, to ensure sites with high vulnerability to climate change are avoided. In design, a Climate Change Adaptation Plan is completed to identify suitable adaptation strategies.



Third Party Review: Enpowered seeks assurance that sustainability outcomes are genuine and independently verified. This project will be reviewed against the Infrastructure Sustainability (IS) Tool and a certification targeted subject to eligibility.

3. Next Steps

Once the detailed design process commences, the Collie Solar PV and BESS Project will be required to pass through a number of sustainability gateways:

1) Sustainability Strategy: a key project document that will outline the way that the Principles and Objectives outlined in this strategy will be implemented.

2) Modelling: Life Cycle Assessment and other modelling tools are applied to identify key opportunities for optimising environmental and social impacts.

3) Design Workshopping: Ensuring that the optimal choices are made to deliver on the Sustainability Strategy.

4) Project Documentation: Agreed approaches are locked into designs and specifications.

5) Measurement: quantification of outcomes such as carbon, energy and water intensity of construction, material consumption, and social impacts.

6) Reporting: Enpowered will publish outcomes of the project, including a Net Zero Upfront Carbon Construction report and any sustainability certifications achieved.

4. Attachments

The certifications and awards in the attached document pertain to Hesperia-delivered projects and are included to indicate the competency and commitment to sustainability by the Hesperia Group, of which Enpowered is a part.

HESPERIA

Recognition and Awards

Hesperia

2022 Net Zero Action Award
Banksia Foundation: 33rd Banksia National Sustainability Awards

Healthcare

Murdoch Square

2024 Judge's Award
UDIA WA Awards for Excellence

2024 President's Award
PCA WA Property Awards

2024 Best Sustainable Development
PCA WA Property Awards

2024 Best Mixed-Use Development
PCA WA Property Awards

2024 Best New Commercial Development
PCA WA Property Awards

Industrial

Roe Highway Logistics Park

2024 Best Industrial Development (Silk K2)
PCA WA Property Awards

2022 Environmental Excellence
UDIA National Awards for Excellence

2021 Environmental Excellence
UDIA WA Awards for Excellence

2021 Best Sustainable Development
PCA WA Property Awards

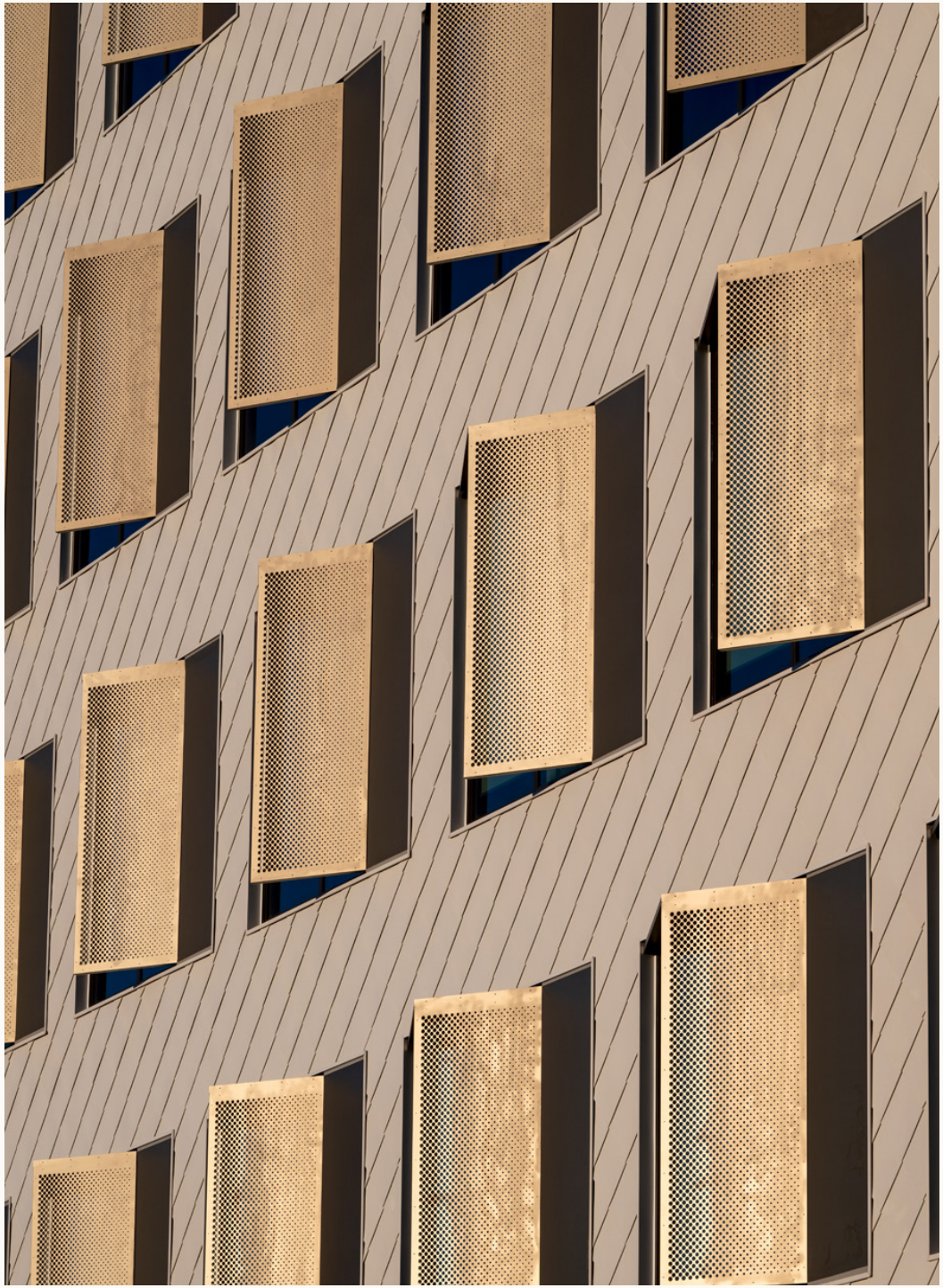
2021 Best Industrial Development
PCA WA Property Awards

Residential

Victoria House

2023 Design Award
UDIA Awards for Excellence

2023 Medium Density Development Award
UDIA Awards for Excellence



Murdoch Square

Project Sustainability Certifications

Project	Asset	Certification	Certification Level	Certification Status
Roe Highway Logistics Park	Lot 23 Silk K2	Green Star	6 Stars	Certified
	Lot 53 Sandvik 2	Green Star	6 Stars	Certified
	JB Hl Fl & Bradken	Green Star	5 Stars	Submitted for Assessment
Konnex P1 & P2	Konnex Estate	EnviroDevelopment	6 Leaf	Registered
Hazelmere	Hazelmere Interchange	EnviroDevelopment	6 Leaf	Certified
	Lot 1499	Green Star	5 Stars	Submitted for Assessment
	Lot 189 & 190	Green Star	5 Stars	Registered
	Lot 119 & 808	Green Star	5 Stars	Registered
	Lot 4 & 5	Green Star	5 Stars	Registered
	Lot 4 & 5	Green Star	5 Stars	Registered
Rivermark	Rivermark	EnviroDevelopment	6 Leaf	Certified
East Wanneroo	Botania Park	EnviroDevelopment	6 Leaf	Registered
Murdoch Square	Murdoch Square	Green Star	5 Stars	Submitted for Assessment
Orthonova	Orthonova	Green Star	5 Stars	Submitted for Assessment

APPENDIX E – TRAFFIC IMPACT ASSESSMENT



Transport Impact Statement

Project:	Collie Battery Energy Storage System and Solar PV Project
	4996 Collie Williams Road, Palmer
Client:	Enpowered Pty Ltd
Author:	L. De Leon
Date:	20th May 2025
Shawmac Document #:	2503009-TIS-001

CONSULTING CIVIL AND TRAFFIC ENGINEERS
1 ST. FLOOR, 908 ALBANY HIGHWAY, EAST VICTORIA PARK WA 6101.
PHONE|+61 8 9355 1300
EMAIL| admin@ shawmac.com.au

Document Status: Client Review

Version	Prepared By	Reviewed By	Approved By	Date
A	L. De Leon	P. Nguyen	P. Nguyen	08/05/2025
B	L. De Leon	-	P. Nguyen	20/05/2025

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File Reference: \\shawmacserver\NewData\Jobs Active 2025\T&T - Traffic & Parking\Enpowered_Collie Solar and Storage_TIS_2503009\3. Documents\3.20 TIS\Enpowered_Collie Solar and Storage_TIS_Rev B.docx

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1 Introduction

1.1 Proponent

Enpowered Pty Ltd (Enpowered) is a subsidiary of Hesperia Property Ptd Ltd. Enpowered are proposing the development of a Battery Energy Storage System (BESS) and Solar Photovoltaic (PV) facility in Palmer.

Shawmac has been requested to prepare a Transport Impact Statement (TIS) in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines Volume 4 – Individual Developments*. The assessment considers the following key matters:

- Details of the proposed development.
- Vehicle access and parking.
- Provision for service vehicles.
- Hours of operation.
- Daily traffic volumes and vehicle types.
- Traffic management on frontage streets.
- Site specific and safety issues.

1.2 Site Location

The site is located on Collie-Williams Road in Palmer on the lots as shown in **Figure 1**.

Lot	Plan	Vol	Folio	Street Address	Area (ha)	Proprietor
785	232871	2684	117	4997 Collie-Williams Road, Palmer	119.5225	Semlot Nominees Pty Ltd
786	232871	2684	117	4996 Collie-Williams Road, Palmer	39.6494	Semlot Nominees Pty Ltd
787	232871	2684	117	-	40.5117	Semlot Nominees Pty Ltd
788	232871	2102	12	-	40.6097	Semlot Nominees Pty Ltd
	Land ID 3539119			Unnamed unconstructed road	3.1543	State of Wa
	Land ID 3539122			Unnamed unconstructed road	0.6191	State of Wa
	Land ID 3539123			Unnamed unconstructed road	3.1728	State of Wa

Figure 1: Project Lots

The local authority is Shire of Collie.

The general site location is shown in **Figure 1**. An aerial view of the existing site is shown in **Figure 2**.

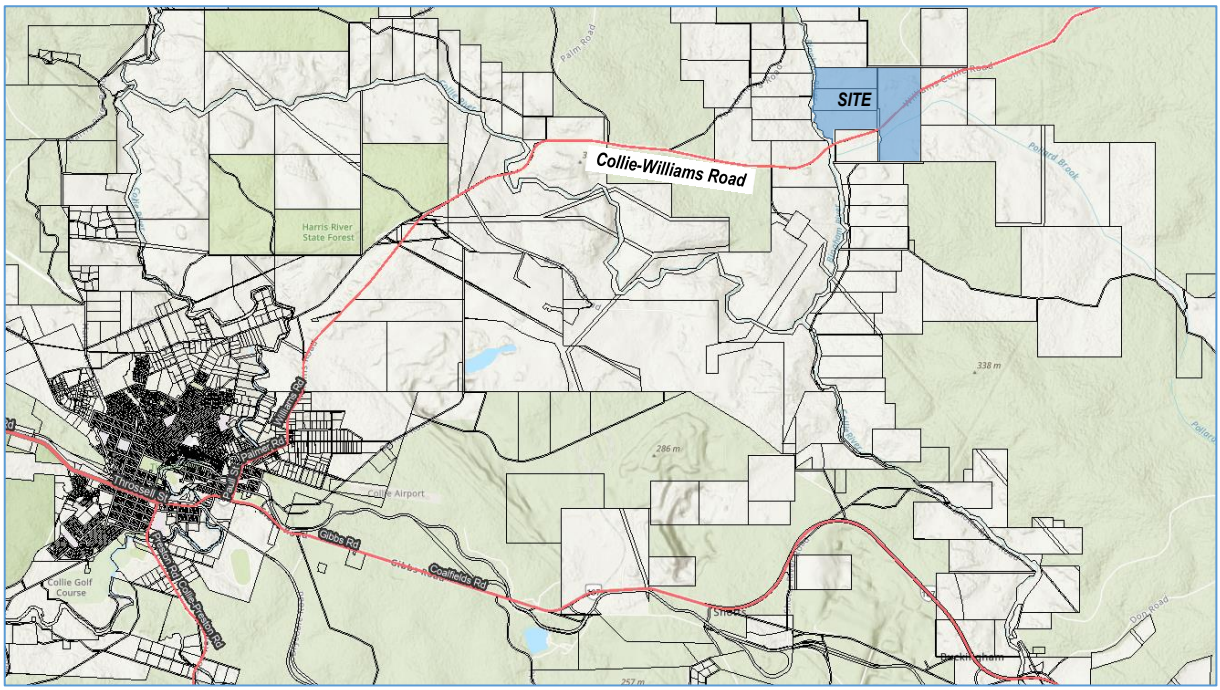


Figure 2: Site Location

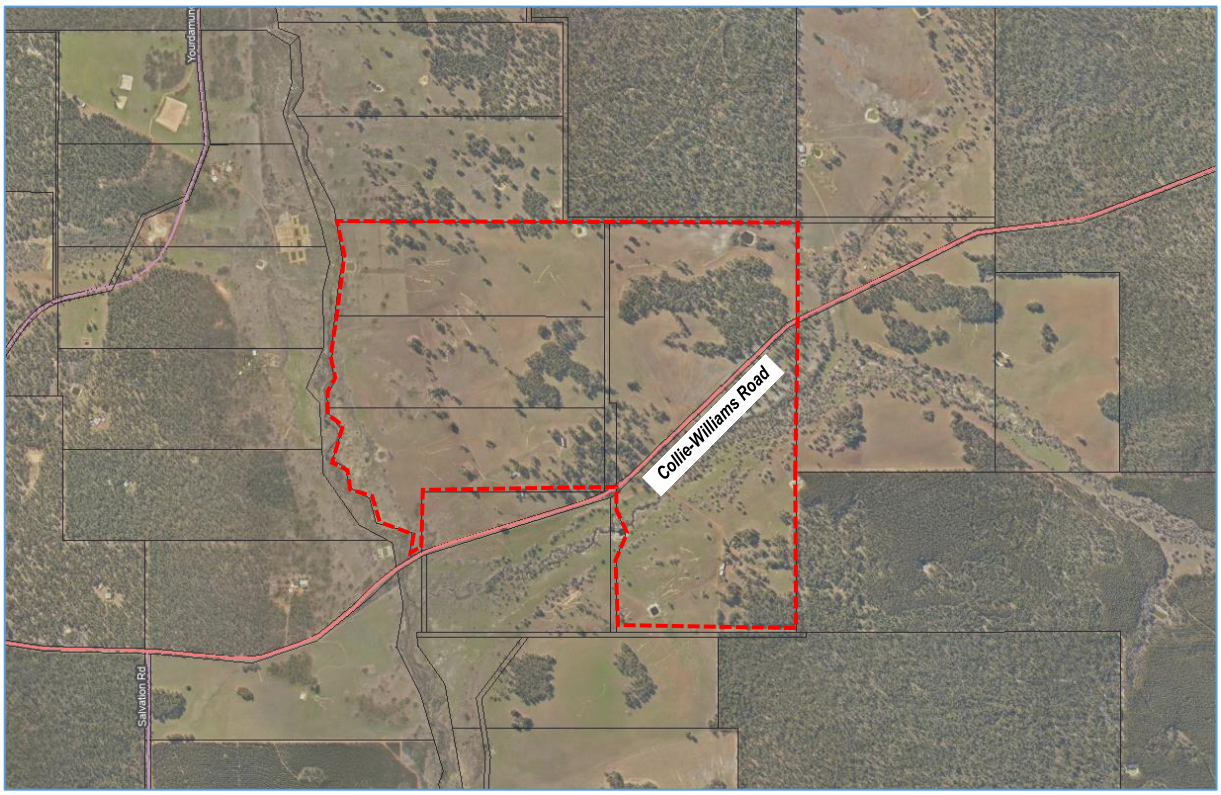


Figure 3: Aerial View (Sourced from Locate V5)

2 Proposed Development

2.1 Land Use

The general layout of the proposed BESS and Solar PV facility in Palmer comprises the following:

- 200MW BESS facility.
- Up to 66MW AC solar farm.
- 330kV Underground transmission cable.
- Facility collector substation.
- Control systems.
- Water storage tanks.
- Internal access roads/tracks.
- Cabling.
- Operations and facilities space.

The overall site layout is shown in **Figure 4**.

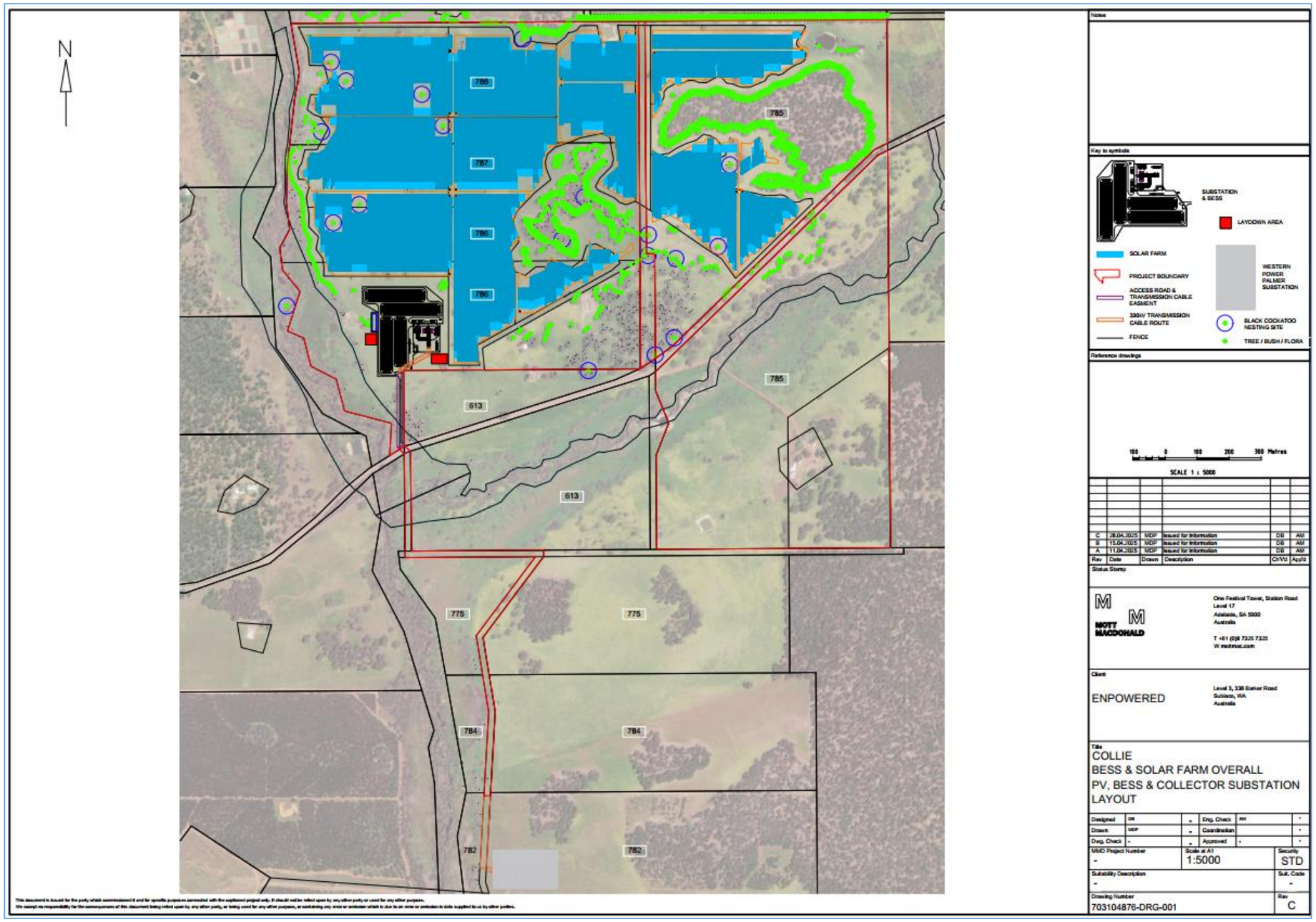


Figure 4: Overall Site Layout

3 Traffic Management on Frontage Streets

3.1 Road Network

The layout and hierarchy of the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 5**.

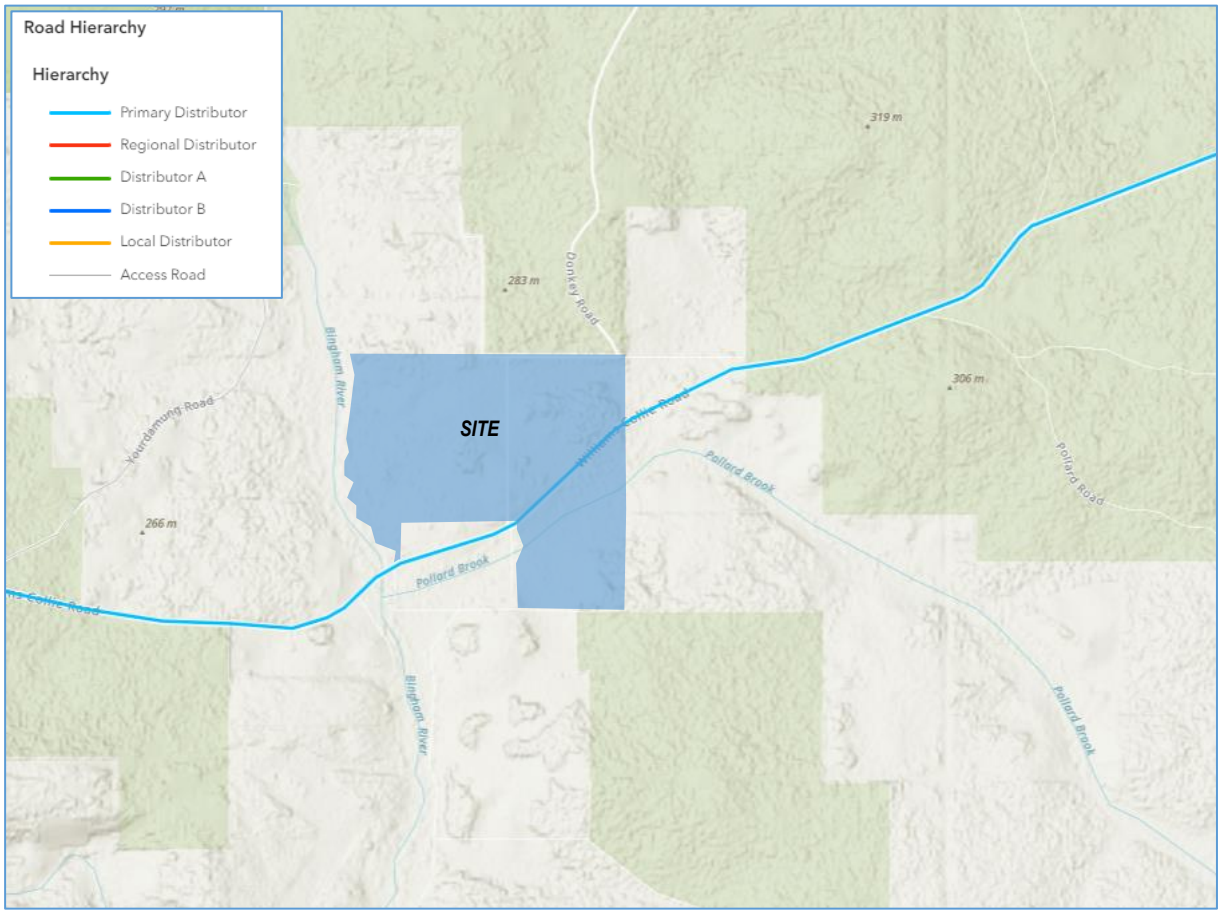


Figure 5: Existing Road Network Hierarchy

As shown, Collie-Williams Road is a Primary Distributor Road and State-Controlled Road which is under the jurisdiction of Main Roads WA.

3.2 Speed Limits

The existing speed limits on the surrounding roads are shown in **Figure 6**.

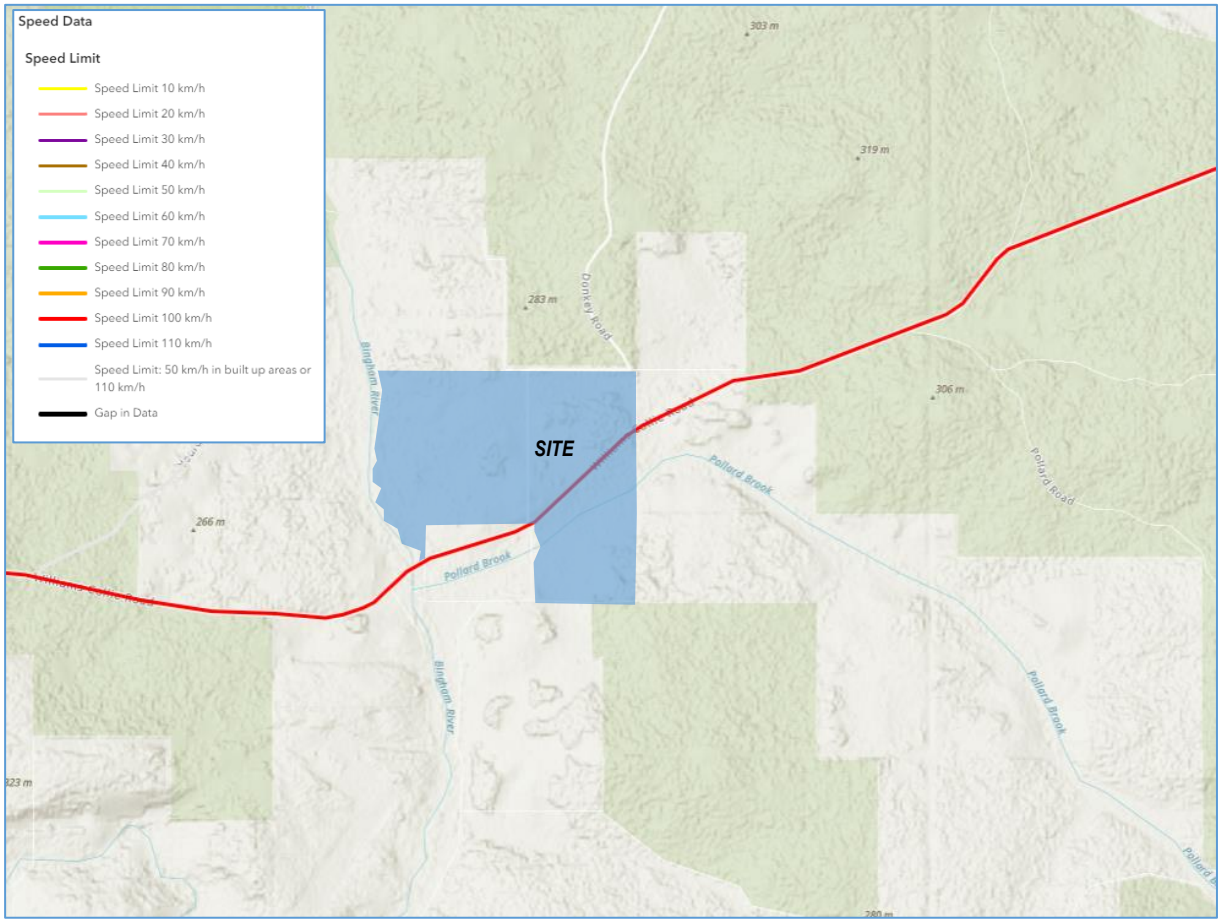


Figure 6: Existing Speed Limits

3.3 Traffic Volumes

The available traffic volumes were sourced from Main Roads WA's Traffic Map. The closest count is located along Collie-Williams Road (M066), east of Salvation Road (SLK 15.49) as shown in **Figure 7**.



Figure 7: Main Roads WA's Trafficmap Available Traffic Volumes

The available traffic volumes between 2019 and 2025 is shown in **Figure 8**.

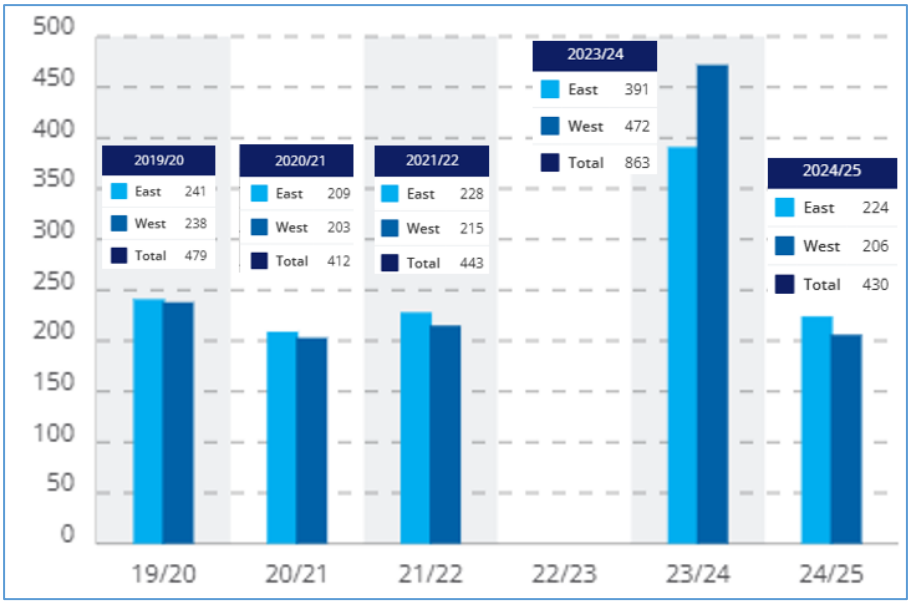


Figure 8: Traffic Volumes Between 2019 – 2025

As shown, the vehicle volumes on Collie-Williams Road have remained relatively stable with the exception of 2023/24 which may be due to a temporary project or construction and no data was not available for the 2022/23 period.

The hourly traffic volumes obtained from Main Roads WA's Traffic Map is shown in **Figure 9**.

mainroads WESTERN AUSTRALIA

SITE 51030

Hourly Volume

Collie Williams Rd (M066)

East of Salvation Rd (SLK 15.49)

2024/25
Monday to Friday

	All Vehicles			Heavy Vehicles			
	EB	WB	Both	EB	WB	Both	%
00:00	0	0	0	0	0	0	0.0
01:00	0	0	0	0	0	0	0.0
02:00	0	0	0	0	0	0	0.0
03:00	2	0	2	1	0	1	50.0
04:00	4	1	5	0	0	0	0.0
05:00	11	4	15	6	1	7	46.7
06:00	19	4	23	10	1	11	47.8
07:00	16	8	24	6	2	8	33.3
08:00	16	12	28	4	4	8	28.6
09:00	22	11	33	8	2	10	30.3
10:00	20	16	36	6	7	13	36.1
11:00	19	18	37	6	6	12	32.4
12:00	15	18	33	3	5	8	24.2
13:00	17	16	33	7	2	9	27.3
14:00	18	20	38	6	6	12	31.6
15:00	13	21	34	3	6	9	26.5
16:00	9	17	26	2	2	4	15.4
17:00	9	15	24	3	4	7	29.2
18:00	8	10	18	2	2	4	22.2
19:00	2	6	8	0	1	1	12.5
20:00	2	4	6	0	2	2	33.3
21:00	2	3	5	0	1	1	20.0
22:00	0	2	2	0	1	1	50.0
23:00	0	0	0	0	0	0	0.0
TOTAL	224	206	430	73	55	128	29.8

Peak Statistics

AM	TIME	10:30	11:45	10:30	06:00	10:30	10:30
	VOL	24	20	41	10	8	16
PM	TIME	13:30	15:15	13:30	13:30	15:00	13:30
	VOL	22	22	41	9	6	14

Figure 9: Collie-Williams Road, East of Salvation Road Traffic Volumes – Average Weekday

As shown, The existing peak hours on Collie-Williams Road are approximately 10:30am – 11:30am in the morning peak hour and 1:30pm – 2:30pm in the afternoon peak hour. The peak hour traffic volume is 41 vehicle movements in both the AM and PM peak periods.

According to Austroads *Guide to Traffic Management Part 3: Transport Study and Analysis Methods*, the capacity of a two-lane highway is 1,700 passenger cars per hour for each direction of travel. The above volumes are well within the capacity of Collie-Williams Road.

3.4 RAV Network

3.4.1 Tandem Drive Network

The Tandem Drive network according to Main Roads WA's Heavy Vehicle Services (HVS) network mapping tool is shown in **Figure 10**.

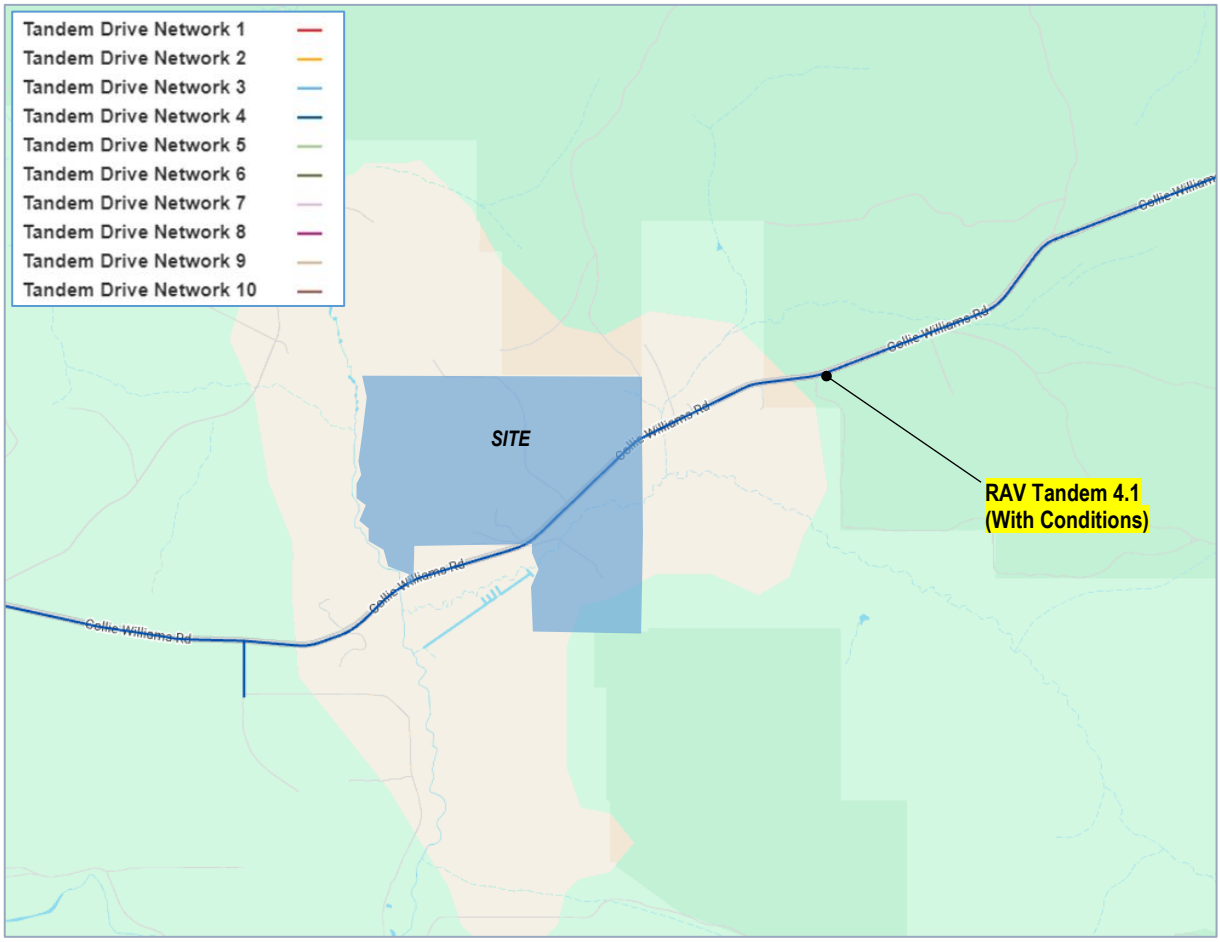


Figure 10: Tandem Drive RAV Network

The largest Restricted Access Vehicle (RAV) permitted to travel along Collie-Williams Road is a 27.5m Tandem Drive 4.1 road train with the following conditions:

- Operation is not permitted while the school bus is operating on the road. Operators must contact the relevant schools and obtain school bus timetables: or where direct contact can be made with the school bus driver, operation is permitted once the school bus driver confirms all school – drop-offs/pick-ups have been completed on the road.

3.4.2 Tri-Drive Network

The Tri Drive network according to Main Roads WA's HVS network mapping tool is shown in **Figure 11**.

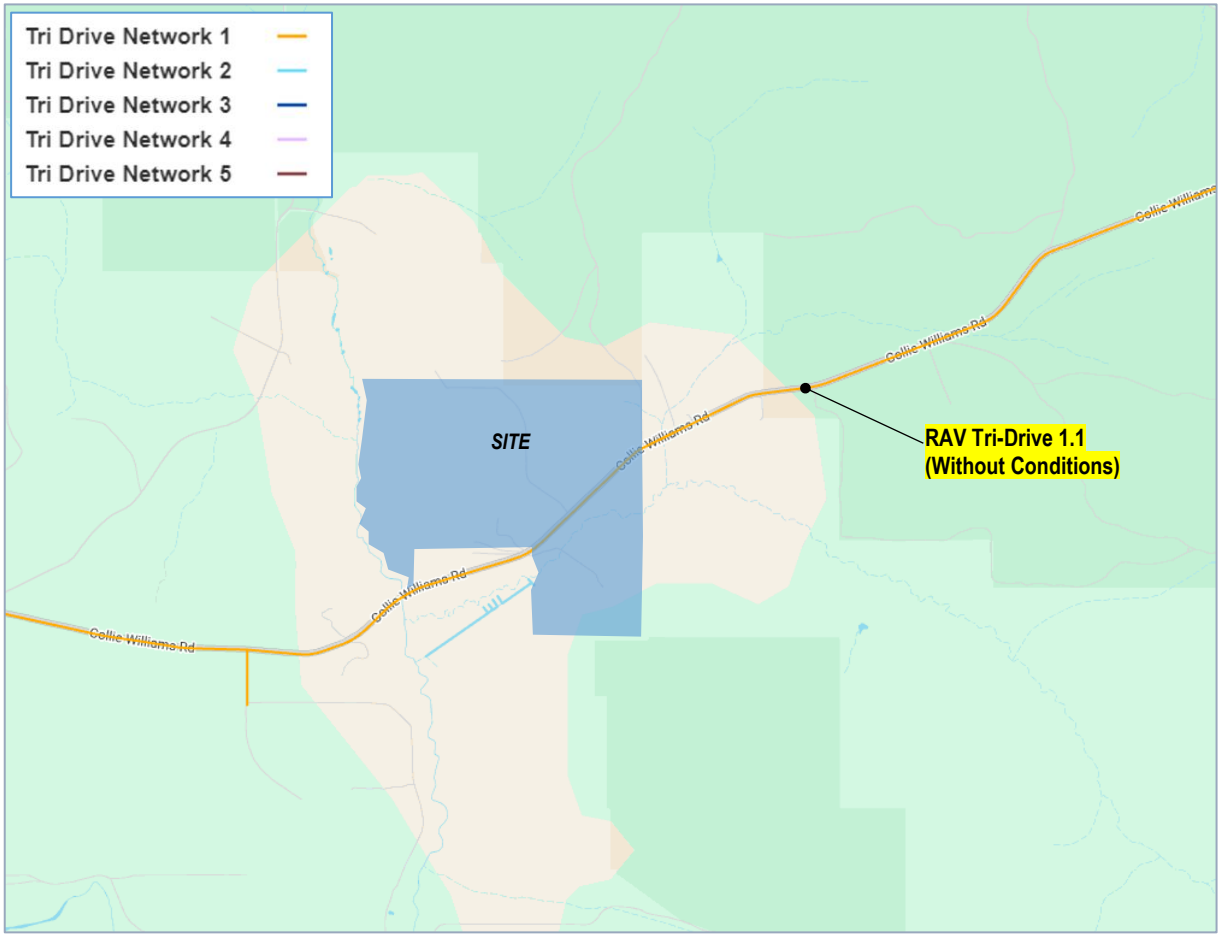


Figure 11: Tri Drive RAV Network

As shown, the largest RAV vehicle able to travel along Collie-Williams Road is a 27.5m Tri-Drive 1.1 road train.

4 Traffic Impact

4.1 Assessment Period

The planned construction period ranges from 12 – 18 months, with the key assets including:

- Transmission cable.
- Facility collector substation.
- BESS facility and solar PV.

As advised, the construction hours will be similar to other projects elsewhere in Australia which are from 7am to 6pm Monday to Friday and from 7am to 1pm on Saturday.

4.2 Proposed Construction Vehicle

Delivery trucks will predominantly be Australian Standard Medium Rigid Vehicles (MRV) and Heavy Rigid Vehicles (HRV). Articulated Vehicles (AV) and B-Doubles will be used to transport larger plant such as the PV panels and BESS containers. The proposed construction vehicles are well within the maximum vehicles authorised on Collie-Williams Road.

4.3 Traffic Generation – Construction Period

As previously mentioned, the construction period will include the installation of the various asset groups.

The estimated daily and peak hour traffic volumes generated during the construction period are summarised in **Table 1**.

The following assumptions are noted:

- Heavy vehicle movements will be evenly spread out during the day but it is noted that the heavy vehicle movements can be scheduled to occur primarily outside of the road network peak hours as necessary.
- Approximately two-thirds of the light vehicle movements are staff transport before 7am and after 6pm during the weekday. The remaining light vehicle movements are assumed to occur throughout the day.
- The vehicle movements during the construction period occurs outside the existing peak hours on Collie-Williams Road. The existing peak hours on Collie-Williams Road are approximately 10:30am – 11:30am in the morning peak hour and 1:30pm – 2:30pm in the afternoon peak hour.
- Each asset group may also generate a small number (one or two) over-size over-mass (OSOM) vehicles depending on the need for heavy plant and these will be subject to permits and approvals from Main Roads WA.
- The volumes in the table below represent the peak traffic movements which are expected during the

middle months of construction and the volumes would ramp down significantly towards the commissioning phase. The construction of each asset group will be staggered so that the peaks do not overlap and will allow for some workers to be involved in the construction of multiple asset groups.

Table 1: Traffic Volumes – Construction Phase

Assets	Heavy Vehicles		Light Vehicles	
	Daily Volumes	Peak Hour Volumes	Daily Volumes	Peak Hour Volumes
Transmission cable	15 – 25 trips per day	2 – 3 trips per hour	9 – 16 trips per day	6 – 11 trips per hour
Facility collector substation	15 – 25 trips per day	2 – 3 trips per hour	48 – 64 trips per day	32 – 43 trips per hour
BESS facility and solar farm	15 – 25 trips per day	2 – 3 trips per hour	64 – 72 trips per day	43 – 48 trips per hour

Allowing for some overlap between phases, the client has estimated that the maximum peak traffic generation would be in the order of 77 to 81 vehicles per hour (vph).

It is expected that a portion of the workforce will be accommodated in local workers' accommodation and will be transported to and from the worksite via bus or carpooling. The use of buses and carpooling will significantly reduce the above estimate and as the majority of peak hour trips are associated with worker movements. It would be reasonable to assume a 50% reduction to these values, resulting in an estimated 39 to 41 vph during the peak construction months.

According to the WAPC TIA guidelines, an increase of between 10 to 100 peak hour vehicles is considered to have a low to moderate impact and is generally deemed acceptable without requiring detailed capacity analysis. The estimated 39 to 41 vph is around the middle of this range and so the development traffic is considered to have a moderate impact and can be accommodated within the existing capacity of the road network.

4.4 Traffic Generation – Operations and Maintenance Phase

Once the development is construction and operational, the typical maintenance associated with the site including staffing needs is provided and summarised in **Table 2**.

Table 2: Traffic Volumes – Maintenance Phase

Assets	Routes	Frequency	Duration	Staff	Vehicles
Transmission cable	Inspection	Monthly	1 day	2	1 light vehicle
	Routine maintenance	Online monitoring system only			
Facility collector substation	Inspection	Monthly	1 week	3	2 light vehicles
	Routine maintenance	6-Yearly	4 weeks	10	1 MRV and 3 light vehicles
BESS facility and solar farm	Inspection	Monthly	1 week	3	2 light vehicles
	PV cleaning	6-Monthly	1 month	2	1 light vehicle
	Routine maintenance	6-Yearly	4 weeks	10	1 MRV and 3 light vehicles

As shown, the estimated vehicle movements during the maintenance phase will be less than 10 vehicles during any peak hour. The development traffic is considered to have a low impact and can be accommodated within the existing capacity of the road network.

5 Vehicle Access Assessment

5.1 Access Arrangements

Vehicle access to the site is proposed via Collie-Williams Road as shown in **Figure 12**.

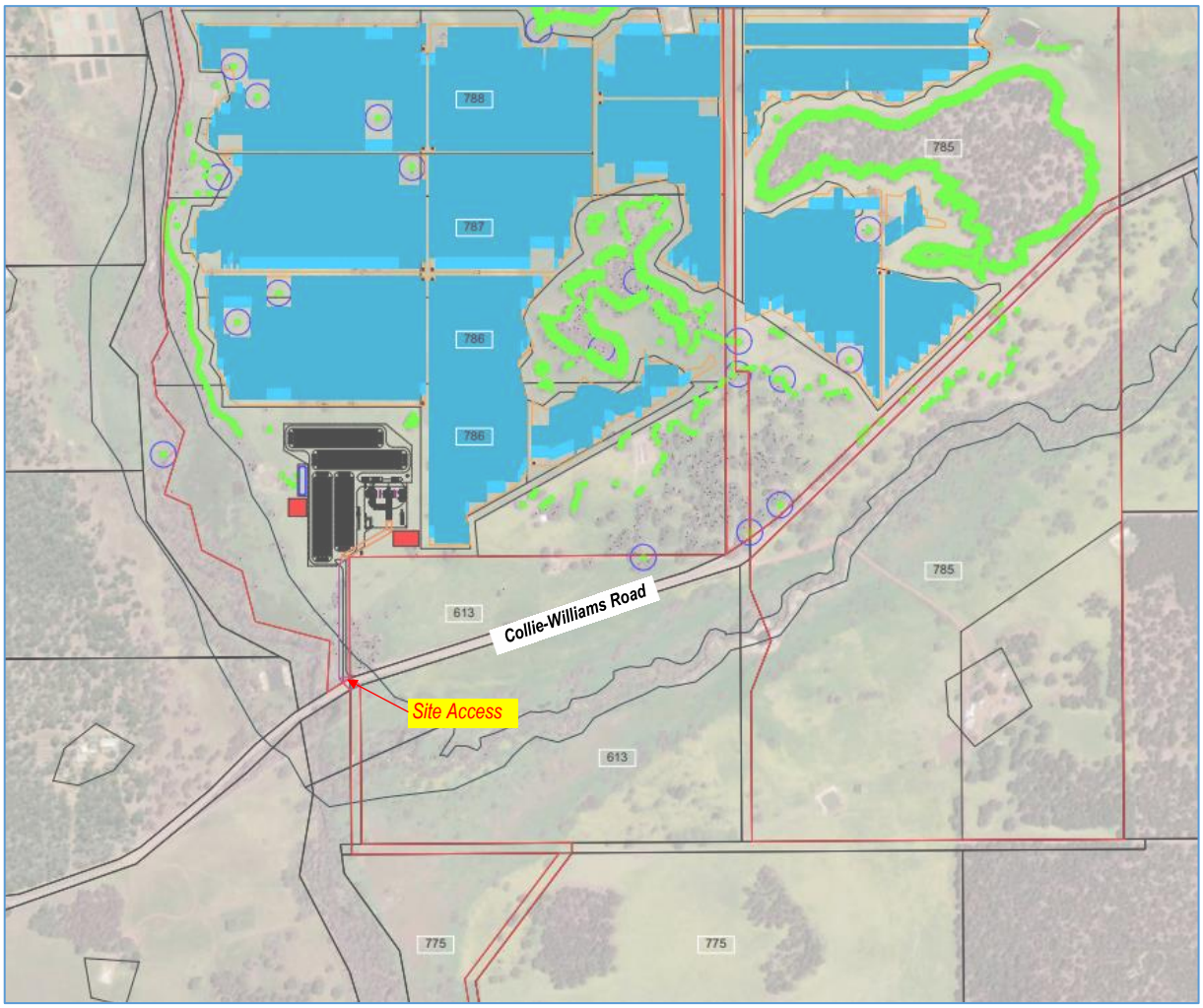


Figure 12: Site Accesses On Collie-Williams Road

5.2 Sight Distance

Collie-Williams Road is under the controlled of Main Roads WA and therefore, the Safe Intersection Sight Distance (SISD) is the minimum distance which should be provided on the major road at any intersection. SISD provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle on a minor road approach moving into a collision situation (e.g., in the worst case, stalling across the traffic lanes) and to decelerate to a stop before reaching the collision point.

The SISD is assessed based on the following parameters:

- An observation time of 3 seconds as per Austroads Part 3.
- A reaction time of 2.5 seconds.
- Deceleration coefficients for the purpose of SISD calculations are 0.36 for light vehicles and 0.29 for heavy vehicles (B-Double)
- Driver eye height is 2.4m for trucks and 1.1m for cars.
- Object height of 1.25m.
- Measured 5m from the edge of through lane.

The minimum required SISD are calculated in **Table 3**. The longitudinal grades were calculated from Landgate contours.

Table 3: SISD Calculations

Location	Vehicle Type	Operating Speed (km/h) (EB, WB)	Coefficient of Deceleration	Decision Time (s)	Longitudinal Grade EB/ WB)	Required SISD for (EB / WB) Traffic (m)
Site Access	Heavy Vehicle	100 / 100	0.29	5.5	-0.5% / 2%	291 / 280
	Light Vehicles	100 / 100	0.36	5.5	-0.5% / 2%	264 / 256

As shown in **Figure 13** and **Figure 14**, SISD is achieved in both directions.



Figure 13: SISD Check Towards the West



Figure 14: SISD Check Towards the East

5.3 Swept Path Analysis

As previously mentioned, the largest delivery trucks comprises B Double to transport the larger components.

A vehicle swept path analysis has been undertaken to assess the vehicle access for a B Double Truck. The analysis has been undertaken in AutoTURN vehicle tracking software using the Main Roads WA RAV 2 templates. The results of the analysis are attached in **Appendix A – Swept Path Analysis**.

The results of the swept path analysis indicates that the B Double can enter and exit the site in all directions. The detailed design of the access crossover will need to be accommodate B Double access to Main Roads WA standards.

The access designed for B Doubles during the construction period is temporary only. Once the site is operational, the permanent crossover will only accommodate light vehicles and rigid trucks with minimal access width required.

6 Site Specific Issues and Safety Issues

6.1 Crash History

The crash history of the adjacent road network was sourced from the Main Roads WA's Reporting Centre. The crashes recorded over the five-year period to December 2024 are shown in **Figure 15**.

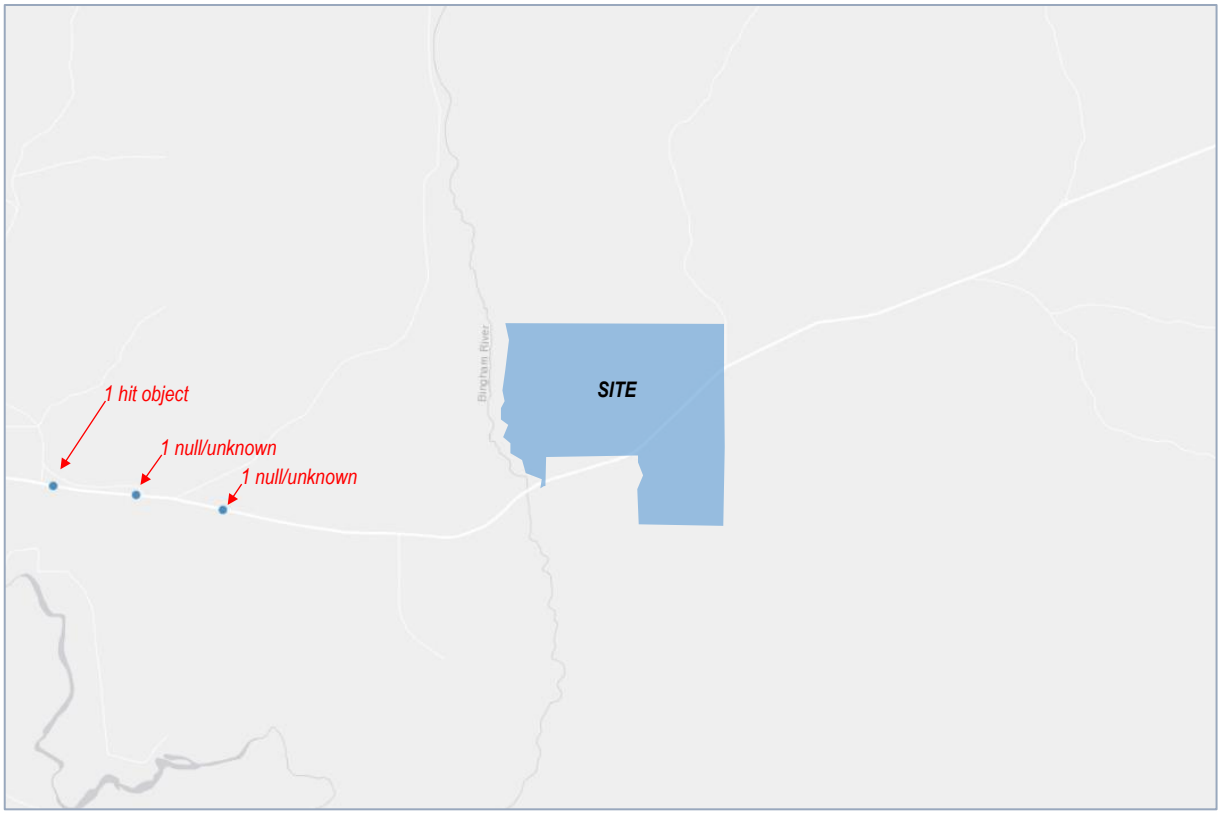


Figure 15: Main Roads WA's Crash Information (2020 – 2024)

As shown, there are no recorded crashes directly adjacent the site boundary on Collie-Williams Road.

The proposed development will generate a moderate volume of additional traffic during the construction and operational/maintenance period and achieves the compliant access SSID which is unlikely to increase the risk of crashes unacceptably.

7 Conclusion

This Transport Impact Statement for the proposed BESS and Solar PV facility in Palmer concluded the following:

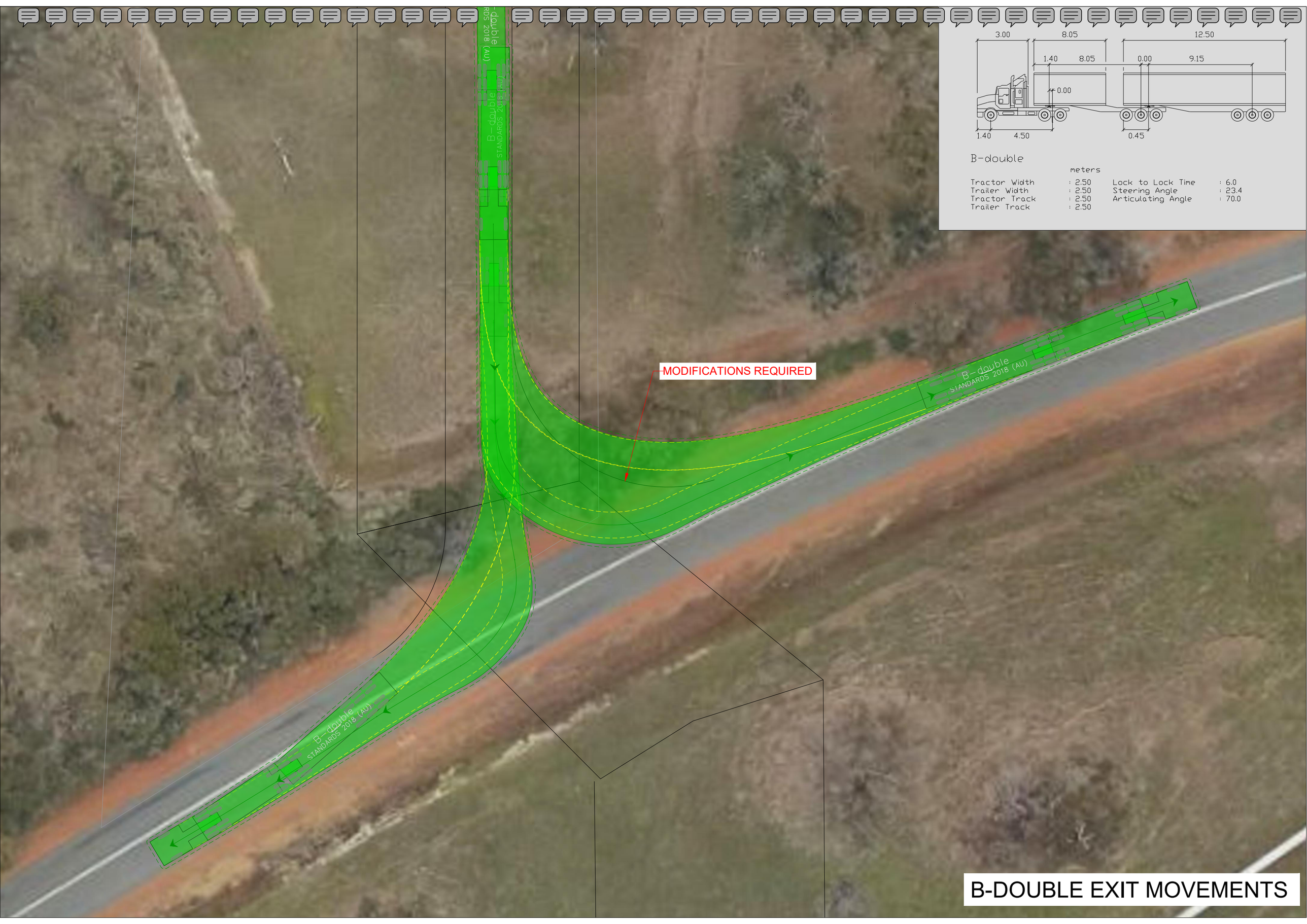
- The peak traffic generation would be in the order of 77 to 81 vehicles per hour (vph).
- It is expected that a portion of the workforce will be accommodated in local workers' accommodation and will be transported to and from the worksite via bus or carpooling. The use of buses and carpooling will significantly reduce the above estimate and as the majority of peak hour trips are associated with worker movements. It would be reasonable to assume a 50% reduction to these values, resulting in an estimated 39 to 41 vph during the peak construction months.
- According to the WAPC TIA guidelines, an increase of between 10 to 100 peak hour vehicles is considered to have a low to moderate impact and is generally deemed acceptable without requiring detailed capacity analysis. The estimated 39 to 41 vph is around the middle of this range and so the development traffic is considered to have a moderate impact and can be accommodated within the existing capacity of the road network.
- Vehicle access to the site is proposed via Collie-Williams Road.
- Analysis of the proposed site access concludes that the SISD is achieved in both directions.
- A vehicle swept path analysis has been undertaken to assess the vehicle access for a B Double Truck. The results of the swept path analysis indicates that the B Double can enter and exit the site in all directions. The detailed design of the access crossover will need to be accommodate B Double access to Main Roads WA standards.
- The access designed for B Doubles during the construction period is temporary only. Once the site is operational, the permanent crossover will only accommodate light vehicles and rigid trucks with minimal access width required.
- There are no recorded crashes directly adjacent the site boundary on Collie-Williams Road. The proposed development will generate a moderate volume of additional traffic during the construction and operational/maintenance period and is unlikely to increase the risk of crashes unacceptably.

As such, the TIS demonstrates that the proposed BESS and Solar PV facility in Palmer will not have any adverse transport impact on the surrounding area.

Appendix A – Swept Path Analysis



B-DOUBLE ENTRY MOVEMENTS


B-double
STANDARDS 2018 (AU)
MODIFICATIONS REQUIRED
B-double
STANDARDS 2018 (AU)
B-double
STANDARDS 2018 (AU)
3.00
8.05
12.50
1.40
8.05
0.00
9.15
0.00
1.40
4.50
0.45
B-double
meters
Tractor Width : 2.50
Trailer Width : 2.50
Tractor Track : 2.50
Trailer Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 23.4
Articulating Angle : 70.0
B-DOUBLE EXIT MOVEMENTS

APPENDIX F – ENVIRONMENTAL NOISE ASSESSMENT

Lloyd George Acoustics
PO Box 717
Hillarys WA 6923
T: 9401 7770
www.lgacoustics.com.au

Environmental Noise Assessment - Collie Solar Farm & Battery Energy Storage System

4996 Collie-Williams Road, Palmer WA 6225

Reference: 25029971-01

Prepared for:
Enpowered Pty Ltd (Enpowered)

Reference: 25029971-01

Lloyd George Acoustics Pty Ltd
ABN: 79 125 812 544

PO Box 717
Hillarys WA 6923
www.lgacoustics.com.au

Contacts	General	Daniel Lloyd	Terry George	Matt Moyle
E:	info@lgacoustics.com.au	daniel@lgacoustics.com.au	terry@lgacoustics.com.au	matt@lgacoustics.com.au
P:	9401 7770	0439 032 844	0400 414 197	0412 611 330
Contacts	Rob Connolly	Hao Tran	Matt Nolan	Dave Perry
E:	rob@lgacoustics.com.au	hao@lgacoustics.com.au	matt.nolan@lgacoustics.com.au	dave@lgacoustics.com.au
P:	0410 107 440	0438 481 207	0448 912 604	0410 468 203

This report has been prepared in accordance with the scope of services described in the contract or agreement between Lloyd George Acoustics Pty Ltd and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client, and Lloyd George Acoustics Pty Ltd accepts no responsibility for its use by other parties.

Date	Rev	Description	Author	Verified
12-May-25	0	Issued to Client	Matt Nolan	Terry George

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EXECUTIVE SUMMARY

Lloyd George Acoustics was engaged by Enpowered Pty Ltd (Enpowered), to undertake an environmental noise assessment for a proposed Solar Farm & Battery Energy Storage System (BESS) to be located at 4996 Collie-Williams Road, Palmer WA 6225. With regard to noise emissions, consideration was given to noise from the proposed BESS containers, Power Conversion Systems (PCS) and solar photovoltaic (PV) inverters, as well as high voltage (HV) substations at neighbouring properties, against the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

Calculations based on the data provided show that compliance can be practicably achieved by implementing the compliant operation modes shown in the table below.

Table E1 – Compliant Operating Scenarios

Time Period	PCS	BESS	Main HV Substation	Secondary HV Substation	PV Inverter
Monday to Saturday 7.00am to 7.00pm	**Up to 100 percent fan speed with noise control kit** (sound power level to be 95 dB(A) or lower)	**Up to 80 percent fan speed with noise control kit** (sound power level to be 79 dB(A) or lower)	**Operating up to 100 percent** (sound power level to be 108 dB(A) or lower)	**Operating up to 100 percent** (sound power level to be 100 dB(A) or lower)	**Normal operating speed** (sound power level to be 94 dB(A) or lower)
Sunday/Public Holiday 9.00am to 10.00pm & Monday to Saturday 7.00pm to 10.00pm	**Up to 80 percent fan speed with noise control kit** (sound power level to be 92 dB(A) or lower)	**Up to 80 percent fan speed with noise control kit** (sound power level to be 79 dB(A) or lower)	**Reduced operating speed** (sound power level to be 100 dB(A) or lower)	**Reduced operating speed** (sound power level to be 92 dB(A) or lower)	**Normal operating speed (will be off after 7.00pm)** (sound power level to be 94 dB(A) or lower)
All other times	**Up to 50 percent fan speed with noise control kit** (sound power level to be 88 dB(A) or lower)	**Up to 50 percent fan speed with noise control kit** (sound power level to be 70 dB(A) or lower)	**Reduced operating speed** (sound power level to be 100 dB(A) or lower)	**Reduced operating speed** (sound power level to be 92 dB(A) or lower)	**Off**

It is noted that the assessment has not included the residences at 5142 Collie-Williams Road and 4997 Collie-Williams Road as the landowner also owns the subject site.

1. INTRODUCTION

Lloyd George Acoustics (LGA) was engaged by Enpowered Pty Ltd (Enpowered), to undertake an environmental noise assessment for a proposed Solar Farm & Battery Energy Storage System to be located at 4996 Collie-Williams Road, Palmer WA 6225 - refer *Figure 1-1*.

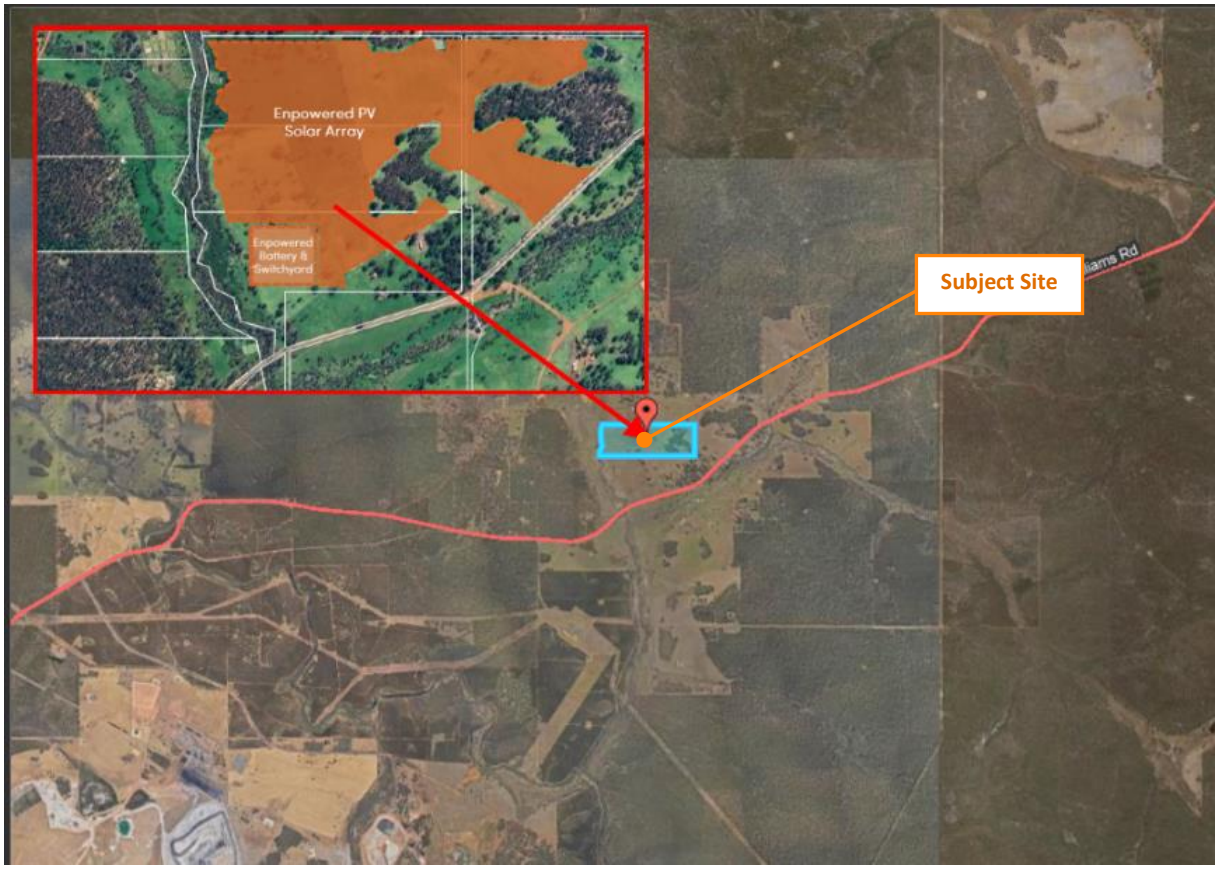


Figure 1-1: Subject Site Location (Source: Enpowered)

The proposed facility will comprise a solar photovoltaic (PV) array with a capacity of up to 66 MW (AC) and a storage capacity of 200 MW held in battery energy storage systems (BESS) containers. Power Conversion Systems (PCS), MV transformers (MVT), and two high voltage (HV) substations, switchgear and storage facilities will complete the system. HVAC is included within the PCS, inverters and BESS containers to assist with cooling the equipment, as well as high speed rpm fans on each battery pack. PCS fan speeds of 100 percent are considered only likely in extreme heat and load conditions during daytime operations. A maximum of 80 percent run-speeds are considered for the PCS and BESS during the evening and 50 percent run-speeds considered during the night. This report considers three scenarios based on noise data for each running condition supplied by Enpowered. A site plan is attached in *Appendix A*.

With regard to noise emissions, consideration is given to noise from the proposed BESS containers, PCS and solar PV inverters, as well as HV substations at neighbouring properties, against the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

Appendix B contains a description of some of the terminology used throughout this report.

2. CRITERIA

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations) as follows:

"7. Prescribed standard for noise emissions

(1) Noise emitted from any premises or public place when received at other premises –

(a) must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and

(b) must be free of –

(i) tonality; and

(ii) impulsiveness; and

(iii) modulation,

when assessed under regulation 9.

(2) For the purposes of subregulation (1)(a), a noise emission is taken to significantly contribute to a level of noise if the noise emission … exceeds a value which is 5 dB below the assigned level at the point of reception."

Tonality, impulsiveness and modulation are defined in regulation 9 (refer *Appendix B*). Under regulation 9(3), *"Noise is taken to be free of the characteristics of tonality, impulsiveness and modulation if -*

(a) the characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and

(b) the noise emission complies with the standard prescribed under regulation 7(1)(a) after the adjustments in the table [Table 2-1] … are made to the noise emission as measured at the point of reception."

Table 2-1: Adjustments Where Characteristics Cannot Be Removed

Where Noise Emission is Not Music*			Where Noise Emission is Music	
Tonality	Modulation	Impulsiveness	No Impulsiveness	Impulsiveness
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

* These adjustments are cumulative to a maximum of 15 dB.

The assigned levels (prescribed standards) for all premises are specified in regulation 8(3) and are shown in *Table 2-2.* The L_{A10} assigned level is applicable to noises present for more than 10% of a representative assessment period, generally applicable to "steady-state" noise sources. The L_{A1} is for short-term noise sources present for less than 10% and more than 1% of the time. The L_{Amax} assigned level is applicable for incidental noise sources, present for less than 1% of the time.

Table 2-2: Baseline Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial Premises	All hours	60	75	80
Industrial and Utility Premises	All hours	65	80	90

1. ***highly sensitive area*** means that area (if any) of noise sensitive premises comprising —
   (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
   (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor (IF), in relation to noise received at the rural noise sensitive premises, has been calculated as 0 dB. *Table 2-3* shows the assigned levels including the influencing factor at the receiving locations, being the same as the baseline noise levels.

Table 2-3: Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
All Receivers +0 dB IF Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	45	55	65
	0900 to 1900 hours Sunday and public holidays (Sunday)	40	50	65
	1900 to 2200 hours all days (Evening)	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35	45	55

It must be noted the assigned levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces.

The assigned levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as "*a period of time of not less than 15 minutes, and not exceeding 4 hours*, *determined by* an *inspector* or *authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission"*. An inspector or authorised person is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Water Environmental Regulation. Acoustic consultants or other environmental consultants are not appointed as an inspector or authorised person. Therefore, whilst this assessment is based on a 4-hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

3. NOISE MODELLING METHODOLOGY

Computer modelling has been used to predict the noise emissions from the development to all nearby receivers. The software used was *SoundPLAN 9.0* with the CONCAWE (ISO 17534-3 improved method) selected, as they include the influence of meteorological conditions. Input data required in the model are listed below and discussed in *Section 3.1* to *Section 3.4*:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

3.1. Meteorological Conditions

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

Table 3-1: Modelling Meteorological Conditions

Parameter	Day (7.00am to 7.00pm)[2]	Night (7.00pm to 7.00am)[2]
Temperature (°C)	20	15
Humidity (%)	50	50
Wind Speed (m/s)	4	3
Wind Direction[1]	All	All
Pasquil Stability Factor	E	F

Notes:
1. The modelling package allows for all wind directions to be modelled simultaneously.
2. The conditions above are as defined in *Guideline: Assessment of Environmental Noise Emissions*; May 2021

Alternatives to the above default conditions can be used where one year of weather data is available and the analysis considers the worst 2% of the day and night for the month of the year in which the worst-case weather conditions prevail (source: *Draft Guideline on Environmental Noise for Prescribed Premises*, May 2016). In most cases, the default conditions occur for more than 2% of the time and therefore must be satisfied.

3.2. Topographical Data

Topographical data was adapted from publicly available information (e.g. *Google*) in the form of spot heights.

Receivers are modelled 1.5m above ground level. The noise levels have not been assessed at the residences at R1-5142 Collie-Williams Road and R5-4997 Collie-Williams Road as the landowner also owns the subject site.

Figure 3-1 shows a 2D overview of the noise model with the location of all relevant receivers identified.



Figure 3-1: Overview of Noise Model

3.3. Ground Absorption

The ground absorption has been assumed to be 1.0 (100%) as the proposed site is located in a rural area with bushland and forest, noting that 0.0 represents hard reflective surfaces such as water and 1.0 represents absorptive surfaces such as grass.

3.4. Source Sound Levels

The sound power levels were derived from data provided by Enpowered and are provided in *Table 3-2*.

Table 3-2: Source Sound Power Levels, dB

Description	Octave Band Centre Frequency (Hz)								Overall dB(A)
	63	125	250	500	1k	2k	4k	8k	
PCS running at 100 percent with Noise Control Kit	75	77	88	89	90	91	85	84	**95**
PCS running at 80 percent with Noise Control Kit	71	73	84	85	86	87	81	80	**92**
PCS running at 50 percent with Noise Control Kit	67	69	80	81	82	83	77	76	**88**
BESS running at 80 percent with Noise Control Kit	63	73	70	79	73	71	69	62	**79**
BESS running at 50 percent with Noise Control Kit	82	77	72	68	63	54	52	46	**70**
Main HV Substation running at 100 percent	110	112	107	107	101	96	91	84	**108**
Main HV Substation with reduced operating speed	103	105	100	100	94	89	84	77	**100**
Secondary HV Substation running at 100 percent	103	105	100	100	94	89	84	77	**100**
Secondary HV Substation with reduced operating speed	95	97	92	92	86	81	76	69	**92**
Solar PV Inverter	73	75	86	87	88	89	83	82	**94**

The following is noted in relation to *Table 3-2*:

- The following equipment was modelled as an omni-directional point source in all scenarios as follows:
  - 60x PCS at 2.0 metres above ground;
  - 360x BESS at 2.5 metres above ground;
  - 1x Main HV Substation and 1x Secondary HV Substation both at 3.0 metres above ground.
- The solar PV inverter noise source was only included during the day period scenario. It was modelled as an omni-directional point source 2.0 metres above ground.
- The MV transformers aren't included in the noise modelling as they have a low sound power level which is dominated by the much higher level of the PCS.
- All noise sources are assumed to be L_{A10} unless noted otherwise and are modelled to be operating concurrently;
- During operations, an L_{10} parameter has been used as these operations are predicted to occur for more than 24-minutes in a 4-hour period.

4. RESULTS & ASSESSMENT

The noise levels were predicted for the following scenarios:

- Scenario 1 – Daytime Operations: PCS operating at 100% fan speed and BESS operating at 80% fan speed (noting this is the maximum fan speed of the BESS) with noise control kits included. Also includes noise from the solar PV inverters, transformers and substations operating at 100%.
- Scenario 2 – Evening Operations: PCS and BESS operating at 80% fan speed with noise control kits included. Also includes noise from the transformers, as well as the substations operating at a reduced speed.
- Scenario 3 – Night Operations: PCS and BESS operating at 50% fan speed with noise control kits included. Also includes noise from the transformers, as well as the substations operating at a reduced speed.

Fan speeds are reduced in the evening and night period due to cooler temperatures and less load being required during these periods.

4.1. Scenario 1 – Daytime Operations

The results of the worst-case daytime operations (when the PCS and BESS are operating at maximum speeds) are shown in *Table 4-1*, with the noise contour plot provided in *Figure 4-1*. The critical assigned level at the residences during the day is on a Sunday/Public Holiday. An adjustment of + 5 dB is included for tonality, since this may be present for such noise sources.

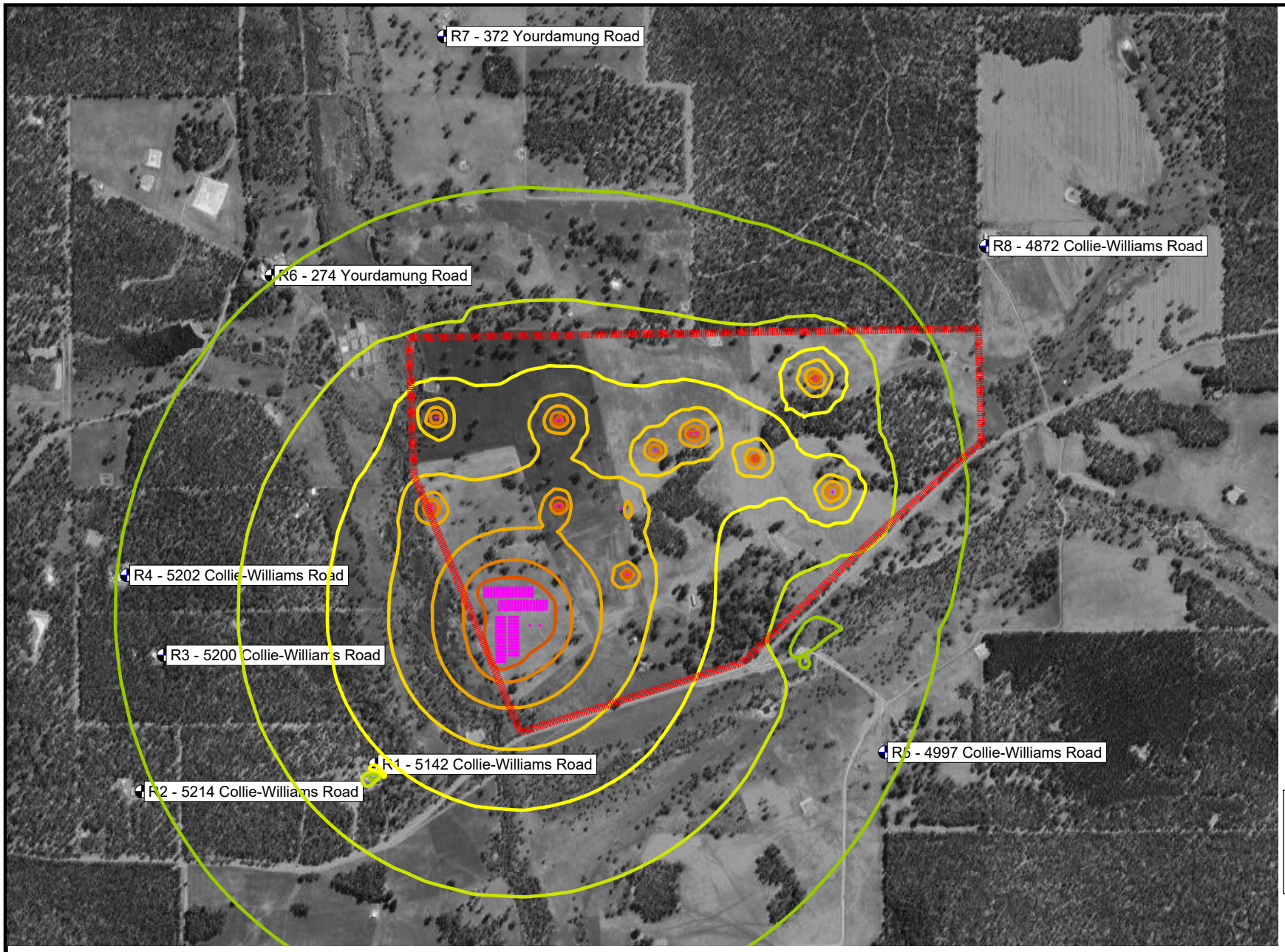
Table 4-1: Scenario 1 - Predicted Noise Levels and Assessment, dB L_{A10}

Receiver	Total	Total Adjusted	Monday to Saturday Assigned Level	Monday to Saturday Assessment	Sunday/Public Holiday Assigned Level	Sunday/Public Holiday Assessment
R1 - 5142 Collie-Williams Road	45	50	**45**	*N/A**	**40**	*N/A**
R2 - 5214 Collie-Williams Road	36	41	**45**	*Complies*	**40**	*+1 dB*
R3 - 5200 Collie-Williams Road	38	43	**45**	*Complies*	**40**	*+3 dB*
R4 - 5202 Collie-Williams Road	37	42	**45**	*Complies*	**40**	*+2 dB*
R5 - 4997 Collie-Williams Road	37	42	**45**	*N/A**	**40**	*N/A**
R6 - 274 Yourdamung Road	35	40	**45**	*Complies*	**40**	*Complies*
R7 - 372 Yourdamung Road	31	36	**45**	*Complies*	**40**	*Complies*
R8 - 4872 Collie-Williams Road	31	36	**45**	*Complies*	**40**	*Complies*

*Landowner also owns the subject site

Exceedances up to 3 dB are predicted at the residences for operations between 9.00am to 7.00pm on a Sunday/Public Holiday if tonality is present. Reducing the PCS operating speed to 80 percent during this period is predicted to achieve compliance. Compliance is predicted during daytime operations from Monday to Saturday between 7.00am and 7.00pm, as the assigned levels are increased by 5 dB during this period.

Figure 4-1



Predicted Noise level L_{A10} dB

- = 35
- = 40
- = 45
- = 50
- = 55
- = 60
- = 65

N

Signs and symbols

- Point Sources
- Point receiver
- Subject Site

Scale 1:18000

0 100 200 400 600 m

Collie BESS - Enpowered - Scenario 1 - Daytime Operation

L_{A10} Noise Level Contours - All Fixed Plant Only - No Tonality Penalty Included - 1.5m Above Ground

Lloyd George Acoustics
by Matt Nolan
matt.nolan@lgacoustics.com.au

4.2. Scenario 2 – Evening Operations

The results of the worst-case evening operations (when the PCS and BESS are operating at 80% fan speed) are shown in *Table 4-2*, with the noise contour plot provided in *Figure 4-2*.

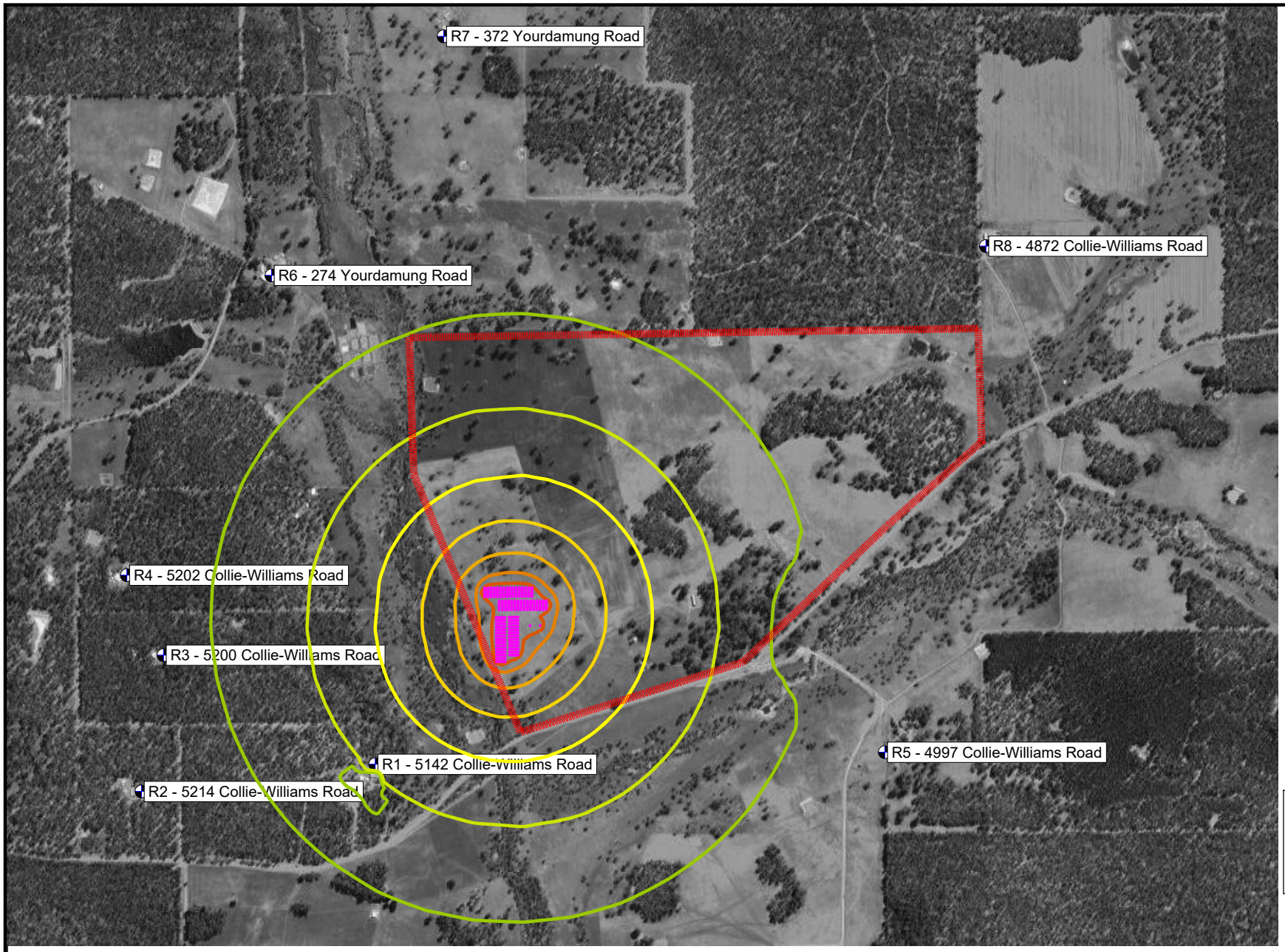
Table 4-2: Scenario 2 - Predicted Noise Levels and Assessment, dB L_{A10}

Receiver	Total	Total Adjusted	Assigned Level	Assessment
R1 - 5142 Collie-Williams Road	42	47	**40**	*N/A**
R2 - 5214 Collie-Williams Road	32	37	**40**	*Complies*
R3 - 5200 Collie-Williams Road	35	40	**40**	*Complies*
R4 - 5202 Collie-Williams Road	33	38	**40**	*Complies*
R5 - 4997 Collie-Williams Road	33	38	**40**	*N/A**
R6 - 274 Yourdamung Road	31	36	**40**	*Complies*
R7 - 372 Yourdamung Road	27	32	**40**	*Complies*
R8 - 4872 Collie-Williams Road	26	31	**40**	*Complies*

*Landowner also owns the subject site

Compliance is predicted at all nearby residences during the evening period, even if tonality is present.

Figure 4-2



Predicted Noise level L_{A10} dB

- = 35
- = 40
- = 45
- = 50
- = 55
- = 60
- = 65

N

Signs and symbols

- Point Sources
- Point receiver
- Subject Site

Scale 1:18000

0 100 200 400 600 m

Collie BESS - Enpowered - Scenario 2 - Evening Operation

L_{A10} Noise Level Contours - All Fixed Plant Only - No Tonality Penalty Included - 1.5m Above Ground

Lloyd George Acoustics
by Matt Nolan
matt.nolan@lgacoustics.com.au

4.3. Scenario 3 – Night Operations

The results of the worst-case night operations (when the PCS and BESS are operating at 50% fan speed) are shown in *Table 4-3*, with the noise contour plot provided in *Figure 4-3*.

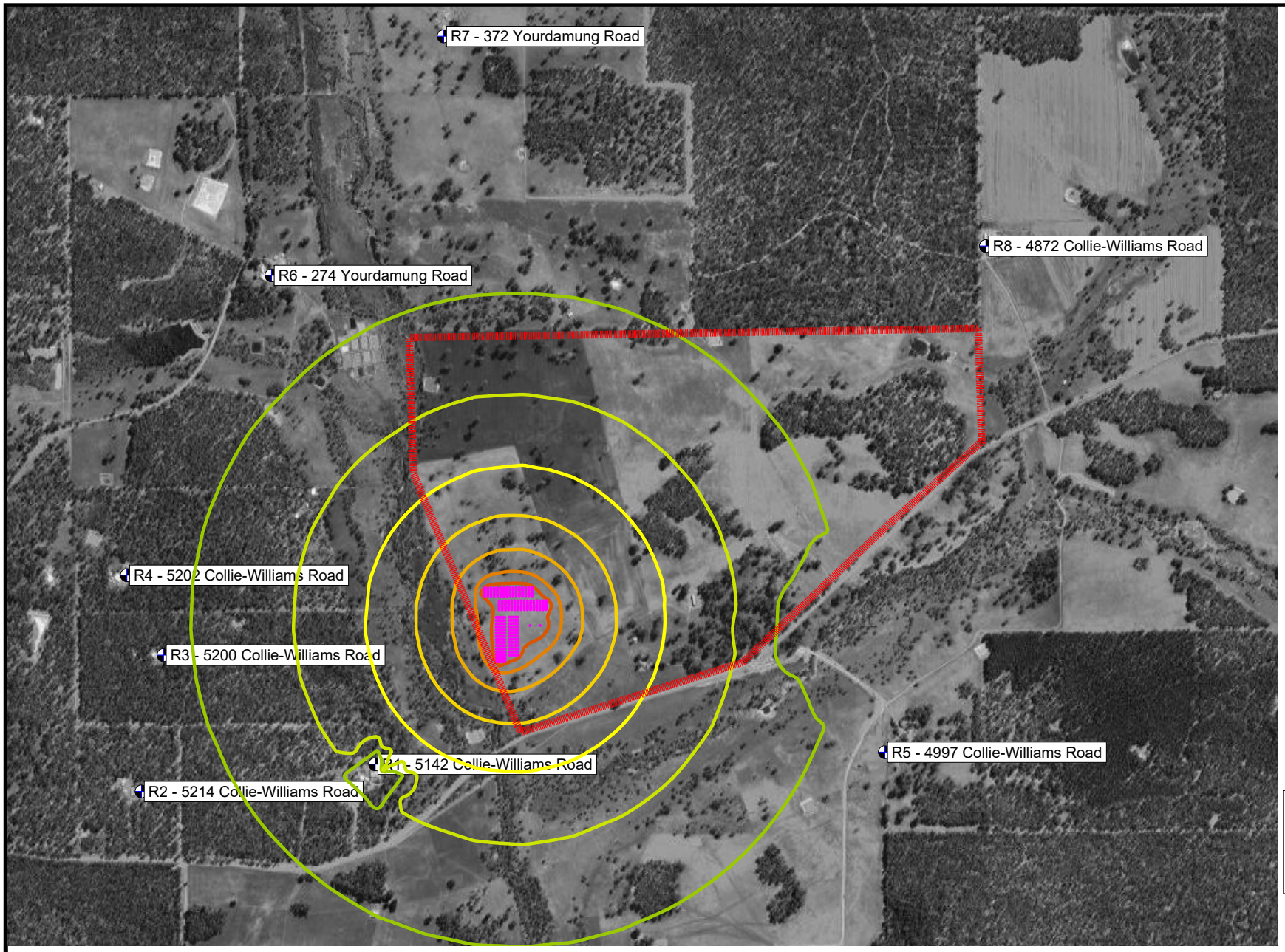
Table 4-3: Scenario 3 - Predicted Noise Levels and Assessment, dB L_{A10}

Receiver	Total	Total Adjusted	Assigned Level	Assessment
R1 - 5142 Collie-Williams Road	37	42	**35**	*N/A**
R2 - 5214 Collie-Williams Road	28	33	**35**	*Complies*
R3 - 5200 Collie-Williams Road	30	35	**35**	*Complies*
R4 - 5202 Collie-Williams Road	29	34	**35**	*Complies*
R5 - 4997 Collie-Williams Road	29	34	**35**	*N/A**
R6 - 274 Yourdamung Road	27	32	**35**	*Complies*
R7 - 372 Yourdamung Road	23	28	**35**	*Complies*
R8 - 4872 Collie-Williams Road	22	27	**35**	*Complies*

*Landowner also owns the subject site

Compliance is predicted at all nearby residences during the night period, even if tonality is present.

Figure 4-3



Predicted Noise level L_{A10} dB

- = 30
- = 35
- = 40
- = 45
- = 50
- = 55
- = 60

N

Signs and symbols

- Point Sources
- Point receiver
- Subject Site

Scale 1:18000

0 100 200 400 600 m

Collie BESS - Enpowered - Scenario 3 - Night Operation

L_{A10} Noise Level Contours - All Fixed Plant Only - No Tonality Penalty Included - 1.5m Above Ground

Lloyd George Acoustics
by Matt Nolan
matt.nolan@lgacoustics.com.au

5. CONCLUSION

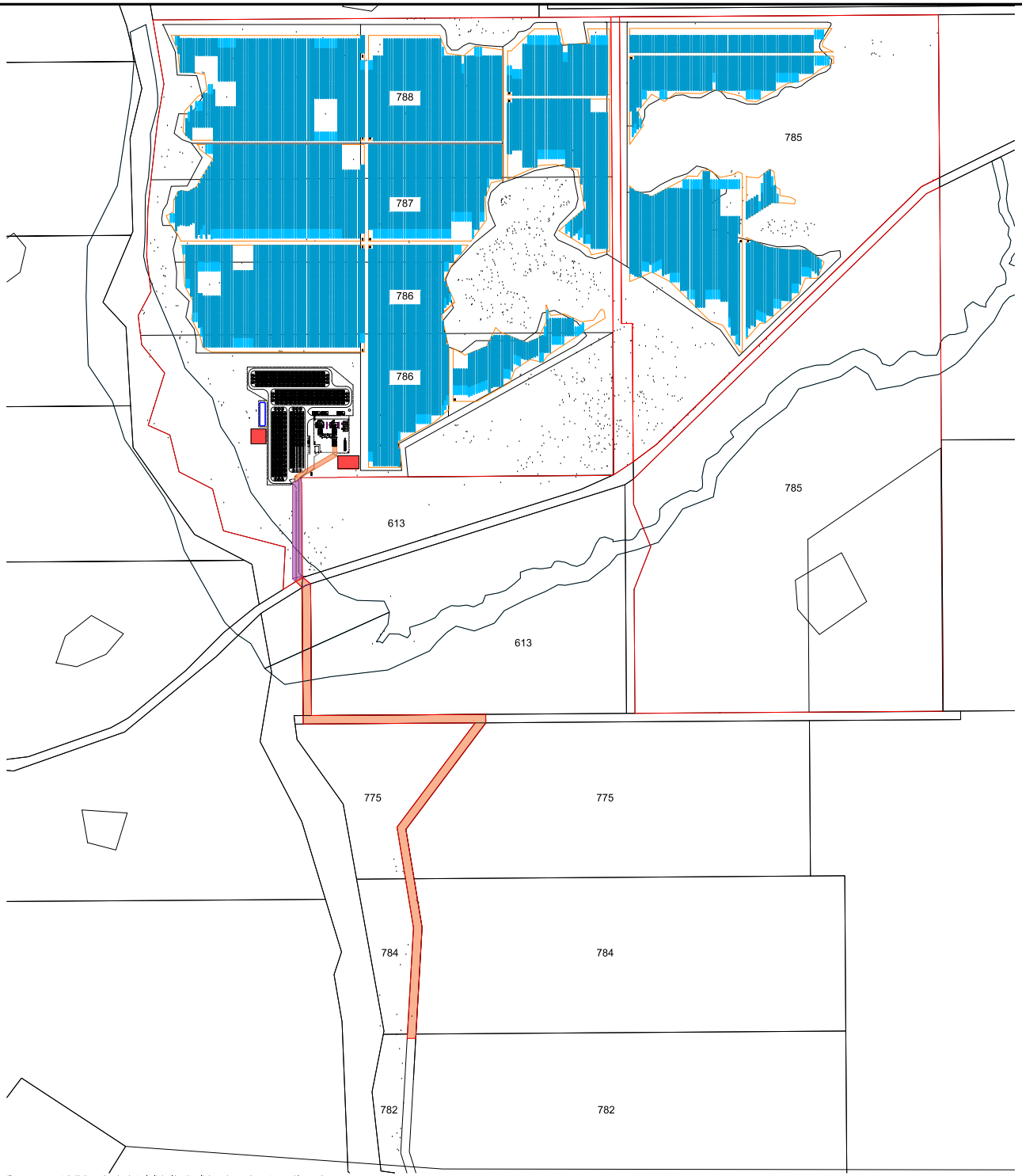
Calculations based on the data provided show that compliance can be practicably achieved by implementing the compliant operation modes shown in the table below.

Table 5-1: Compliant Operation Modes

Time Period	PCS	BESS	Main HV Substation	Secondary HV Substation	PV Inverter
Monday to Saturday 7.00am to 7.00pm	**Up to 100 percent fan speed with noise control kit** (sound power level to be 95 dB(A) or lower)	**Up to 80 percent fan speed with noise control kit** (sound power level to be 79 dB(A) or lower)	**Operating up to 100 percent** (sound power level to be 108 dB(A) or lower)	**Operating up to 100 percent** (sound power level to be 100 dB(A) or lower)	**Normal operating speed** (sound power level to be 94 dB(A) or lower)
Sunday/Public Holiday 9.00am to 10.00pm & Monday to Saturday 7.00pm to 10.00pm	**Up to 80 percent fan speed with noise control kit** (sound power level to be 92 dB(A) or lower)	**Up to 80 percent fan speed with noise control kit** (sound power level to be 79 dB(A) or lower)	**Reduced operating speed** (sound power level to be 100 dB(A) or lower)	**Reduced operating speed** (sound power level to be 92 dB(A) or lower)	**Normal operating speed (will be off after 7.00pm)** (sound power level to be 94 dB(A) or lower)
All other times	**Up to 50 percent fan speed with noise control kit** (sound power level to be 88 dB(A) or lower)	**Up to 50 percent fan speed with noise control kit** (sound power level to be 70 dB(A) or lower)	**Reduced operating speed** (sound power level to be 100 dB(A) or lower)	**Reduced operating speed** (sound power level to be 92 dB(A) or lower)	**Off**

It is noted that the assessment has not included the residences at 5142 Collie-Williams Road and 4997 Collie-Williams Road as the landowner also owns the subject site.

Appendix A – Development Plans



Notes

Key to symbols

SUBSTATION & BESS

SOLAR FARM

LAYDOWN AREA

PROJECT BOUNDARY

ACCESS ROAD & TRANSMISSION CABLE EASMENT

330kV TRANSMISSION CABLE ROUTE

FENCE

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

Rev	Date	Drawn	Description	Ch'k'd	App'd
A	24.04.2025	MDP	Issued for Information	DB	AM

Status Stamp

MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR DEVELOPMENT
COLLIE-WILLIAMS ROAD, PALMER
SITE PLAN

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number: -

Scale at A1: 1:5000

Security: STD

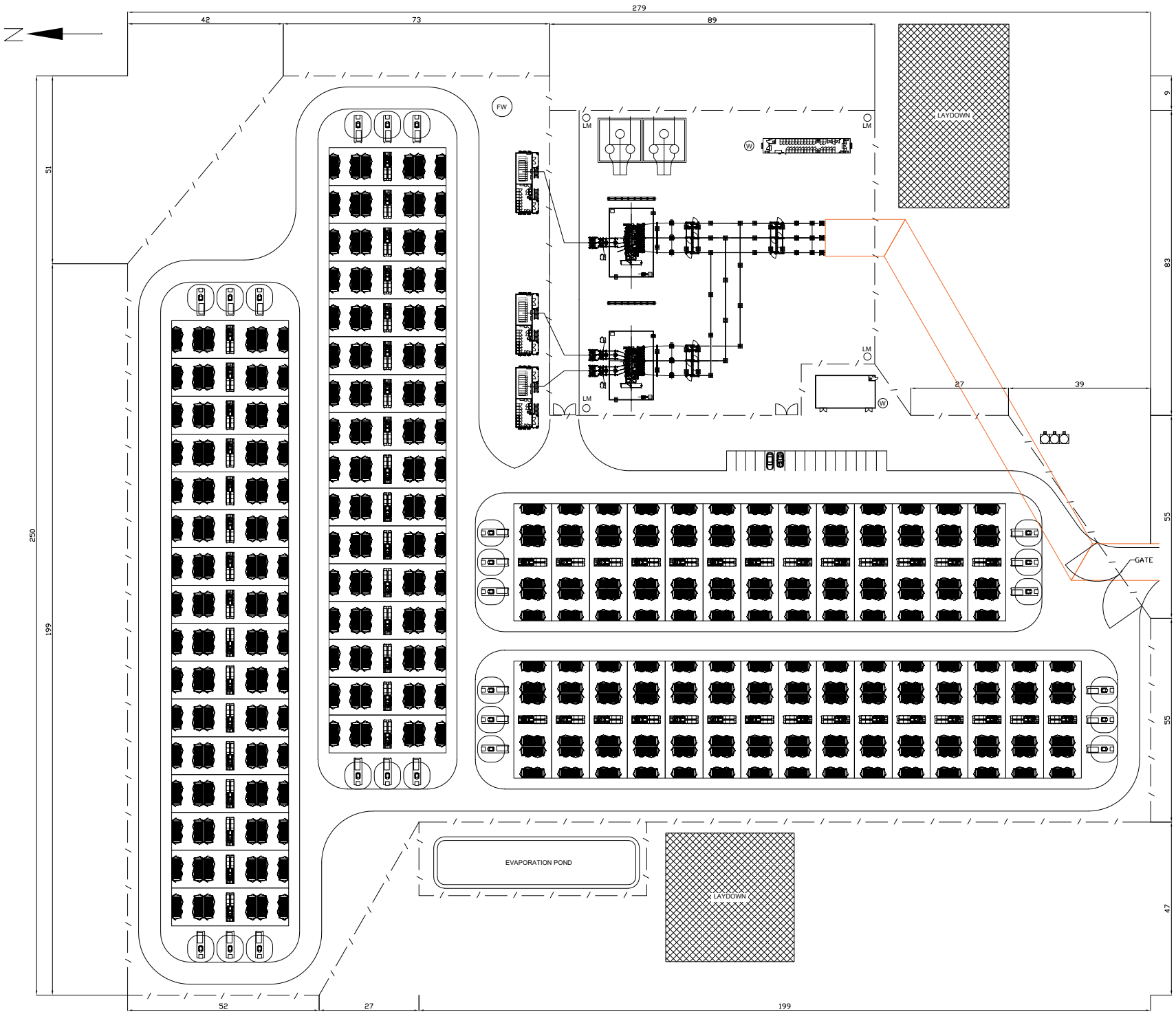
Suitability Description: -

Suit. Code: -

Drawing Number: 703104876-DRG-001_A

Rev: A

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Notes

Key to symbols

POWER ISLAND
CATL BATTERY CONTAINER
PCS POWER CONVERSION SYSTEM
AUXILIARY TRANSFORMER ON SKID
TOILET
POWER TRANSFORMER
CONTROL ROOM
SWITCHROOM
MAINTENANCE SHED
LM LIGHTING/LIGHTNING MAST
W RAIN WATER TANK
FW FIRE WATER TANK
SEPTIC TANK
TRANSMISSION CABLE ROUTE
FENCE

Reference drawings

703104876-DRG-001 - OVERALL SITE LAYOUT

Rev	Date	Drawn	Description	Ch'k'd	App'd
C	24.04.2025	MDP	Issued for Information	DB	AM
B	15.04.2025	MDP	Issued for Information	DB	AM
A	11.04.2025	MDP	Issued for Information	DB	AM

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MOTT MACDONALD
One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia
T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED
Level 3, 338 Barker Road
Subiaco, WA
Australia

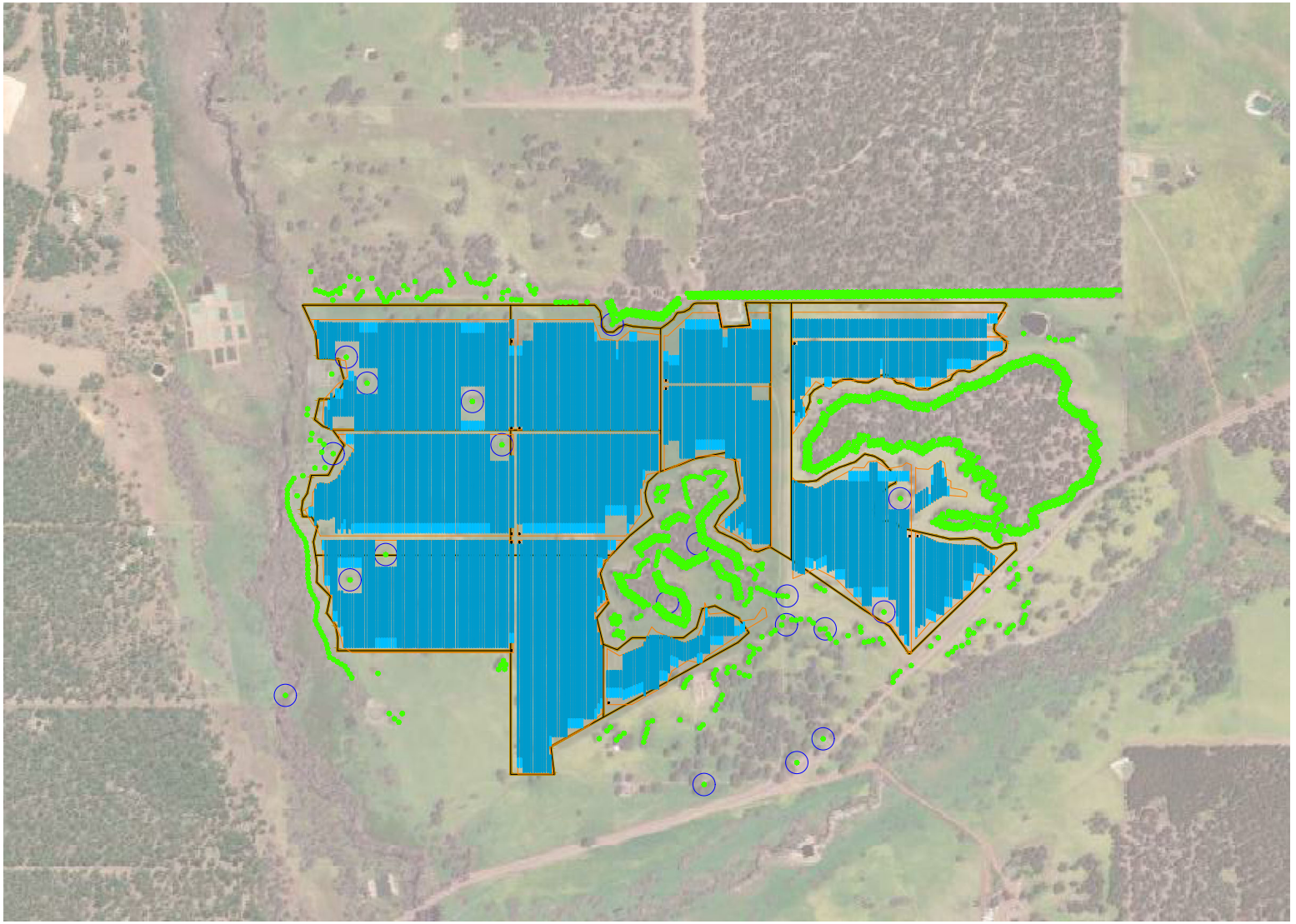
Title

COLLIE BESS & SOLAR FARM COLLECTOR SUBSTATION & BESS LAYOUT

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number: -	Scale at A1: 1:500	Security: STD
Suitability Description: -		Suit. Code: -
Drawing Number: 703104876-DRG-002		Rev: C

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Notes

Key to symbols

SOLAR FARM

BLACK COCKATOO NESTING SITE

TREE / BUSH / FLORA

INTERNAL ROADS IN PV FIELD

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

Rev	Date	Drawn	Description	Ch'k'd	App'd
B	28.04.2025	MDP	Issued for Information	DB	AM
A	11.04.2025	MDP	Issued for Information	DB	AM

Status Stamp

MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR FARM
SOLAR PV
LAYOUT

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number	Scale at A1	Security
-	1:5000	STD

Suitability Description	Suit. Code
-	-

Drawing Number	Rev
703104876-DRG-003	B

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Appendix B – Terminology

The following is an explanation of the terminology used throughout this report:

- **Decibel (dB)**

The decibel is the unit that describes the sound pressure levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A, dB.

- **Sound Power Level (L_w)**

Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure level at known distances. Noise modelling incorporates source sound power levels as part of the input data.

- **Sound Pressure Level (L_p)**

The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc. and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

- **L_{ASlow}**

This is the noise level in decibels, obtained using the A-frequency weighting and the S (slow) time weighting. Unless assessing modulation, all measurements use the slow time weighting characteristic.

- **L_{AFast}**

This is the noise level in decibels, obtained using the A-frequency weighting and the F (fast) time weighting. This is used when assessing the presence of modulation.

- **L_{APeak}**

This is the greatest absolute instantaneous sound pressure level in decibels using the A-frequency weighting.

- **L_{Amax}**

An L_{Amax} level is the maximum A-weighted noise level during a particular measurement.

- **L_{A1}**

The L_{A1} level is the A-weighted noise level exceeded for 1 percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

- **L_{A10}**

The L_{A10} level is the A-weighted noise level exceeded for 10 percent of the measurement period and is considered to represent the "intrusive" noise level.

- **L_{A90}**

The L_{A90} level is the A-weighted noise level exceeded for 90 percent of the measurement period and is considered to represent the "background" noise level.

- **L_{Aeq}**

The equivalent steady state A-weighted sound level ("equal energy") in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the "average" noise level.

- **One-Third-Octave Band**

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20000 Hz inclusive.

- **Representative Assessment Period**

Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

- **L_{Amax} assigned level**

Means an assigned level, which, measured as a L_{ASlow} value, is not to be exceeded at any time.

- **L_{A1} assigned level**

Means an assigned level, which, measured as a L_{ASlow} value, is not to be exceeded for more than 1 percent of the representative assessment period.

- **L_{A10} assigned level**

Means an assigned level, which, measured as a L_{ASlow} value, is not to be exceeded for more than 10 percent of the representative assessment period.

- **Tonal Noise**

A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

– the presence in the noise emission of tonal characteristics where the difference between -

(a) the A-weighted sound pressure level in any one-third octave band; and

(b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\ Slow}$ levels.

This is relatively common in most noise sources.

- **Modulating Noise**

A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

– a variation in the emission of noise that —

(a) is more than 3 dB $L_{A\ Fast}$ or is more than 3 dB $L_{A\ Fast}$ in any one-third octave band; and

(b) is present for at least 10% of the representative assessment period; and

(c) is regular, cyclic and audible.

- **Impulsive Noise**

An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness means:

– a variation in the emission of a noise where the difference between L_{Apeak} and L_{Amax} is more than 15 dB when determined for a single representative event.

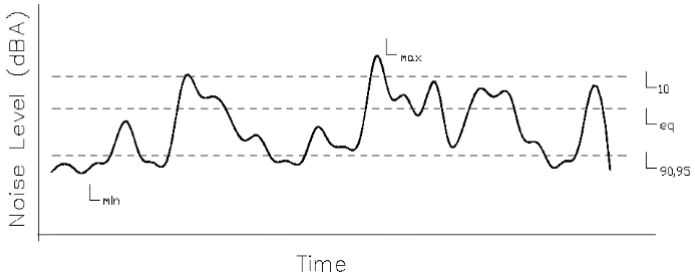
- **Major Road**

Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

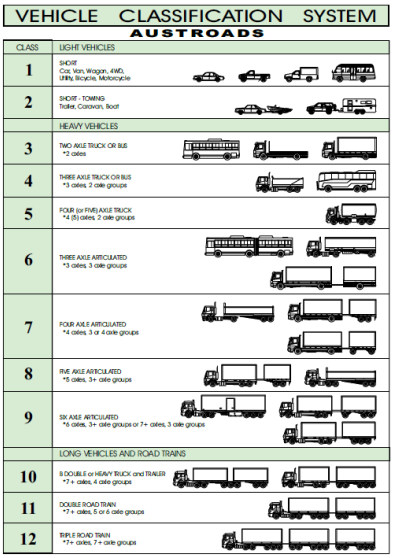
- **Secondary / Minor Road**

Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

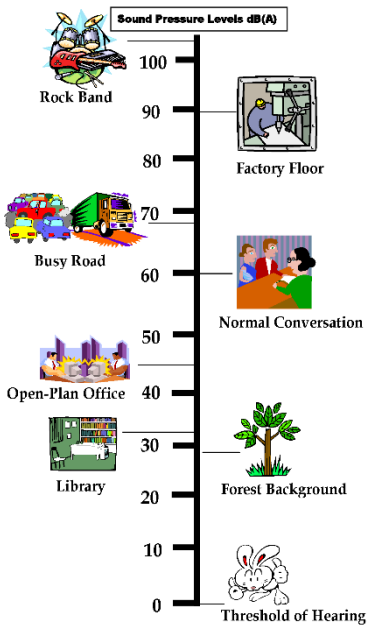
- **Chart of Noise Level Descriptors**



- **Austroads Vehicle Class**



- **Typical Noise Levels**



APPENDIX G – ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLAN (INCLUDING VISUAL IMAPCT)

Environmental Assessment and Management Plan

Collie BESS and Solar PV

Project No: EP24-016(07)

Prepared for Enpowered Pty Ltd
May 2025



Document Control

Doc name:	Environmental Assessment and Management Plan Collie BESS and Solar PV				
Doc no.:	**EP24-016(07)--007a PPS**				
Version	**Date**	**Author**		**Reviewer**	
1	May 2025	Pascal Scholz	PPS	Jason Hick	JDH
	Draft issued to client and project team for review.				
A	May 2025	Pascal Scholz	PPS	Jason Hick	JDH
	Minor edits to address client comments. Document issued to client and project team.				

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Executive Summary

Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd, is proposing to develop a photovoltaic (PV) solar and battery energy storage system (BESS) facility (herein referred to as 'the proposal') in Palmer, within the Shire of Collie, Western Australia (WA), approximately 13.5 km north-east of Collie town and 155 km south-east of the Perth Central Business District.

The proposal is located across various freehold rural lots and road easements including Lots 785 - 788 Collie-Williams Road (herein referred to as the site). The site is intersected by Collie-Williams Road, bounded by the Bingham River to the west and generally surrounded by agricultural land and extensive areas of native vegetation associated with the Muja and Harris River State Forests. The constructed Western Power Shotts Terminal (electrical substation) and transmission line corridors are located to the south-west of the site, with the Collie Battery currently under construction within a portion of Lots 775 and 784 to the south of Collie-Williams Road.

The purpose of this Environmental Assessment and Management Plan (EAMP) is to provide a synthesis of information regarding the environmental values and attributes of the site and a management plan to respond to anticipated impacts to these values. The EAMP is the key supporting environmental document for the development application (DA), ultimately facilitating the consideration of environmental issues by the Local Government and various State Government agencies and authorities.

The proposal layout has responded to site-specific environmental considerations with the objective to avoid impacts on native vegetation and associated conservation significant fauna habitat within the site. The proposal is currently at the 'concept design stage'; however, the proposal location, current concept design and associated development footprint have been used to assess potential environmental impacts and determine required management measures. While the final designs may be subject to minor refinement throughout the planning process, the overall development footprint within the site reflects a worst-case impact scenario.

The anticipated impact avoidance and residual impact outcomes as a result of the implementation of the proposal (as per the current concept layout) are as follows:

<u>Impact Avoidance</u>

- Large patches of native vegetation will be retained within an 'avoidance area' (i.e. a total of 42.1 ha (97.8 %) of existing native vegetation within the site associated with five vegetation units). This includes the avoidance of up to 33.03 ha of 'high' quality primary native black cockatoo foraging resources including 702 potential and 18 suitable black cockatoo nesting trees.
- No direct or indirect impacts will occur to threatened or priority ecological communities, threatened and/or priority flora species. The clearing of vegetation within the site will not cause fragmentation of surrounding large remnant vegetation patches associated with the Muja and Harris River State Forests. These much larger surrounding patches of vegetation will remain and are protected from future development due to existing 'Reserve' landuse zonings,

making future development in these areas highly unlikely and reducing the probability of cumulative impacts.
- Minimising and avoiding where possible any direct or indirect impacts on registered Aboriginal Heritage Site 16713 (Collie River Waugal), or any other heritage values.

Residual Impacts

- The proposal will result in the permanent loss of 0.92 ha of native vegetation associated with five native vegetation units and associated fauna habitat.
- The proposal will result in the modification of 97.02 ha of the non-native vegetation unit largely comprising cleared paddocks with scattered native and non-native trees.
- The proposal will result in the permanent loss of 4.29 ha of 'high' quality primary native Carnaby's black cockatoo (CBC) and forest red-tailed black cockatoo (FRTBC) foraging habitat.
- The proposal will result in the permanent loss of 2.76 ha of 'high' quality primary native Baudin's black cockatoo (BBC) foraging habitat.
- The proposal will result in the permanent loss of 1.48 ha of 'high' quality secondary native BBC foraging habitat.
- The proposal will result in the loss of 176 potential nesting trees for black cockatoos, none of which contain suitable hollows for black cockatoo breeding.

Overall, environmental impacts can be managed during development and operation of the proposal. The key components of this management framework are summarised as follows:

- A Construction Environmental Management Plan (CEMP) to be prepared as part of the engineering detailed design that will consider landform, soils and geology, and to mitigate the risk of soil erosion and impacts on retained native vegetation. The CEMP will include measures such as demarcation of retained native vegetation to avoid potential impacts though accidental clearing or edge effects including the spread of weeds and diseases.
- A Fauna Management Plan, which will outline the key fauna management strategies for the site, including pre-clearing fauna inspections, fauna spotters, protection measures for conservation significant fauna habitat (e.g. black cockatoo habitat trees) and hygiene protocols to deter feral and pest species.
- A Water Management Plan prepared for the site that outlines the integrated water cycle management approach for the site utilising a water sensitive urban design approach, which integrates water management into the landscape and mimics the natural and existing hydrological processes.
- Compliance with the Bushfire Management Plan 'acceptable solution' for each of the bushfire protection criteria through the siting of the various proposal elements without the need for clearing of any native vegetation to mitigate hazards.
- Compliance with the *Environmental Protection (Noise) Regulations 1997* subject to proposal operation conditions. A Noise Management Plan will be prepared to support the proposal.
- Screening vegetation planting can be considered adjacent to the proposal in particular along Collie-Williams Road to mitigate anticipated impacts on the visual amenity of the site's surrounds.

Based on the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Referral Guideline for Three WA Threatened Black Cockatoo Species (DCCEEW 2022b), the anticipated residual impacts on CBC, BBC and FRTBC foraging and potential breeding habitat as a result of the proposal will warrant referral under the EPBC Act to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW). While a referral of the proposal under the EPBC Act will be required, the magnitude of the residual impacts on matters of national environmental significance (including black cockatoos) aren't considered substantial. It is anticipated that based on the proposal's consideration of the mitigation hierarchy (i.e. significant impact avoidance and management), the residual impacts will be acceptable in consideration of the 'significant impact criteria' (DotE 2013).

In respect to Part IV Section 38(1) of the *Environmental Protection Act 1986* (EP Act), with consideration to proposals that will likely have a significant effect on the environment, it is likely that environmental impacts as a result of the proposal can be managed to meet the Environmental Protection Authority's objectives for the relevant environmental factors. This is demonstrated through site selection, proposal design and appropriate site management measures including avoiding the need for the extensive clearing of native vegetation.

A native vegetation clearing permit pursuant to Part V of the EP Act will be pursued by the proponent to facilitate the development of the proposal for any clearing of native vegetation (where a clearing exemption under Part V of the EP act does not apply).

The proposal is in accordance with the relevant planning policies, regulations and strategies including:

- *State Planning Strategy 2050 (WAPC 2014)*
- *Position Statement: Renewable energy facilities (WAPC 2020)*
- *State Planning Policy No.2 – Environmental and Natural Resources Policy (WAPC 2003)*
- *State Planning Policy No. 2.5 – Rural Planning (WAPC 2016)*
- *State Planning Policy No. 3.7 – Bushfire (WAPC 2024)*
- *Shire of Collie Local Planning Strategy (SoC 2020)*
- *Shire of Collie Local Planning Scheme No. 6; and,*
- *Environmental Protection (Noise) Regulations 1997.*

Overall, the environmental attributes and values of the site are suitably accommodated within the proposal layout or can be appropriately managed through the future development in line with the relevant Commonwealth, State, and Local government legislation, policies and guidelines and best management practices.

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Appendices

Appendix A

Collie BESS and Solar PV Layout Design

Appendix B

Reconnaissance Flora and Vegetation Assessment

Appendix C

Basic Fauna and Targeted Black Cockatoo Assessment

Appendix D

Water Management Plan

1 Introduction

1.1 Background

Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd, is proposing to develop a battery energy storage system (BESS) facility and photovoltaic (PV) solar farm (herein referred to as 'the proposal') in Palmer, within the Shire of Collie Western Australia (WA), approximately 13.5 kilometres (km) north-east of Collie town and 155 km south-east of the Perth Central Business District (CBD). The proposal is described in its entirety in **Section 2.1**.

The proposal is located across various freehold rural lots and road easements including Lots 785 - 788 Collie-Williams Road (herein referred to as the site). The site is intersected by Collie-Williams Road, bounded by the Bingham River to the west and generally surrounded by agricultural land and extensive areas of native vegetation associated with the Muja and Harris River State Forests. The constructed Western Power Shotts Terminal (electrical substation) and transmission line corridors are located to the south-west of the site, with the Collie Battery currently under construction within a portion of Lots 775 and 784 to the south. A plan showing the location and extent of the site is provided in **Figure 1.**

1.2 Scope of work

Emerge Associates was engaged by the proponent to undertake an environmental assessment to document the existing environmental attributes and values of the site and ensure relevant environmental values were considered within the design and future development and operation of the proposal. This involved utilising a range of information sources including local and regional reports, databases, mapping and site-specific investigations, which are described further in **Section 3**. The outcomes of these findings include information on the following attributes:

- Landform and terrestrial environmental quality
- Biodiversity and natural assets, including flora and vegetation and terrestrial fauna
- Hydrology
- Social environment, including Aboriginal heritage, noise and visual amenity
- Bushfire hazards.

1.3 Purpose of this report

The purpose of this Environmental Assessment and Management Plan (EAMP) is to present environmental information and describe what potential impacts are anticipated as a result of the proposal and how the proposal will respond through management measures to each of the environmental attributes and values relevant within the site. The EAMP can support the proposal's development application (DA) and ultimately support the planning approval process. It can also support separate referrals to key State and Commonwealth referral authorities, as outlined in **Section 4**.

Specifically, this EAMP:

- Identifies the existing environmental attributes and values of the proposal and discusses its potential impacts and the proposed design responds to the existing environment.
- Outlines environmental management measures that will be implemented throughout the proposal's construction stage and ongoing operation (**Section 3**)
- Discusses the proposal and corresponding environmental planning and approval considerations (**Section 4**).

The EAMP is the key supporting environmental document for the development approval process, ultimately facilitating the consideration of environmental issues by the local government and various state government agencies and authorities.

2 Proposal

2.1 Detailed description

The proposal is currently at the 'schematic design' stage and may be subject to minor refinement through the detailed design process and development of the site. The concept layout of the proposal is provided as **Appendix A**.

The proposal will extend over multiple freehold land parcels including road easements south of Collie-Williams Road. The proposal comprises the following land holdings, which corresponds to the site boundary as shown in **Figure 1**:

- Lots 785, 786 and 787 on Deposited Plan 232871 being part of the land comprised in Certificate of Title Volume 2684 Folio 117.
- Lot 788 on Deposited Plan 232871 being the whole of the land comprised in Certificate of Title Volume 2101 Folio 12
- Land ID 3539124 (Collie-Williams Road), Land ID 3539122 and ID 3539123 (unconstructed road).

The site is 181.32 hectares (ha) in area. It is located in proximity to the existing Western Power Shotts Terminal (electrical substation) connecting to the broader South West Interconnected System (SWIS). The Collie BESS is also currently under construction to the south of the site within Lot 784.

Table 1 details the proposal's key infrastructure components, which are also illustrated on **Figure 2** and in **Appendix A**.

Table 1: Proposal infrastructure components

Infrastructure Component	Development Footprint	Description
Solar PV		• Installation of solar panels and inverters with up to 66 megawatts (MW) alternating current (AC). • Construction of internal access roads for construction and ongoing maintenance.
Solar BESS		• Installation of a 200 MW BESS facility. • Installation of a 3 m tall fence surrounding the BESS facility. • Construction of internal access roads for construction and ongoing maintenance. • Construction of building and maintenance sheds, construction laydown areas and evaporation pond. • Construction of a facility collector substation integrated into the BESS facility, featuring two 330/33kV power transformers with associated switchgear, a control building and multiple 33 kV switch rooms designed for the solar PVs and BESS systems. • Installation of a 330 kV underground cable system to establish connection between the BESS and the Western Power Palmer Terminal Station currently under construction. The cable will be approximately 2 km in length buried directly within a 10 m wide easement (the transmission cable route **Appendix A**).
Total Proposal	The proposal comprises a total development footprint of up to 83.38 ha within the 181.32 ha site. The avoidance area within which all vegetation will be retained comprises a 97.94 ha area (**Figure 2**).	

The site is primarily utilised for low intensity agricultural uses such as sheep grazing and is already largely disturbed and cleared. Remnant native vegetation occurring in larger patches across the site is proposed to be retained, whilst some scattered native trees will need to be impacted/cleared to enable the construction of the proposal's key infrastructure components (**Table 1**). To facilitate the required works including vegetation clearing, earthworks (where required) and construction of supporting infrastructure, the proposal comprises a 'development footprint' of up to 83.38 ha within the 181.32 ha site (**Figure 2**). The balance of the site (97.94 ha) is considered the 'avoidance area', within which construction works associated with the proposal will not encroach and identified environmental values will not be impacted (**Figure 2**). It is important to note that opportunistic avoidance of environmental values (i.e. native vegetation including mature trees and associated fauna habitat) may be possible within the development footprint, to be considered further at the detailed design stage and once civil engineering requirements are fully understood. For the purpose for this EAMP it is assumed that all vegetation not shown to be retained will be removed within the development footprint.

3 Environmental Values and Management

In WA, the Environmental Protection Authority (EPA) have identified 13 environmental factors under the Statement of Environmental Principles, Factors and Objectives (EPA 2015), which are those parts of the environment that may be impacted by an aspect of a proposed development. Relevant factors for the proposal are:

- Landforms
- Terrestrial environmental quality
- Flora and vegetation
- Terrestrial fauna
- Inland waters
- Social surroundings.

The following sections detail the environmental values within the site associated with each factor and provide a summary of the anticipated impacts and management measures. The proposal is currently at the 'concept design' stage; however, the proposal location, current concept design and associated development footprint have been used to assess potential environmental impacts and determine required management measures. While the final design may be subject to minor refinement throughout the planning process, the overall development footprint within the site is considered to reflect a worst-case scenario. It is noted that the portion of the site within the development footprint south of Collie-Williams Road that will accommodate the 330 kV transmission cable route (underground cable system) will be constructed utilising horizontal directional drilling techniques to avoid any potential impacts on environmental values (above ground). Notwithstanding, the transmission route has been conservatively considered as part of the broader development footprint for the purposes of the environmental impact assessment.

3.1 Landforms and terrestrial environmental quality

3.1.1 Outline of characteristics and values

The elevation along Collie-Williams Road intercepting through the site ranges from approximately 205 metres in relation to the Australian Height Datum (m AHD) at its western extent to 235 m AHD at its eastern extent relevant to the site. Elevation across the site generally ranges between 205 m AHD adjacent to the Bingham River and to the south of Collie-Williams Road (west and south of site) sloping upwards to 260 m AHD towards the site in a north-east direction, with multiple elevation points (high points) across the site (Landgate 2025).

Limited geotechnical data is available for the site, and site-specific geotechnical investigations will be undertaken to finalise the detailed design. Mott MacDonald (2024) undertook a high-level geotechnical and geological desktop assessment to support the proposal's design process. The assessment was undertaken to provide high-level overview of the site's ground conditions and indicate potential geotechnical constraints and risks to the proposal (Mott MacDonald 2024). There are no known significant geohazards identified across the site which cannot be avoided or minimised.

The site occurs on the Darling Plateau which is an ancient erosion surface capped with laterite and dissected by drainage channels (Beard 1990). The eastern part of the Plateau is characterised by flat-topped hills bound by breakaways and more prominent hills (monadnocks) which protrude above the general level of the plateau (Gozzard 2011). The western part comprises valleys with steep, rocky slopes and narrow, flat floors (Gozzard 2011).

Fine scale soil landscape mapping by the Department of Primary Industries and Regional Development (DPIRD (2022) shows four units as occurring within the site as described in **Table 2**.

Table 2: Soil landscape mapping units within the site (DPIRD 2022)

Soil landscape unit	Location within site	Description
Pindalup downstream valleys	Stretches from the North-Western portion of the site to the South-Western portion and through the centre to the East of the site.	Shallow minor valleys (5-10 m) dominated by broad (75-250 m) swampy floors. Soils are loamy gravels, deep sands, with saline and non-saline wet soils on the valley floors.
Wilga ironstone gravel flats	Central northern portion.	Flats where the soil parent material is laterite. Soils are gravels with some sands.
Dwellingup ironstone gravel divides Phase	South-Eastern portion.	The soil parent material is laterite, soils are gravels with some sands.
Wilga Subsystem	Central Eastern part of the site.	Broad gently undulating (1-5%) plains and low rises (2-15 m) with swampy depressions. Lateritic terrain over Eocene sediments. Soils are sandy and loamy gravels, with some deep sands, semi-wet soils and wet soils.

A review of the Atlas of Australian Acid Sulfate Soils from CSRIO indicates that the site has an extremely low probability of Acid Sulfate Soils (ASS) of occurring. A review of the ASRIS/ASS Risk Mapping tool was also undertaken by Mott McDonald (2024), which indicated the site has an extremely low probability/low confidence of ASS occurring.

It is understood that major earthworks will not be required within the site, however in the event of any dewatering required, an ASS assessment should be undertaken to confirm the risk.

3.1.2 Potential impacts

The proposal will not impact on restricted landforms or unique geological features.

The current landform of the site may be altered through cutting and/or filling required to accommodate earthworks within the BESS development footprint in the south-western portion of the site. It is also possible that erosion and/or sedimentation could occur as vegetation is removed across the broader site and soil is exposed to the elements, or where soil is stockpiled on site and is moved by wind and water.

3.1.3 Management

As the site does not feature any restricted landforms or unique geology, there are no specific management considerations at the site in this respect.

It is possible that erosion or sedimentation could occur as vegetation is removed and soil is exposed to the elements, or where soil is stockpiled on site and is moved by wind and water. Sediment traps will be applied at locations where water is likely to leave the site (expected in the south-west portion of the site), to capture soil that may move offsite into the nearby water bodies or waterways, with particular consideration to the Bingham River directly adjacent to the west of the site. Soil should be stabilised as soon as possible, including planting of vegetation (where possible), application of mulch or other stabilisation methods. Furthermore, a batter installed along the western site boundary of the site will reduce the risk of erosion and sedimentation.

To ensure impacts from erosion are minimised:

- Prevent uncontrolled access to erosion susceptible locations
- Integrate checking for erosion into routine inspection program
- Inspect erosion susceptible locations after severe storm events.

As required, implement erosion mitigation measures such as:

- Installing table drains to reduce amount and velocity of water travelling down steep slopes. A Water Management Plan has been prepared for the site and is discussed in **Section 3.4.3**).
- Revegetating unstable perched soil areas with local native species.
- Installing brushing (i.e. non-weedy cut or broken branches) on steep erosion susceptible slopes to assist with soil stabilisation.
- Installing or repairing rock footings and/or revetments where required.
- Applying a hydro mulch or non-seeded polymer spray to any exposed soil to prevent erosion.
- Installation of sediment traps. This will take form of rock pitching or local materials shaped to slow down runoff and avoid erosion or scouring.

3.1.4 Environmental outcome and performance target

The environmental outcomes resulting from the implementation of the proposal, with respect to landforms and terrestrial environmental quality are:

- Development of landform as a result of earthworks (where required) will be confined to the site with no impacts on unique landform or geological features.
- Outside of the site no impacts on landforms and environmental values will occur.
- No erosion and/or sedimentation observed external to the site, in particular in proximity to Bingham River.

3.1.5 Monitoring and reporting

To achieve the desired environmental objectives and outcomes, ongoing monitoring will be required throughout the implementation of the proposal (construction phase) and ongoing operation. Regular site inspections will be conducted to visually inspect for signs of soil erosion and/or sedimentation

across the site and surrounds. Erosion and sediment control devices will be cleaned, repaired or replaced whenever inspections show signs of non-compliance or ineffective capability or capacity. All disturbed areas will be subject to ongoing monitoring for at least 12 months from the implementation of the proposal to identify any potential risk of post-construction of erosion. Where erosion or sedimentation is identified as moving offsite, control measures will need to be implemented.

Reporting may include mapping of areas that are of risk of erosion requiring remedial work.

3.2 Flora and vegetation

3.2.1 Outline of characteristics and values

In the context of environmental impact assessment, the State EPA objective for flora and vegetation is '*to protect flora and vegetation so that biological diversity and ecological integrity are maintained*' (EPA 2016b). At the state level, threatened flora species are listed under sections 19(1) and 26(2) of the *Biodiversity Conservation Act 2016* (BC Act), while threatened ecological communities (TECs) are listed under sections 27(1) and 33 of the BC Act. Threatened flora species and TECs are also acknowledged through other state environmental approval processes such as environmental impact assessment pursuant to Part IV of the *Environmental Protection Act 1986* (EP Act) and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

TECs are ecological communities that are rare or under threat and therefore warrant special protection. Once listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), communities are categorised as either 'critically endangered', 'endangered' or 'vulnerable'. Any action likely to have a significant impact on a community listed under the EPBC Act requires approval from the Minister for the Environment.

At the State level, an ecological community under consideration for listing as a TEC, but which does not yet meet survey criteria or has not been adequately defined, or which is rare but not currently threatened, is referred to as a priority ecological community (PEC). Similarly, species of flora which are potentially rare or threatened, or meet the criteria for near threatened, or have recently been removed from the threatened species list are classed as 'priority' flora species. PECs and priority flora are not protected statutorily.

At the federal level, listed TECs and threatened flora are protected through the EPBC Act and are identified as Matters of National Environmental Significance (MNES). Any action likely to have a significant impact on a listed TEC or threatened flora species requires approval from the Commonwealth Minister.

These values are considered further below.

3.2.1.1 Regional context

Native vegetation is described and mapped at different scales in order to illustrate patterns in its distribution. At a continental scale the *Interim Biogeographic Regionalisation of Australia* (IBRA) divides Australia into floristic subregions (Environment Australia 2000).

The site is contained within the Jarrah Forest region and within the 'JF1' or northern jarrah forest subregion. The northern jarrah forest subregion is characterised by *Eucalyptus marginata* (jarrah) – *Corymbia calophylla* (marri) forest on laterite gravels with *Eucalyptus wandoo* – marri woodlands in the eastern part (CALM 2003).

Variations in native vegetation can be further classified based on regional vegetation mapping. DBCA (2019) mapping shows the site as comprising four vegetation complexes as outlined in **Table 3**.

The Jarrah forest vegetation complexes outlined in **Table 3** were determined to have varying percentages of its pre-European extent remaining, with differing percentages protected for conservation purposes (Government of Western Australia 2019).

Table 3: Vegetation complex units within the site (DBCA 2019)

Vegetation Complex	Location within site	Description	Pre-European extent remaining (%)	Protected extent (%)
Dwellingup (D4)	Northern central portion	Open forest to woodland of Eucalyptus marginata subsp. *thalassica-Corymbia calophylla* on lateritic uplands in semiarid and arid zones.	87.35	12.03
Pindalup	A band stretching from the North-Western portion of the site boundary to the Southern part of the boundary and back up to the North-Eastern portion.	Open forest of *Eucalyptus marginata* subsp. *thalassica-Corymbia calophylla* on slopes and open woodland of *Eucalyptus wandoo* with some *Eucalyptus patens* on the lower slopes in semiarid and arid zones.	76.79	14.32
Swamp	A band stretching from the North-Western portion of the site boundary to the Southern portion of the boundary and back up to the North-Eastern portion, below the Pindalup vegetation complex.	Mosaic of low open woodland of *Melaleuca preissiana-Banksia littoralis*, closed scrub of *Myrtaceae* spp., closed heath of *Myrtaceae* spp. and sedgelands of *Baumea* and *Leptocarpus* spp. on seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones.	75.69	21.78
Yarragil 2	A band covering parts of the Southern portion of the site boundary.	Open forest of *Eucalyptus marginata* subsp. *thalassica-Corymbia calophylla* on slopes, woodland of *Eucalyptus patens-Eucalyptus rudis* with *Hakea prostrata* and *Melaleuca viminea* on valley floors in subhumid and semiarid zones.	92.47	10.58

3.2.1.2 Historical land use

A review of historical images available from 1996 onwards indicate conditions and land use of the site have not changed significantly over the past 30 years. Large areas of the site were cleared of native vegetation prior to 1996, likely for sheep grazing. Since this time the extent of native vegetation within the site has remained largely stable (WALIA 2024). The earliest available aerial imagery shows that the surrounding areas have also supported agricultural land uses over the same time period, whilst power transmission line corridors to the south-west of the site were constructed pre-1996.

3.2.1.3 Environmentally sensitive areas

Environmentally sensitive areas (ESAs) are prescribed under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* and have been identified to protect native vegetation values of areas surrounding significant, threatened or scheduled flora, vegetation communities or ecosystems. Exemptions under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* do not apply within ESAs.

The site is not located within an environmentally sensitive area.

3.2.1.4 Ecological linkages

Ecological linkages are linear landscape elements that allow the movement of fauna, flora and genetic material between areas of habitat. This exchange of genetic material between vegetation improves the viability of this vegetation by allowing greater access to breeding partners and food sources, refuge from disturbances such as fire and maintenance of genetic diversity of Vegetation units and populations. Ecological linkages are ideally continuous or near-continuous as the more fractured a linkage is, the less ease flora and fauna have in moving within the corridor (Alan Tingay and Associates 1998).

The South West Biodiversity Project identified and mapped ecological linkages within the South West region of Western Australia (Molloy et al. 2009). Ecological linkage No. 186 stretches along the western boundary of the site, along the same alignment as the Bingham River. A review of aerial imagery indicates that much of the site is surrounded by extensive areas of native vegetation in the local area, however discrete patches of native vegetation in the site are not connected to these larger patches.

3.2.1.5 Site specific surveys

Emerge Associates (2025d) undertook a flora and vegetation assessment to the standard required as outlined in the EPA's *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016c). The assessment included a desktop study of the environmental context of the site and the likelihood of occurrence of threatened and priority flora and ecological communities. Field surveys were conducted over multiple days on 28 and 29 February, 1 March and 17 October 2024 during which the composition and condition of vegetation was recorded over a 420.64 ha area (the survey area) encompassing the 181.32 ha site. The survey area covered a larger area than the site to provide a broader understanding of the environmental values of the area and to inform the

proposal design. The flora and vegetation assessment included and considered conservation significant flora, such as threatened flora species, PECs and TECs listed under the EPBC Act. The assessment report and the full survey and assessment methodology is provided in **Appendix B**.

3.2.1.6 Flora

A total of 62 flora species were recorded during the field survey across the survey area including the site, 41 of which are native and 21 non- native (**Appendix B**). None of the native species identified are considered threatened or priority flora species.

No species listed as a declared pests pursuant to the BAM Act or weeds of national significance (WoNS) were recorded across the survey area or within the site.

3.2.1.7 Vegetation units

Vegetation units identified by Emerge Associates specifically within the site are listed in **Table 4** and provided in **Figure 3**. **Plate 1** to **Plate 5** provide photographic imagery illustrating the vegetation units within the survey area.

Table 4: Description and extent of vegetation units identified within the survey area

Vegetation code	Description	Area (ha)
EmCc	Open forest *Eucalyptus marginata* and/or *Corymbia calophylla* and occasional *Banksia grandis* over occasional *Hakea prostrata*, *Persoonia longifolia* and *Xanthorrhoea preissii* (or absent) over sparse shrubland *Acacia pulchella*, *Hakea lissocarpha* and *Hibbertia* ?*commutata* (or absent) over scattered *Lomandra* spp., *Austrostipa* sp. and *Rytidosperma* sp. (or absent) over sparse to closed grassland of pasture weeds (or absent) and occasional native species.	32.49
Er	Open woodland *Eucalyptus rudis* and occasional *Eucalyptus wandoo* over occasional scattered shrubs *Melaleuca lateritia* (or absent) over occasional sedges *Typha* sp. and or/*Juncus* sp. in wetter areas (or absent) over pasture weeds and occasional native species.	0.79
ErCd	Open woodland *Eucalyptus rudis* (or absent) over occasional scattered shrubs *Melaleuca lateritia* (or absent) over closed sedgeland **Carex divisa* or *Typha* sp. and *Juncus* sp. in wetter areas over closed grassland of pasture weeds and occasional native species.	9.66
ErMGt	Open woodland *Eucalyptus rudis* and *Melaleuca* sp. over scattered myrtaceous shrubs over tall grassland **Phalaris* sp. over scattered *Gahnia trifida* over pasture weeds and occasional native species.	0.08
Non-native	Heavily disturbed areas comprising predominantly non-native grassland of pasture weeds and scattered native and non-native trees. Bare areas associated with tracks, buildings and dams were also included in this unit.	138.30

* Indicates non-native (weed) species



*Plate 1: Vegetation unit **EmCc***



*Plate 2: Vegetation unit **Er***



*Plate 3: Vegetation unit **ErCd***



*Plate 4: Vegetation unit **ErMGt***



*Plate 5: Vegetation unit **Non-native***

3.2.1.8 Vegetation condition

Vegetation condition was assessed by Emerge Associates and the extent of vegetation by condition category specially within the site is detailed in **Table 5** and illustrated in **Figure 4**. Based on the survey results the majority of the site comprises predominantly non-native vegetation in 'completely degraded' condition (138.38 ha).

Table 5: Extent of vegetation condition categories within the site

Condition category (Keighery 1994)	Size (ha)
Pristine	0
Excellent	0
Very good	0
Very good – good	0
Good	0
Good – degraded	0
Degraded	31.18
Degraded – completely degraded	11.72
Completely degraded	138.38

3.2.1.9 Threatened and priority flora species

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) has compiled various datasets relating to MNES (DCCEEW 2024). The *Protected Matters Search Tool* provides general guidance on threatened flora listed under the EPBC Act that may occur within a location based on validated records and less reliable unvalidated habitat distribution modelling (DCCEEW 2024).

DBCA's *Threatened and Priority Flora Database* and *WA Herbarium Database* contain records of threatened and priority flora in Western Australia (DBCA 2023b). Searches of these databases provide point data for threatened and priority flora within a location, comprising validated and historical unvalidated records.

The *Protected Matters Search Tool* (DCCEEW 2024) and DBCA's threatened and priority flora databases (reference no. 37-0224FL) identified nine threatened and 45 priority flora occurring or potentially occurring within a 20 km radius of the site (**Appendix B**).

The distribution and habitat preferences of the threatened and priority flora species was reviewed against the site context information as further described in **Appendix B**. Likelihood of occurrence of threatened and priority flora species and ecological communities within the site was classified as 'high', 'moderate', 'low' or 'negligible'. Six threatened and 33 priority flora were classified as having a 'moderate' likelihood of occurrence within the survey area including the site. The remaining species were classified as having a 'low' or 'negligible' likelihood of occurrence. The full species list is provided in **Appendix B**.

As part of the field survey undertaken by Emerge Associates, threatened and priority flora were confirmed as absent from the survey area where no significant limitation was identified that could have affected their detection.

No threatened or priority flora species were recorded within the site nor within the broader survey area.

3.2.1.10 Threatened and priority ecological communities

The flora and vegetation assessment conducted a desktop search using the *Protected Matters Search Tool* providing general guidance on TECs listed as 'critically endangered' and 'endangered' under the EPBC Act that may occur within a location based on reliable records and less reliable habitat distribution modelling (DCCEEW 2024).

DBCA's *Threatened and Priority Ecological Community buffers and boundaries in WA* dataset contains validated records of TECs and PECs. Searches of this dataset provides buffered polygons of TEC and PEC records.

The *Protected Matters Search Tool* (DCCEEW 2024) and DBCA's TEC and PEC database (reference no. 32-0224EC) identified one TEC and one PEC occurring or potentially occurring within a 30 km radius of the site (**Appendix B**).

One PEC was classified as having a 'moderate' likelihood of occurrence in the site: 'claypans with mid dense shrublands of *Melaleuca lateritia* over herbs' (priority 1 in WA). This PEC is also listed part of the Commonwealth TEC 'claypans of the Swan Coastal Plain'; however, it was not included in the *Protected Matters Search Tool* results, and the site is not located on the Swan Coastal Plain, hence the TEC was not further considered (**Appendix B**).

Following the field survey, no PECs or TECs were recorded within the site and the broader survey area and are unlikely to occur due to lack of suitable habitat and disturbed condition of most of the vegetation in the site.

All other TECs and PECs identified from database searches were determined to have a 'nil' likelihood of occurrence within the site. This is based on the field survey conducted by Emerge Associates (2024) which found no occurrences of TECs or PECs within the site.

3.2.2 Potential impacts

Some impacts on native vegetation within the site are unavoidable given large mature trees associated with the '**non-native**' vegetation unit are scattered throughout the site making impact avoidance of all trees difficult. The following potential impacts are anticipated as a result of the proposal (subject to the current concept design and associated development footprint):

- The permanent loss of 0.33 ha of vegetation unit **EmCc** within the site.
- The permanent loss of 0.41 ha of vegetation unit **Er** within the site.
- The permanent loss of 0.18 ha of vegetation unit **ErCd** within the site.
- The permanent modification of 97.02 ha of vegetation unit **Non-native** within the site.

The potential for indirect impacts to native vegetation outside the proposal's development footprint such as unauthorised clearing, edge effects (spread of weeds and diseases to nearby vegetation, or impacts from construction dust on vegetation) can be mitigated through standard construction management measures, as detailed in **Section 3.2.3**.

Overall, the potential impacts to flora and vegetation are not considered significant because:

- Any impacts as a result of the proposal can be mitigated through the implementation of environmental management plans.
- Discrete patches of native vegetation will be retained within the avoidance area (i.e. a total of 42.1 ha (97.8 %) of native vegetation comprising vegetation units **EmCc**, **Er**, **ErCd**, **ErMGt** and **EwEmCc**. 41.28 ha (42 %) of the **Non-native** vegetation unit will be avoided).
- No direct or indirect impacts to TECs and/or PECs, threatened or priority flora, conservation reserves or major ecological linkages will occur. The clearing of vegetation within the site will not cause significant fragmentation of surrounding large remnant vegetation patches associated with the State Forests. Linkages to much bigger patches of vegetation will remain and are protected from future development due to existing 'Reserve' zonings, making future development in these areas highly unlikely and reducing the probability of cumulative impacts.

3.2.3 Management

The flora and vegetation assessment conducted by Emerge Associates (2025d) determined that all potentially occurring TECs and PECs have no likelihood of occurrence within the site. Occurrences of TECs and PECs therefore will not require any management response within the site and will not need to be considered during future environmental approval processes as detailed in **Section 4**.

A key principle guiding the implementation of the proposal within the site is to maximise the retention of the existing vegetation values through avoidance of clearing of native vegetation. The ecological survey results have informed the design and placement of the solar PV and BESS infrastructure to avoid areas of native vegetation where possible. The preliminary concept design of the proposal demonstrates that infrastructure associated with the proposal is positioned to avoid significant impacts on native vegetation units. Large patches of native vegetation will be retained within the avoidance area (i.e. a total of 42.1 ha (97.8 %) of native vegetation comprising vegetation units **EmCc**, **Er**, **ErCd**, **ErMGt** and **EwEmCc**).

Construction activities within the site will need to be managed to protect vegetation and trees proposed for retention and/or vegetation external to the site (i.e. outside the development footprint). This will involve clearly identifying vegetation proposed for retention using visual markers and/or fencing to identify the extent of works and protect vegetation. Trees to be retained will be protected in accordance with *Australian Standard (AS) 4970-2009: Protection of Trees on Development Sites*. All contractors on site will ensure that the tree protection measures are in place prior to works commencing. Tree protection may include fencing around the tree protection zone (TPZ) of retained trees, supplementary watering, amelioration treatment of root zones, canopy reduction and limb or root pruning. The TPZ is a circular area (radius) defined around a tree to isolate its roots and crown from construction development in accordance with Standards Australia (2009) which requires no development within a TPZ, including excavation or filling.

The potential for direct and indirect impacts to native vegetation outside the proposal's development footprint such as unauthorised clearing and edge effects (spread of weeds, diseases and dust to nearby vegetation) can be mitigated through standard construction management measures which can be outlined in a separate Construction Environmental Management Plan (CEMP). Management measures for flora and vegetation at the site must include:

- Identification of tree/vegetation retention areas on engineering drawings and delineation of TPZs. These will be identified as 'no go zones' or similar and managed in accordance with specialist arborist advice. No storage of machinery or equipment will be permitted under retained trees/vegetation.
- Demarcation measures such as fencing around retained vegetation.
- Prior to commencing earthworks within the site, the contractor will:
  - Identify each of the trees to be retained, double checking all available identification information to ensure each and every tree is identified.
  - Affix additional non-damaging marking (such as flagging tape) to each tree to clearly identify the tree is to be retained, with this information clearly conveyed to all staff.

- Erect a physical barrier, such as temporary fencing, around the TPZ of each tree (or group of trees) to be retained to demarcate the TPZ and prevent incidental or accidental access, clearing, excavation or filling within the TPZ.
- Affix signage to the fencing advising no unauthorised entry.

- Implement hygiene protocols during the clearing and construction process to minimise introduction/spread of weeds and plant pathogens. This will include
  - Vehicles, machinery, and personnel to be free of mud/soil and plant material upon entering the site. Inspections to be completed prior to works commencing.
  - Minimising clearing and earthworks during wet conditions.
- Standard management to control dust within the site during construction. Implementation of appropriate dust management measures can include:
  - Dust control measures such as through the use of water carts and/or surface stabilization measures (e.g. hydromulch) will be utilised to prevent potential dust deposition and impacts on native vegetation external to the development footprint.
  - Strict speed limits to limit the potential of dust as a result of vehicle movements.
- Implementation of all bushfire management requirements as outlined in the Bushfire Management Plan (refer to **Section 3.6.2**) for the proposal, as required. Any works that may result in increased accidental fire ignition will be restricted during days of extreme bushfire risk. All vehicles, plant and equipment to be fitted with fire extinguishers and restricted to designated cleared areas

3.2.4 Environmental outcome and performance targets

The predicted environmental outcomes and performance targets resulting from the implementation of the proposal, with respect to flora and vegetation are:

- Removal of native vegetation will be confined to the site's approved development footprint only.
- No disturbance of PECs or TECs or threatened and priority flora.
- No indirect impacts to surrounding or retained native vegetation including from edge effects such as the spread of weeds and diseases, dust, accidental bushfire ignition and fragmentation impacts due to unauthorised clearing.

3.2.5 Monitoring and reporting

To achieve the desired environmental objectives and outcomes, ongoing monitoring will be required throughout the implementation of the proposal (construction phase) and ongoing operation. Regular site inspections will be conducted to visually inspect clearing boundaries and assess vegetation clearing, with particular consideration to statutory approval compliance. This will include regular inspections of vegetation outside the clearing footprint to inspect vegetation condition, potential edge effects such as the spread of weeds and diseases or other indirect impacts that may occur as a result of the proposed action. A clearing register will be maintained to ensure that the extent of clearing is compliant.

It is expected that annual reporting will be required subject to the statutory approvals relevant to the proposal. Annual compliance reporting may be required to the relevant authorities, with ad hoc

reporting should environmental incidents occur, and the environmental objectives and outcomes are not met.

3.3 Terrestrial fauna

3.3.1 Outline of characteristics and values

In the context of environmental impact assessment, the EPA's objective for terrestrial fauna is *'to protect fauna so that biological diversity and ecological integrity are maintained'* (EPA 2016a).

The EPBC Act also provides protection for listed 'threatened' species, including black cockatoos, for which the site contains foraging and potential breeding habitat as further detailed in the sections below. Any proposed action which is considered likely to result in a 'significant' impact upon MNES, should be referred to the Commonwealth DCCEEW. This is further considered in **Section 4**.

3.3.1.1 Site specific surveys

Emerge Associates (2025a) have undertaken a Basic Fauna and Targeted Black Cockatoo Assessment in accordance with the EPA's *Technical Guidance - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA 2020). The assessment included a site survey by two zoologists on 28 February, 1 March, 17 October and 6 December 2024. Transects were traversed over a 420.64 ha survey area encompassing the 181.32 ha site to evaluate the fauna habitat and record the presence of fauna species. The survey area covered a larger area than the site to provide a broader understanding of the environmental values of the area and to inform the proposal design. The assessment report is provided as **Appendix C**.

A targeted black cockatoo survey was also undertaken to identify the presence of potential black cockatoo breeding, night roosting and foraging habitat. All native eucalypts within the survey area that met the required diameter at breast height (DBH) of ≥50 cm or ≥30 cm for wandoo or salmon gum were recorded. Each habitat tree was assigned to a category listed in **Table 6** based on the current black cockatoo guidelines (DAWE 2022).

Table 6: Habitat tree categories (DAWE 2022)

Category	Specifications
Known nesting tree	Trees (live or dead but still standing) which contains a hollow where black cockatoo breeding has been recorded or which demonstrates evidence of breeding (i.e. showing evidence of use through scratches, chew marks or feathers).
Suitable nesting tree	Trees with suitable nesting hollows present, although no evidence of use. Note that any species of tree may develop suitable hollows for breeding.
Potential nesting tree	Trees that have a suitable DBH to develop a nest hollow, but do not currently have suitable nesting hollows. Trees suitable to develop a nest hollow in the future are 300-500 mm DBH. Note that many species of eucalypt may develop suitable hollows for breeding.

If present, groups of tall native and non-native trees were assumed to provide roosting habitat. The presence of active or historical roost sites in these trees was determined through evidence of roosting activity, such as branch clippings, droppings or moulted feathers.

Foraging habitat was identified by assessing vegetation in the site for plant species known to provide food for black cockatoos (Davies 1966; Saunders 1980; Johnstone and Storr 1998; Johnstone and Kirkby 1999; Groom 2011; Johnstone *et al.* 2011; DAWE 2022).

Foraging habitat was classified as either 'native' or 'non-native' based on the predominant vegetation's naturalised status and in accordance with DAWE (2022). It was also classified as either 'primary' or 'secondary' based on black cockatoo foraging preferences. Primary food plants were defined as those with historical and contemporary records of regular consumption by a black cockatoo species. Secondary food plants were defined as plants that black cockatoo species have been recorded consuming occasionally or that, based on their limited extent or agricultural origin, should not be considered a sustaining resource. A list of plant species classified as primary or secondary food plants is provided as **Appendix C**.

Evidence of black cockatoo foraging, such as chewed fruits, was searched for within the site and allocated to a black cockatoo species where possible.

3.3.1.2 Fauna

Emerge Associates identified five (5) broad fauna habitats within the site, as listed in **Table 7** and illustrated in **Figure 5**.

Table 7: Fauna habitats within the site

Fauna habitat	Description	Total area (ha)
Eucalypt forest	Open forest *Eucalyptus marginata* and/or *Corymbia calophylla* and occasional *Banksia grandis* over occasional *Hakea prostrata*, *Persoonia longifolia* and *Xanthorrhoea preissii* over sparse shrubland.	32.13
Riparian woodland	Scattered *Eucalyptus marginata* and *Corymbia calophylla* trees over weeds.	10.45
Scattered trees	Occasional scattered eucalypts or non-native trees.	6.09
Grassland and bare ground	Heavily disturbed areas comprising predominantly non-native grassland of pasture weeds and scattered native and non-native trees.	132.17
Dams	Bare ground and water bodies associated with dams.	0.49

A search was conducted for fauna species that have been recorded within a 20 km radius of the site using the *Protected Matters Search Tool* (DCCEEW 2025), *Nature Map* (DBCA 2024a), DBCA's conservation significant fauna database (reference no. 17-0224FA (DBCA 2024b), Atlas of Living Australia (ALA 2025) and literature references.

A total of 1268 fauna species were identified from database searches as occurring or potentially occurring within 20 km of the site.

During the field survey, a total of 36 native and five (5) non-native fauna species were directly or indirectly (from foraging evidence) recorded. Three of the native species are considered 'threatened' and are further discussed in **Section 3.3.1.3**.

Two species listed as a declared pest (C3) pursuant to the *Biosecurity and Agriculture Management Act 2007* (BAM Act), **Oryctolagus cuniculus* (rabbit) and *Vulpes vulpes* (fox), were identified from scats within the site.

3.3.1.3 Conservation significant fauna

Three (3) of the 36 native fauna species recorded within the site are listed as 'threatened' including:

- *Zanda latirostris* (Carnaby's black cockatoo (CBC)) (Endangered) recorded through foraging evidence on marri fruits – high likelihood of occurrence.
- *Zanda baudinii* (Baudin's black cockatoo (BBC)) (Endangered) recorded through foraging evidence on marri fruits - high likelihood of occurrence; and,
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo (FRTBC)) (Vulnerable) recorded foraging on marri fruits - high likelihood of occurrence.

A further three threatened, three specially protected and five priority species were classified as having a 'high' or 'moderate' likelihood of occurrence within the site noting no evidence of the species occurring within the site was recorded. The species include:

- *Apus pacificus* (Pacific swift (Migratory)) and *Falco peregrinus* (peregrine falcon (Other specially protected)) – moderate likelihood of occurrence: both species are highly mobile and may opportunistically fly over or forage in the site for short periods of time as part of a much larger home range but are unlikely to perch. Neither of these species would breed within the site. Any occurrence of pacific swift or peregrine falcon in the site would likely be in the air space and largely independent from terrestrial habitat.
- *Platyercus icterotis xanthogenys* (Western rosella (inland) (Priority 4) – moderate likelihood of occurrence: can be found in open eucalypt woodlands with a heath understory (Pizzey and Knight 2012). The **eucalypt forest** within the site would be suitable habitat for this species.
- *Dasyurus geoffroii* (Chuditch (vulnerable))- moderate likelihood of occurrence: Numerous DBCA records of the species occur approximately 10 km east of the site within Muja State Forest and, although the site is more disturbed than the surrounding forest, Chuditch may use the site as part of their home range. The **eucalypt forest** and **riparian woodland** within the site represents suitable habitat.
- *Falsistrellus mackenziei* (western false pipistrelle (Priority 4)) – high likelihood of occurrence: Given the number of trees in the site, particularly older eucalypts, the species may roost in the site in conjunction with the surrounding forest.
- *Hydromys chrysogaster* (Rakali) (Priority 4) – moderate likelihood of occurrence: likely to be found in the surrounding region and may utilise the **riparian woodland** habitat within the site and surrounding river as an ecological corridor.
- *Isoodon fusciventer* (Quenda) (Priority 4) – high likelihood of occurrence: highly likely the species could utilise **eucalypt forest** and **riparian woodland** habitats within the site, particularly given its high connectivity to large areas of suitable habitat to the north of the site.

- *Phascogale tapoatafa wambenger* (south-western brush-tailed phascogale (conservation dependent)) – high likelihood of occurrence: the **eucalypt forest** habitat in the site represents suitable habitat, particularly as it is connected to extensive areas of suitable forest habitat to the north of the site.
- *Pseudocheirus occidentalis* (western ringtail possum (critically endangered)) – moderate likelihood of occurrence: Multiple DBCA records of the species occur to the west and north-west of the site. Three key management zones have been identified for the species, which are defined as areas considered the most important extant populations (DPaW 2017). The site lies outside of these management zones, with the Swan Coastal Plain zone being the closest. Critical habitat within this zone is defined as 'long unburnt mature remnant peppermint woodlands with high canopy continuity and high nutrient foliage with minimal periods of summer moisture stress, and habitat connecting patches of remnants' (DPaW 2017). The habitat in the site does not meet this definition of critical habitat but the species does utilise eucalyptus species for refuge and foraging, meaning the **eucalypt forest** habitat may support individuals.
- *Setonix brachyurus* (Quokka) (vulnerable) – moderate likelihood of occurrence: likely to be found in the surrounding region and may utilise the **riparian woodland** habitat and surrounding river as an ecological corridor.
- *Ctenotus delli* (Dell's skink) (Priority 4) – moderate likelihood of occurrence: The **eucalypt woodland** would provide suitable habitat for the species and provide an ecological corridor to more suitable habitat surrounding the site to the north.

3.3.1.4 Black cockatoo habitat

Foraging

Foraging evidence of CBC and BBC in the form of chewed fruits were observed within the site. FRTBC were recorded foraging within the targeted black cockatoo survey area. The site is located within the modelled distributions for all three species of black cockatoo (DoEE 2016).

A total of 37.32 ha of 'high' quality primary native foraging habitat for CBC and FRTBC and 35.62 ha for BBC was recorded within the site. A total of 1.65 ha 'high' quality secondary native foraging habitat for BBC was also identified within the site. The extent of black cockatoo foraging habitat for each species within the site is illustrated on **Figure 6**, **Figure 7**, and **Figure 8**.

The highest value foraging resource in the site is the 'high' quality primary native habitat due to the presence of *Corymbia calophylla* (marri) and *Eucalyptus marginata* (jarrah). Secondary foraging resources are those that BBC have been recorded consuming occasionally and should not be considered a sustaining food source.

Breeding and roosting

The site is located within the modelled distributions for all three species of black cockatoo. The site is located within the CBC and FRTBC breeding range, but outside of the BBC range (DoEE 2016).

A total of 872 black cockatoo habitat trees (trees with a diameter at breast height of >50 cm) were identified within the site (**Figure 9**), 18 of which are classed as 'suitable nesting trees' as they likely contain hollows suitable for black cockatoo breeding (viewed from the ground only). An internal

inspection using a pole-mounted camera would be required to confirm the nesting suitability of the hollows. The remaining 951 habitat trees are considered 'potential breeding trees' currently without suitable nesting hollows, but that may ultimately form suitable hollows.

No black cockatoo roosts or evidence of roosting were observed within the site during the field survey.

3.3.2 Potential impacts

The clearing of native vegetation within the project area would result in the following:

- The permanent loss of 0.01 ha of **Eucalyptus forest** habitat within the site.
- The permanent loss of 0.66 ha of **Riparian woodland** habitat within the site.
- The permanent loss of 4.61 ha of **Scattered trees and shrubs** habitat within the site.
- The permanent loss of 92.67 ha of **Grassland and bare ground habitat** within the site.
- The permanent loss of 4.29 ha of 'high' quality primary native CBC and FRTBC foraging habitat.
- The permanent loss of 2.76 ha of 'high' quality primary native BBC foraging habitat.
- The permanent loss of 1.48 ha of 'high' quality secondary native BBC foraging habitat.
- The permanent loss of 176 potential nesting trees for black cockatoos (none of which contain suitable hollows for black cockatoo breeding).

A summary of the potential impacts on black cockatoo habitat within the site's development footprint is illustrated on **Figure 10.** Consideration of the significance of impacts on black cockatoo habitat as a result of the proposal and the proponent's likely EPBC Act obligations are further discussed in **Section 4.2.1.2**.

Overall, it is noted that:

- Any impacts as a result of the proposal can be mitigated through the implementation of environmental management plans such as a fauna management plan.
- Large patches of native vegetation providing suitable habitat for conservation significant species with a moderate or high likelihood of occurrence including black cockatoos (**Figure 10**) will be retained within the site's avoidance area (i.e. a total of 43.39 ha (89 %) of native vegetation comprising fauna habitats **Eucalyptus forest**, **Riparian woodland** and **Scattered trees and shrubs**).
- The proposal is not expected to result in direct significant impacts on conservation significant species that would result in species injury or mortality.
- No impacts on suitable black cockatoo nesting trees. Existing habitat for black cockatoo is extensive within a 12 km radius of the site.
- No direct or indirect impacts on conservation reserves or major ecological linkages will occur. The clearing of vegetation is concentrated in the existing disturbed areas within the site and will not cause significant fragmentation of surrounding large remnant vegetation patches providing habitat for fauna associated with the State Forests. Linkages to these much bigger patches of State Forest vegetation will remain and they are protected from future development due to existing 'Reserve' zonings, making future development in these areas highly unlikely and reducing the probability of cumulative impacts.

3.3.3 Management

The key MNES species that were identified as having a 'high' likelihood to occur within the site and were recorded by Emerge Associates (2025a) include three species of black cockatoo, namely CBC, BBC and FRTBC.

The key management strategy for the proposal is to avoid the clearing of native vegetation providing conservation significant fauna habitat including for black cockatoo. The ecological survey results have informed the design and placement of the solar PV and BESS infrastructure to avoid areas of native vegetation associated with the **Eucalypt forest**, **Scattered trees** and **Riparian woodland** providing the most significant habitat values across the site. The preliminary design of the proposal demonstrates that infrastructure is positioned to avoid significant impacts on native vegetation and the above fauna habitat types (where possible), with particular consideration for black cockatoo habitat. The proposal will avoid 43.39 ha (89 %) of native vegetation comprising the **Eucalypt forest**, **Scattered trees** and **Riparian woodland** fauna habitat types. This includes the avoidance of up to 33.03 ha of 'high' quality primary native black cockatoo foraging resources within the avoidance area including 702 potential and 18 suitable black cockatoo nesting trees (**Figure 10**).

Some impacts on native vegetation and associated black cockatoo habitat within the site are unavoidable given large mature trees classed as potential nesting trees are scattered throughout the site forming part of the non-native plant community making impact avoidance on all trees difficult. The proposal is anticipated to result in the permanent loss of up to 4.29 ha of scattered native vegetation comprising 'high' quality primary native black cockatoo foraging resources including 176 potential black cockatoo nesting trees.

Furthermore, direct impacts to fauna are possible during the construction process of the proposal i.e. during vegetation clearing and as a result of potential vehicle strikes that may result in fauna injury or mortality. A CEMP and/or Fauna Management Plan (FMP) will be prepared and implemented an include standard and site specific management measures for terrestrial fauna including:

- Undertaking pre-clearing fauna inspections including of tree hollows for signs of use.
- During clearing works, having a suitably qualified and experienced fauna spotter/handler supervising the clearing activities, to actively search for fauna during clearing, relocate any opportunistically identified fauna, and attend to any injured fauna.
- Stipulating limits on construction vehicle operating speeds and operating times (i.e. within daylight hours), to minimise the chance of fauna vehicle strikes.
- Demarcation measures such as fencing around retained vegetation/fauna habitat.
- Undertaking clearing in a direction that avoids forming small patches of vegetation trapping fauna, typically toward other areas of vegetation, to allow any remaining fauna to move themselves away from the area once works commence.
- Clearing outside fauna breeding periods, particular for black cockatoos.
- Providing training and inductions to construction personnel regarding fauna management.
- Having a protocol in place to manage any fauna which might be injured, for example taking injured fauna to the nearest wildlife or veterinary clinic.

- Ensuring the project is maintained in a clean and tidy manner to ensure feral and other species are not attracted to the site. Waste material is to be disposed of appropriately through waste services and/or to licenced landfill during construction and as part of ongoing operation.

3.3.4 Environmental outcome and performance

The environmental outcomes resulting from the implementation of the proposal, with respect to terrestrial fauna are:

- The direct impact on potential fauna habitat will be confined to the development footprint of the site with no clearing of native vegetation and associated fauna habitat outside of the development footprint.
- No significant direct impact such as species injury or mortality as a result of the implementation of the proposal.

3.3.5 Monitoring and reporting

To achieve the desired environmental objectives and outcomes, ongoing monitoring will be required throughout the implementation of the proposal (construction phase) and ongoing operation. Regular site inspections will be conducted to visually inspect clearing boundaries and assess vegetation and associated fauna habitat clearing, with particular consideration to statutory approval compliance. During construction works, monitoring of vehicle speed limits to avoid potential fauna strikes, and monitoring during the clearing process by a qualified fauna specialist will be required.

All incidents including accidental clearing outside the approved clearing boundaries and vehicle strikes resulting in conservation significant fauna injury or morality will be recorded and reported to the relevant authority. It is expected that annual reporting will be required subject to the statutory approvals relevant to the proposal.

3.4 Inland waters

3.4.1 Outline of characteristics and values

3.4.1.1 Groundwater

A review of the water register (DWER 2025b) indicates that site is within the Upper Collie Water Management Area, which is underlain by the below fractured rock aquifers:

- Level 1 - Collie combined fractured rock west - Alluvium
- Level 2 - Collie combined fractured rock west - Calcrete
- Level 3 - Collie combined fractured rock west - Palaeochannel
- Level 4 - Collie combined fractured rock west - Fractured rock.

Groundwater resource for the Collie area is within the proclaimed Collie Coal Basin which is made of the Premier and Cardiff sub-basins. Coal is mined from the Collie Coal Basin therefore needing dewatering for operations purposes. Surplus groundwater (mine dewater) is in high demand for cooling purposes of the local power industry (DWER 2025a).

Whilst groundwater sources beneath the site have not been classified in accordance with publicly available data, an assessment of estimated groundwater levels using the Australian Groundwater Explorer (BoM 2025a) and available literature on the formations observe that the shallow groundwater within the superficial quaternary deposits would expected to be approximately 1 m below ground level (Mott MacDonald 2024). Due to the close proximity of the Bingham River and Pollard Brook, surficial groundwater could potentially be observed at the waterways level along the western and southern boundaries of the site.

3.4.1.2 Surface water

The Bingham River, a major river, passes adjacent to the western site boundary in a north-south (downstream) direction and meets the Collie River approximately 3.2 km south of the site. A significant stream and local tributary of Bingham River is Pollard Brook that intersects through a portion of the site south of Collie-Williams Road (DWER 2018). Pollard Brook connects to the Bingham River from an easterly direction before connecting to other major tributaries including the Lemon Tributary. The Bingham River and Pollard Brook are highly seasonal with the highest flows observed during the winter months when rainfall is the highest. During the summer months when the base flow is at its lowest, the system naturally ceases to flow forming a series of pools (DWER 2025a).

There is no existing flood mapping available for the site and no relevant hydrological studies of the relevant hydrological features. Therefore, to support the proposal's siting and design process, Emerge Associates (2025c) have undertaken surface runoff modelling to characterise the floodplain area of the Bingham River and Pollard Brook for the major rainfall event (1% annual exceedance probability (AEP)), which run adjacent to the site, to determine the potential hydrological impacts and/or risks to the proposal. The outcome of the modelling is that a minor portion along the western site boundary will be within the floodplain area; however, the proposal has been designed in consideration with the inundation extent. On this basis, all proposed infrastructure will be located outside the major rainfall even (1% AEP) floodplain of the Bingham River. This is further described in the Water Management Plan (Emerge Associates 2025c), attached as **Appendix D**.

3.4.1.3 Wetlands

Wetlands are areas of seasonally, intermittently or permanently waterlogged land such as poorly drained soils, ponds, billabongs, lakes, swamps, tidal flats, estuaries, rivers and their tributaries (Wetlands Advisory Committee 1977). Wetlands can be recognised by the presence of vegetation associated with waterlogging or the presence of hydric soils such as peat, peaty sand or carbonate mud (Hill *et al.* 1996).

Wetlands of national or international significance may be afforded special protection under Commonwealth or international agreements. A review of the *Ramsar List of Wetlands of International Importance* (DBCA 2017) and *A Directory of Important Wetlands in Australia – Western Australia* (DBCA 2018) indicates that no Ramsar or listed 'important wetlands' are located within or near the site.

The *Geomorphic Wetlands of Wheatbelt Wetlands (DBCA-021)* dataset maps geomorphic wetland features and classifies them based on their landform shape and water permanence. Each wetland feature is classified according to their host landform and hydroperiod. A review of the dataset indicated that no wetland features occur within the site nor immediate surrounds. Given the site is surrounding by Muja State Forest and the gentle and continues slope across the land, the likelihood of a wetland occurring within site would be minimal. Notwithstanding, it is noted along the western and southern boundary of the site the Bingham and Pollard Brook floodplain areas are identified as was discussed in **Section 3.4.1.2**.

3.4.1.4 Public drinking water source areas

Public Drinking Water Source Areas (PDWSAs) are proclaimed by the Department of Water to protect identified drinking water sources, including surface water and groundwater sources (DoW 2009). They are proclaimed under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947* as Water Reserves, Catchment Areas or Underground Water Pollution Control Areas. PDWSAs provide the population with the majority of its drinking water supplies and can be vulnerable to contamination from a range of land uses. Once an area is identified as a PDWSA, consideration needs to be given to the intended land use and associated activities to ensure that they are appropriate in meeting the water protection quality objectives of the area.

A review of the *Public Drinking Water Source Area* dataset indicates the site is not located within a proclaimed PDWSA.

3.4.2 Potential impacts

Potential impacts relating to inland waters include the potential for flooding impacting on the proposal (post-construction) and impacts to groundwater and surface water as a result of the implementation and ongoing operation of the proposal.

As described in **Section 3.4.1.2**, all proposed infrastructure will be located outside the major rainfall even (1% AEP) and there is unlikely to be flooding within the site that would impact on the proposal. Additional potential impacts such as surface runoff resulting in erosion and sedimentation can further be mitigated as detailed in **Section 3.4.3**.

3.4.3 Management

A Water Management Plan (WMP) was prepared by Emerge Associates (**Appendix D**) and outlines the integrated water cycle management approach for the site. The WMP provides for the following in relation to the water management approach, with the management measures detailed in the WMP (**Appendix D**):

- Stormwater – a water sensitive urban design (WSUD) approach will be adopted, which integrates water management into the landscape and mimics natural processes. This will include surface-based runoff conveyance (roadside swales/v-shape drains) for localised treatment, erosion control and conveyance, and localised intervention/control (culverts) where appropriated to maintain catchment flows around major infrastructure. Downstream

treatment (i.e. sediment removal) will be undertaken via sediment traps prior to allowing it to sheet flow over the landscape and discharge into Bingham River.

- Groundwater – management will be passive and will avoid any interaction with permanent or perched groundwater.
- Potable water – potable water would be required within the site during maintenance operations. The proposal will be serviced by the existing potable water network which runs along the Collie-William Road (DN750 referred to as the Great Southern Town Water Supply).
- Wastewater servicing – Minor onsite office uses will require wastewater servicing. Connection to reticulated sewage is not available, therefore the effluent will need to be managed onsite. The wastewater management approach will comply with the Government Sewerage Policy (DPLH 2019) and will be serviced by contemporary best-practice on-site wastewater treatment and disposal.
- Non-potable water - Non-potable water needs for bushfire requirements will be supplied by scheme water in addition to a surplus of harvested water collected from the operations buildings.

3.4.4 Environmental outcome and performance

The environmental outcomes resulting from the implementation of the proposal, with respect to inland waters are:

- No dewatering of groundwater to be undertaken.
- No adverse impacts to groundwater or surface water quality.
- No significant risks of contaminated surface water runoff and infiltration into groundwater or surface water sources such as Bingham River and associated tributaries. WSUD practices will be applied in conjunction with the stormwater management strategy proposed for the proposal.

3.4.5 Monitoring and reporting

The intent of a monitoring and maintenance program for the proposal is to promote the long-term functioning of the water management features within the site, which include the roadside swales, sediment traps etc.

Additional management, monitoring and maintenance actions for the proposal relevant to the inland water EPA factor is provided in the WMP (**Appendix D**).

3.5 Social environment

3.5.1 Outline of characteristics and values

3.5.1.1 Existing land uses

The site is within the Shire of Collie and is located approximately 10 km north-east of Collie town. The site is zoned 'Rural' under the Shire of Collie Local Planning Scheme (LPS) No. 6. No R-codes, restricted uses or additional uses apply to the area. In accordance with LPS No.6, the construction of a renewable energy facility on land zoned 'Rural' is allowed where the local government has exercised its discretion by granting development approval after advertising the application in accordance with clause 64 of the deemed provisions. Areas surrounding the site are also largely zoned 'Rural', while areas reserved as 'State Forest' are situated directly to the north and east of the site. These areas are DBCA managed or legislated lands comprising the Muja State Forest (F24) (DBCA 2023a).

As detailed in **Section 3.2.1.2**, large areas of the site were cleared of native vegetation prior to 1996, likely for grazing uses. The earliest available aerial imagery shows that the surrounding areas have also supported agricultural land uses over the same time period, whilst transmission line corridors to the south-west of the site were constructed pre-1996.

Currently the existing land uses at the site are general agricultural activities, mostly pastoral sheep grazing (which will be continued throughout the operation of the proposal), with one existing rural dwelling situated within the site just north of Collie-Williams Road. Other onsite infrastructure is limited to farm and storage related structures including man-made dams. An above ground Water Corporation water pipe runs adjacent to Collie-Williams Road.

The surrounding land uses of the site include:

- The Collie Battery within a portion of Lots 775 and 784 directly to the south of the site, which is being built in two stages, with Stage 1 now operational since October 2024.
- The Shotts electrical substation and associated Western Power transmission line and corridors connecting to the Collie Power Station and the Bluewaters Power Station are located approximately 1.5 km south-west of the site.
- Muja State Forest directly to the east extending over a 74,000 ha area, with the Harris Rover State Forest further to the west.

3.5.1.2 Aboriginal heritage

In WA, Aboriginal cultural heritage is currently managed pursuant to the *Aboriginal Heritage Act 1972* (AH Act). The DPLH maintain the Aboriginal Cultural Heritage Inquiry System (ACHIS), which is a directory containing locations and information about Aboriginal Cultural Heritage (ACH) in the state.

The site lies within the Gnaala Karla Booja Indigenous Land Use Area and within the traditional lands of the Wiilman People. In accordance with the *Aboriginal Heritage Due Diligence Guidelines* (DAA 2013), a search of the ACHIS online database (DPLH 2023) was undertaken which identified registered Aboriginal Heritage Site ID 16713 (Collie River Waugal) intersecting through a small

portion of the proposal's 'transmission cable route' (**Figure 2**) south of Collie-Williams Road. Site ID 16713 is not a restricted heritage place and extends over a 74 km area from the Bunbury coast in the west to the Shire of West Arthur to the east of the site. The location of the heritage site is shown on **Figure 12**.

No other Registered Aboriginal Heritage Sites or 'Other Heritage Places' occur are mapped within the site nor in close proximity. 'Lodged' Heritage Place ID 4694 is situated approximately 3.5 km to the west of the site.

Archae-aus (2025) have undertaken due diligence assessments for the proposal including a desktop review of the known Aboriginal cultural heritage within the site and broader surrounds, including places or objects that may be overlapping Aboriginal cultural heritage values. The assessment also identified potential heritage constraints within the site under the AH Act.

Whilst Archae-aus (2025) acknowledges that the proposal will unlikely directly affect Place ID 16713 (considered an important mythological place, natural feature and water source), understanding the types and relationships between cultural heritage places and the wider cultural landscape helps to inform heritage risk assessment for unsurveyed areas within similar environments. A preliminary assessment of the potential for Aboriginal cultural heritage within the site and associated development footprint was therefore undertaken by Archae-aus. It was concluded that there appears to be areas within the site's development footprint considered to have an overall 'high; chance of encountering water sources, camps, ethnographic sites including creation/dreaming narrative, artefact scatters and water sources within portions of the site south of Collie-Williams Road and adjacent to the western site boundary (north of Collie-Williams Road). Small areas of the northern portion of the site were also considered to have a 'moderate' chance of encountering burials, modified trees, historical Aboriginal heritage places, potential archaeological deposits and plant resources. Furthermore, large patches of native vegetation remaining within the site's avoidance areas are also considered to have a 'moderate' chance of encountering heritage values. Notwithstanding, the archaeological characteristics and ethnographic values of the site and broader study area in their entirety are currently unknown, as no area-specific surveys have been conducted to date (Archae-aus 2025).

Based on the results of the desktop assessment undertaken by Archae-aus (2025), and prior to any mitigation measures being put in place, there is an assessed 'high' and 'moderate' risk of the implementation of the proposal impacting Aboriginal cultural heritage within portions of the site. Therefore, it was highly recommended that heritage surveys occur to refine these areas of potential heritage values and to better manage the risk, as further discussed in **Section 3.5.2.1**.

3.5.1.3 Non-indigenous heritage

In order to determine the actual or potential presence of sites or features of non-indigenous heritage significance within the site, a review of the Australian Heritage Database (DCCEEW 2022a), the State Heritage Office database (Heritage Council WA 2022) and the Local Heritage Survey (DPLH-008) was undertaken to determine if any of the following occur within the proposal area:

- World Heritage Sites

- National Heritage Sites
- Commonwealth Heritage Places
- Sites listed in the State Register of Heritage Places.

The desktop search has indicated there are no state registered heritage sites located within the proposal area.

3.5.1.4 Noise

A Noise Impact Assessment (LLoyd George Acoustics 2025) was conducted for the proposal. With regard to noise emissions from the proposal, consideration was given to noise from the BESS battery containers, power conversion systems (PCS), Solar PV inverters and the medium voltage transformers and high voltage substations at neighbouring properties. The assessment considers three scenarios based on noise data for each running condition of the above infrastructure components. The scenarios and assessment results provided by Lloyd George Acoustics (2025) are summarised as follows:

- Scenario 1 (worst case) – Daytime Operations: PCS operating at 100% fan speed and BESS operating at 80% fan speed (maximum fan speed of the BESS), with noise control kits included. Further includes noise from the Solar PV inverters, transformers and substations operation at 100%.
- Scenario 2 – Evening Operations: PCS and BESS operating at 80% fan speed with noise control kits included. Includes noise from the transformers, as well as the substations operating at a reduced speed.
- Scenario 3 – Night Operations: PCS and BESS operating at 50% fan speed with noise control kits included. Includes noise from the transformers, as well as the substations operating at a reduced speed.

Results of the assessment found that noise emissions will be compliant based on the proposed operation conditions to restrict the operation speeds of the proposal's infrastructure components further discussed in **Section 3.5.2.2**.

It is expected that a Noise Management Plan will be prepared to demonstrate that noise emissions will achieve compliance with the requirements of the *Environmental Protection (Noise) Regulations 1997*.

3.5.1.5 Dust

The potential for dust emissions as a result of the proposal would be short-term throughout the construction process as a result of transport, earthworks and other construction activities. Standard construction management measures for the control of dust will be implemented as further detailed in **Section 3.5.2**.

3.5.1.6 Visual amenity

Visual amenity and potential impacts for the proposal have been considered in the context of the *Visual Landscape Planning in Western Australia Manual* (WAPC 2007) (Visual Landscape Manual). This has included:

- Identification of landscape character and general description
- Viewshed analysis, to understand the likely visibility of the proposed infrastructure based on topography only, and topography and nearby vegetation (with the vegetation heights based on the detailed assessment completed with the bushfire management plan).
- Discussion on likely visual impact, based on consideration of identified nearby receptors (within 1 km to 2 km).

This has been detailed in the below sub-sections.

Landscape character

The landscape character of the wider area relevant to the site can be described as a mix of:

- Vast areas of plantation and native vegetation associated with the Harris River and Muja State Forests. The vegetated areas are characterised by a mix of plantation pine or blue gum (dense stands of monoculture vegetation up to 20 m to 30 m tall, which can be harvested at different times and therefore vegetation is at different stages of growth), and remnant native vegetation of marri and jarrah (predominantly) with a diverse understorey. Some areas of vegetation are more open woodland type structure which can be looked through, while other areas are dense stands of variable height and foliage that are difficult to see through.
- Pockets of cleared rural land used for grazing predominantly provide occasional disruptions to the vast areas of vegetation. These areas have occasional large buildings, both dwellings and shed/storage buildings with different colours (predominantly muted greys, reds and cream), along with regular linear features such as fences, access roads and firebreaks and powerlines.
- Large industrial land uses, including extensive open cut coal mines, existing coal fired power stations (with large stacks that extend above the tree canopy), extensive cleared infrastructure corridors (associated with powerlines) as well as the Collie BESS under construction to the south.
- Public roads with wider cleared shoulders that cross the landscape, providing strong linear features which are used by a mix of heavy vehicles (livestock transport, tractors, mining vehicles etc.), regular through traffic of workers travelling to the power stations/mining operations as well as residents and tourists travelling through the area.

Viewshed analysis

A viewshed analysis in accordance with the Visual Landscape Manual (WAPC 2007) was undertaken for the site by Emerge Associates. A viewshed analysis is based on the topographic contours and assists in identifying a possible ‘seen area’ based on the assessed maximum infrastructure height. A viewshed or ‘seen area’ is defined as:

> *A portion of the landscape that can be seen from one or more observer positions. The extent of the area that can be viewed is normally limited by landform, vegetation and distance.* (WAPC 2007)

The visible (seen) area is based on the infrastructure height and any land equal to or greater than those heights. This can then assist in determining receptors (which could be a dwelling or similar, of a prominent view location) that may be impacted, which can then be ground-truthed through field assessment and modelling to understand the visibility of a built element when existing vegetation, landform features and other existing built form or structures is considered.

A desktop assessment for potential receptors (i.e. rural dwellings) within 2 km of the site was undertaken, with five receptors identified. Two 'sensitive' receptors (i.e. rural dwellings) have been identified within 0.5 km of the site and three within 1 km (**Figures 13** to **18**). Furthermore, three separate rural dwellings occur within 1 km of the site but are on land that is under control of the proponent and referred to as the 'common land ownership' boundary. The residences under common land ownership are not considered to be sensitive receptors. Viewpoints (considered to be receptors) were also identified within the vicinity of the site along a section of Collie-Williams Road, which is used by a range of people from workers to tourists to transit the area. Examples of the views across the site (northern portion high point) and from Collie-Williams Road towards the site are provided in **Plate 6** to **Plate 8**.

Each different component of infrastructure from the proposal development (i.e. BESS batteries, BESS lightning poles and Solar PVs) has been subject to two separate viewshed analyses to consider the different height of the infrastructure compared to: a) the existing topography of the site and surrounds (utilising digital elevation model data (1 m contours) derived from LiDAR by Landgate); and b) the topography and the vegetation within the vicinity of the site and identified receptors.

The viewshed analyses considered the following infrastructure components and associated maximum height:

- BESS battery component at a maximum 2.6 m height
- Four BESS lighting poles at a maximum 25 m height
- Solar PV component, with a maximum height of 2.85 m for each PV unit.

The infrastructure is represented on the figures by points, representing either the location and/or extent of the infrastructure (and the height locations tested as part of the viewshed analysis).

The distance zones used for the viewshed analyses were sourced from the Visual Landscape Manual (WAPC 2007), with consideration up to 5 km away (based on available topographic data), with receptors considered within 2 km of the site (beyond 2 km, visibility to the human eye decreases (WAPC 2007)). Greater distances have not been considered given the scale and maximum height of the proposal's infrastructure components that are unlikely to be visible beyond the 5 km distance zone.



Plate 6: View from the northern portion of the site to the west and visual receptor within 0.5 km of the site in Lot 771.



Plate 7: View towards the site from Collie-Williams Road (eastern direction), showing a natural rise of the landscape. The proposal will sit beyond the rise.

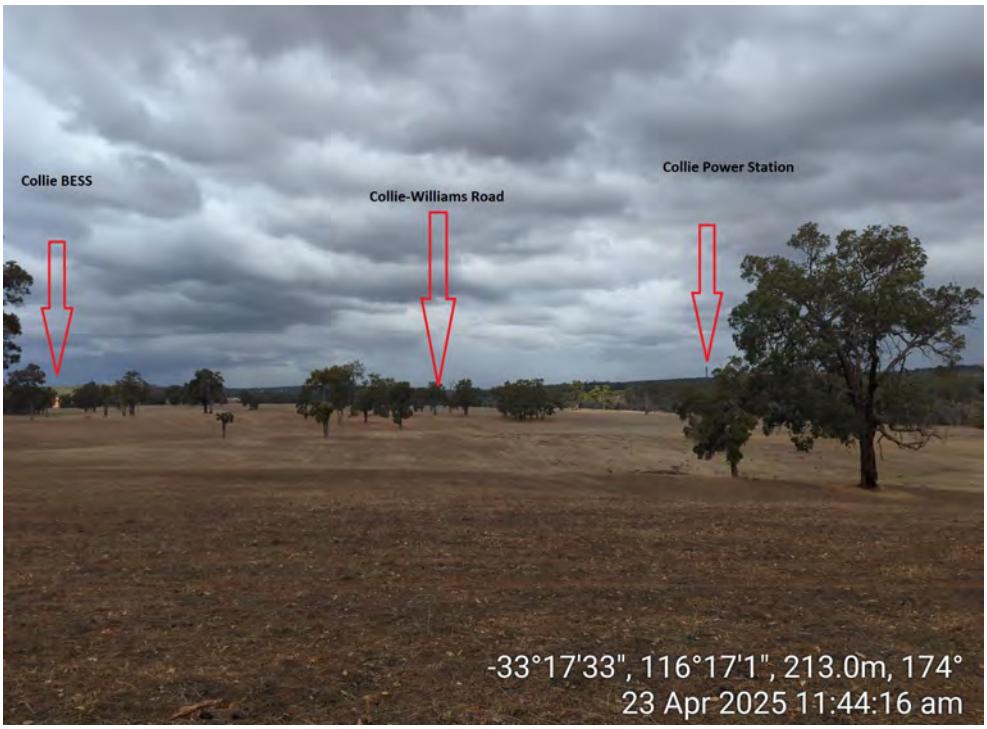


Plate 8: View from the northern portion of the site towards Collie-Williams Road with the Collie BESS (under construction) and Collie Power Station in the background.

Landscape visual impact assessment

Viewshed analysis (topography)

Based on topography only:

- The BESS battery component (**Figure 13**) is predicted to be visible to receptors 1,2 and 4 to the west of the site, including Collie-Williams Road. Receptors to the north, north-east, east and south are not predicted to see the BESS battery due to topography.
- The BESS lightning poles (**Figure 14**) are predicted to be visible to the majority of receptors (except receptor 5) including for large sections of Collie Williams Road from both the east and west, but would be less visible for the portion of the road adjacent to the site. This is largely due to the height of the poles, which means they could be visible over longer distances. The poles are relatively narrow and limited in number, and as such will be less discernible.
- The Solar PVs (**Figure 15**) are predicted to be visible to all receptors including for large sections of Collie Williams Road from both the east and west, but less visible from the road immediately to the south. A natural rise within the western portion of the site, between the PVs and the road mean the panels would be less visible for portions. Long views of the panels could occur from the west, based on topography only.

Overall, the topographic viewshed analysis predicts that without screening, all the infrastructure could be visible, particular for drivers along Collie-Williams Road and receptors to the west. The BESS battery is the least visible component of the proposed infrastructure. This would be due to its compact form and relative topographic location in the landscape compared to the identified receptors.

Viewshed analysis (topography and vegetation)

Features not captured by topographic contours, such as vegetation and other buildings or massing, can provide screening for proposed infrastructure. The Visual Landscape Manual encourages siting of development to consider how existing features can be used to minimise visual impact through screening and blending.

Expansive areas of intact remnant native vegetation, as well as plantations are present within and surrounding the site. This vegetation varies in density (and therefore screening capacity), with vegetation generally present between the proposed infrastructure and receptors. To understand the potential screening posed by the existing vegetation, Emerge Associates have prepared a separate viewshed which considers topography and vegetation. The vegetation assumptions applied within the analysis is based on:

- The extent of native vegetation mapped by the Department of Primary Industries and Regional Development (DPIRD). A review of this data against recent aerial photography suggests this is reasonably accurate and would not overestimate the extent of vegetation.
- Verification of vegetation height, captured as part of work undertaken to support the Bushfire Management Plan (Emerge Associates 2025b) (refer to **Section 3.6**). While it does not cover all areas of the vegetation that have been included in the assessment, it is representative of the vegetation. Vegetation height is a key determinant for vegetation classifications under *Australian Standard 3959-2018 Construction of buildings in bushfire prone areas* (AS 3959), and assessment outputs have been used to inform height. Forest and woodland classified vegetation was identified to have a vegetation height between 15 m and 30 m. For the purposes of the viewshed analysis, a maximum height of 15 m was assumed for the vegetation (to provide a conservative assessment of height.
- Paddock areas being composed of grasses up to 1 m in height.
- No vegetation being present in/around the development footprint, with grass grazed below 10 cm in height.

An indication of the vegetation assumptions applied as part of the analysis is shown in **Plate 9**. An example of the vegetation between within the site that will contribute to screening of the proposal is provided in **Plate 10** to **Plate 13**.

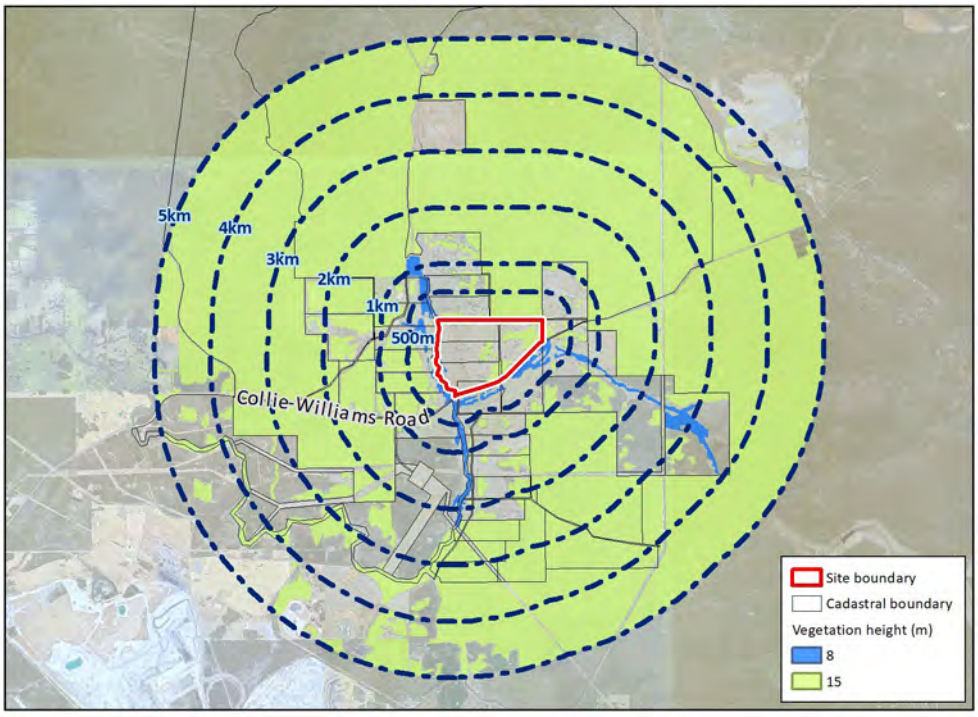


Plate 9: Demonstration of existing vegetation within and surrounding the site. Vegetation within 150 m of the site was verified through the Bushfire Management Plan (Emerge Associates 2025).

Based on topography and vegetation:

- The BESS battery component (**Figure 16**) is predicted to be likely only visible to receptor 4 to the west of the site, and along some sections of Collie Williams Road.
- The BESS lightning poles (**Figure 17**) are predicted to be likely visible from receptors 2 and 4 and along large sections of Collie-Williams Road.
- The Solar PVs (**Figure 18**) area also predicted to be likely visible from receptors 2 and 4 and from some sections along Collie Williams Road.

Overall, the viewshed analysis with vegetation indicates that the existing vegetation will screen significant portions of the proposed development from the surrounding receptors. There are still likely to be views of the infrastructure, particularly the Solar PVs from along Collie-Williams Road within approximately 500 m to the east and west of the site, where the road angles so that there are views straight across the site with limited vegetation present to screen the infrastructure. Given the speed of travel (100 km/hr), the view across the site would not be for long periods of time, likely less than one minute. Receptors to the west, where no vegetation is present between the site and the receptor, will also have a changed viewing experience, and be able to see the infrastructure.

It is noted that vegetation density does vary, particularly where vegetation is present within the site, along Collie-Williams Road immediately adjacent to the site, and along the Bingham River to the west. This vegetation is more sporadic with larger gaps, and a viewer could look through the vegetation and see glimpses of the proposed infrastructure. This means while the viewshed indicates the visibility of the project is lesser with the assumed vegetation, receptors within 500 m where no

stands of dense vegetation are present will have views across the proposed development with large portions of the infrastructure visible, even if broken up by existing trees. This will be a different viewing experience compared to the rolling paddocks with scattered trees currently.



Plate 10: Woodland vegetation to be retained within the south-western portion of the site adjacent to Collie-Williams Road screening views from the road towards the site.



Plate 11: Forest vegetation to be retained the north of the site within Lot 789.



Plate 12: Woodland vegetation to be retained along the site's eastern boundary adjacent to the Bingham River.



Plate 13: Woodland vegetation to be retained within the site along Collie-Williams Road looking in an east to west direction.

Other considerations – reflection and glare

The majority of the Solar PVs will not be visible from the road (unless where placed directly adjacent to Collie- Williams Road and due to the Solar PV design).

To be efficient, Solar PVs must allow as much light transmission as possible with the lowest amount of reflection and are therefore designed and manufactured accordingly to aid light absorption. For instance, most standard Solar PVs reflect between 2 and 10% of the light hitting the surface (depending on position of the PV and sun), whilst glass used for vehicle windscreens generally reflects up to 45 % of light (Meister Consultant Group 2014, Pilkington, 2010).

Summary

The viewshed analysis indicates that based on topography only, the BESS battery, BESS lightning poles and Solar PV units could be visible to a number of receptors, particularly those to the west of the site within 1 km, and along the eastern extent of Collie Williams Road where it interfaces with the site. When existing vegetation is considered, the number of receptors that have clear views of the site and proposed infrastructure decreases. The density of the existing vegetation (and associated screening) varies, with some areas having dense remnant vegetation with all vegetation layers (understorey, mid-storey and canopy) present, and areas other less dense vegetation in the form of either a single row of remnant vegetation (e.g. along Collie-Williams Road adjacent to the site) or scattered trees.

Receptors to the west of the site where not screened by dense vegetation will have a changed viewscape, as currently rolling paddocks with scattered trees are the primary views across the site. This will change the viewing experience, with an array of Solar PVs becoming the predominant feature interspersed with cleared paddocks and remanent trees. Travellers along Collie-Willaims Road will have glimpses of the proposed infrastructure, however due to the speed of travel (100 km/hr), these views will not last for a significant time period and would only form a small component of the overall drive experience, with it taking the average driver approximately 3 m to traverse areas where the proposed development would be visible. The lightning poles, while taller than much of the vegetation, are narrow in profile and will be less discernible over distance and will likely look like part of the tree canopy.

3.5.2 Management

3.5.2.1 Heritage

The due diligence assessment including the desktop review undertaken by Archae-aus (2025) has produced a preliminary assessment of the known heritage and potential risks and constraints associated with the proposal. Archae-aus advised that archaeological and ethnographic surveys and engagement with the Gnaala Karla Booja Aboriginal Corporation will be required. The results of field assessments will be able to refine the levels of archaeological and cultural heritage potential for the

site and provide a better understanding of the zones of potential heritage values associated with the proposal.

Based on the results of the archaeological and ethnographic field assessments, if Aboriginal cultural heritage places are found to be within the site's development footprint, and where potential impacts cannot be avoided, the proponent will seek Section 18 approval under the AH Act and develop a Cultural Heritage Management Plan subject to consultation with the Gnaala Karla Booja Aboriginal Corporation.

Furthermore, and in addition to any heritage management plan that may be required, standard construction measures will be implemented throughout the works associated with the proposal that will include temporary suspension of works should unexpected Aboriginal or archaeological significant material be uncovered.

In respect to registered Aboriginal Heritage Site ID 16713 (Collie River Waugal) intersecting a small portion of the proposal's development footprint to the south of Collie-Williams Road that will comprise the underground transmission cable system (**Table 1**); horizontal directional drilling techniques will be employed that will prevent the need of open trench construction and any potential impacts to the heritage site.

3.5.2.2 Noise

The site is located within 200 m of rural residential dwellings. Noise and vibration generated during construction has the potential to cause nuisance for nearby residents. Works will be managed in accordance with the *Environmental Protection (Noise) regulations 1997* or approved noise management plan. The regulations stipulate working hours and requirements to maintain equipment to relevant standards.

Results of the assessment found that noise emissions from the operation of the proposal will be compliant based on the proposed operation conditions including to restrict the operation speeds of the proposal's infrastructure components.

3.5.2.3 Dust

The site is located within 200 m of rural residential dwellings. Soils within the site can be subject to wind erosion, particularly when dry, and therefore may produce dust during dry periods of weather or windy conditions. Potential dust generated during construction will be managed through a range of measures, including use of water carts (or similar) as required, implementation of wind fencing and modifying site activities if weather conditions indicate risk is high.

3.5.2.4 Visual amenity

Mitigation such as screening planting around the proposal could be considered to screen views from Collie-Williams Road, noting that it could take years for vegetation to grow to a height to be able to screen views from surrounding receptors and Collie-Williams Road. Notwithstanding, based on the topography of the site and surrounding receptors either sitting higher or at level with the site it is likely to be impossible to mitigate the views of the proposal in the surrounding landscape and the

proposal will be visible to different extents from various locations. It is expected that the limited view of the proposal from Collie-Williams Road is not unreasonable in respect to the current rural setting of the site and surrounding area.

3.6 Bushfire hazard

3.6.1 Outline of values

The site is partially located within 'Area 2' (designated bushfire prone) on the state-wide *Map of Bush Fire Prone Areas* prepared by the Office of Bushfire Risk Management (OBRM 2024) as shown in **Plate 14.** The identification of a site within 'Area 2' necessitates a further assessment of the determined bushfire risk affecting the site in accordance with *Australian Standard 3959:2018 Construction of buildings in bushfire prone areas* (AS 3959) and the satisfactory compliance of the proposal with the policy measures described in *State Planning Policy 3.7 Bushfire* (SPP 3.7) (WAPC 2024b) and the *Planning for Bushfire Guidelines - For the implementation of State Planning Policy 3.7 Bushfire* (the Guidelines) (WAPC 2024a). Notwithstanding, it should be noted that typically only habitable structures are assessed against the policy framework. Consequently, general requirements such as the siting of proposals within bushfire attack level (BAL) BAL-29 or less do not apply to non-habitable structures such as the solar PV and BESS.

None of the proposed habitable structures (i.e. control room, maintenance shed and switch rooms) associated with the proposal are sited within the bushfire-prone areas; only portions of the PV cells (not habitable) are within these areas. On this basis, ordinarily an assessment against SPP 3.7 would not be required. However, following consultation with the Shire of Collie, it was determined that due to the unique characteristics of the proposal, an assessment against SPP 3.7 will be opted into to alleviate concerns relating to bushfire. Emerge Associates (2025b) have therefore prepared a Bushfire Management Plan (BMP) based on the typical application of the above polices and guidelines, and the project design has been centred around achieving Bush Fire Attack Level (BAL)-29 or less for all future constructed elements of the solar PV and BESS facility. This approach ensures a high level of bushfire protection for both habitable and non-habitable structures, aligning with the intent of SPP3.7 to minimise bushfire risks.

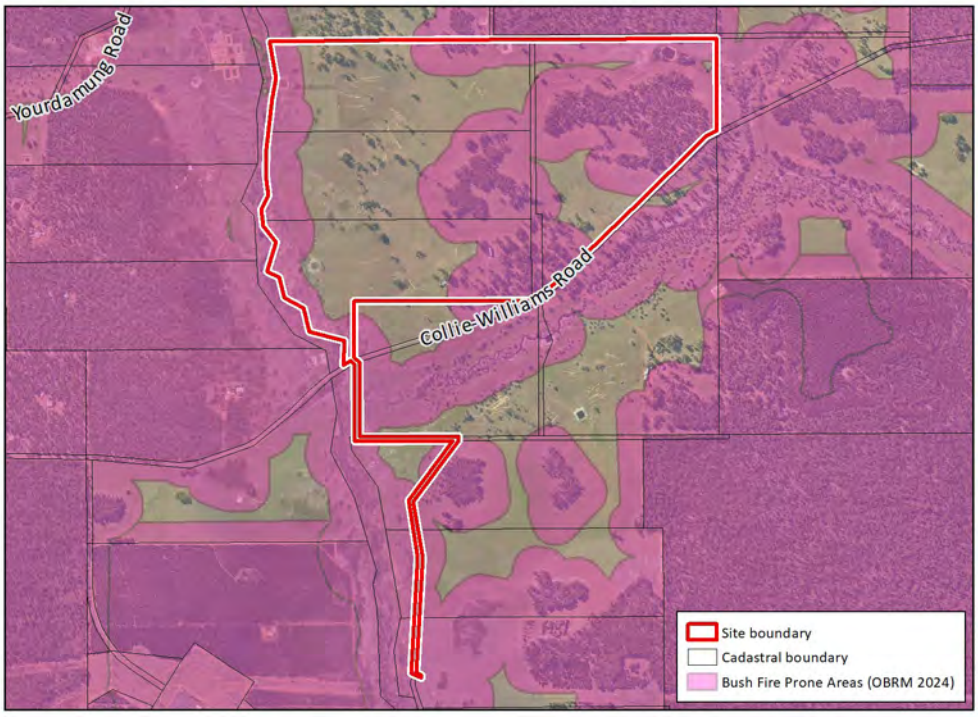


Plate 14: Areas within and surrounding the site, identified as Area 2 'designated bushfire prone' (under the state-wide Map of Bush Fire Prone Areas (OBRM 2024), is indicated in purple

All vegetation within 150 m of the site was classified in accordance with Section 2.2.3 of AS 3959. The assignment of vegetation classifications is based on an assessment of vegetation structure, including consideration of the various fuel layers of different vegetation types.

Post-development, forest (Class A) vegetation has been identified as the primary threat that will remain surrounding the site and internally comprising discrete native vegetation patches. Woodland (Class B) vegetation was identified internally within a discrete patch and externally within rural landholdings and will remain post-development. Grassland (Class G) vegetation was identified largely adjacent to the western site boundary within the Bingham River flood plain area and externally within rural landholdings. Sufficient separation from any post-development classified vegetation can be provided for all future constructed elements of the solar PV and BESS facility to achieve BAL-29 or less.

3.6.2 Management

The bushfire protection criteria (BPC) provided in the Guidelines represent the risk treatment acceptable solutions applicable to achieving the intent and outcomes listed in SPP 3.7. The relevant criteria (category) for the proposal is *Criteria 7: Development – Commercial and Industrial* (BPC 7). Compliance with each element (as a risk treatment) is required to demonstrate to the decision maker that the risk is within an acceptable level, either by compliance with the acceptable solution or by an outcome (alternate solution). The BMP (Emerge Associates 2025b) demonstrates that compliance with the acceptable solution at each element in BCP 7 can be achieved and is summarised below:

- **Element 1 Location**: Element 1 is not applicable at the development application stage under BCP 7. Notwithstanding this, a simplified assessment of the broader locality has been undertaken as

part of the BMP identifying the proximity of the site to similar scale projects such as the Collie BESS facility to the south, the legibility of the existing public road network in the area, with the key access route being Collie-Williams Road which provides direct routes to Williams in the east and Collie in the west, and the proximity of the site to surrounding agricultural land uses that result in large areas of lower bushfire hazard, compared to the extensive areas of State forest.

- **Element 2: Siting and Design:** The site will be developed and maintained to achieve a Low-threat classification for the solar array areas and associated buffers or remain non-vegetated for the Proposed BESS facility in the south-west portion of the site. The proposal has been designed to address "worst case conditions" regarding vegetation classifications, assuming that classifiable vegetation within and surrounding the site may regrow to Forest (Class A) characteristics. Consequently, the BAL ratings applicable to the proposed built form are anticipated to be lower than those predicted by the BMP (Emerge Associates 2025b). The siting of the proposal has also taken into consideration the retention of significant vegetation patches throughout the site, ensuring that key ecological areas are preserved, as discussed in this EAMP. A breakdown of the applicable BAL ratings to key components includes:
    - **Solar PVs:** Sited within areas that achieve BAL-29 or below. While there is no requirement under SPP 3.7 to site this infrastructure in BAL-29 or below, the decision to do so is driven by commercial risk avoidance.
    - **BESS battery components:** Positioned to achieve BAL-19 or below, with the majority of units achieving BAL-LOW.
    - **Building maintenance and switchboard sheds (habitable buildings):** Located on the eastern portion of the proposed BESS facility, entirely within an area of BAL-LOW.

  The site will largely continue to be managed to maintain a low-threat state, primarily through ongoing grazing activities (substituted with slashing when required), including areas under the solar panels.
- **Element 3: Vehicular Access**: The internal private driveway network is designed to provide access to Collie-Williams Road to the south, ensuring connectivity to the broader public road network. It also provides for an interconnected access arrangement that facilitate access throughout the site, including the BESS facility and solar PV. The internal driveway network has been designed to address the requirements of the Guidelines with a trafficable surface of 6 m provided throughout to allow for two-way traffic movements. Where applicable, turnaround areas compliant with the Guidelines have been incorporated, with internal intersections providing additional areas for turnaround. All proposed habitable buildings are located adjacent to internal loop roads, ensuring that they satisfy the functional consideration of providing turnaround areas within 30 m of habitable buildings, thereby enhancing accessibility and safety.
- **Element 4: Water Supply:** All development must have an adequate water supply available for bushfire defence. The proposal is serviced by a reticulated water supply, complemented by a dedicated 50,000 L water tank for firefighting purposes. This tank is strategically located within the BESS facility, adjacent to habitable buildings and the internal loop road network, ensuring both accessibility and effectiveness in emergency situations.

The management/mitigation measures to be implemented through the proposed development of the site have been outlined as part of the BMP (Emerge Associates 2025b).

4 Planning and approval considerations

4.1 Planning policies, regulations and strategies

4.1.1 State Planning Strategy 2050

The State Planning Strategy 2050 (WAPC 2014) provides high level strategic planning context for WA as part of its broader economic, social and environmental context. In particular, the growing demand for renewable energies and the need for improvement of the south-west interconnected system and electricity network infrastructure is a critical component of the strategy.

In this respect, the proposal being a renewable energy development (solar PV and BESS) is consistent with the strategic goals of State Planning Strategy 2050.

4.1.2 Renewable Energy Facilities Position Statement

The Position Statement: Renewable energy facilities (WAPC 2020) (the Statement) outlines the WAPC's requirements to support the consistent consideration and provision of renewable energy facilities in WA. It identifies assessment measures to facilitate appropriate development of renewable energy facilities.

The Statement describes the provisions that should be made in the state and local planning instruments (local planning schemes, policies and strategies) to guide decision making regarding renewable energy facilities. It recommends that renewable energy facilities should be designated in the zoning table of a local planning scheme as an 'A' use (not permitted without discretion and giving notice of land within the appropriate zones, and requiring public advertising before the proposal can be determined) (WAPC 2020). In this respect, the Statement has been reviewed in conjunction with the Shire of Collie LPS No. 6 land use objective for renewable energy facilities. Renewable energy facilities are classed as an 'A' use on land zoned 'Rural' such as the site, which is in accordance with the Statement.

The Statement further lists the factors that should be taken into account during assessments of proposed renewable energy facilities including (but not limited to) public consultation processes, environmental impact, visual and landscape impact, public safety (i.e. bushfire), heritage and construction impacts. In this respect, relevant local, State and Commonwealth government agencies have been contacted to discuss the proposal, with the required assessment and approvals progress being undertaken with each relevant agency. Environmental investigations across multiple disciplines including ecology, hydrology, bushfire, noise, visual, traffic and heritage have been or are in the process of being undertaken to support the proposal and ensure that all potential impacts have been considered.

So far, the Statement has been considered throughout the design, determination of a suitable location, and management process of the proposal.

4.1.3 State Planning Policy No. 2 - Environmental and Natural Resources Policy

The State Planning Policy No.2 – Environmental and Natural Resources Policy (WAPC 2003) (SPP 2) objectives are to integrate the environment and natural resources management with broader land use planning and decision-making, to protect, conserve and enhance the natural environment and to promote and assist in the wise and sustainable use and management of natural resources. Particularly, SPP 2 highlights that planning strategies, schemes and decision making should support the use of alternative energy generation including renewable energy. It further includes measures relating to the protection of the environment, mitigation of impacts and management of natural resources.

With regard to SPP 2, the proposal has considered the policy's objectives through the design, location and management process and by undertaking environmental studies across multiple disciplines to achieve acceptable environmental outcomes.

4.1.4 State Planning Policy No. 2.5 – Rural Planning

State Planning Policy No. 2.5 – Rural Planning (WAPC 2016) (SPP 2.5) refers to the planning objectives relating to land zoned for rural purposes as defined in the relevant planning schemes. Its aim is to protect rural land uses and avoid landuse conflicts supporting sustainable economic growth. Importantly, SPP 2.5 refers to retaining rural land identified as 'priority agricultural land'.

Based on the Shire of Collie Local Planning Strategy (SoC 2020), the site is not within an area identified as 'agricultural priority management area'. The site is identified as 'potential/developing agricultural area (subject to investigation)' and is not considered significant in terms of rural land use. In respect to SPP 2.5, the proposal will maintain the rural character of the site by retaining and protecting existing biodiversity values (where possible), by utilising largely cleared and degraded land, whilst preserving surrounding patches of remnant native vegetation. It is noted that the current land use of the site for sheep grazing will continue during the ongoing operation of the proposal. The proposal aligns with the objectives of SPP 2.5.

4.1.5 State Planning Policy No. 3.7 – Bushfire

The intent of SPP 3.7 is to implement effective, risk-based land use planning and development which in the first instance avoids the bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an acceptable level (WAPC 2024b).

As discussed in **Section 3.6**, as the proposal is located within an area considered bushfire prone, a BMP has been prepared in accordance with SPP 3.7 and the Guidelines, demonstrating bushfire risk is appropriately addressed.

4.1.6 Shire of Collie Local Planning Strategy

The Shire of Collie Local Planning Strategy (SoC 2020) (the local planning strategy) outlines the Shire's planning direction and objectives highlighting critical planning considerations including but not limited to bushfire management and developments within floodplains. The local planning strategy does highlight the importance of retaining rural land; however, as outlined in **Section 4.1.5**, the site

is not within an area identified as 'agricultural priority management area'. The site is instead identified as 'potential/developing agricultural area (subject to investigation)' in the local planning strategy and is not considered significant in terms of rural land use.

In respect to the local planning strategy, the location of the site for the proposal was identified as suitable given its proximity to the already existing Western Power energy infrastructure including the Collie Power Station to the south-west, Collie Battery directly to the south and the Shotts terminal further to the south-west. Furthermore, environmental studies and assessments have been undertaken across multiple disciplines including bushfire and hydrological considerations. Therefore, the proposal aligns with the objectives of the local planning strategy.

4.1.7 Shire of Collie Local Planning Scheme No. 6

The purpose of the Shire of Collie LPS No. 6 is to prescribe land use classification and zoning allocations for land in the Shire. It furthermore provides specific provisions for development applications.

As discussed in **Section 3.5.1**, the site is zoned 'Rural' under LPS No. 6. No R-codes, restricted uses or additional uses apply to the area. In accordance with LPS No. 6, the construction of a renewable energy facility on land zoned 'Rural' is allowed where the local government has exercised its discretion by granting development approval after advertising the application in accordance with clause 64 of the deemed provisions.

4.1.8 Environmental Protection (Noise) Regulations 1997

The Environmental Protection (Noise) Regulations provide a prescribed standard under the EP Act that sets limits for noise emissions. The Regulations are used to assess and set conditions for new developments regarding domestic, commercial, and general industry noise emissions and outline provisions for noise sensitive premises to mitigate potential impacts.

As detailed in **Section 3.5.1.4**, Lloyd George Acoustics completed a noise assessment based on three scenarios to understand potential impacts from the proposal to nearby receptors. The proposal will be compliant with the Regulations.

4.2 Aboriginal Heritage Act 1972

The *Aboriginal Heritage Act 1972* (AH Act) provides for the protection and preservation of Aboriginal heritage and culture throughout WA, including places and objects that are of significance to Aboriginal people. Aboriginal sites and materials are protected whether or not they have been previously recorded or reported. Under the AH Act it is an offense to disturb an indigenous heritage site. Where the impact to a site is unavoidable, the consent of the Minister must be sought under Section 18 of the Act.

The State's *Aboriginal Heritage Due Diligence Guidelines* (DAA 2013) also provide a risk-based assessment for proponents to identify risk to Aboriginal heritage and mitigate risk where heritage sites may be present.

Aboriginal heritage is considered in **Section 3.5.1.2**. No impacts on heritage values are anticipated.

4.3 Environmental approvals

4.3.1.1 Environmental Protection Act 1986

Part IV Section 38(1) of the EP Act provides that, where a proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the EPA for a decision on whether or not it requires formal assessment under the EP Act. The EPA then decides whether a proposal should be assessed, and which level of assessment is appropriate, based on consideration of and environmental significance framework guided by EPA policy on environmental factors.

Based on the investigations undertaken to date, it is likely that environmental impacts associated with the EPA factors can be managed to meet the EPA's objectives for these factors, demonstrated through site selection, proposal design and appropriate site management measures including avoiding the need for the extensive clearing of native vegetation.

Under the EP Act it is an offence to clear native vegetation unless the clearing is done in accordance with a clearing permit, or an exemption applies. 'Native vegetation' is defined in s 3(1) and 51A of the EP Act and Regulations as follows:

'Indigenous aquatic or terrestrial vegetation, that includes dead vegetation unless that dead vegetation is of a class declared by regulation to be excluded from this definition but does not include vegetation in a plantation'.

A native vegetation clearing permit pursuant to Part V of the EP Act may be required (unless the proposal is assessed by the EPA or a clearing exemption applies as discussed below) to facilitate the development of the proposal given it will require the clearing of native vegetation (i.e. areas with scattered native species). Native vegetation does not include vegetation that was intentionally sown, planted or propagated (even if this involves indigenous terrestrial plant species), although natural regeneration of previously areas would constitute native vegetation. Clearing vegetation that is not native vegetation for the purposes of the EP Act can be cleared without requiring a clearing permit or exemption.

The proponent may pursue a native vegetation clearing permit under Part V of the EP Act after planning approval is granted by the relevant development assessment panel. The planning approval will inform the worst-case native vegetation clearing extent and the proposal's finalised design. It is acknowledged, that there are possible native vegetation clearing exemptions that could apply to the proposal. For example, Regulation 5 Item 1 of the *Environmental Protection (Clearing of Native vegetation) Regulations 2004* (EPA 2004) provides for the exemption of:

'Clearing of a site for the lawful construction of a building or other structure on a property, being clearing which does not, together with all other limited clearing on the property in the financial year in which the clearing takes place, exceed five hectares, if –

(a) the clearing is to the extent necessary; and

(b) the vegetation is not riparian vegetation'.

Whether an exemption to clear native vegetation applies to the proposal will be subject to confirmation from the Department of Water and Environmental Regulation. Should an exemption not apply, a clearing permit under Part V of the EP Act will be pursued.

4.3.1.2 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act protects listed MNES, and it is an offence to implement any action that would have a significant impact on any MNES without relevant approvals. If a proponent believes their proposed action is likely to have a significant impact on any MNES (or if the proponent is uncertain whether the proposed action will result in significant impacts), then they are required to refer their proposal to the DCCEEW. The Minister (via a delegate) will decide whether the proposed action may result in significant impacts on MNES and consider the action a 'controlled action' requiring environmental assessment and subsequent approval in accordance with the EPBC Act. Alternatively, a 'not a controlled action' decision can be made, with the proposed action not requiring environmental approval under the EPBC Act (noting State EP Act obligations will still apply).

Information on habitat preferences and distribution of threatened flora and fauna species with the potential to occur within the site was reviewed and assessed against the general site conditions and habitat types recorded during the field surveys (discussed throughout **Section 3**). The following MNES are considered relevant for the EPBC Act approval considerations:

- Carnaby's black cockatoo (CBC)
- Baudin's Black Cockatoo (BBC)
- Forest Red-tailed Black Cockatoo (FRTBC).

Typically, the likely significance of impacts on black cockatoo are considered by way of the magnitude of impacts on black cockatoo habitat (as no direct impacts on the species i.e. impacts resulting in the mortality of individual birds are anticipated). The proposal implementation within the development footprint of the site will involve potential impacts to black cockatoo habitat values including the permanent removal of potential breeding trees (i.e. trees without suitable nesting hollows but that may ultimately form suitable hollows) and potential foraging habitat. The proposal's development footprint comprises up to 4.29 ha of 'high value' native primary foraging habitat for all three species of black cockatoo including 176 potential nesting trees (none of which have suitable nesting hollowing), which would be required to be cleared, as illustrated on **Figure 10**.

The EPBC Act Referral guideline for three WA threatened black cockatoo species (DCCEEW 2022b), referred to herein as 'the referral guidelines', provide referral thresholds that can be applied to determine proposed actions that are likely to pose a high risk of significant impacts: referral recommended, with these thresholds summarised below in **Table 8**. The referral thresholds have been applied to the proposed clearing as summarised in **Table 9** and illustrated on **Figure 10**.

Based on the assessment against the referral guidelines (**Table 9)**, as a result of the anticipated impacts on black cockatoo potential nesting trees and foraging habitat, a referral under the EPBC Act will be required.

Once planning approval is granted by the relevant development assessment panel, the planning approval will inform the proposal's final design and the worst-case native vegetation and associated MNES impact extent. This will subsequently inform the EPBC referral process.

While a referral of the proposal under the EPBC Act will be required, the magnitude of the residual impacts on MNES aren't particularly considered substantial. It is anticipated that based on the proposal's consideration of the mitigation hierarchy (i.e. significant impact avoidance and management (**Section 3.3.2**)), the residual impacts will be acceptable in consideration of the 'significant impact criteria' for endangered species (i.e. black cockatoos) (DotE 2013). Subject to DCCEEW's assessment of the referral, and while the referral guidance (DCCEEW 2022b) indicates a referral is required, the referral of the proposal may not necessarily result in a 'controlled action' decision and considered a 'significant impact'.

The proposal can be managed appropriately as outlined in this EAMP and all residual impacts can be addressed through the usual assessment process and proposed mitigation measures.

Table 8: Referral thresholds for black cockatoos (DCCEEW 2022b)

Attribute	Referral threshold	Reasons
Breeding	Any loss of / impact upon known, suitable or potential nesting trees, and the habitat around these trees, is highly likely to require a referral to the minister. Loss of any potential nesting habitat is likely to require a referral to the minister	As identified in the conservation planning documents, clearing of breeding habitat is a known threat to the 3 species as a lack of tree hollows is a limiting factor. Habitat loss, habitat degradation, lack of recruitment, fire and competition are causing the scarcity of nesting resource.
High-quality native foraging habitat	Loss of greater than or equal to 1 ha of foraging habitat scoring 5-10 using the foraging quality scoring tool is likely to require referral to the minister. Foraging habitat quality is determined using the foraging quality scoring tool and takes into account context i.e. proximity of the impact site to important attributes.	As identified in the conservation planning documents, clearing of foraging habitat is a known threat to the 3 species. Habitat loss, habitat modification, climate change and fire are increasingly causing the scarcity of foraging resources. These resources are critical at all stages of life for the species.
Lower-quality native foraging habitat	Loss of greater than or equal to 10 ha of foraging habitat scoring 0-4 using the foraging quality scoring tool is likely to require referral to the minister. Foraging habitat quality is determined using the foraging quality scoring tool and takes into account context i.e. proximity of the impact site to important attributes.	As identified in the conservation planning documents, clearing of foraging habitat is a known threat to the 3 species. Habitat loss, habitat modification, climate change and fire are increasingly causing the scarcity of foraging resources. These resources are critical at all stages of life for the species.
Exotic foraging habitat	Loss of greater than or equal to 1 ha of predominantly exotic habitat (e.g. Cape Lilac trees and pine trees) known to be utilised by black cockatoos is likely to require a referral to the minister.	As identified in the conservation planning documents, clearing of exotic foraging habitat is a known threat to the 3 species, noting that its value in comparison to native habitat depends upon the context.
Night roosting habitat	Removal of any part of a known night roosting site is likely to require referral to the minister.	As identified in the conservation planning documents, clearing of night roosting habitat is a known threat to the 3 species

Table 9: Application of referral guidelines to the proposal

Referral Criteria	CBC	BBC	FRTBC
Breeding Any loss of / impact upon known, suitable or potential nesting trees	The proposal will involve the clearing of 176 potential nesting trees none of which have suitable nesting hollows.	The proposal will involve the clearing of 176 potential nesting trees, none of which have suitable hollows.	The proposal will involve the clearing of 176 potential nesting trees, none of which have suitable hollows.
High-quality native foraging habitat Loss of greater than or equal to 1 ha of foraging habitat scoring 5-10 using the foraging quality scoring tool is likely to require referral to the minister.	Likely a maximum of 4.29 ha of foraging habitat within the development footprint, which would be considered 'high quality'.	Likely a maximum of 4.24 ha of foraging habitat within the development footprint, which would be considered 'high quality'.	Likely a maximum of 4.29 ha of foraging habitat within the development footprint, which would be considered 'high quality'.
Lower-quality native foraging habitat Loss of greater than or equal to 10 ha of foraging habitat scoring 0-4 using the foraging quality scoring tool is likely to require referral to the minister.	No loss of greater or equal to 10 ha of foraging habitat in proposed clearing.	There is no loss of greater or equal to 10 ha of foraging habitat in proposed clearing.	There is no loss of greater or equal to 10 ha of foraging habitat in proposed clearing.
Exotic foraging habitat Loss of greater than or equal to 1 ha of predominantly exotic habitat (e.g. Cape Lilac trees and pine trees)	No loss of greater or equal to 1 ha of predominately exotic habitat.	No loss of greater or equal to 1 ha of predominately exotic habitat.	No loss of greater or equal to 1 ha of predominately exotic habitat.
Night roosting habitat Removal of any part of a known night roosting site is likely to require referral to the minister.	No removal of any known night roosting habitat within the development footprint.	No removal of any known night roosting habitat within the development footprint.	No removal of any known night roosting habitat within the development footprint.
Summary	**Based on the guidelines, as the proposal will likely result in a loss of greater than 1 ha of 'high' quality native foraging habitat, the proposal requires a referral under the EPBC Act.** **The proposal will likely impact on potential nesting trees (none with suitable hollows) and based on the guidelines requires a referral under the EPBC Act.**	**Based on the guidelines, as the proposal will likely result in a loss of greater than 1 ha of 'high' quality native foraging habitat, the proposal requires a referral under the EPBC Act.** **The proposal will likely impact on potential nesting trees (none with suitable hollows) and based on the guidelines requires a referral under the EPBC Act.**	**Based on the guidelines, as the proposal will likely result in a loss of greater than 1 ha of 'high' quality native foraging habitat, the proposal requires a referral under the EPBC Act.** **The proposal will likely impact on potential nesting trees (none with suitable hollows) and based on the guidelines requires a referral under the EPBC Act.**

5 Conclusions

This EAMP has been prepared on behalf of the proponent to support the assessment, approval and development of the Collie BESS and Solar PV within the site.

The proposal layout has responded to site-specific environmental considerations and will allow the retention of patches of native vegetation and associated conservation significant fauna habitat including a significant number potential and suitable black cockatoo nesting trees. Some impacts on native vegetation and associated conservation significant fauna habitat within the site are unavoidable.

This document provides an environmental assessment and management plan framework to be implemented across the site during development and operation of the proposal so that all residual impacts can be mitigated appropriately. The key components of this framework are summarised as follows:

- A CEMP to be prepared as part of the engineering detailed design that will consider landform, soils and geology, and to mitigate the risk of soil erosion and impacts on retained native vegetation. The CEMP will include measures such as demarcation of retained native vegetation to avoid potential impacts though accidental clearing or edge effects including the spread of weeds and diseases.
- A Fauna Management Plan, which will outline the key fauna management strategies for the site, including pre-clearing fauna inspections, fauna spotters, protection measures for conservation significant fauna habitat (e.g. black cockatoo habitat trees) and hygiene protocols to deter feral and pest species.
- A WMP has been prepared for the site that outlines the integrated water cycle management approach for the site utilising a water sensitive urban design approach, which integrates water management into the landscape and mimics the natural and existing hydrological processes.
- Compliance with the BMP 'acceptable solution' for each of the bushfire protection criteria through the siting of the various proposal elements without the need for clearing of any native vegetation to mitigate hazards.
- Compliance with the *Environmental Protection (Noise) Regulations 1997* subject to proposal operation conditions. The preparation of a Noise Management Plan is expected to support the proposal.
- Screening vegetation planting can be considered adjacent to the proposal in particular along Collie-Williams Road to mitigate anticipated impacts on the visual amenity of the site's surrounds.

Overall, the environmental attributes and values of the site can be suitably accommodated within the development plan or can be appropriately managed through the future development in line with the relevant state and local government legislation, policies and guidelines and best management practices.

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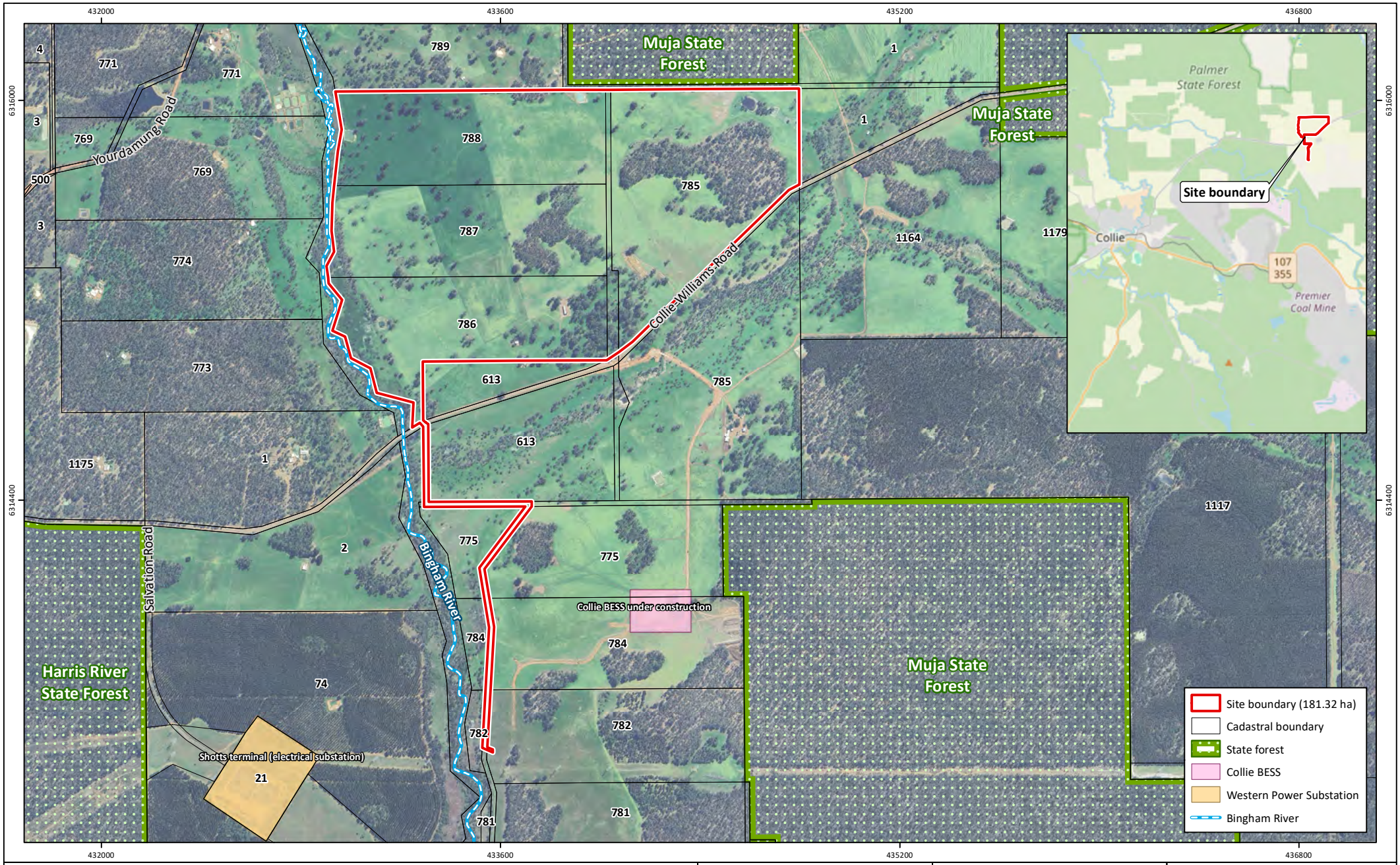


Figure 1: Site Location

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F35

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres

Scale: 1:20,000@A4

GDA2020 MGA Zone 50

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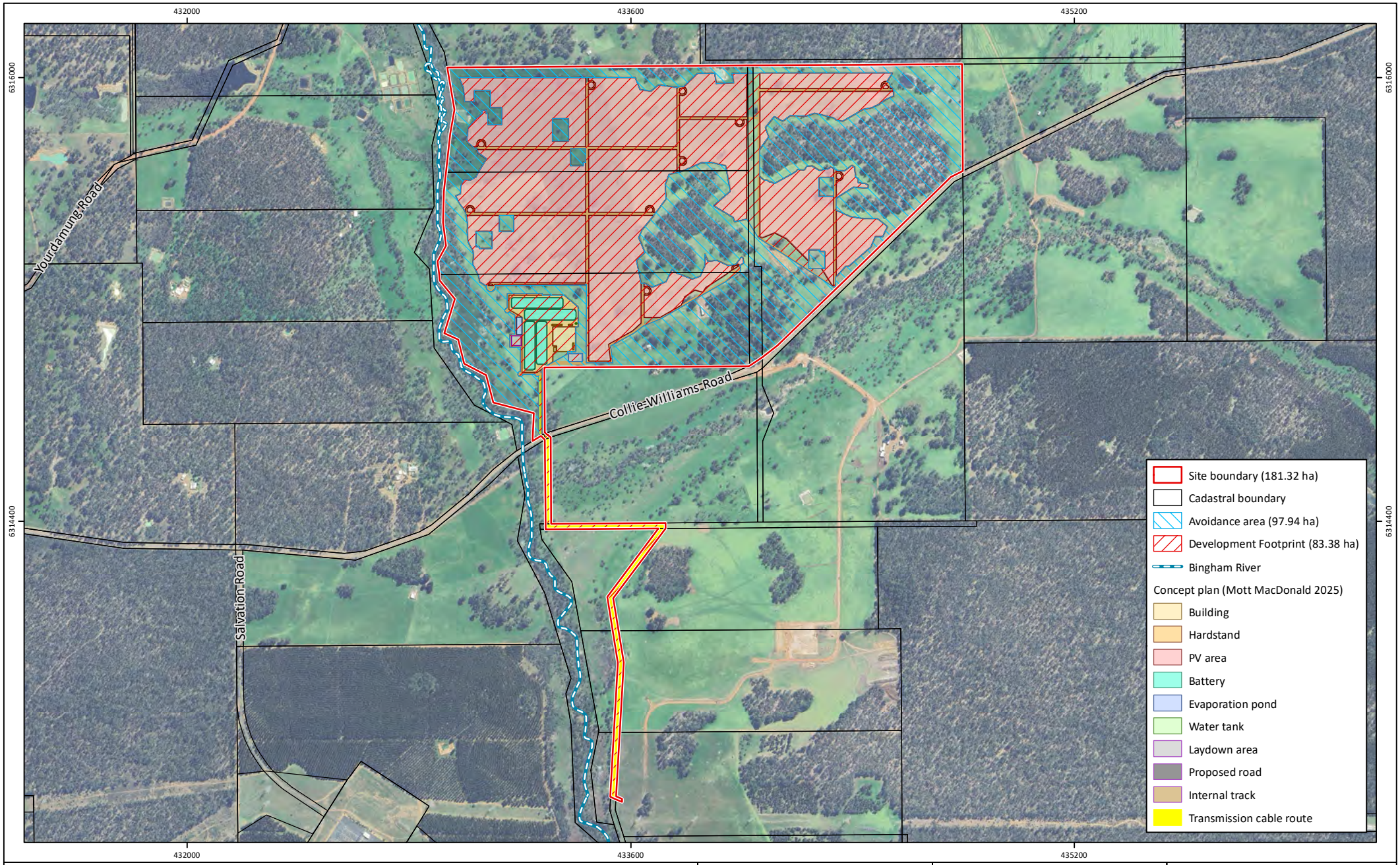


Figure 2: Development Footprint and Avoidance Area

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F36

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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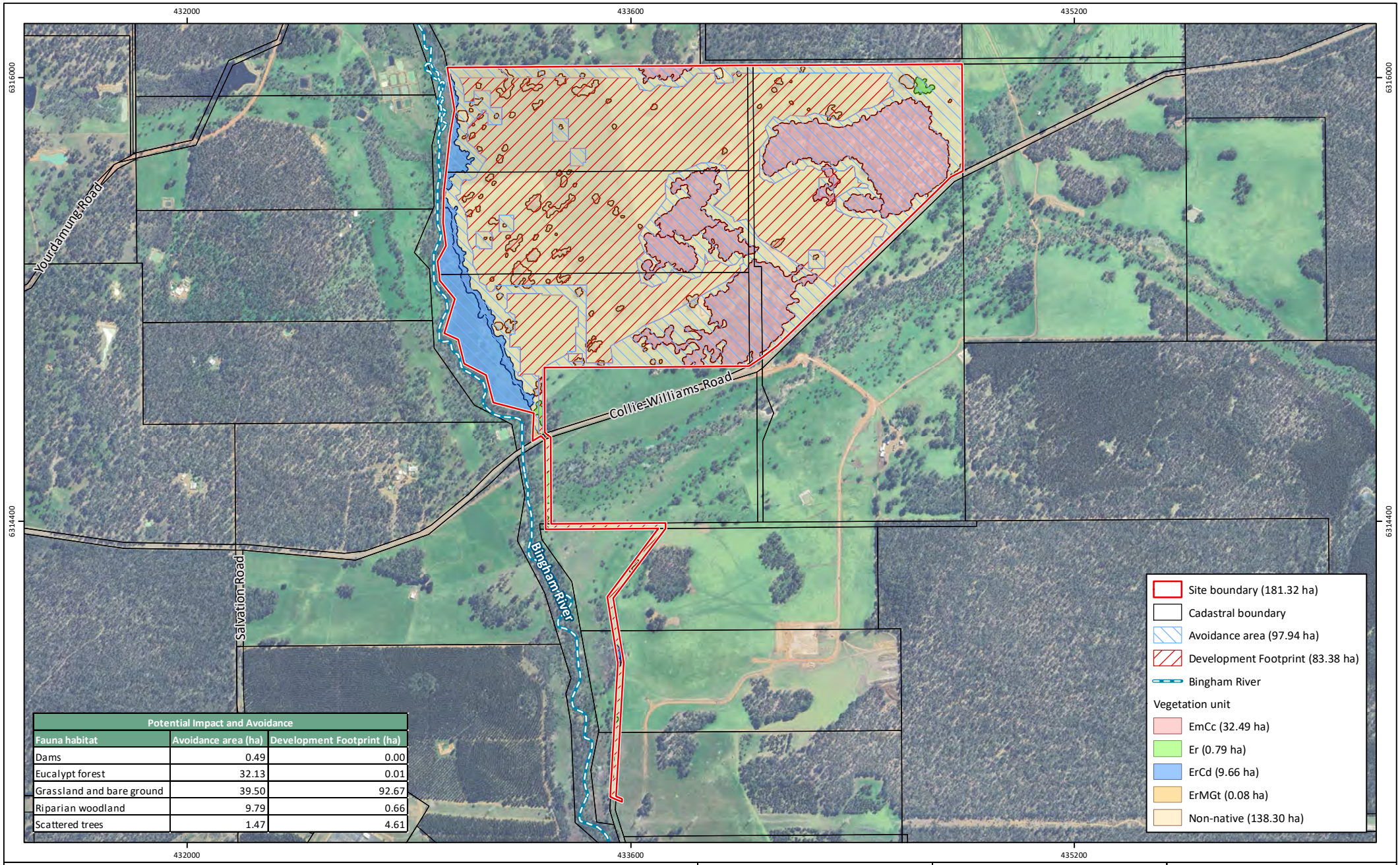
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GDA2020 MGA Zone 50

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Potential Impact and Avoidance		
Fauna habitat	Avoidance area (ha)	Development Footprint (ha)
Dams	0.49	0.00
Eucalypt forest	32.13	0.01
Grassland and bare ground	39.50	92.67
Riparian woodland	9.79	0.66
Scattered trees	1.47	4.61

Figure 3: Vegetation Units

Project: Environmental Assessment and Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F37
Drawn: CTH
Date: 01/05/2025
Checked: PPS
Approved: JDH
Date: 09/05/2025

N

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Metres
Scale: 1:18,000@A4
GDA2020 MGA Zone 50

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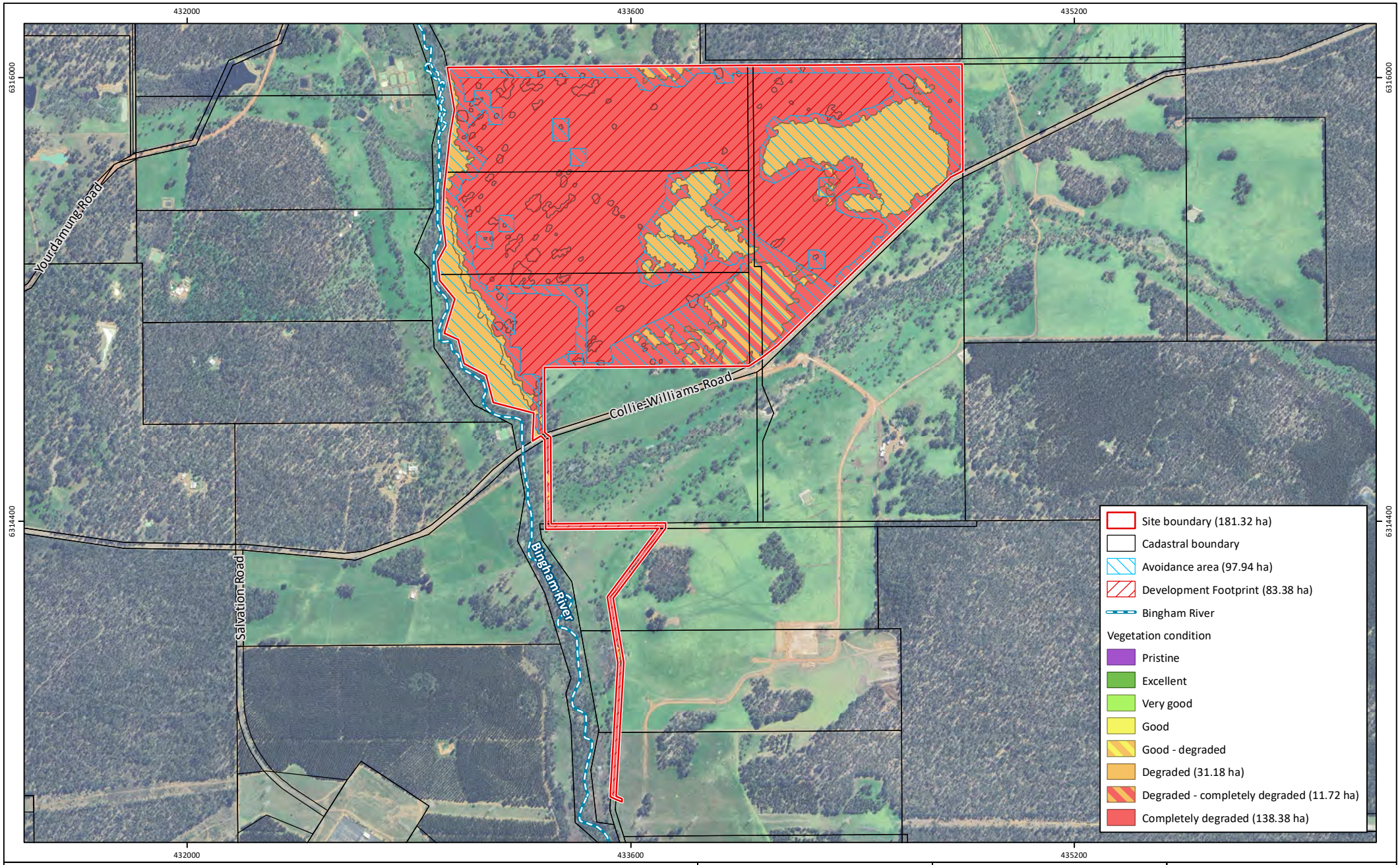


Figure 4: Vegetation Condition

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F38

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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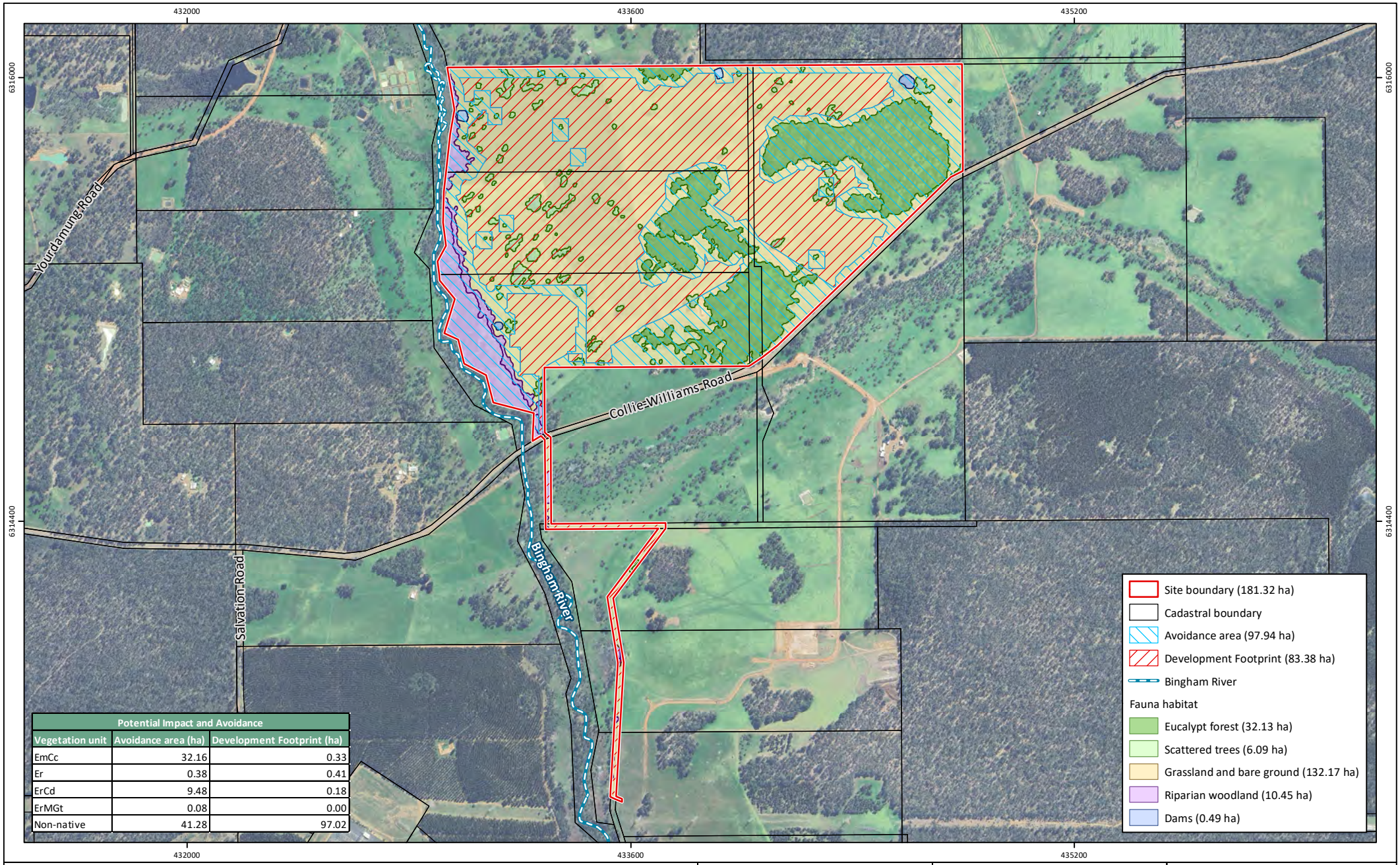
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GDA2020 MGA Zone 50

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Potential Impact and Avoidance		
Vegetation unit	Avoidance area (ha)	Development Footprint (ha)
EmCc	32.16	0.33
Er	0.38	0.41
ErCd	9.48	0.18
ErMGt	0.08	0.00
Non-native	41.28	97.02

Figure 5: Fauna Habitat

Project: Environmental Assessment and Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F39
Drawn: CTH
Date: 01/05/2025
Checked: PPS
Approved: JDH
Date: 09/05/2025

N

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Metres
Scale: 1:18,000@A4
GDA2020 MGA Zone 50

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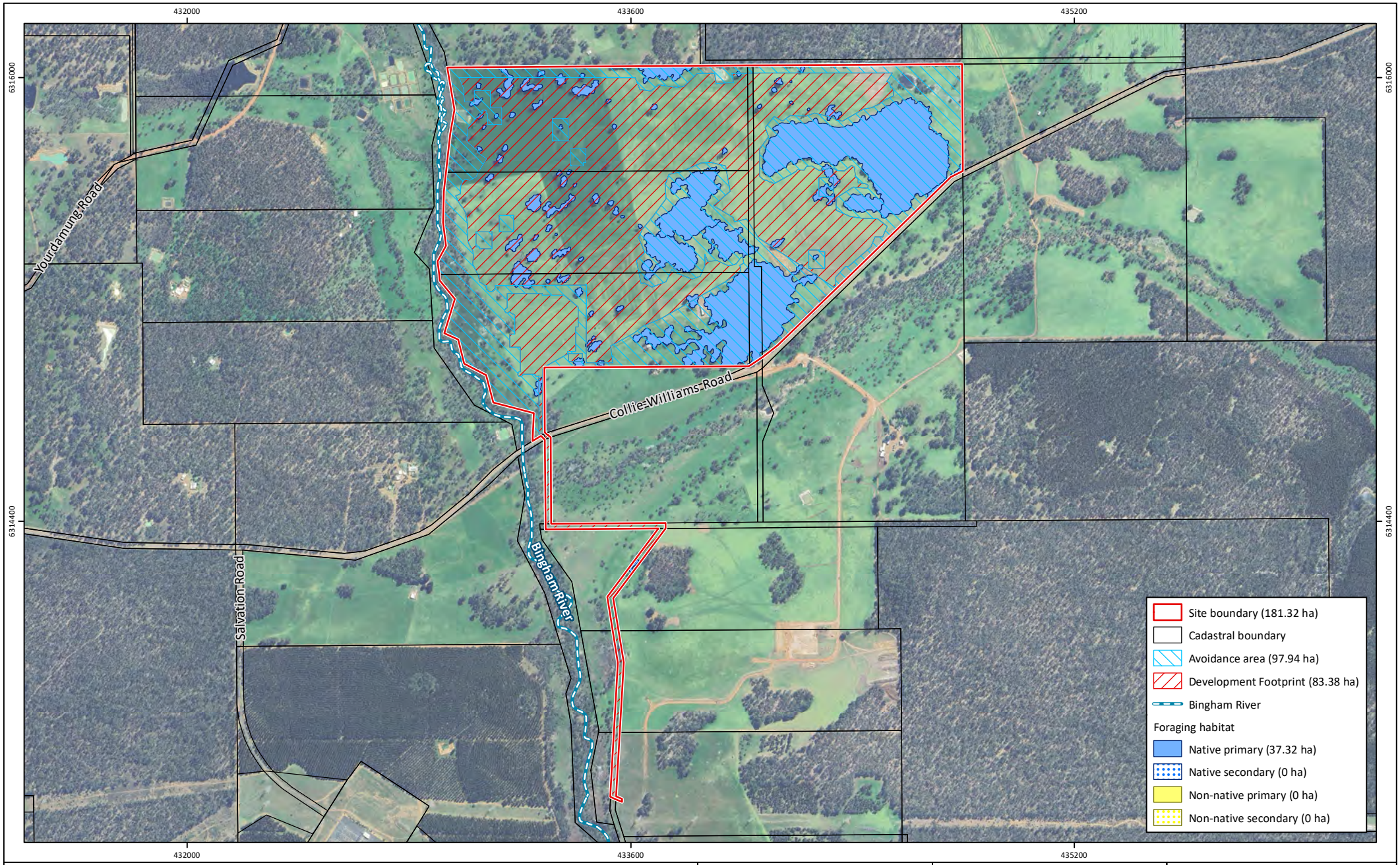


Figure 6: Carnaby's Black Cockatoo Foraging Habitat

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F40

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres

Scale: 1:18,000@A4

GDA2020 MGA Zone 50

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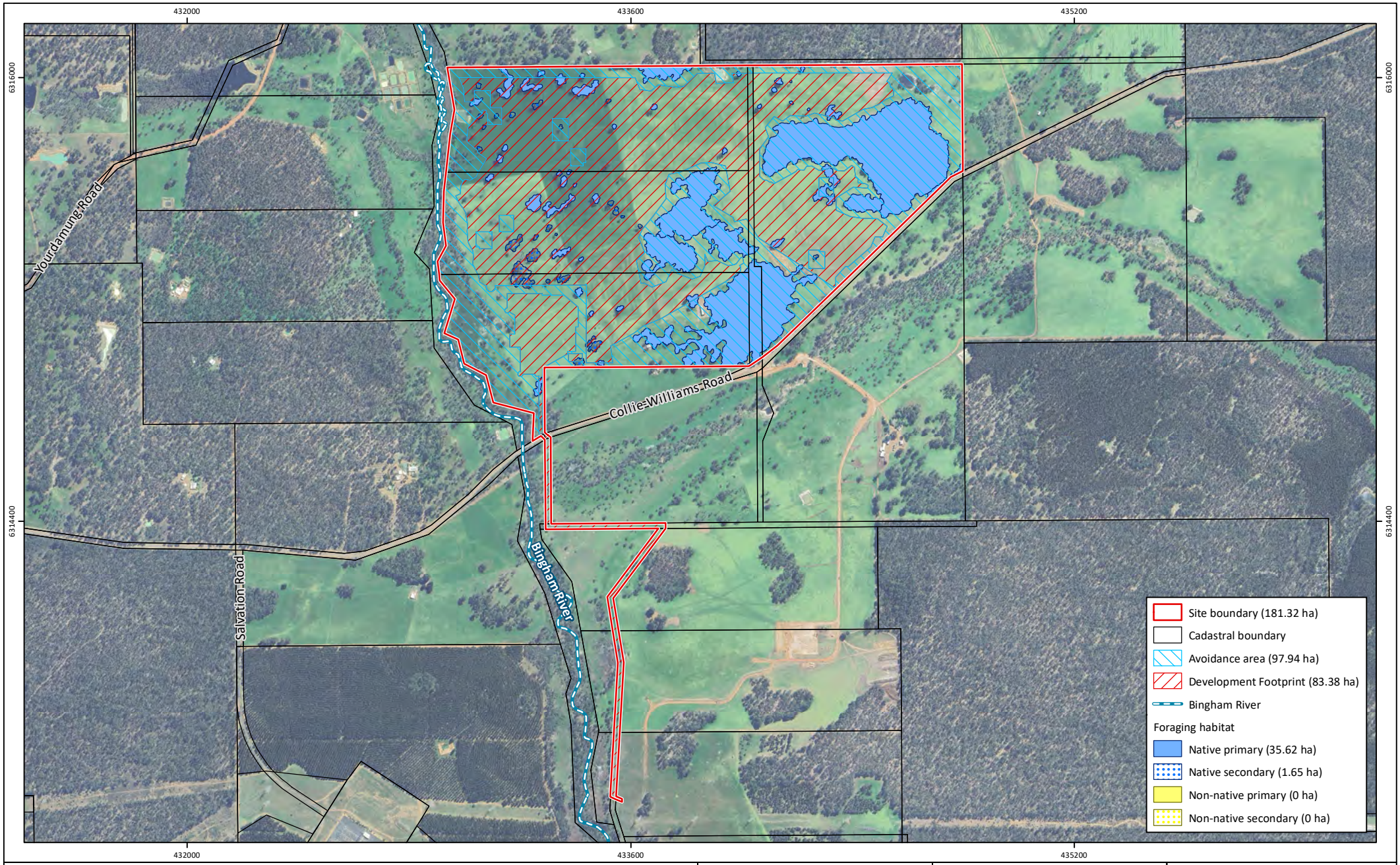


Figure 7: Baudin's Black Cockatoo Foraging Habitat

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F41

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres

Scale: 1:18,000@A4

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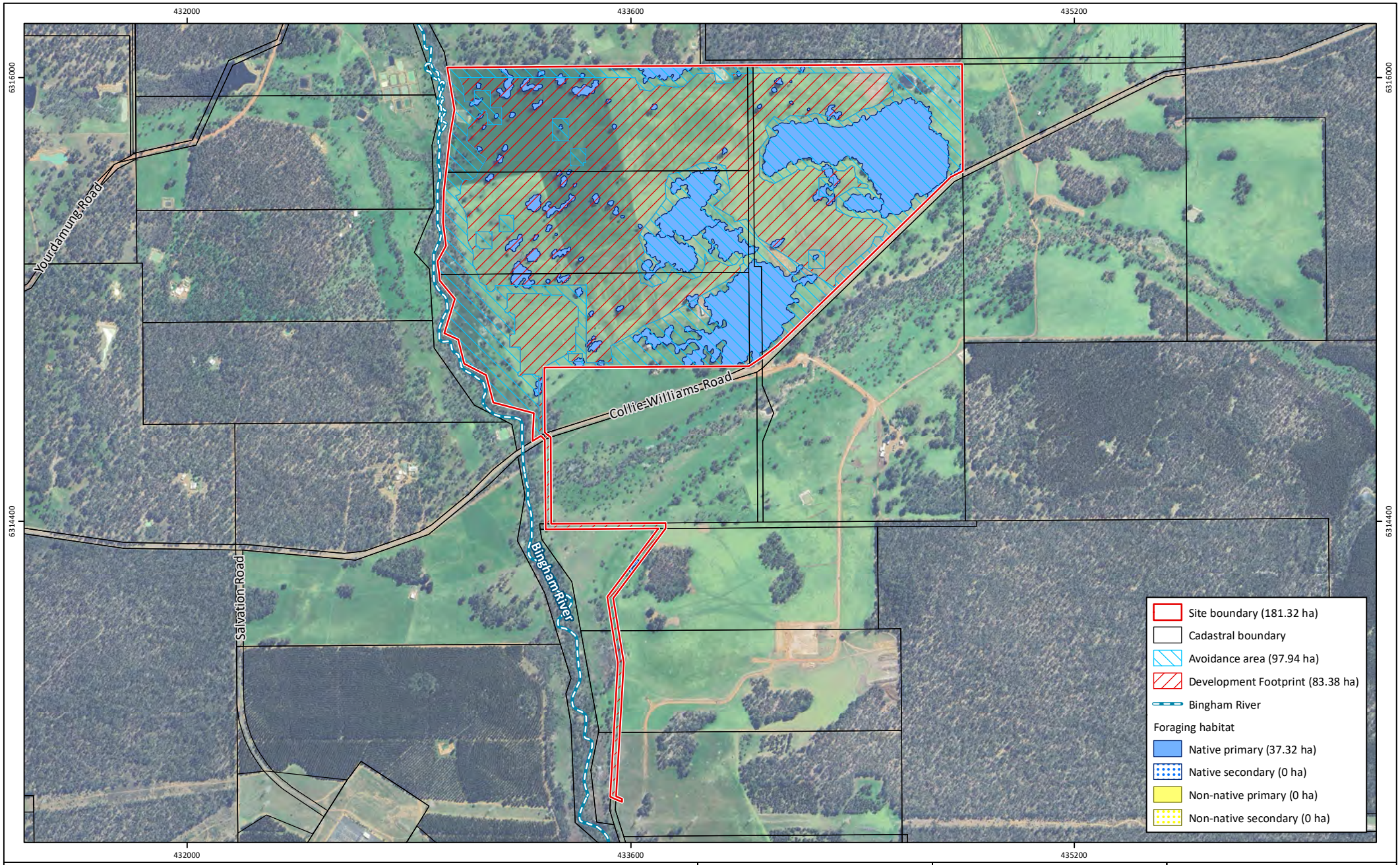


Figure 8: Forest Red-tailed Black Cockatoo Foraging Habitat

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F42

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

N

0 200 400 600
Metres

Scale: 1:18,000@A4

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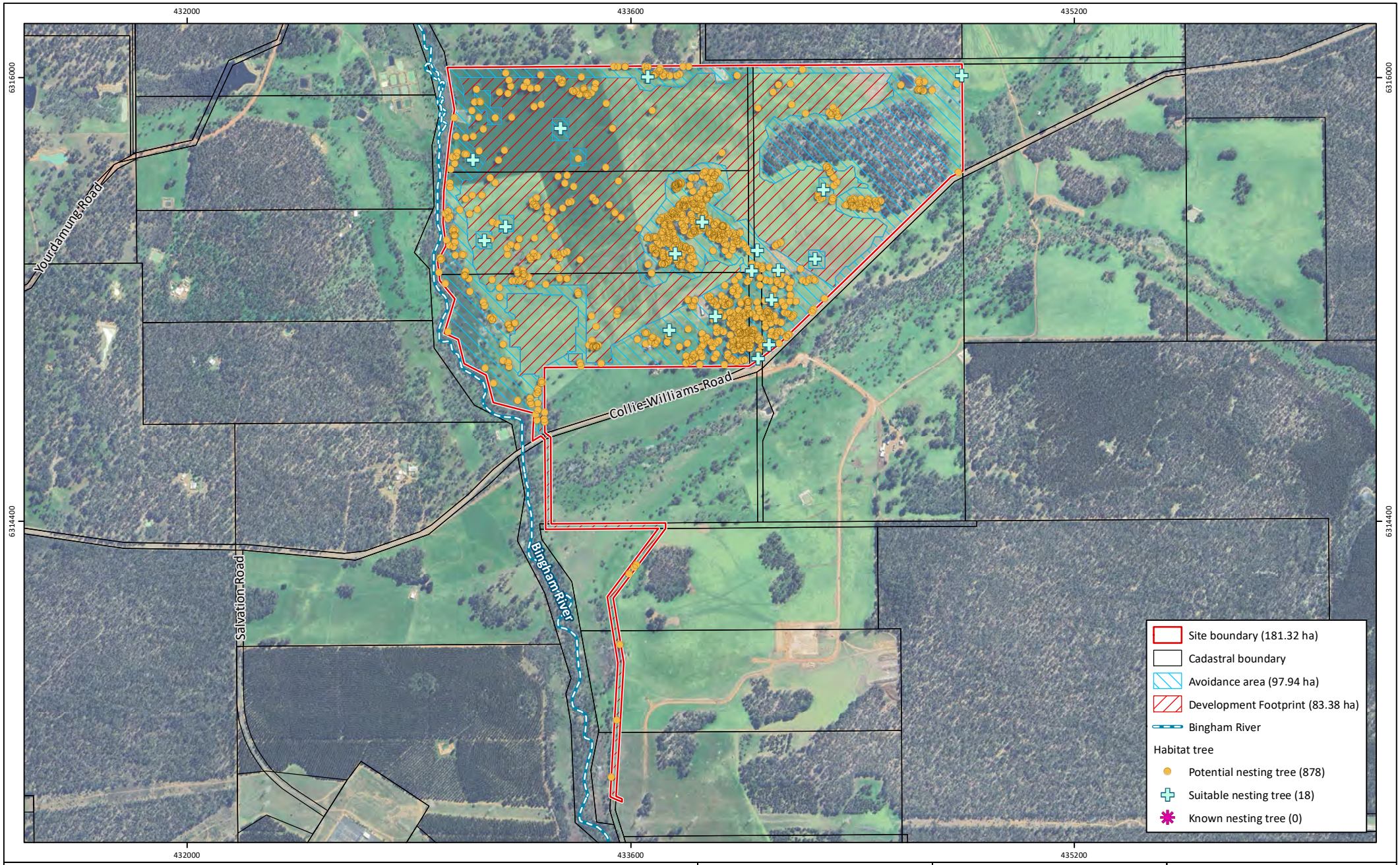


Figure 9: **Black Cockatoo Habitat Trees**

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F43

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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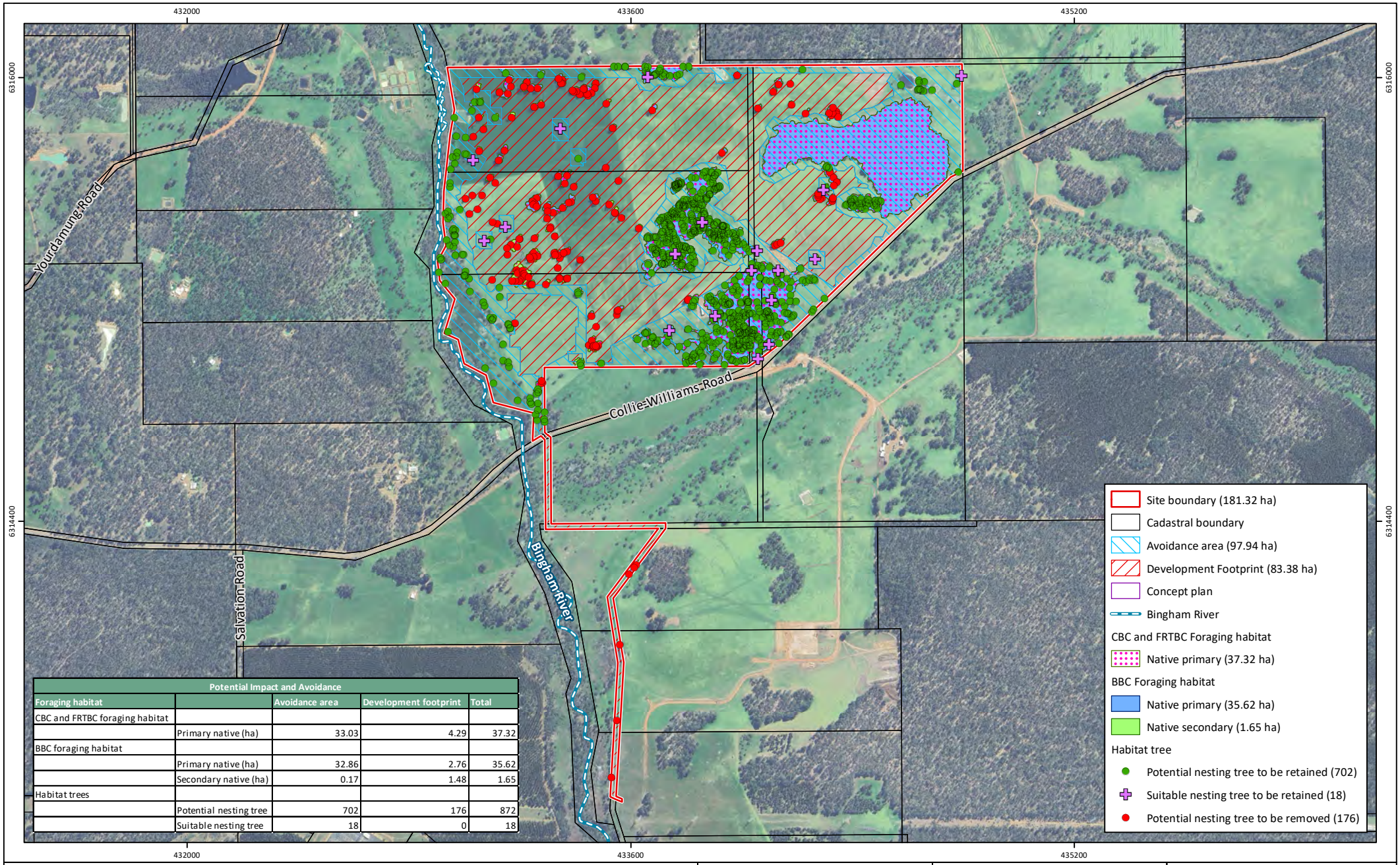
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Scale: 1:18,000@A4

GDA2020 MGA Zone 50

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Potential Impact and Avoidance				
Foraging habitat		Avoidance area	Development footprint	Total
CBC and FRTBC foraging habitat				
	Primary native (ha)	33.03	4.29	37.32
BBC foraging habitat				
	Primary native (ha)	32.86	2.76	35.62
	Secondary native (ha)	0.17	1.48	1.65
Habitat trees				
	Potential nesting tree	702	176	872
	Suitable nesting tree	18	0	18

Figure 10: Black Cockatoo Potential Impacts

Project: Environmental Assessment and Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F44
Drawn: CTH
Date: 01/05/2025
Checked: PPS
Approved: JDH
Date: 09/05/2025

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Metres
Scale: 1:18,000@A4
GDA2020 MGA Zone 50

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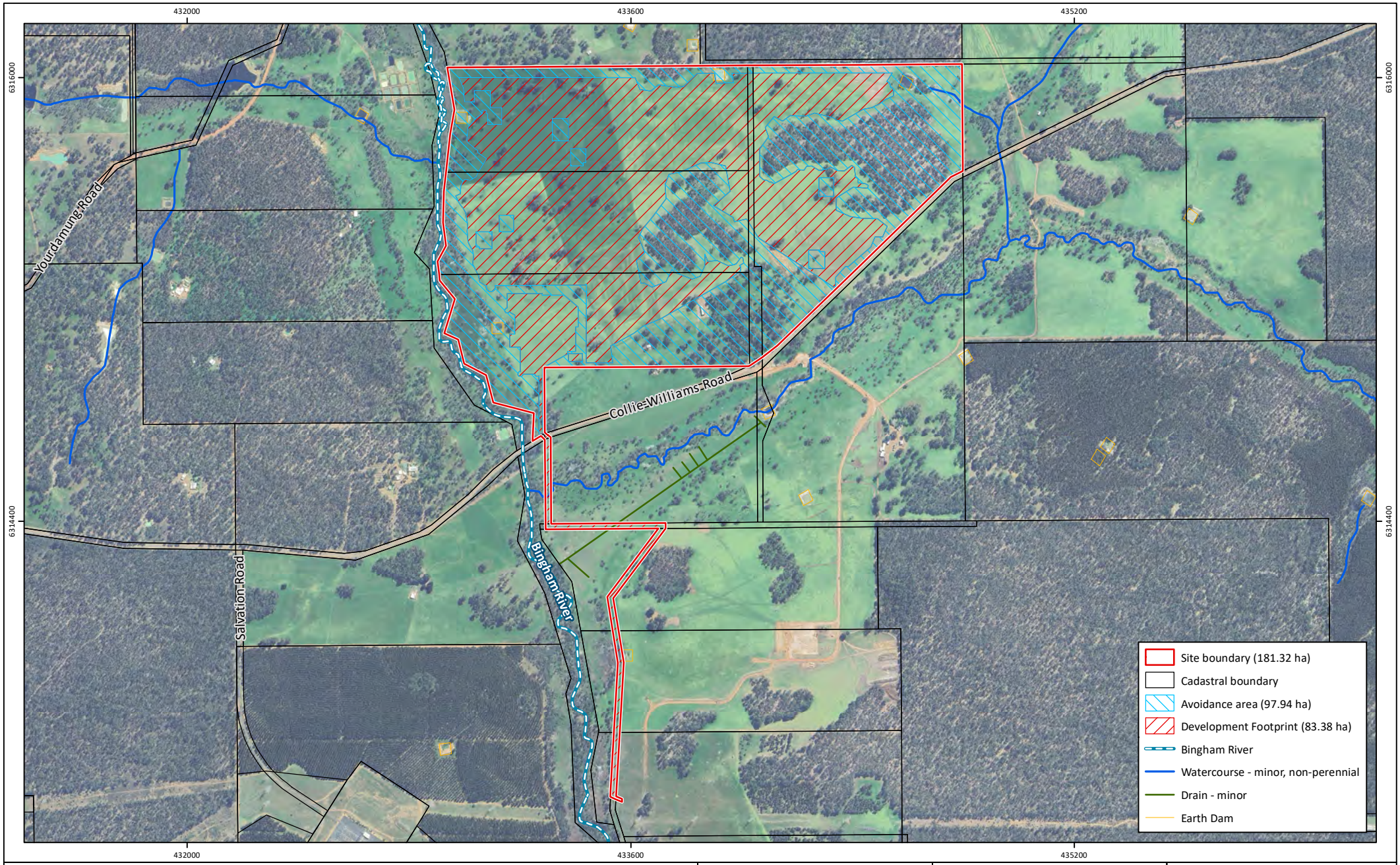


Figure 11: Hydrological Features

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F45

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

N

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Metres

Scale: 1:18,000@A4

GDA2020 MGA Zone 50

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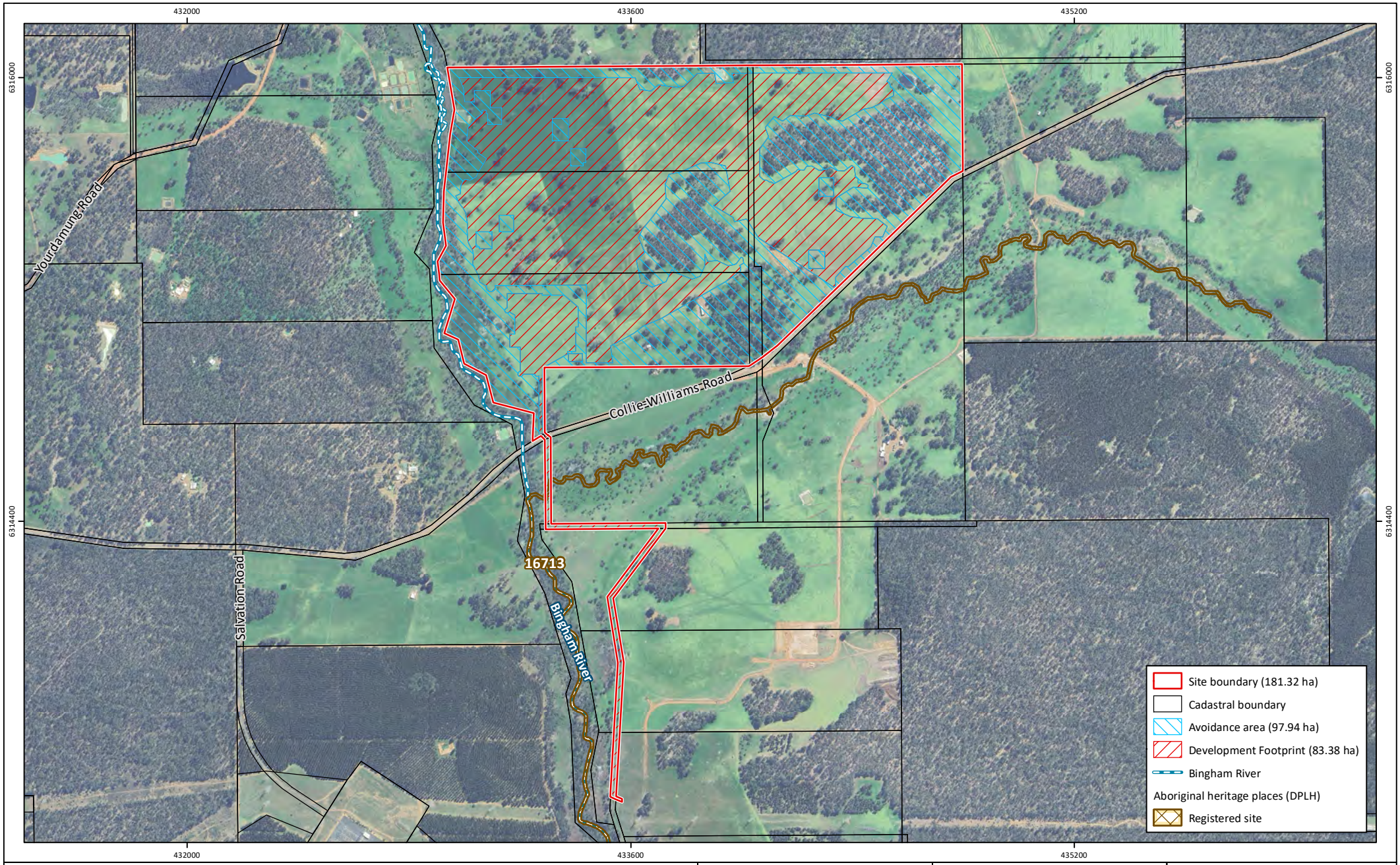


Figure 12: Aboriginal Heritage

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F46

Drawn:	CTH
Date:	01/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

N

0 200 400 600
Metres

Scale: 1:18,000@A4

GDA2020 MGA Zone 50

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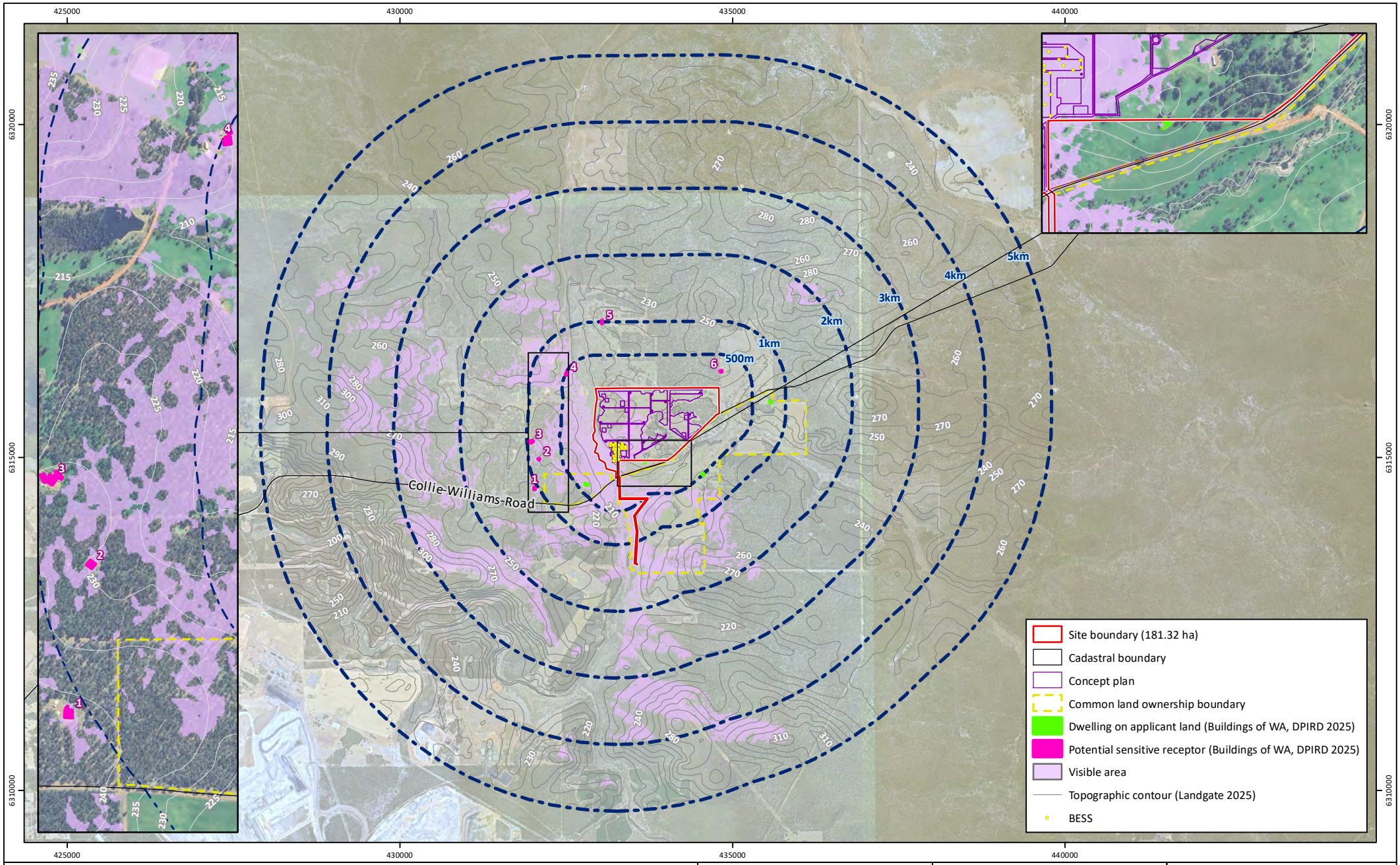


Figure 13: Viewshed Analysis - Topography (BESS)

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F47

Drawn:	GAR
Date:	06/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres
Scale: 1:75,000@A4
GDA2020 MGA Zone 50

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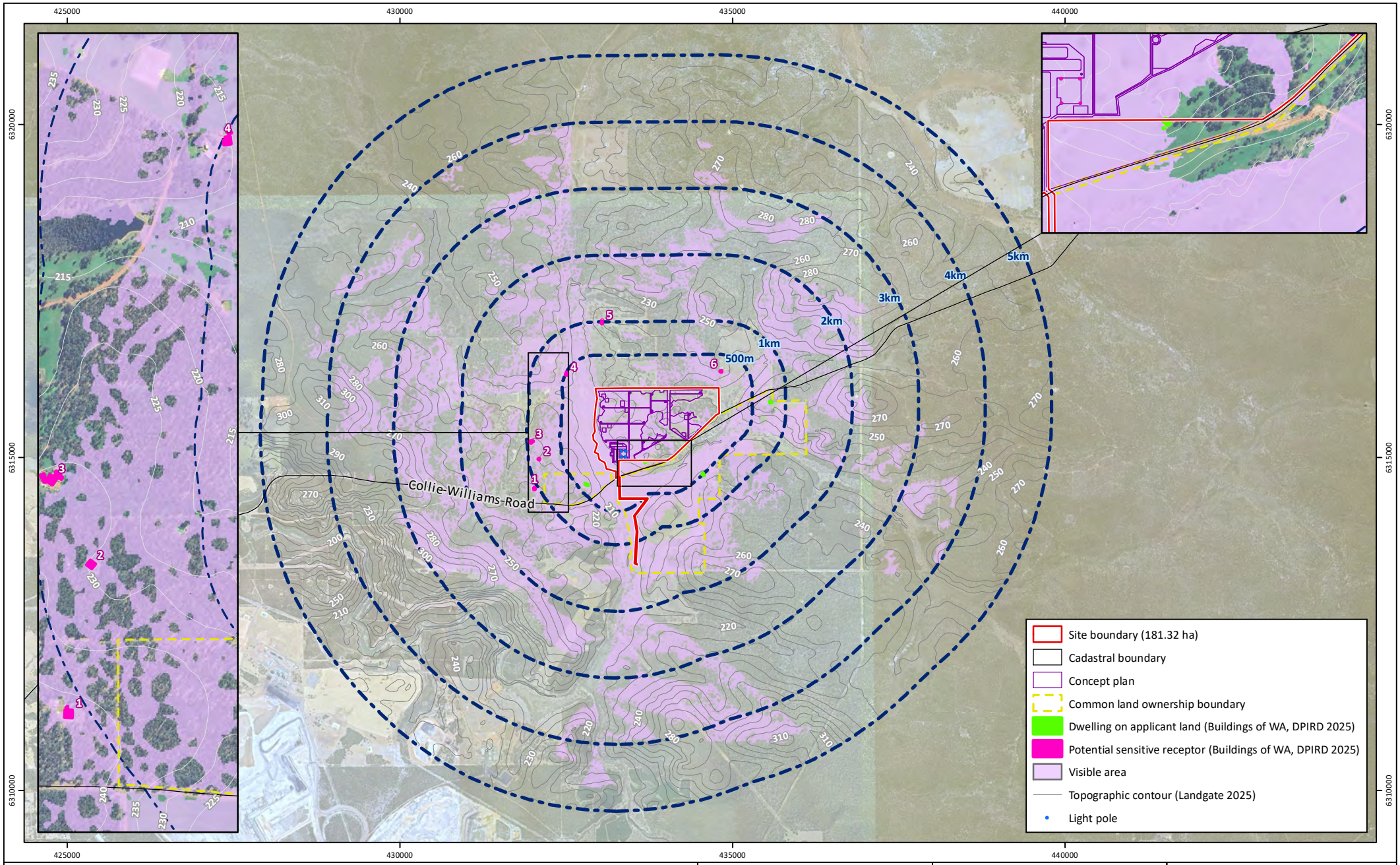


Figure 14: Viewshed Analysis - Topography (Light Poles)

Project: Environmental Assessment and Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F48

Drawn:	GAR
Date:	06/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres
Scale: 1:75,000@A4
GDA2020 MGA Zone 50

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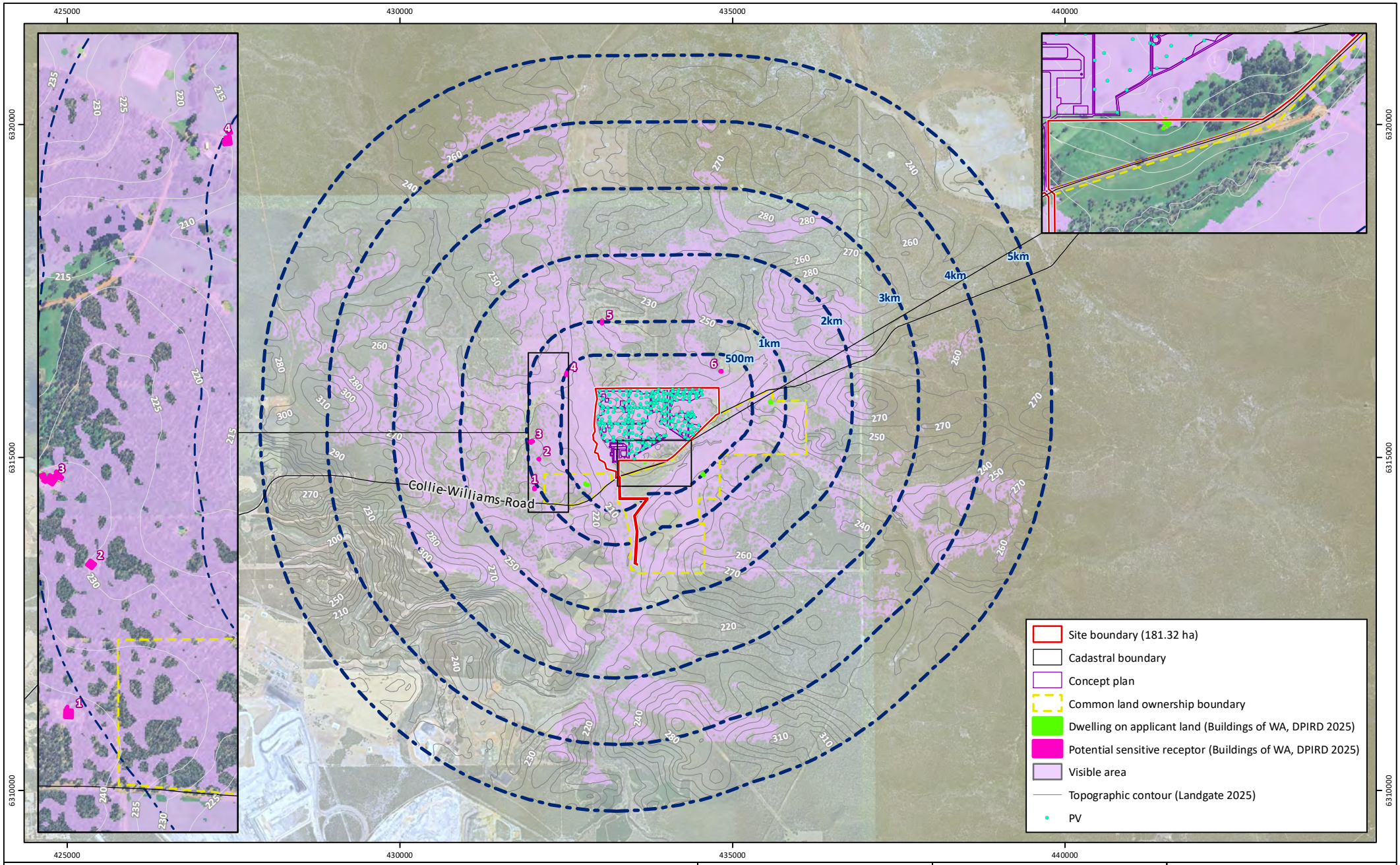


Figure 15: Viewshed Analysis - Topography (PV)

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F49

Drawn:	GAR
Date:	06/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres

Scale: 1:75,000@A4

GDA2020 MGA Zone 50

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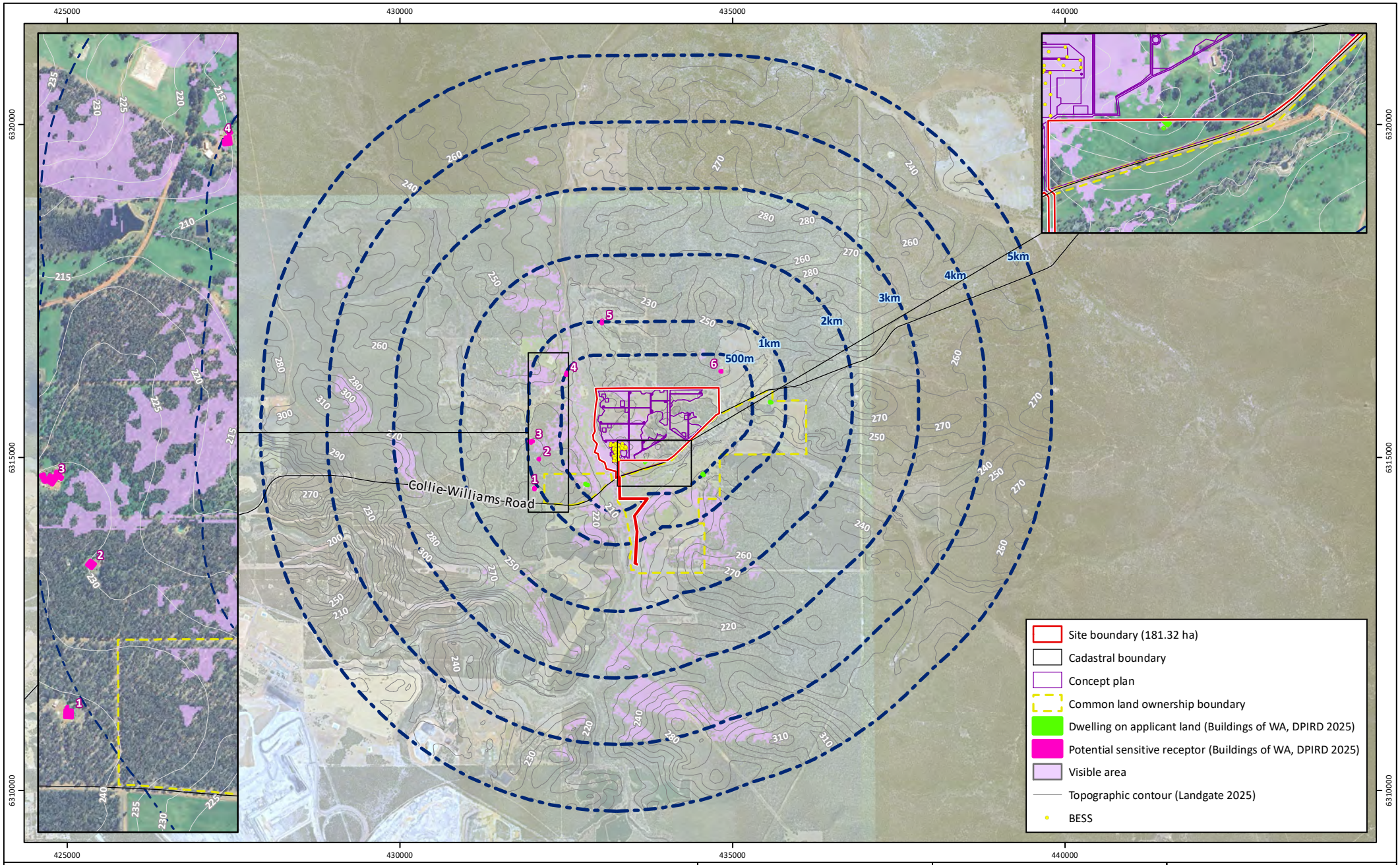


Figure 16: Viewshed Analysis - Topography and Vegetation (BESS)

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F50

Drawn:	GAR
Date:	06/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Scale: 1:75,000@A4
GDA2020 MGA Zone 50

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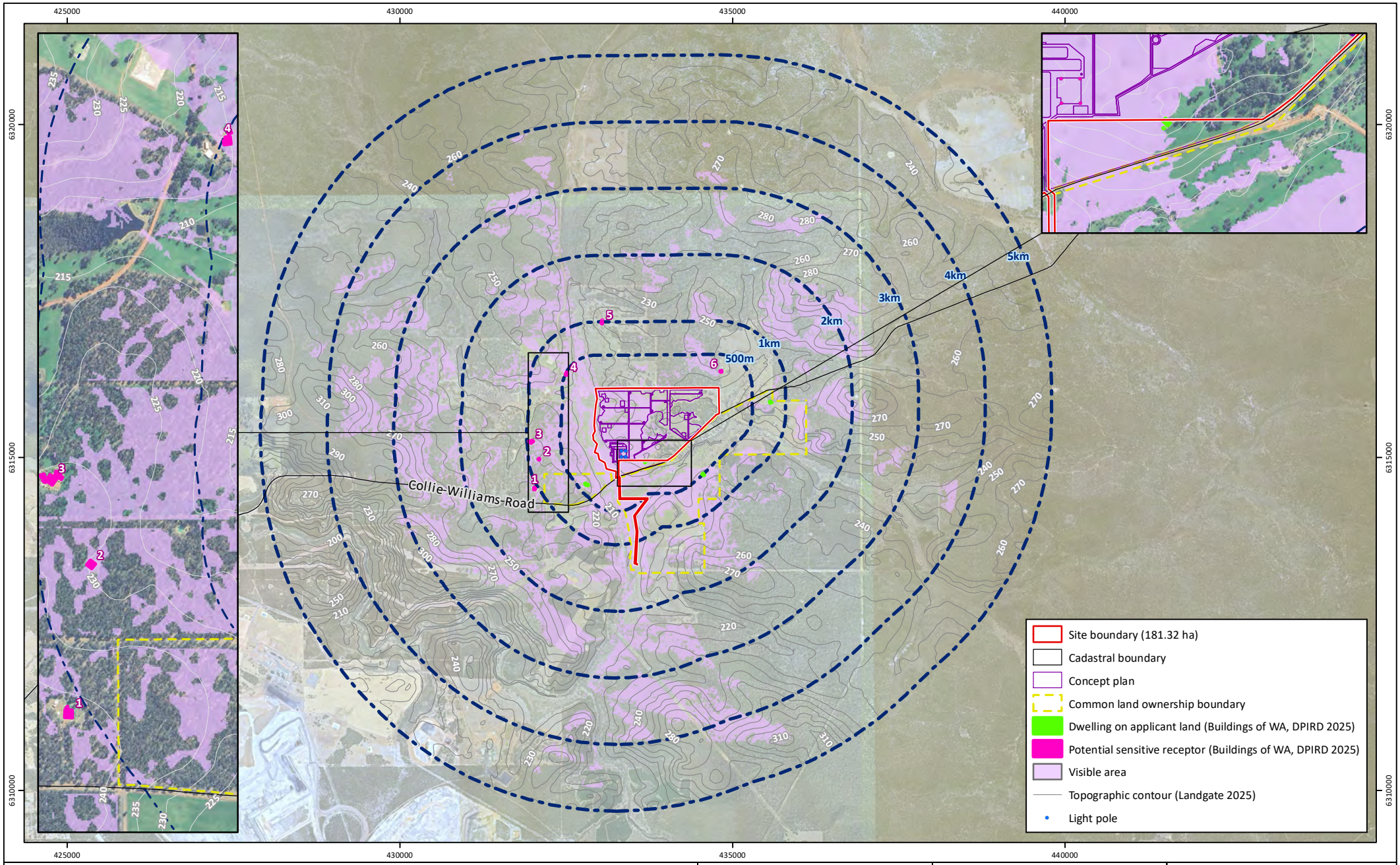


Figure 17: Viewshed Analysis - Topography and Vegetation (Light Poles)

Project: Environmental Assessment and Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F51

Drawn:	GAR
Date:	06/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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Metres

Scale: 1:75,000@A4

GDA2020 MGA Zone 50

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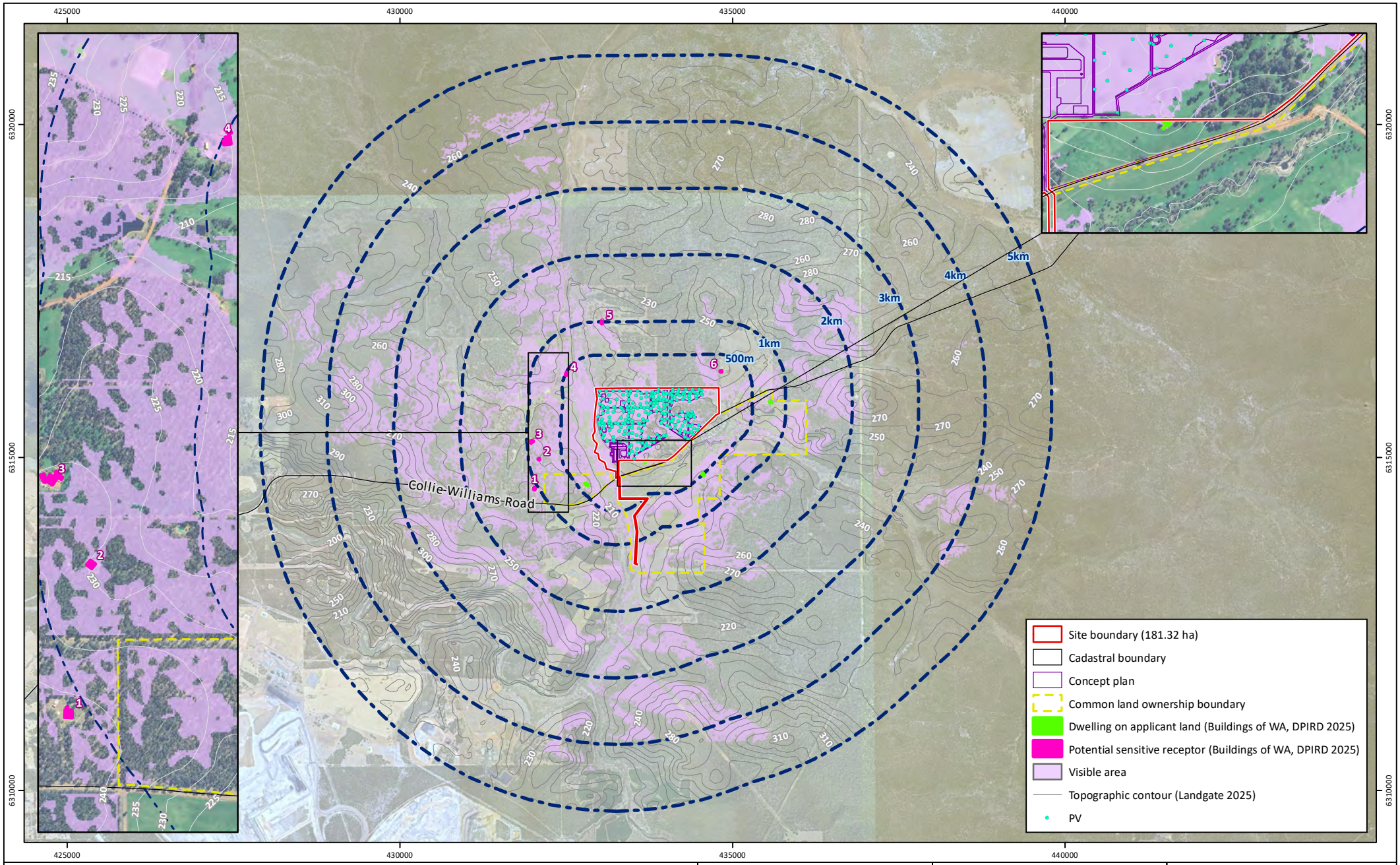


Figure 18: Viewshed Analysis - Topography and Vegetation (PV)

Project:	Environmental Assessment and Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(07)--F52

Drawn:	GAR
Date:	06/05/2025
Checked:	PPS
Approved:	JDH
Date:	09/05/2025

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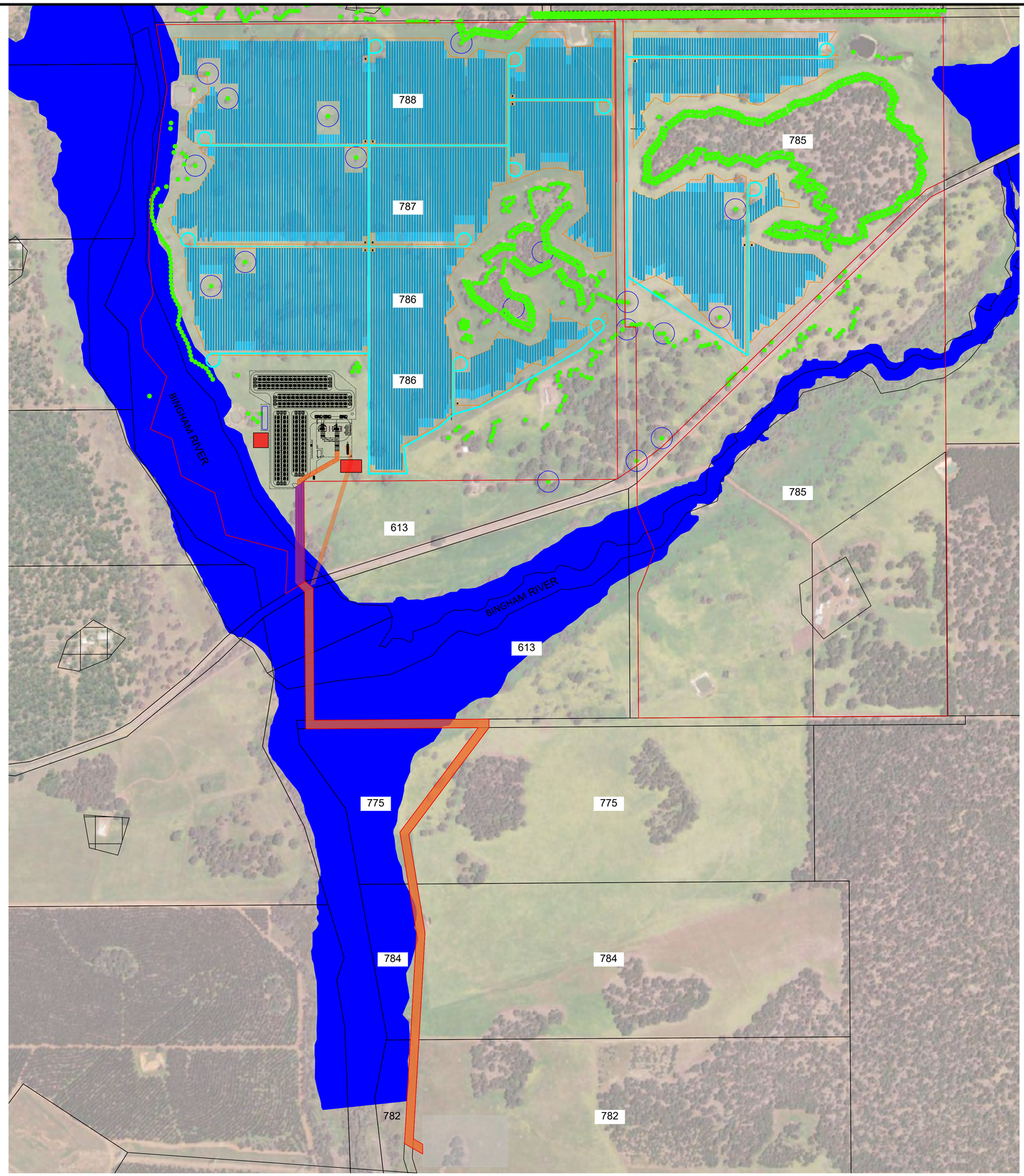
GDA2020 MGA Zone 50

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Appendix A

Collie BESS and Solar PV Layout Design



Notes

Key to symbols

SUBSTATION & BESS
EXTEND OF FLOOD PLAIN
EXTEND OF PV CASE PV AREA
LAYDOWN AREA
SOLAR FARM
PROJECT BOUNDARY
ACCESS ROAD & TRANSMISSION CABLE EASEMENT
330kV TRANSMISSION CABLE ROUTE
FENCE
GRAVEL ACCESS ROADS
WESTERN POWER PALMER SUBSTATION
BLACK COCKATOO NESTING SITE
TREE / BUSH / FLORA

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

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MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR FARM OVERALL PV, BESS & COLLECTOR SUBSTATION LAYOUT

Designed	DB	-	Eng. Check	AM	-
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Appendix B

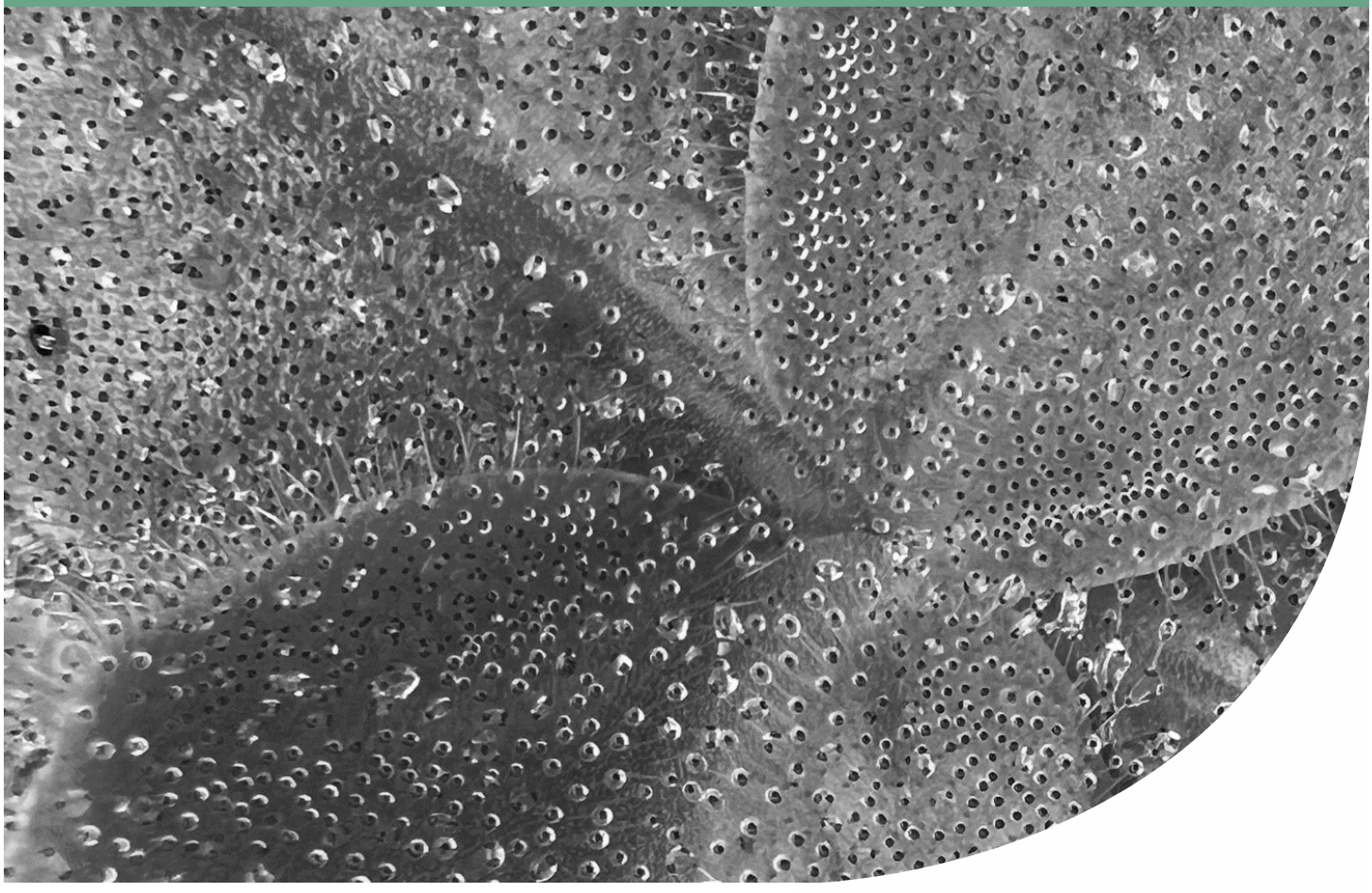
Reconnaissance Flora and Vegetation Assessment

Reconnaissance Flora and Vegetation Assessment

Collie BESS and Solar PV

Project No: EP24-016(02)

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Executive Summary

Enpowered Pty Ltd, a subsidiary of Hesperia Property Pty Ltd, engaged Emerge Associates to conduct a flora and vegetation assessment within multiple lots in Collie which are associated with the Collie BESS and Solar PV project (referred to herein as the 'site').

The assessment included a desktop study of the environmental context of the site and the likelihood of occurrence of threatened and priority flora and ecological communities. Field survey(s) were conducted on 28 February to 1 March and 17 October 2024 during which the composition and condition of vegetation was recorded. Flora and vegetation values were characterised to the standard required of a reconnaissance survey with reference to EPA (2016b).

Outcomes of the assessment include the following:

- A total of 41 native and 21 non-native flora species were recorded.
- No threatened or priority flora species were recorded.
- Two threatened and two priority flora species are considered to potentially occur in the site: *Caladenia leucochila* (EN), *Caladenia dorrienii* (EN), *Caladenia validinervia* (P1) and *Senecio leucoglossus* (P4). Additional surveys during the species flowering period (September to October) would be required to confirm whether they are present. Potentially suitable habitat for all four species is limited to vegetation in 'good' and 'very good - good' condition in the eastern portion of the site. The remainder of the site is considered too disturbed to support these species.
- No other threatened or priority flora species were considered likely to occur.
- A total of seven vegetation units were recorded, occurring in 'completely degraded' (290.78 ha, 69% of the site), 'degraded - completely degraded' (47.63 ha, 11%), 'degraded' (78.44 ha, 19%), 'good' (1.50 ha, <1%) and 'very good - good' (2.29 ha, 1%) condition.
- No 'threatened ecological communities' (TECs) or 'priority ecological communities' (PECs) were recorded.

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Conservation Significant Flora Species and Likelihood of Occurrence Assessment

Appendix C

Conservation Significant Communities and Likelihood of Occurrence Assessment

Appendix D

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Abbreviation Tables

Table A1: Abbreviations – Organisations

Organisations	
DBCA	Department of Biodiversity, Conservation and Attractions
DoW	Department of Water (now DWER)
DPaW	Department of Parks and Wildlife (now DBCA)
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
WALGA	Western Australia Local Government Association

Table A2: Abbreviations – General terms

General terms	
A	Annual
CR	Critically endangered
EN	Endangered
FCT	Floristic community type
IBRA	Interim Biogeographic Regionalisation for Australia
NVIS	National Vegetation Information System (ESCAVI 2003)
P1	Priority 1
P2	Priority 2
P3	Priority 3
P4	Priority 4
P5	Priority 5
PEC	Priority ecological community
P	Perennial
PG	Perennial geophyte
T	Threatened
TEC	Threatened ecological communities
UFI	Unique feature identifier
VU	Vulnerable

Table A3: Abbreviations –Legislation

Legislation	
BAM Act	*Biosecurity and Agriculture Management Act 2007*
BC Act	*Biodiversity Conservation Act 2016*
CALM Act	*Conservation and Land Management Act 1984*
EP Act	*Environmental Protection Act 1986*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*

Table A4: Abbreviations – units of measurement

Units of measurement	
cm	Centimetre
ha	Hectare
km	Kilometre
m	Metre
m AHD	m in relation to the Australian height datum
mm	Millimetre

1 Introduction

1.1 Purpose

Emerge Associates (Emerge) were engaged by Enpowered Pty Ltd, a subsidiary of Hesperia Property Pty Ltd, to conduct a flora and vegetation assessment within multiple lots in Collie which are associated with the Collie BESS and Solar PV, as shown in **Figure 1** (referred to herein as the 'site').

Flora and vegetation assessments are required to characterise vegetation values and, in particular, confirm the presence or absence of values relevant to environmental approvals process, such as, 'native vegetation', 'threatened' flora, 'priority' flora, 'threatened ecological communities' (TECs), 'priority ecological communities' (PECs) and weeds.

1.2 Legislation and policy

'Native vegetation' is defined by the *Environmental Protection Act 1986* (EP Act) as indigenous aquatic or terrestrial flora. In the *Environmental Factor Guideline – Flora and Vegetation* the EPA further defines it as native vascular flora and defines vegetation as groupings of flora (EPA 2016a). Native vegetation is protected in Western Australia and can't be cleared without a permit or valid exemption. Biological diversity, habitat function, scarcity, association with wetlands and other ecosystem services influence the value placed on native vegetation (DWER 2018a). Planted flora and vegetation are generally not regarded as native vegetation unless required to be established under the EP Act or other written law or regulation.

Flora and ecological communities may be listed as threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (DCCEEW 2021) and the State *Biodiversity Conservation Act 2016* (BC Act) (DBCA 2022b, 2023b). Threatened flora and TECs are classified as either 'critically endangered'(CR), 'endangered' (EN) and 'vulnerable' (VU) (DCCEEW 2021). Commonwealth and/or State ministerial approval is required to impact threatened flora or TECs.

Native flora and ecological communities that are not listed as threatened, but are otherwise considered rare or under threat, may be added to a Department of Biodiversity, Conservation and Attractions (DBCA) priority list (DBCA 2022a, b). 'Priority flora' and PECs are classified as either 'priority 1' (P1), 'priority 2' (P2), 'priority 3' (P3) or 'priority 4' (P4). They do not have direct statutory protection. However, their priority classification is taken into account during State and Local government approval processes.

Flora that are regarded as having negative environmental or economic impacts are often referred to as weeds (DBCA 2023d). Particularly detrimental weed species may be listed as a 'declared pest' pursuant to the State *Biosecurity and Agriculture Management Act 2007* (BAM Act) or as a 'weed of national significance' (WoNS) (DAFF 2021). Management of weeds, declared pests and WoNS may be required during government approval processes.

Further information on legislation and policy relevant to flora and vegetation assessments is provided in **Appendix A**.

1.3 Scope of work

The Environmental Protection Authority (EPA) *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* establishes standards for the assessment of flora and vegetation in Western Australia (EPA 2016b).

The scope of work was to undertake a reconnaissance flora survey with reference to EPA (2016b).

As part of this scope of work, the following tasks were undertaken:

- Desktop study to provide contextual information and determine the likelihood of occurrence of threatened and priority flora or ecological communities.
- Field surveys to record flora, vegetation units and vegetation condition.
- Analysis and mapping of contextual information, vegetation units, vegetation condition and threatened and priority flora or ecological communities (if present).
- Documentation of the desktop study, methods, results, discussion and conclusions.

2 Desktop Study

2.1 Site context

2.1.1 Location and extent

The site is located in the Shire of Collie in the South West region of Western Australia and extends over 420.64 hectares (ha) as shown in **Figure 1**. The site is dissected by Collie Williams Road which passes through the centre and is surrounded by farmland and native vegetation.

2.1.2 Climate

The South West region experiences a Mediterranean climate of hot dry summers and cool wet winters (BoM 2024). Recent rainfall at the closest weather station to the site has been inconsistent with long term averages, with generally less than average rainfall in summer and greater than average rainfall in winter (see **Plate 1**) (BoM 2024). Flora and vegetation surveys should be undertaken during the season that is most suitable for detection and identification of the range of flora likely to occur in the area (EPA 2016b). For the south-west botanical province in which the site lies, the primary survey time is Spring (September to November) (EPA 2016b).

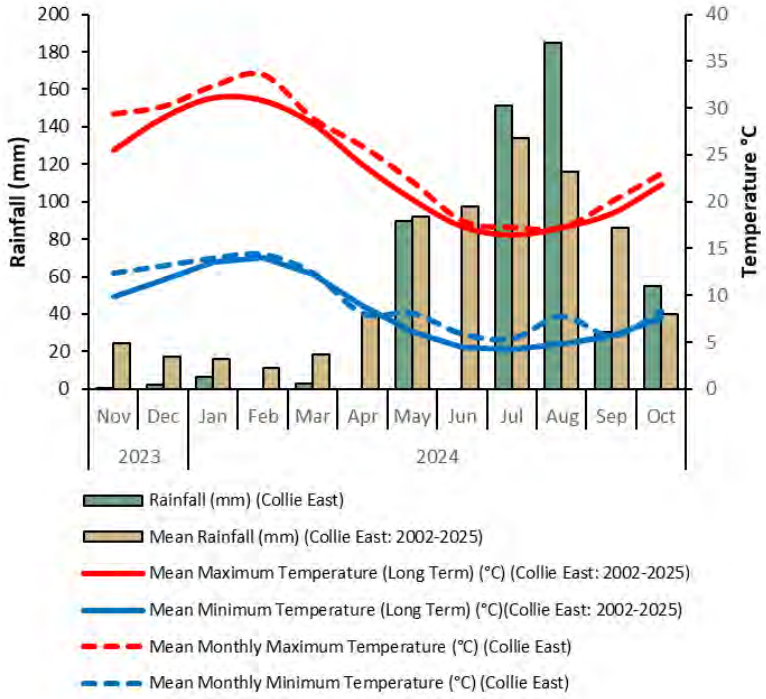


Plate 1: Rainfall and temperature 12 months prior to survey compared to long-term means

2.1.3 Geomorphology and soils

The site occurs on the Darling Plateau which is an ancient erosion surface capped with laterite and dissected by drainage channels (Beard 1990). The eastern part of the Plateau is characterised by flat-topped hills bound by breakaways and more prominent hills (monadnocks) which protrude above the general level of the plateau (Gozzard 2011). The western part comprises valleys with steep, rocky slopes and narrow, flat floors (Gozzard 2011).

Fine scale soil landscape mapping by DPIRD (2022) shows four units as occurring within the site, as described in Table 1 and shown in **Figure 2**.

Table 1: Soil landscape mapping units within the site (DPIRD 2022)

Soil landscape unit	Location within site	Description
Pindalup downstream valleys	Western, central and eastern portions	Shallow minor valleys (5-10 m) dominated by broad (75-250 m) swampy floors. Soils are loamy gravels, deep sands, with saline and non-saline wet soils on the valley floors.
Wilga ironstone gravel flats	Central-northern portion	Flats where the soil parent material is laterite. Soils are gravels with some sands.
Dwellingup ironstone gravel divides Phase	South-eastern portion	The soil parent material is laterite, soils are gravels with some sands.
Wilga Subsystem	Central-eastern portion	Broad gently undulating (1-5%) plains and low rises (2-15 m) with swampy depressions. Lateritic terrain over Eocene sediments. Soils are sandy and loamy gravels, with some deep sands, semi-wet soils and wet soils.

The site is not known to contain any restricted landforms or unique geological features.

2.1.4 Topography

The elevation of the site ranges from 200 metres in relation to the Australian height datum (mAHD) on the western side to 260 mAHD in the central portion (WALIA 2025).

2.1.5 Hydrology

Wetlands are areas of seasonally, intermittently or permanently waterlogged land such as poorly drained soils, ponds, billabongs, lakes, swamps, tidal flats, estuaries, rivers and their tributaries (Wetlands Advisory Committee 1977). Wetlands can be recognised by the presence of vegetation associated with waterlogging or the presence of hydric soils such as peat, peaty sand or carbonate mud (Hill et al. 1996). Wetlands of national or international significance may be afforded special protection under Commonwealth or international agreements. The following lists of important wetlands were checked as part of this assessment:

- Ramsar List of Wetlands of International Importance (DBCA 2017c)
- A Directory of Important Wetlands in Australia (DBCA 2018)

No Ramsar or listed ‘important wetlands’ are located within or near the site.

The Department of Water and Environmental Regulation (DWER) hydrology linear dataset (DWER 2018b) records the following three water related features within the site:

- A major perennial watercourse along the western boundary (Bingham River)
- Eight earth dams
- A minor drain along the southern boundary.

2.1.6 Regional vegetation

Native vegetation is described and mapped at different scales to illustrate patterns in its distribution. At a continental scale the *Interim Biogeographic Regionalisation for Australia* (IBRA) divides Australia into floristic subregions (Environment Australia 2000). The site is contained within the Jarrah Forest region and within the 'JF1' or northern jarrah forest subregion. The northern jarrah forest subregion is characterised by *Eucalyptus marginata* (jarrah) – *Corymbia calophylla* (marri) forest on laterite gravels with *Eucalyptus wandoo* – marri woodlands in the eastern part (CALM 2003).

Variations in native vegetation can be further classified based on regional vegetation mapping. DBCA (2019) mapping shows the site as comprising four vegetation complexes as outlined in **Table 2**.

The vegetation complexes outlined in **Table 2** were determined to have varying percentages of its pre-European extent remaining, with differing percentages protected for conservation purposes (Government of Western Australia 2019).

Table 2: Vegetation complex units within the site (DBCA 2019)

Vegetation Complex	Location within site	Description	Pre-European extent remaining (%)	Protected extent (%)
Dwellingup (D4)	**Northern portion**	Open forest to woodland of Eucalyptus marginata subsp. *thalassica* and *Corymbia calophylla* on lateritic uplands in semiarid and arid zones.	87.35	12.03
Pindalup	**Central-northern portion**	Open forest of *Eucalyptus marginata* subsp. *thalassica* and *Corymbia calophylla* on slopes and open woodland of *Eucalyptus wandoo* with some *Eucalyptus patens* on the lower slopes in semiarid and arid zones.	76.79	14.32
Swamp	Western, central and eastern portions	Mosaic of low open woodland of *Melaleuca preissiana* and *Banksia littoralis*, closed scrub of *Myrtaceae* spp., closed heath of *Myrtaceae* spp. and sedgelands of *Machaerina* and *Leptocarpus* spp. on seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones.	75.69	21.78
Yarragil 2	Southern portion	Open forest of *Eucalyptus marginata* subsp. *thalassica* and *Corymbia calophylla* on slopes, woodland of *Eucalyptus patens* and *Eucalyptus rudis* with *Hakea prostrata* and *Melaleuca viminea* on valley floors in subhumid and semiarid zones.	92.47	10.58

2.1.7 Threatened and priority flora

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) has compiled various datasets relating to 'matters of national environmental significance' (MNES) (DCCEEW 2024). The *Protected Matters Search Tool* provides general guidance on threatened flora listed under the EPBC Act that may occur within a location based on validated records and less reliable unvalidated habitat distribution modelling (DCCEEW 2024).

DBCA's *Threatened and Priority Flora Database* and *WA Herbarium Database* contain records of threatened and priority flora in Western Australia (DBCA 2023c). Searches of these databases provide point data for threatened and priority flora within a location, comprising validated and historical unvalidated records.

The *Protected Matters Search Tool* (DCCEEW 2024) and DBCA's threatened and priority flora databases (reference no. 37-0224FL) identified nine threatened and 45 priority flora occurring or potentially occurring within a 20 km radius of the site (refer **Appendix B**).

2.1.8 Threatened and priority ecological communities

The *Protected Matters Search Tool* provides general guidance on TECs listed as CR and EN under the EPBC Act that may occur within a location based on reliable records and less reliable habitat distribution modelling (DCCEEW 2024).

DBCA's *Threatened and Priority Ecological Community buffers and boundaries in WA* dataset contains validated records of TECs and PECs. Searches of this dataset provides buffered polygons of TEC and PEC records.

The *Protected Matters Search Tool* (DCCEEW 2024) and DBCA's TEC and PEC database (reference no. 32-0224EC) identified one TEC and one PEC occurring or potentially occurring within a 30 km radius of the site (refer **Appendix C**).

2.1.9 Historical land use

Review of historical images available from 1996 onwards shows that there have only been minor changes to the site, as the original farmland from 1996 has remained relatively unchanged. There have been areas of native vegetation regrowth throughout the site. There have also been some land-use changes, such as the construction of earth dams, and some infrastructure such as housing.

2.1.10 Ecological linkages

Ecological linkages are linear landscape elements that allow the movement of fauna, flora and genetic material between areas of habitat. This exchange of genetic material between vegetation improves the viability of this vegetation by allowing greater access to breeding partners and food sources, refuge from disturbances such as fire and maintenance of genetic diversity of Vegetation units and populations. Ecological linkages are ideally continuous or near-continuous as the more fractured a linkage is, the less ease flora and fauna have in moving within the corridor (Alan Tingay and Associates 1998).

The South West Biodiversity Project identified and mapped ecological linkages within the South West region of Western Australia (Molloy et al. 2009). Ecological linkage No. 186 stretches along the western boundary of the site, along the same trajectory as the Bingham River which is a perennial watercourse. Review of aerial imagery indicates that much of the site is surrounded by extensive areas of native vegetation native vegetation in the local area, however patches of native vegetation in the site are not connected to these larger patches.

2.1.11 Previous surveys

No previous surveys are known.

2.2 Likelihood of occurrence

The distribution and habitat preferences of the threatened and priority flora species and ecological communities listed in **Appendix B** and **Appendix C** was reviewed against site context information described in **Section 2.1**. Likelihood of occurrence of threatened and priority flora species and ecological communities within the site was classified as 'high', 'moderate', 'low' or 'negligible' as outlined in **Table 3**.

Table 3: Decision matrix for likelihood of occurrence of threatened and priority flora and ecological communities

		Distribution[1]	
		Reliable record within search area	No reliable record within search area
Habitat	Suitable	High	Negligible
	Potentially suitable	Moderate	
	Unsuitable	Low	

[1] Reliable record defined as validated, recent (within the last ~40 years) and spatially accurate (refer DBCA search meta data) in order to exclude unverified range or habitat projections. Search area is defined as a 20 km buffer area surrounding the site.

2.2.1 Threatened and priority flora

Seven threatened and 32 priority flora were classified as having a 'moderate' likelihood of occurrence within the site, as outlined in **Table 4**. The remaining nine species were classified as having a 'low' or 'negligible' likelihood of occurrence. No threatened or priority flora were identified as having a 'high' likelihood of occurrence within the site. The complete likelihood of occurrence assessment is provided as **Appendix B**.

Table 4: Threatened or priority flora species with a moderate likelihood of occurrence in the site

Species	Status		Life strategy	Flowering period
	WA	EPBC Act		
Caladenia dorrienii	EN	EN	PG	Sep-Nov
Caladenia leucochila	EN	EN	PG	Mid Sep-late Oct
Jacksonia velveta	EN	EN	P	Nov-Dec
Grevillea rara	EN	EN	P	Oct
Eleocharis keigheryi	VU	VU	P	Aug-Dec
Diuris micrantha	VU	VU	PG	Aug/Sep- early Oct
Caladenia validinervia	P1	-	PG	Jun-Sep
Isopogon sp. Canning Reservoir (M.D. Tindale 121 & B.R. Maslin)	P1	-	P	Aug-Sep
Leucopogon extremus	P2	-	P	Sep-Nov
Daviesia mesophylla	P2	-	P	Jan-May
Sphaerolobium benetectum	P2	-	P	Oct-Nov
Gonocarpus keigheryi	P2	-	P	?Jan (limited information)
Logania sylvicola	P2	-	P	Aug-Sep
Lambertia orbifolia subsp. *pecuniosa*	P2	EN (at species level)	P	Jan-Mar
Lomandra whicherensis	P3	-	P	Dec
Thysanotus unicupensis	P3	-	P	Oct-Dec
Cyathochaeta teretifolia	P3	-	P	Oct-Jan
Tetratheca parvifolia	P3	-	P	Oct
Meionectes tenuifolia	P3	-	P	Oct-Dec
Juncus meianthus	P3	-	P	Nov-Dec/Jan
Calytrix pulchella	P3	-	P	Aug-Nov
Stylidium rhipidium	P3	-	A	Oct-Nov
Adenanthos cygnorum subsp. *chamaephyton*	P3	-	P	Jul or Sep to Dec or Jan
Grevillea prominens	P3	-	P	Sep-Oct

Table 4: Threatened or priority flora species with a moderate likelihood of occurrence in the site (cont.)

Species	Status		Life strategy	Flowering period
	WA	EPBC Act		
Synaphea decumbens	P3	-	P	Sep-Oct
Synaphea hians	P3	-	P	Jul/Sep-Nov
Synaphea petiolaris subsp. *simplex*	P3	-	P	Sep-Oct
Stylidium lepidum	P3	-	P	Oct-Nov
Acacia semitrullata	P4	-	P	May-Oct
Chorizema ulotropis	P4	-	P	Jul-Sep
Pultenaea skinneri	P4	-	P	Jul-Sep
Lasiopetalum cardiophyllum	P4	-	P	Aug-Dec/Jan
Calothamnus graniticus subsp. *leptophyllus*	P4	-	P	Jun-Aug
Darwinia sp. Dryandra (G.J. Keighery 9295)	P4	-	P	May/Jul-Nov
Hydrocotyle lemnoides	P4	-	A	Aug-Oct
Senecio leucoglossus	P4	-	A	Aug-Dec
Banksia meisneri subsp. *ascendens*	P4	-	P	Apr-Sep
Grevillea ripicola	P4	-	P	Jan/Mar-Apr or Nov-Dec
Ornduffia submersa	P4	-	A	Aug-Nov

CR=critically endangered, EN=endangered, VU=vulnerable, P1-P4=Priority 1-Priority 4, P=perennial, PG=perennial geophyte

2.2.2 Threatened and priority ecological communities

One PEC was classified as having a 'moderate' likelihood of occurrence within the site, as detailed in **Table 5**. This PEC is also listed as part of the Commonwealth TEC 'claypans of the Swan Coastal Plain' but this TEC was not included within the PMST results and the site is not on the Swan Coastal Plain, thus the TEC has not been considered here. No other TECs or PECs were identified as occurring within 20 km of the site. The complete likelihood of occurrence assessment is provided as **Appendix C**.

Table 5: Threatened or priority ecological communities with a high or moderate likelihood of occurrence in the site

Code	Species	Status	
		WA	EPBC Act
Claypans with shrubs over herbs	Claypans with mid dense shrublands of *Melaleuca lateritia* over herbs	P1	-

3 Methods

3.1 Field survey

Experienced botanists visited the site on 28 and 29 February, 1 March and 17 October 2024 to conduct the field survey. The site was traversed on foot and the composition and condition of vegetation was recorded. Plant specimens were collected where the identity of flora required further confirmation. Photographic images and notes were recorded as required.

3.1.1 Sampling

Detailed sampling of the vegetation was undertaken using a combination of non-permanent 10 x 10 m quadrats and relevés. The quadrats were established using fence droppers bounded by measuring tape. The relevés were completed over an equivalent 10 x 10 m area without the use of physical markers and were included to provide a more rapid sample of patches of vegetation in poorer condition and/or of smaller size. The position[1] of each sample was recorded with a hand-held GPS receiver (±5 m accuracy) as shown in **Figure 4**.

The data recorded within each sample included:

- site details (site name, site number, observers, date, location)
- environmental information (slope, aspect, bare-ground, rock outcropping, soil type and colour, litter layer, topographical position, time since last fire event)
- biological information (species, plant specimens, vegetation structure, vegetation condition, 'foliage projective cover', and disturbance).

3.1.2 Vegetation condition

The condition of the vegetation was assessed using the EPA (2016b) scale as adapted from Keighery (1994) (**Table 6**).

[1] For quadrats the north-west corner was recorded.

Table 6: Vegetation condition scale applied during the field survey

Category	Definition (EPA 2016b)
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.

^relative to the expected natural diversity for that vegetation.

3.2 Analysis and data preparation

3.2.1 Flora identification

Flora were identified through comparison with named material and through the use of taxonomic keys. Plant specimens collected during the field survey were dried, pressed and named in accordance with requirements of the Western Australian Herbarium (2024).

Flora was classified as native if indigenous to the IBRA region in which the site occurs. Non-native flora is denoted by '*' in text and raw data. The legal or policy status of flora was denoted using codes outlined in **Appendix A**.

3.2.2 Sampling adequacy

A species accumulation curve was plotted from sample data by generating a trendline (log) in Microsoft Excel. The trendline was forecast to locate the asymptote of the curve (the point at which the curve flattens), which provides an indication of amount of sampling that would be required before it can be assumed few species remain undetected.

Species richness was estimated in PRIMER v6 (Clarke and Gorley 2006). Jacknife1 and Chao2 non-parametric estimators are reported as these are known to perform well in comparison to simulated and real data sets and are also recommended for small sample sizes (Gotelli and Colwell 2011). Differences between recorded and estimated species richness was used to evaluate the adequacy of sampling effort.

3.2.3 Threatened and priority flora confirmation

Threatened and priority flora were confirmed as absent from the site where no significant limitation was identified that could have affected their detection (refer **Section 3.3**).

3.2.4 Vegetation unit identification and description

The vegetation units within the site were identified from the sample data collected during the field survey. The vegetation was described according to the dominant species present using the structural formation descriptions of the *National Vegetation Inventory System* (NVIS) (NVIS Technical Working Group 2017).

3.2.5 Floristic community type assignment

The identified vegetation units were compared to the regional 'floristic community type' (FCT) dataset *A floristic survey of the southern Swan Coastal Plain* (Gibson *et al.* 1994). Each sample was compared to Gibson *et al.* (1994) separately to limit the influence of spatial correlation when assigning an FCT. FCT analysis was not undertaken for samples located within disturbed vegetation with low native species diversity as the vegetation was considered unlikely to currently represent an FCT.

Sample data (presence/absence) was first reconciled with Gibson *et al.* (1994) by standardising the names of taxa with those used in the earlier study. This was necessary due to changes in nomenclature in the intervening period. Taxa that were only identified to genus level were excluded, while some infra-species that have been identified since 1994 were reduced to species level. The combined dataset was then imported into the statistical analysis package PRIMER v6 (Clarke and Gorley 2006).

A resemblance matrix was generated using the Bray-Curtis distance measure which provided the percentage similarity between all pairs of samples. A cluster analysis was then performed using the resemblance matrix and hierarchical agglomerative clustering, to produce a dendrogram.

Where a sample tended to cluster with a grouping of different FCTs, the resemblance matrix was examined. Ultimately a combination of cluster analysis, resemblance matrix and contextual information relating to the soils, landforms and known FCTs within the region was considered in the final determination of an FCT for vegetation within the site.

3.2.6 TEC and PEC confirmation

Vegetation units were assessed against TEC and PEC diagnostic characteristics and, if available, size and/or vegetation condition thresholds (DBCA 2023a). TECs and PECs were confirmed as absent from the site where no significant limitation was identified that could have affected their detection (refer **Section 3.3**).

3.2.7 Mapping

Environmental features, vegetation units, vegetation condition, threatened or priority flora or ecological communities were mapped on aerial photography using notes and data collected in the field.

3.3 Limitations

It is important to note constraints imposed on assessments and the degree to which these may have limited outcomes. An evaluation of the desktop study and methods applied in the current assessment against standard constraints outlined in the EPA document *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016b) is provided in **Table 7**.

Table 7: Evaluation of assessment against standard constraints outlined in EPA (2016b)

Constraint	Degree of limitation	Details
Availability of contextual information	No limitation	The broad scale contextual information described in **Section 2.1** is adequate to place the site and vegetation in context.
Experience level of personnel	No limitation	This flora and vegetation assessment was undertaken by a qualified botanist with 6 years of botanical experience in Western Australia. Technical review was undertaken by a senior environmental consultant with 14 years' experience in environmental science in Western Australia.
Suitability of timing	No limitation	In Mediterranean climates some flora spend part of their lifecycle as underground storage organs or seed to avoid excessive heat and drought over the summer period. These species, known as 'geophytes' or 'annuals', tend to re-emerge during winter and are often most visible during spring, which is the flowering period for the majority of plant species. Therefore, spring is the optimal time to complete flora and vegetation surveys in the south-west of WA. The survey was partially conducted in October and thus within the main flowering season. High rainfall was recorded from June to October 2024 in the months preceding the spring site visit. Therefore, it is likely that many plant species would have been in flower and/or visible at the time of survey. The degraded nature of the site limits the potential habitat for native geophytic plants such as orchids and the majority of threatened and priority flora species with potential to occur are perennial species. The survey timing was considered adequate to allow the detection of most species for which seasonal timing is critical.

Table 7: Evaluation of assessment against standard constraints outlined in EPA (2016b) (continued)

Constraint	Degree of limitation	Details
Temporal coverage	No limitation	Flora and vegetation assessments can require multiple visits, at different times of year, and over a period of a number of years, to enable observation of all species present. The site was visited multiple times in February and March 2024 and once in October 2024. Sampling was primarily undertaken in the February and March site visits which provided an insight into the vegetation condition and composition out of the main flowering period. As re-sampling was not undertaken in spring, according to the EPA guidelines this survey is considered to meet the requirements of a 'reconnaissance' survey.
Spatial coverage and access	No limitation	Site coverage was comprehensive (track logged).
	No limitation	All parts of the site could be accessed as required.
Sampling intensity	No limitation	A total of 62 species were recorded, of which 39 were recorded from six sample locations and 23 were recorded opportunistically. Minimum species richness within site is estimated at between 57 (Jacknife1) and 59 (Chao2) species (refer species accumulation curve and estimates shown in **Plate 2**). The number of species recorded in the site is more than the Chao2 estimate and, combined with the degraded nature of the majority of the site, demonstrates that survey effort was adequate to prepare a comprehensive species inventory for the site.
Influence of disturbance	Limitation	Time since fire is greater than 50 years as interpreted from aerial imagery and therefore short-lived species more common after fire may not have been visible.
	No limitation	Historical ground disturbance was evident throughout much of the site. The disturbance history of the site was considered when undertaking field sampling.
Adequacy of resources	No limitation	All resources required to perform the survey were available.

4 Results

4.1 Flora

4.1.1 Species inventory

A total of 62 flora species were recorded during the field survey. A summary of legal and policy status of flora records is provided in **Table 8**. A complete species list is provided in **Appendix D**.

Table 8: Summary of legal and policy status of taxa recorded in the site

Status	Unlisted	Threatened	Priority	Declared Pest	Planted	Total
Native	41	0	0	-	0	**41**
Non-native	21	-	-	0	0	**21**
Total	62	0	0	0	0	**62**

Sampling recorded 39 species from six samples. A further 23 species were recorded opportunistically across the site. A species accumulation curve derived from sample data is presented in **Plate 2**. Species richness was estimated to be between 57 (Jacknife1) and 59 (Chao2).

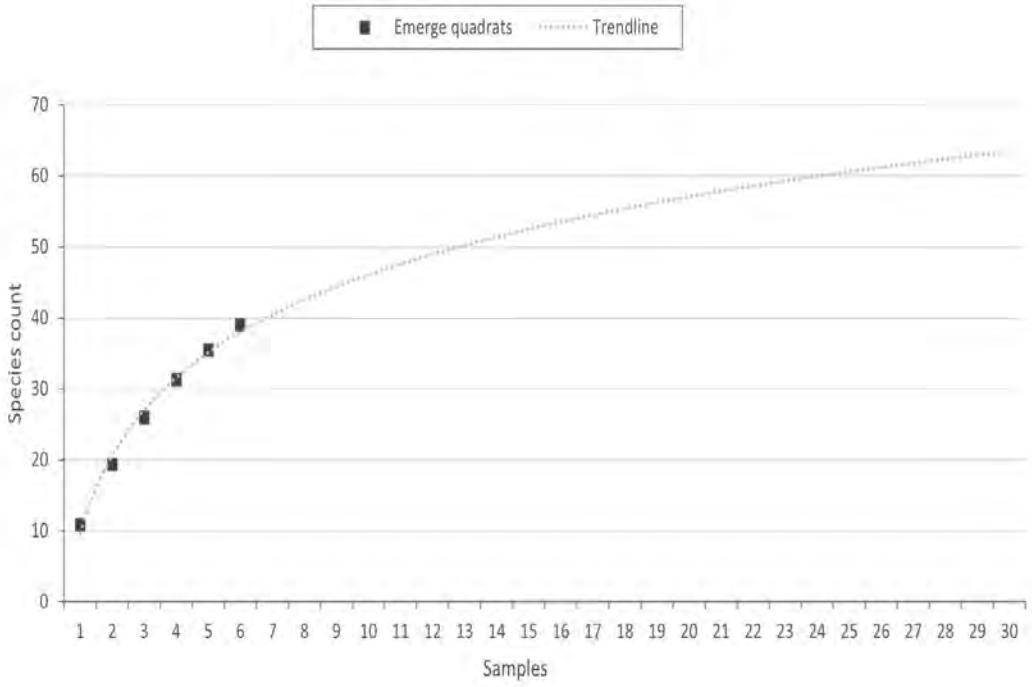


Plate 2: Species accumulation curve derived from sample data (y = 15.831ln(x) + 9.6296 R^2 = 0.9903)

4.1.2 Threatened and priority flora

No threatened or priority flora species were recorded within the site.

The majority of threatened and priority flora species identified in **Section 2.2** are not considered to occur in the site as no significant limitation affecting their detection was identified (refer **Section 3.3**).

The field survey was not sufficient to confirm whether the priority flora species *Caladenia validinervia* (P1) occurs in the site (refer **Section 5.1**).

4.1.3 Declared pests

No species listed as a declared pests pursuant to the BAM Act or weeds of national significance (WoNS) were recorded.

4.2 Vegetation

4.2.1 Vegetation units

Six vegetation units were identified within the site, as mapped from six sample locations, comprised of one quadrat and five relevé. A description and the area of each vegetation unit is provided in **Table 9**. The location of each vegetation unit and sample location is shown in **Figure 4**. Raw sample data is provided in **Appendix F**.

Table 9: Description and extent of vegetation units identified within the site

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
EmCc	Open forest *Eucalyptus marginata* and/or *Corymbia calophylla* and occasional *Banksia grandis* over occasional *Hakea prostrata*, *Persoonia longifolia* and *Xanthorrhoea preissii* (or absent) over sparse shrubland *Acacia pulchella*, *Hakea lissocarpha* and *Hibbertia commutata* (or absent) over scattered *Lomandra* spp., *Austrostipa* ?*mollis* and *Rytidosperma* sp. (or absent) over sparse to closed grassland of pasture weeds (or absent) and occasional native species.	R1, Q4	59.98	14	
Er	Open woodland *Eucalyptus rudis* and occasional *Eucalyptus wandoo* over occasional scattered shrubs *Melaleuca lateritia* (or absent) over occasional sedges *Typha orientalis* and or/*Juncus pallidus* in wetter areas (or absent) over pasture weeds and occasional native species.	R6	38.03	9	

Table 9: Description and extent of vegetation units identified within the site (continued)

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
ErAsJf	Open woodland *Eucalyptus rudis* over scattered shrubs *Acacia saligna and Jacksonia furcellata* over closed grassland of pasture weeds and occasional native species	N/A	0.43	<1	
ErCd	Open woodland *Eucalyptus rudis* (or absent) over occasional scattered shrubs *Melaleuca lateritia* (or absent) over closed sedgeland **Carex divisa* or *Typha orientalis* and *Juncus pallida* in wetter areas over closed grassland of pasture weeds and occasional native species.	R2	26.00	6	

Table 9: Description and extent of vegetation units identified within the site (continued)

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
ErMGt	Open woodland *Eucalyptus rudis* and *Melaleuca* sp. over scattered myrtaceous shrubs over tall grassland **Phalaris* sp. over scattered *Gahnia trifida* over pasture weeds and occasional native species.	R3	0.08	<1	
EwEmCc	Open forest *Eucalyptus wandoo*, *Eucalyptus marginata* and/or *Corymbia calophylla* over scattered *Persoonia longifolia* and *Xanthorrhoea preissii* over scattered *Acacia pulchella* and *Hakea lissocarpha* over scattered *Lomandra* spp., *Austrostipa* sp. and *Rytidosperma* sp. over sparse to closed grassland of pasture weeds (or absent) and occasional native species.	R5	5.34	1	

Table 9: Description and extent of vegetation units identified within the site (continued)

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
Non-native	Heavily disturbed areas comprising predominantly non-native grassland of pasture weeds and scattered native and non-native trees. Bare areas associated with tracks, buildings and dams.	N/A	290.78	69	

4.2.2 Vegetation condition

The extent of vegetation by condition category is detailed in **Table 10** and shown in **Figure 5**.

Table 10: Extent of vegetation condition categories within the site

Condition category (Keighery 1994)	Total area (ha)	Proportion of site (%)
Pristine	0	0
Excellent	0	0
Very good	0	0
Very good - good	2.29	1
Good	1.50	<1
Degraded	78.44	19
Degraded – completely degraded	47.63	11
Completely degraded	290.78	69

4.2.3 Threatened and priority ecological communities

No TECs and PECs were identified within the site.

5 Discussion

5.1 Flora

Prior to the survey, based on background information, seven threatened and 32 priority flora species were considered to have a moderate likelihood to occur within the site. The field survey in February, March and October 2024 was considered sufficient to determine that 35 of these species do not occur. This is either because suitable habitat for the species is not present in the site or because the species were not recorded within the site.

The survey was not able to determine the presence or absence of the following four species: *Caladenia leucochila* (EN), *Caladenia dorrienii* (EN), *Caladenia validinervia* (P1) and *Senecio leucoglossus* (P4). *Caladenia validinervia* is a perennial geophyte that flowers in September and occurs in sand and loam with lateritic gravel and thus may be present and not have been visible during the October survey. *Caladenia leucochila*, *Caladenia dorrienii* and *Senecio leucoglossus* are perennial geophytic/annual species that are known to flower in September or October. None of the three species were recorded during the mid-October survey which falls within the end of the flowering period of all three species. However, a single survey at the end of the flowering period is not considered sufficient to determine that the species do not occur as it is possible that the species flowered in early September and wilted away by mid-October. Therefore, additional surveys during the species flowering period would be required to confirm whether either of the four aforementioned species occur. Potentially suitable habitat for all four species is limited to vegetation in 'good' and 'very good - good' condition in the eastern portion of the site. The remainder of the site is considered too disturbed to support these species.

5.2 Vegetation

The vegetation present within the site has been subject to significant historical disturbance and was primarily in 'degraded' to 'completely degraded' condition, covering 99% of the site.

One PEC was initially classified as having a 'moderate' likelihood of occurrence in the site, 'claypans with mid dense shrublands of *Melaleuca lateritia* over herbs' (priority 1 in WA). Following the field survey, this PEC was not considered to occur due to lack of suitable habitat (clay pan landform) and disturbed condition of most of the vegetation in the site.

6 Conclusions

Outcomes of the assessment include the following:

- A total of 41 native and 21 non-native flora species were recorded.
- No threatened or priority flora species were recorded.
- Two threatened and two priority flora species are considered to potentially occur in the site: *Caladenia leucochila* (EN), *Caladenia dorrienii* (EN), *Caladenia validinervia* (P1) and *Senecio leucoglossus* (P4). Additional surveys during the species flowering period (September to October) would be required to confirm whether they are present. Potentially suitable habitat for all four species is limited to vegetation in 'good' and 'very good - good' condition in the eastern portion of the site. The remainder of the site is considered too disturbed to support these species.
- No other threatened or priority flora species were considered likely to occur.
- A total of seven vegetation units were recorded, occurring in 'completely degraded' (290.78 ha, 69% of the site), 'degraded - completely degraded' (47.63 ha, 11%), 'degraded' (78.44 ha, 19%), 'good' (1.50 ha, <1%) and 'very good - good' (2.29 ha, 1%) condition.
- No 'threatened ecological communities' (TECs) or 'priority ecological communities' (PECs) were recorded.

7 References

7.1 General references

The references listed below have been considered as part of preparing this document.

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Online references

The online resources that have been utilised in the preparation of this report are referenced in **Section 7.1**, with access date information provided in **Table R1**.

Table R1 Access dates for online references

Reference	Date accessed	Website or dataset name
BoM (2024)	29 April 2025	Climate Data Online
DAFF (2021)	29 April 2025	Weeds of National Significance (WoNS)
DBCA (2023b)	29 April 2025	Threatened Ecological Communities
DCCEEW (2024)	22 February 2024	Protected Matters Search Tool
DPIRD (2025)	29 April 2025	Western Australian Organism List
WALIA (2025)	29 April 2025	Landgate Map Viewer
Western Australian Herbarium (2024)	29 April 2025	Florabase

Figures

Figure 1: Site Location

Figure 2: Soils, Topography and Hydrology

Figure 3: Environmental Features

Figure 4: Vegetation Units

Figure 5: Vegetation Condition

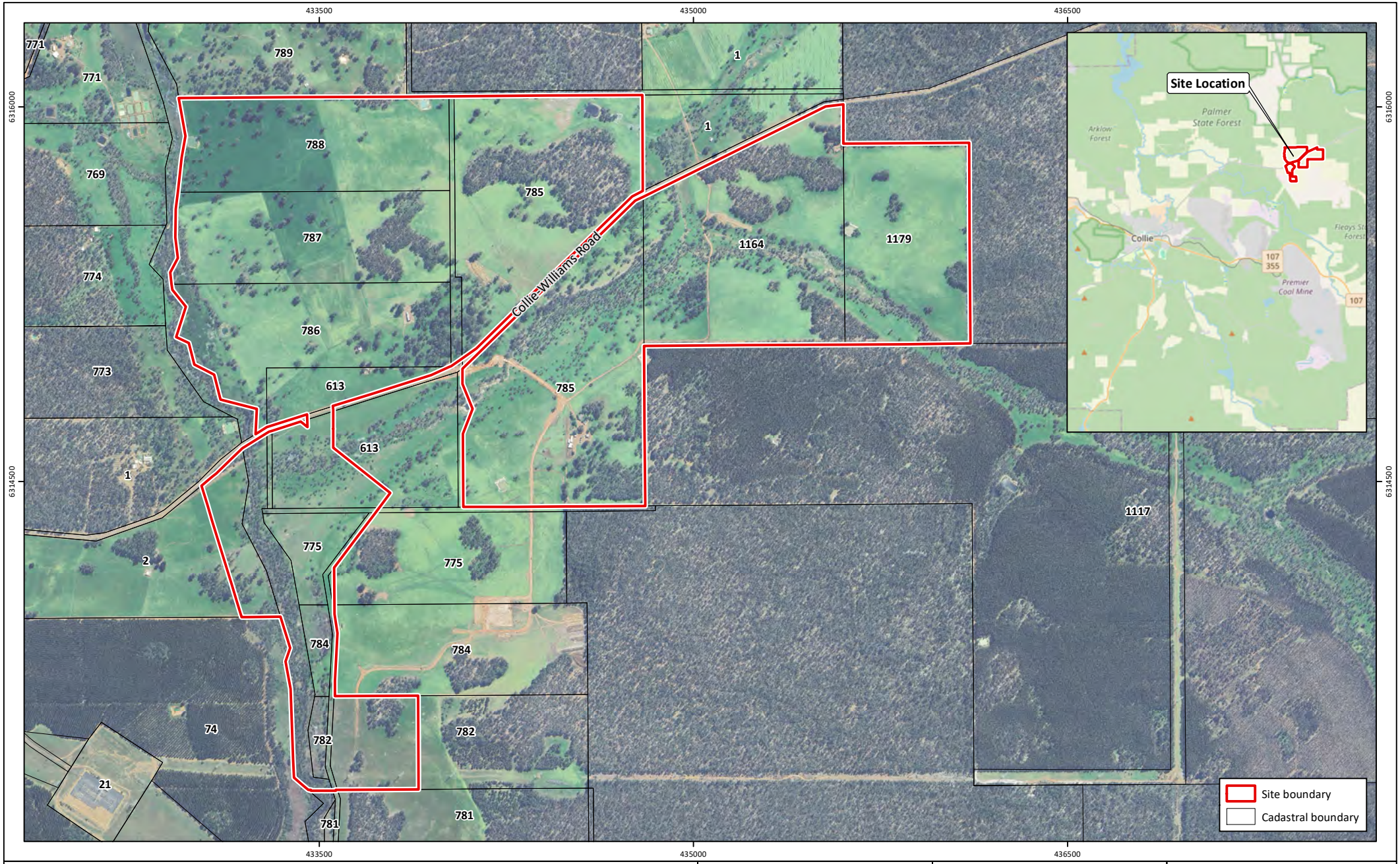


Figure 1: Site Location

Project: Reconnaissance Flora and Vegetation Assessment
Collie BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(02)--F30

Drawn:	GAR
Date:	01/05/2025
Checked:	SKP
Approved:	RAW
Date:	01/05/2025

N

0 200 400 600
Metres
Scale: 1:20,000@A4
GDA2020 MGA Zone 50

emerge ASSOCIATES

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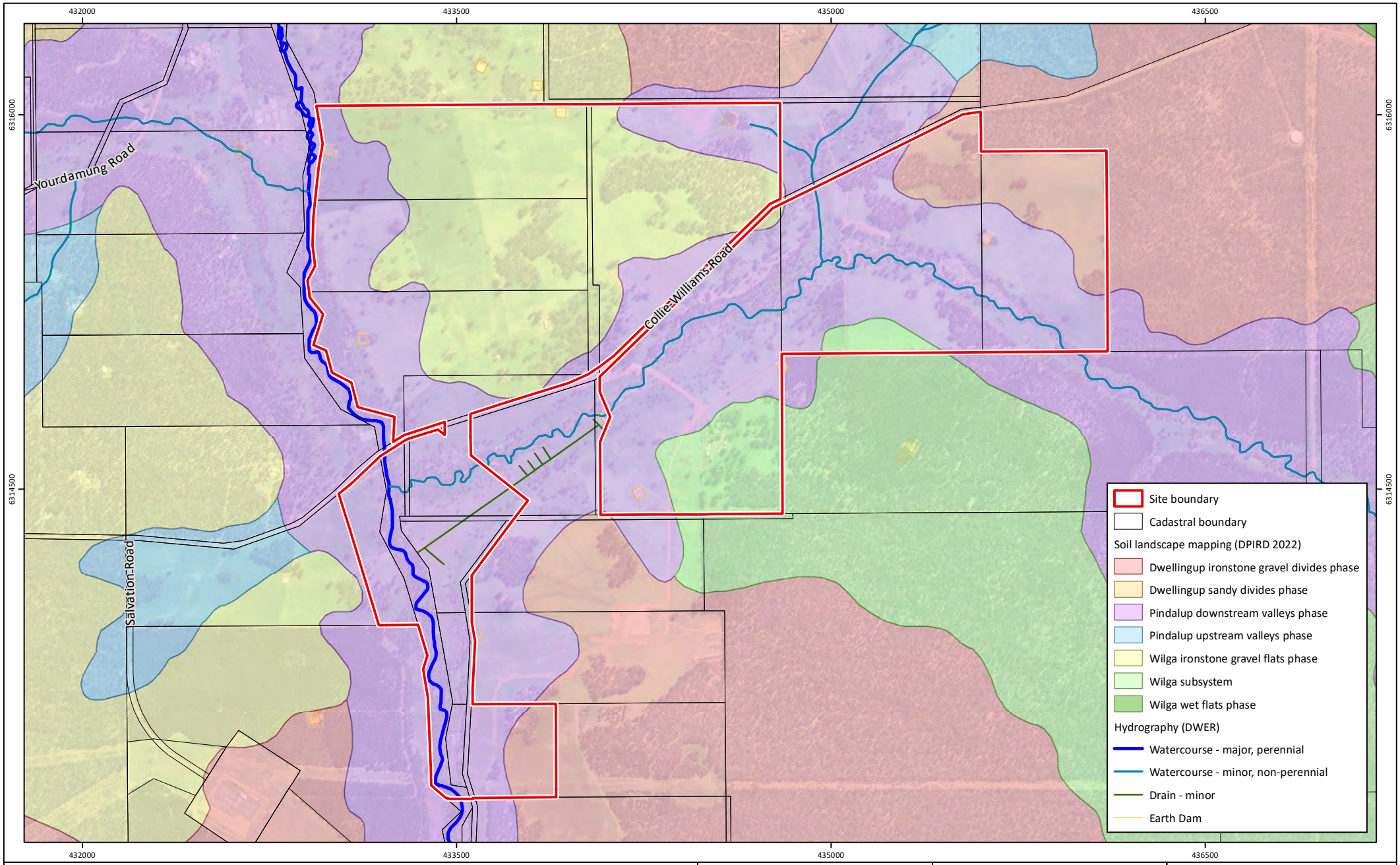


Figure 2: Soils, Topography and Hydrology

Project: Reconnaissance Flora and Vegetation Assessment
Collie BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(02)--F31

Drawn:	GAR
Date:	01/05/2025
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Scale: 1:20,000@A4
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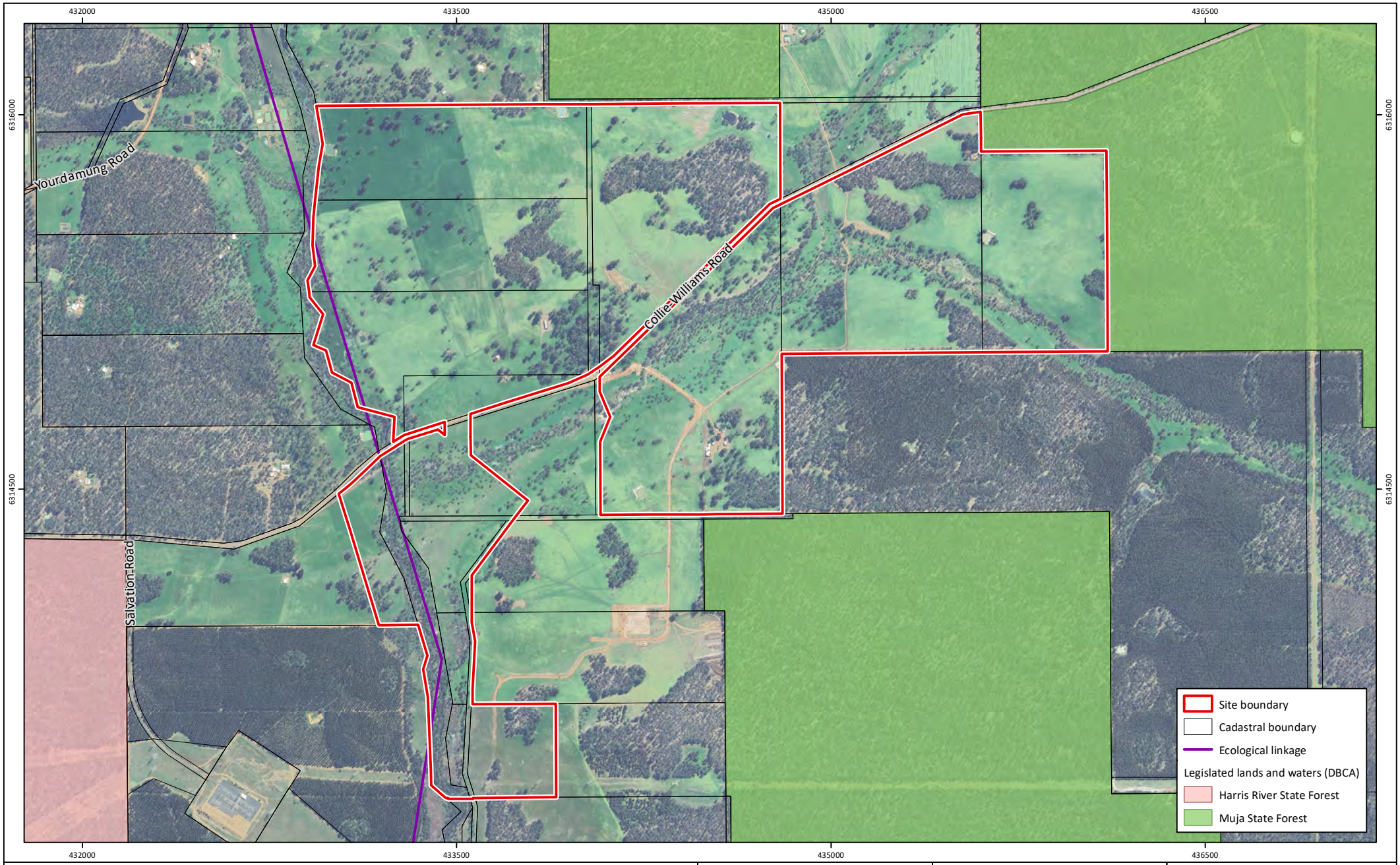


Figure 3: Environmental Features

Project:	Reconnaissance Flora and Vegetation Assessment Collie BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(02)--F32

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Approved:	RAW
Date:	01/05/2025

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Scale: 1:20,000@A4

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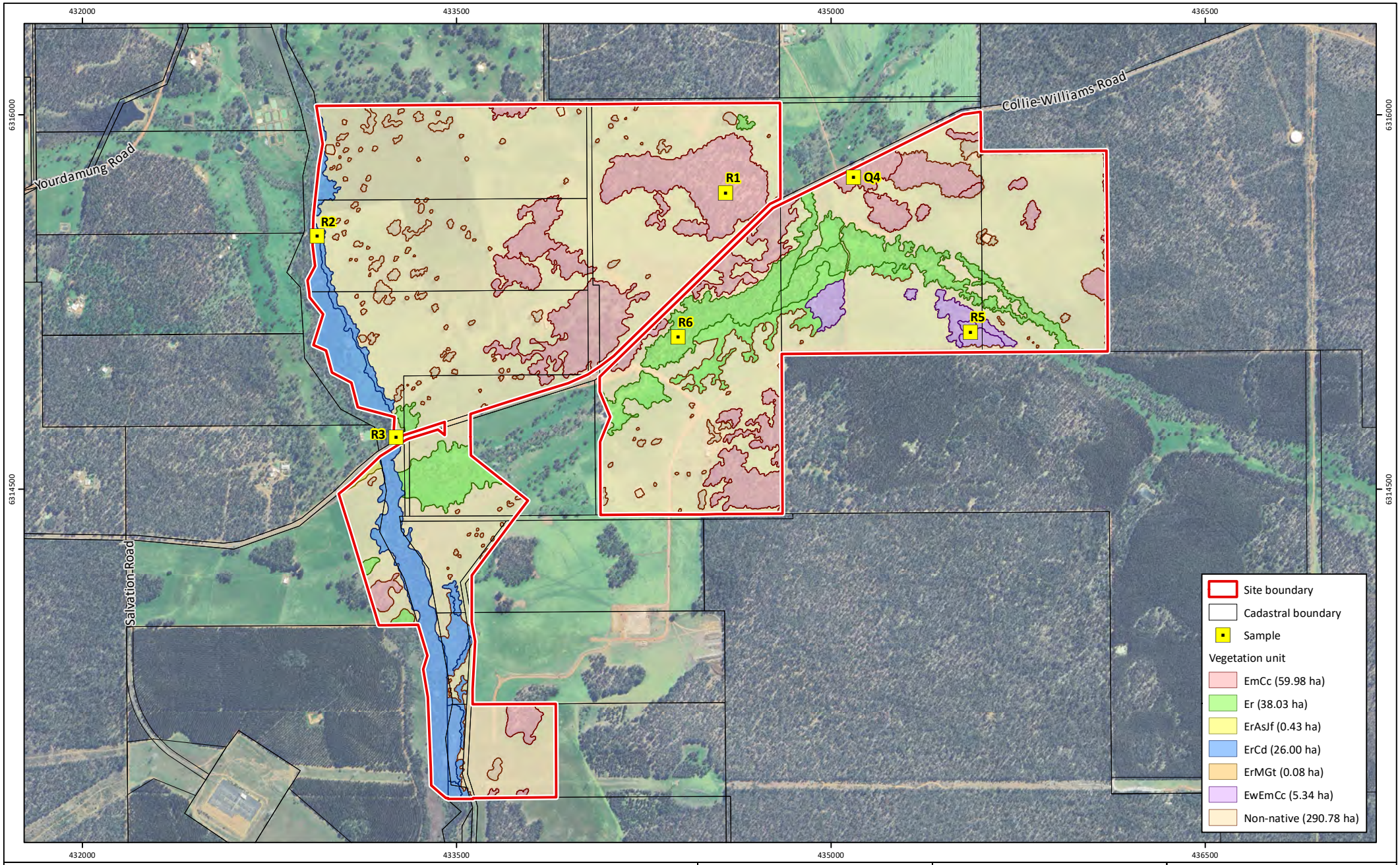


Figure 4: Vegetation Units

Project: Reconnaissance Flora and Vegetation Assessment
Collie BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(02)--F33
Drawn: GAR
Date: 01/05/2025
Checked: SKP
Approved: RAW
Date: 01/05/2025

N

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Metres
Scale: 1:20,000@A4
GDA2020 MGA Zone 50

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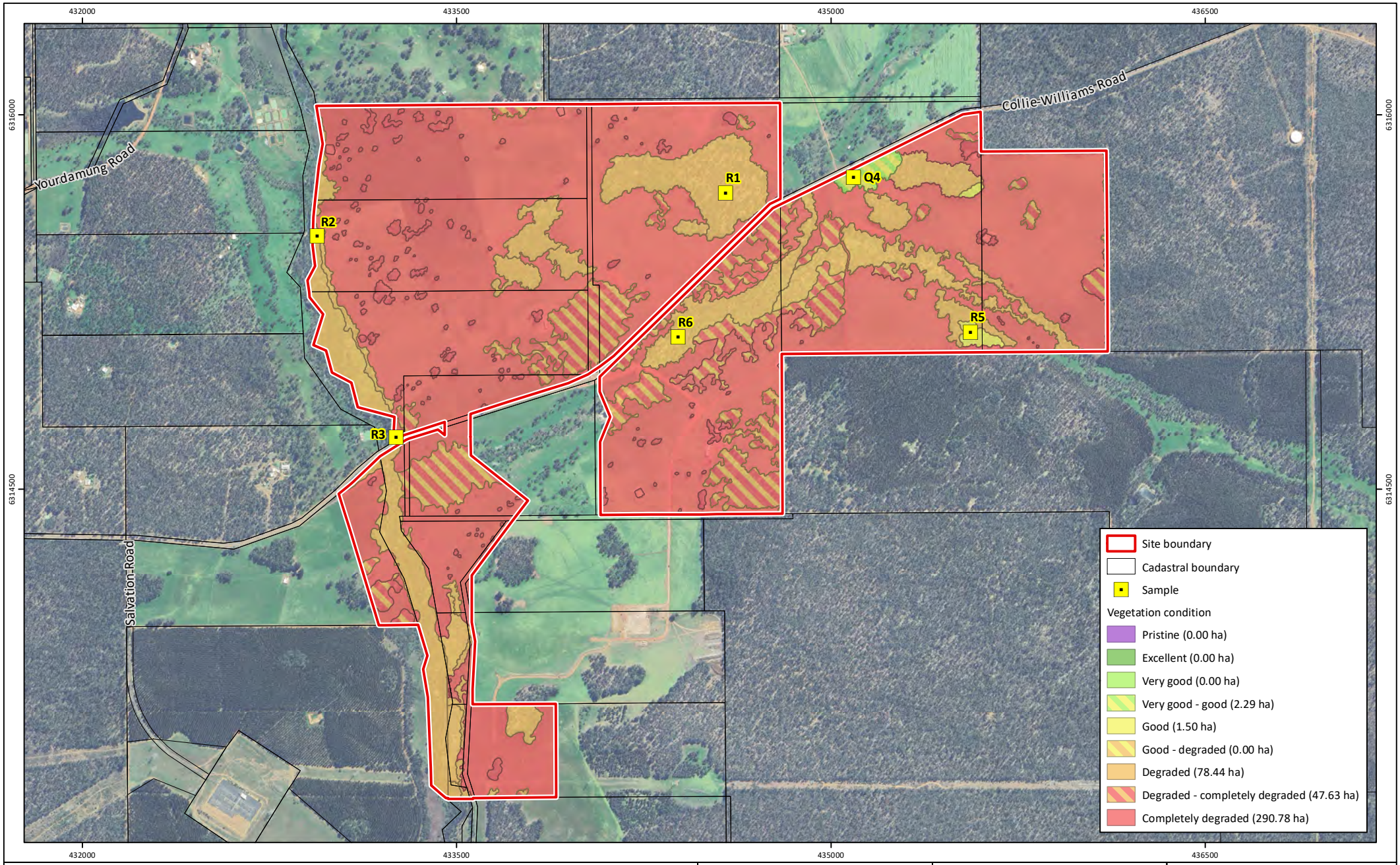


Figure 5: Vegetation Condition

Project:	Reconnaissance Flora and Vegetation Assessment Collie BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(02)--F34

Drawn:	GAR
Date:	01/05/2025
Checked:	SKP
Approved:	RAW
Date:	01/05/2025

N

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Metres

Scale: 1:20,000@A4

GDA2020 MGA Zone 50

emerge ASSOCIATES

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Appendix A

Additional Information

Conservation Significant Flora and Vegetation

Threatened and priority flora

Flora species considered rare or under threat warrant special protection under Commonwealth and/or State legislation. At the Commonwealth level, flora species can be listed as 'threatened' pursuant to Schedule 1 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In Western Australia, plant taxa may be classed as 'threatened' under the *Biodiversity Conservation Act 2016* (BC Act) which is enforced by Department of Biodiversity Conservation and Attractions (DBCA). Threatened flora species are listed under sections 19(1) and 26(2) of the BC Act and published in the Biodiversity Conservation (Species) Order 2022. It is an offence to 'take' or disturb threatened flora without Ministerial approval. Section 5(1)1 of the Act defines to take as including "… to gather, pluck, cut, pull up, destroy, dig up, remove, harvest or damage flora by any means" or to cause or permit the same to be done.

Threatened flora are assigned categories under the EPBC Act and BC Act according to their conservation status, as outlined in **Table 1**.

Flora species that may be threatened or near threatened but lack sufficient information to be listed under the BC Act may be added to the DBCA's *Priority Flora List* (DBCA 2018b). Priority flora species are considered during State approval processes. Priority flora are assigned categories as listed in **Table 1**.

Table 1: Definitions of threatened and priority flora species pursuant to the EPBC Act and BC Act and on DBCA's Priority Flora List (DBCA 2023b)

Conservation code	Description
EX†	Threatened Flora – Presumed Extinct Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such.
T^†	Threatened Flora – Extant Taxa which are declared to be likely to become extinct or is rare, or otherwise in need of special protection.
CR^	Threatened Flora – Critically Endangered Taxa which are considered to be facing an extremely high risk of extinction in the wild.
EN^	Threatened Flora – Endangered Taxa which are considered to be facing a very high risk of extinction in the wild.
VU^	Threatened Flora – Vulnerable Taxa which are considered to be facing a high risk of extinction in the wild.
P1	Priority One – Poorly Known Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat e.g. road verges, urban areas, farmland, active mineral leases etc., or the plants are under threat, e.g. from disease, grazing by feral animals etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P2	Priority Two – Poorly Known Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but urgently need further survey.
P3	Priority Three – Poorly Known Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but needs further survey.
P4	Priority Four – Rare Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.

^pursuant to the EPBC Act, †pursuant to the BC Act, on DBCA's *Priority Flora List*

Threatened and priority ecological communities

'Threatened ecological communities' (TECs) are ecological communities that are rare or under threat and therefore warrant special protection. Selected TECs are afforded statutory protection at a Commonwealth level under section 181 of the EPBC Act. TECs nominated for listing under the EPBC Act are considered by the Threatened Species Scientific Committee and a final decision is made by the Commonwealth Minister for the Environment. Once listed under the EPBC Act, communities are categorised as either 'critically endangered', 'endangered' or 'vulnerable' as defined in **Table 2**. Any action likely to have a significant impact on a community listed under the EPBC Act requires approval from the Minister for the Environment.

In Western Australia TECs are listed under sections 27(1), 31 and 33 of the BC Act. TECs are determined by the Western Australian Threatened Ecological Communities Scientific Advisory Committee (WATECSAC) and endorsed by the State Minister for the Environment. The WATECSAC is an independent group comprised of representatives from organisations including tertiary institutions, the Western Australian Museum and DBCA. The TECs listed under the BC Act are defined in Schedule 1 of the Biodiversity Conservation (Threatened Ecological Communities) Order 2023. State TECs are also acknowledged through other environmental approval processes such as 'environmental impact assessment' pursuant to Part IV of the *Environmental Protection Act 1986* (EP Act) and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

TECs are assigned to one of the categories outlined in **Table 2** according to their level of threat.

Table 2: Categories of threatened ecological communities (English and Blyth 1997; DEC 2009)

Conservation code	Description
PD	Presumably Totally Destroyed An ecological community that has been adequately searched for but for which no representative occurrences have been located.
CE	Critically Endangered An ecological community that has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future.
E	Endangered An ecological community that has been adequately surveyed and is not critically endangered but is facing a very high risk of total destruction in the near future.
V	Vulnerable An ecological community that has been adequately surveyed and is not critically endangered or endangered but is facing a high risk of total destruction or significant modification in the medium to long-term future.

An ecological community with insufficient information available to be considered a TEC or which are rare but not currently threatened may be listed as a 'priority ecological community' (PEC). PECs are categorised based on a variety of criteria, as described in **Table 3**. Listed PECs are published by DBCA (DBCA 2023a).

Table 3: Categories of priority ecological communities (DEC 2013)

Priority code	Description
P1	Priority One: Poorly known ecological communities Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤5 occurrences or a total area of ≤ 100ha). Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.
P2	Priority Two: Poorly known ecological communities Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200ha). At least some occurrences are not believed to be under immediate threat (within approximately 10 years) of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.
P3	Priority Three: Poorly known ecological communities (i) Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or: (ii) communities known from a few widespread occurrences, which are either large or with significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat (within approximately 10 years), or; (iii) communities made up of large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, inappropriate fire regimes, clearing, hydrological change etc. Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.
P4	Priority Four: Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring. (i) Rare. Ecological communities known from few occurrences that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These communities are usually represented on conservation lands. (ii) Near Threatened. Ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for a higher threat category. (iii) Ecological communities that have been removed from the list of threatened communities during the past five years.
P5	Priority Five: Conservation Dependent ecological communities Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Reporting

Section 43 of the BC Act requires that an occurrence of a threatened species or threatened ecological community is reported to DBCA where the occurrence has been identified as part of field work completed:

- as part of an assessment under Part IV of the *Environmental Protection Act 1986*; or
- in relation to an application for a clearing permit under the *Environmental Protection Act 1986* section 51E(1)(d).

Penalties apply to individuals and organisations that fail to provide accurate reports of threatened species or communities.

The *Biodiversity Conservation Regulations 2018* (BC Regulations 2018) came into effect on January 1 2019. The BC Regulations include provisions for licencing, charges, penalties and other provisions associated with the BC Act.

Weeds

A number of legislative and policy documents exist in relation to weed management at state and national levels. The *Biosecurity and Agriculture Management Act 2007* (BAM Act) is the principle legislation guiding weed management in Western Australia and lists declared pest species. At a national level, the Australian government has compiled a list of 32 Weeds of National Significance (WoNS) (DoEE 2018), of which many are also listed under the BAM Act.

Declared Pests

Part 2.3.23 of the BAM Act requires a person must not; "*a) keep, breed or cultivate the declared pest; b) keep, breed or cultivate an animal, plant or other thing that is infected or infested with the declared pest; c) release into the environment the declared pest, or an animal, plant or other thing that is infected or infested with the declared pest; or d) intentionally infect or infest, or expose to infection or infestation, a plant, animal or other thing with a declared pest*".

Under the BAM Act, all declared pests are assigned a legal status, as described in **Table 7**. Species assigned to the 'declared pest, prohibited - s12' category are placed in one of three control categories, as described in **Table 8**.

The *Biosecurity and Agriculture Management Regulations 2013* specify keeping categories for species assigned to the 'declared pest - s22(2)' category, which relate to the purposes of which species can be kept, as well as the entities that can keep them. The categories are described in **Table 9**.

The Western Australian Organism List (WAOL) provides the status of organisms which have been categorised under the BAM Act (DPIRD 2020).

Table 4: Legal status of declared pest species listed under the BAM Act (DPIRD 2020)

Category	Description
Declared Pest Prohibited - s12	May only be imported and kept subject to permits. Permit conditions applicable to some species may only be appropriate or available to research organisations or similarly secure institutions.
Declared Pest s22(2)	Must satisfy any applicable import requirements when imported, and may be subject to an import permit if they are potential carriers of high-risk organisms. They may also be subject to control and keeping requirements once within Western Australia

Table 5: Control categories of declared pest species listed under the BAM Act (DPIRD 2020)

Category	Description
C1	Exclusion Not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.
C2	Eradication Present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.
C3	Management Established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.

Table 6: Keeping categories of declared pest species listed under the BAM Act (DPIRD 2020)

Category	Description
Prohibited	Can only be kept under a permit for public display and education purposes, and/or genuine scientific research, by entities approved by the state authority.
Exempt	No permit or conditions are required for keeping.
Restricted	Organisms which, relative to other species, have a low risk of becoming a problem for the environment, primary industry or public safety and can be kept under a permit by private individuals.

Wetland Habitat

Geomorphic wetland types

On the Swan Coastal Plain DBCA (2017) have used the geomorphic wetland classification system developed by Semeniuk (1987) and Semeniuk and Semeniuk (1995) to classify wetlands based on the landform shape and water permanence (hydro-period) as outlined in **Table 10**.

Table 7: Geomorphic Wetlands of the Swan Coastal Plain classification categories (DBCA 2017)

Level of inundation	Geomorphology			
	Basin	Flat	Channel	Slope
Permanently inundated	Lake	-	River	-
Seasonally inundated	Sumpland	Floodplain	Creek	-
Seasonally waterlogged	Dampland	Palusplain	-	Paluslope

Wetland management categories

DBCA maintains the *Geomorphic Wetland of the Swan Coastal Plain* dataset (DBCA 2018a), which also categorises individual wetlands into specific management categories as described in **Table 11**.

Table 8: Geomorphic Wetlands of the Swan Coastal Plain classification categories (DBCA 2017)

Management category	Description of wetland	Management objectives
Conservation (CCW)	Support high levels of attributes	Preserve wetland attributes and functions through reservation in national parks, crown reserves and state owned land. Protection provided under environmental protection policies.
Resource enhancement (REW)	Partly modified but still supporting substantial functions and attributes	Restore wetland through maintenance and enhancement of wetland functions and attributes. Protection via crown reserves, state or local government owned land, environmental protection policies and sustainable management on private properties.
Multiple use (MUW)	Few wetland attributes but still provide important hydrological functions	Use, development and management considered in the context of water, town and environmental planning through land care.

The management categories of wetland features are determined based on hydrological, biological and human use features. The DBCA document *A methodology for the evaluation of specific wetland types on the Swan Coastal Plain, Western Australia* (DBCA 2017) details the methodology by which wetlands on the Swan Coastal Plain are assigned management categories based on a two tiered evaluation system, with preliminary and secondary evaluation stages. The preliminary evaluation aims to identify any features of conservation significance that would immediately place the wetland within the CCW management category. Examples of these significant features include presence on significant wetland lists, presence of TECs or PECs (Priority 1 and 2), presence of threatened flora and

over 90% of vegetation in good or better condition based on the Keighery (1994) scale. If such environmental values are identified the wetland would be categorised as CCW without further evaluation.

Should the preliminary evaluation indicate that no such features occur, the secondary evaluation and site assessment are then applied. In the secondary evaluation, an appropriate management category is determined through the assessment of a range of environmental attributes, functions and values.

Wetland reclassification

DBCA have a protocol for proposing changes to the wetland boundaries and management categories of the existing geomorphic wetland dataset (DEC 2007). The procedure involves a wetland desktop evaluation and site assessment which culminates in a recommended management category. Relevant information should be obtained in the optimal season for vegetation condition and water levels, which is usually spring (DEC 2007). In the case of larger wetlands that have undergone a degree of disturbance, a separate management category may be assigned to parts of the wetland in order to reflect the current values.

References

General references

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Appendix B

Conservation Significant Flora Species and Likelihood of Occurrence Assessment

Species name	Level of significance		Life strategy	Habitat	Flowering period	Likelihood of occurrence
	WA	EPBC Act				
Commersonia erythrogyna	CR	EN	P	Unknown (the single wild population occurs on a lateritic ridgewith open low jarrah and marri woodland).	Aug-Oct	Negligible
Caladenia lodgeana	CR	CR	PG	Seasonally moist to wet clay/sand soils on the margins of either low granite outcrops or ephemeral wetlands	Oct	Negligible
Drakaea confluens	CR	EN	PG	White-grey sand.	Oct-Nov.	Low
Caladenia dorrienii	EN	EN	PG	Sandy clays, usually in moist valley sites in open wandoo/jarrah woodland over low scattered shrubs. Often on slopes and near streams.	Sep-Nov	Moderate
Caladenia leucochila	EN	EN	PG	Podzolic sand amongst laterite, usually in lower parts of valleys (between 230 m and 245 m above sea level) and slightly upslope of seasonally damp areas. Associated with Eucalyptus marginata, Corymbia calophylla and Allocasuarina fraseriana forest. Frequently grows under Allocasuriana fraseriana in leaf litter.	Mid Sep-late Oct	Moderate
Jacksonia velveta	EN	EN	P	Brown to red gravelly loam over laterite on slight slopes in low woodland areas.	Nov-Dec	Moderate
Grevillea rara	EN	EN	P	Lateritic loam along creeklines.	Oct	Moderate
Eleocharis keigheryi	VU	VU	P	Clay or sandy loam in freshwater creeks and transient waterbodies such as seasonally wet clay pans.	Aug-Dec	Moderate
Diuris micrantha	VU	VU	PG	Dark grey-black sandy clay-loam in winter wet depressions or swamps. Often in shallow standing water.	Aug/Sep-early Oct	Moderate
Caladenia validinervia	P1	-	PG	Sand and loam with lateritic gravel	Jun-Sep	Moderate
Isopogon sp. Canning Reservoir (M.D. Tindale 121 & B.R. Maslin)	P1	-	P	Brown, yellow or grey sand over laterite on flats and low plains.	Aug-Sep	Moderate

Species name	Level of significance		Life strategy	Habitat	Flowering period	Likelihood of occurrence
	WA	EPBC Act				
Leucopogon extremus	P2	-	P	Brown/grey sand/loam/clay in seasonally wet areas.	Sep-Nov	Moderate
Daviesia mesophylla	P2	-	P	Gravelly sand (sometimes clayey) and rocky slopes with mallee-heath (Eucalyptus marginata), or in heath on wet peaty or clayey sand.	Jan-May	Moderate
Sphaerolobium benetectum	P2	-	P	White gravelly sandy clay, sandy loam, granite, laterite. Ridges, swamps, undulating rises.	Oct-Nov	Moderate
Gonocarpus keigheryi	P2	-	P	Species has been recorded in open habitats near heath, in flood plains, loamy soils associated with watercourses or disturbed roadsides.	?Jan (limited information)	Moderate
Logania sylvicola	P2	-	P	Gravelly brown sand/clay loam in woodlands.	Aug-Sep	Moderate
Lambertia orbifolia subsp. pecuniosa	P2	EN	P	Subsp. is known from two populations that are associated with a tributary of the east branch of the Collie River, south-west of Bowelling in the Southern Jarrah Forest.	Jan-Mar	Moderate
Eryngium sp. Ferox (G.J. Keighery 16034)	P3	-	P	Winter wet flats on clay	Oct-Mar	Low
Angianthus drummondii	P3	-	A	Grey or brown clay soils, ironstone. On seasonally wet flats.	Oct-Dec	Low
Blennospora doliiformis	P3	-	A	Grey or red clay soils over ironstone. Seasonally-wet flats.	Oct-Nov	Low
Schoenus sp. Waroona (G.J. Keighery 12235)	P3	-	A	Clay or sandy clay. Winter-wet flats.	Oct-Nov	Negligible
Dillwynia sp. Capel (P.A. Jurjevich 1771)	P3	-	P	Littered grey loamy sand, rocky soils. Valleys, rangelands.	Sep-Oct	Negligible
Lomandra whicherensis	P3	-	P	Sand and sandy loam with lateritic gravel on slopes and ridges.	Dec	Moderate
Thysanotus unicupensis	P3	-	P	Grey sandy loam with laterite on undulating hills.	Oct-Dec	Moderate

Species name	Level of significance		Life strategy	Habitat	Flowering period	Likelihood of occurrence
	WA	EPBC Act				
Cyathochaeta teretifolia	P3	-	P	Grey sand, sandy clay in swamps and creek edges.	Oct-Jan	Moderate
Tetratheca parvifolia	P3	-	P	Dry, brown or grey sand over rocky outcrops of granite or laterite.	Oct	Moderate
Meionectes tenuifolia	P3	-	P	Clay loam or grey sand in seasonally wet areas.	Oct-Dec	Moderate
Juncus meianthus	P3	-	P	Black sand, sandy clay. Creeks, seepage areas.	Nov-Dec/Jan	Moderate
Calytrix pulchella	P3	-	P	Grey or white sand over laterite. Ridges, flats.	Aug-Nov	Moderate
Stylidium rhipidium	P3	-	A	Sandy soils in wet creek flats, swamps, granite outcrops.	Oct-Nov	Moderate
Adenanthos cygnorum subsp. chamaephyton	P3	-	P	Grey sand, lateritic gravel.	Jul or Sep to Dec or Jan	Moderate
Grevillea prominens	P3	-	P	Gravelly loam along creeklines.	Sep-Oct	Moderate
Synaphea decumbens	P3	-	P	Sand over laterite.	Sep-Oct	Moderate
Synaphea hians	P3	-	P	Sandy soils on rises.	Jul/Sep-Nov	Moderate
Synaphea petiolaris subsp. simplex	P3	-	P	Sandy soils on flats and in winter-wet areas.	Sep-Oct	Moderate
Stylidium lepidum	P3	-	P	Gravelly sand or loam, clay in winter-wet depressions.	Oct-Nov	Moderate
Banksia subpinnatifida var. imberbis	P3	-	P	Laterite.	Sep-Oct	Negligible
Schoenus natans	P4	-	A	Aquatic, in winter-wet depressions.	Oct	Negligible
Drosera occidentalis	P4	-	P	Flat, brown/white/yellow moist sand/clay/peat, often near swamps.	Oct-Dec/Jan	Low
Gastrolobium tomentosum	P4	-	P	Gravelly loam or clay, sometimes over sandier substrates, on hills, roadverges.	Aug-Nov	Negligible
Darwinia pimelioides	P4	-	P	Loam, sandy loam on granite outcrops.	Sep-Oct	Low
Eucalyptus rudis subsp. cratyantha	P4	-	P	Loam on flats and hillsides.	Jul-Sep	Negligible
Acacia semitrullata	P4	-	P	White/grey sand, sometimes over laterite, clay sometimes in sandplains, swampy areas.	May-Oct	Moderate
Chorizema ulotropis	P4	-	P	Outcrops, winter damp to dry areas, flats.	Jul-Sep	Moderate

Species name	Level of significance		Life strategy	Habitat	Flowering period	Likelihood of occurrence
	WA	EPBC Act				
Pultenaea skinneri	P4	-	P	Sandy or clayey soils in winter-wet depressions.	Jul-Sep	Moderate
Lasiopetalum cardiophyllum	P4	-	P	Lateritic gravelly soils, sandy clay on flats and hillslopes.	Aug-Dec/Jan	Moderate
Calothamnus graniticus subsp. leptophyllus	P4	-	P	Clay over granite, lateritic soils. Hillsides.	Jun-Aug	Moderate
Darwinia sp. Dryandra (G.J. Keighery 9295)	P4	-	P	Gravelly clay. Lateritic ridges.	May/Jul-Nov	Moderate
Hydrocotyle lemnoides	P4	-	A	Floating in swamps.	Aug-Oct	Moderate
Senecio leucoglossus	P4	-	A	Gravelly lateritic or granitic soils on outcrops or slopes.	Aug-Dec	Moderate
Banksia meisneri subsp. ascendens	P4	-	P	White or grey sand on swampy flats.	Apr-Sep	Moderate
Hypolaena robusta	P4	-	P	White sand. Sandplains	Sep-Oct	Negligible
Grevillea ripicola	P4	-	P	Sandy clay, clay or gravelly loam in swampy flats, granite outcrops, along watercourses.	Jan/Mar-Apr or Nov-Dec	Moderate
Ornduffia submersa	P4	-	A	In freshwater 0.05-0.6 m deep. Pools, lakes, swamps, winter-wet depressions, claypans.	Aug-Nov	Moderate

Note: CR=critically endangered, EN=endangered, VU=vulnerable, P1=Priority 1, P2=Priority 2, P3=Priority 3, P4=Priority 4, P=perennial, PG=perennial geophyte, A=annual. Species considered to potentially occur within the site are shaded green.

Appendix C

Conservation Significant Communities and Likelihood of Occurrence Assessment

Code	Community name	TEC/ PEC	Level of significance		Likelihood of occurrence
			State	EPBC Act	
	Claypans with mid dense shrublands of *Melaleuca lateritia* over herbs	TEC/ PEC	P1	CR	Moderate

Note: TEC=threatened ecological community, PEC=priority ecological community, CR=critically endangered, EN=endangered, VU=vulnerable, P3=priority 3

Appendix D

Species List

Family	Status	Species
Amarathaceae		
		Ptilotus drummondii
Asparagaceae		
		Lomandra hermaphrodita
		Sowerbaea laxiflora
		Thysanotus patersonii
Asteraceae		
	*	*Cirsium vulgare*
	*	*Cotula coronopifolia*
	*	*Erigeron bonariensis*
	*	*Hypochaeris radicata*
	*	*Hypochaeris sp.*
		Pterochaeta paniculata
Campanulaceae		
		Lobelia anceps
	*	*Wahlenbergia capensis*
Cyperaceae		
	*	*Carex divisa*
	*	*Cyperus congestus*
		Gahnia trifida
		Lepidosperma longitudinale
		Machaerina juncea
Dilleniaceae		
		Hibbertia amplexicaulis
		Hibbertia commutata
Ericaceae		
		Styphelia tenuiflora
Fabaceae		
		Acacia pulchella var. glaberrima
		Acacia saligna
		Bossiaea ornata
		Jacksonia furcellata
		Kennedia prostrata
	*	*Lotus subbiflorus*
	*	*Trifolium dubium*
Goodeniaceae		
		Goodenia pulchella
Haloragaceae		
		Myriophyllum crispatum
Hemerocallidaceae		
		Chamaescilla corymbosa var. corymbosa
Iridaceae		
	*	*Romulea rosea*
Juncaceae		
		Juncus pallidus
Juncaginaceae		
		Cycnogeton lineare
Lamiaceae		

	*	*Mentha pulegium*
Myrtaceae		
		Corymbia calophylla
		Eucalyptus marginata
		Eucalyptus rudis
		Eucalyptus wandoo
		Melaleuca lateritia
Phyllanthaceae		
		Poranthera microphylla
Poaceae		
		Amphipogon laguroides
		Austrostipa ?mollis
	*	*Briza maxima*
	*	*Briza minor*
	*	*Bromus sp.*
	*	*Ehrharta longiflora*
	*	*Phalaris sp.*
	*	*Polypogon monspeliensis*
		Rytidosperma sp.
		Tetrarrhena laevis
	*	*Vulpia sp.*
Polygonaceae		
	*	*Rumex acetosella*
Proteaceae		
		Banksia grandis
		Banksia littoralis
		Hakea lissocarpha
		Hakea prostrata
		Persoonia longifolia
Ranunculaceae		
		Clematis pubescens
Solanaceae		
	*	*Solanum nigrum*
Typhaceae		
		Typha orientalis
Xanthorrhoeaceae		
		Xanthorrhoea preissii
Zamiaceae		
		Macrozamia riedlei

*=non-native, Pl=planted

Appendix E

Sample Data

Vegetation Sample Data

Collie BESS and Solar PV

Sample Name: R1

Project no.: EP24-016
Date: 28/02/2024, 17/10/2024
Author: MS,

Status Non-permanent
R1: Page 1 of 2

Quadrat and landform details

Sample type:	releve	Size:	other
NW corner easting:	434578.589	NW corner northing:	6315686.997
Altitude (m):	0	Geographic datum/zone:	GDA94/Zone 50
Soil water content:	dry	Landform:	mid-slope
Time since fire:	> 5 yrs	Disturbance:	high - Weeds, clearing
Soil type/texture	loam/sand	Bare ground (%):	1
Rocks (%) and type:	No rocks	Soil colour:	/
Litter:	% (,,)	Vegetation condition:	Degraded



Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R1

Project no.: EP24-016
Date: 28/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R1: Page 2 of 2

Species Data

* denotes non-native species

Status	Confirmed name
	Eucalyptus marginata
	Hakea prostrata
*	*Hypochaeris sp.*
	Jacksonia furcellata
	Kennedia prostrata
	Persoonia longifolia
*	*Vulpia sp.*
	Xanthorrhoea preissii

Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R2

Project no.: EP24-016
Date: 28/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R2: Page 1 of 2

Quadrat and landform details

Sample type:	releve	Size:	other
NW corner easting:	432940.725	NW corner northing:	6315515.059
Altitude (m):	0	Geographic datum/zone:	GDA94/Zone 50
Soil water content:	dry	Landform:	lower slope
Time since fire:	> 5 yrs	Disturbance:	high - Weeds, clearing
Soil type/texture	loam/sand	Bare ground (%):	1
Rocks (%) and type:	No rocks	Soil colour:	/
Litter:	% (,,)	Vegetation condition:	Degraded



Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R2

Project no.: EP24-016
Date: 28/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R2: Page 2 of 2

Species Data

* denotes non-native species

Status	Confirmed name
	Banksia littoralis
*	*Carex divisa*
*	*Cirsium vulgare*
*	*Ehrharta longiflora*
	Eucalyptus rudis
	Tetrarrhena laevis
*	*Vulpia sp.*

Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R3

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R3: Page 1 of 2

Quadrat and landform details

Sample type:	releve	Size:	other
NW corner easting:	433257.0657	NW corner northing:	6314708.644
Altitude (m):	0	Geographic datum/zone:	GDA94/Zone 50
Soil water content:	dry	Landform:	flat
Time since fire:	> 5 yrs	Disturbance:	high - Weeds, clearing
Soil type/texture	loam/sand	Bare ground (%):	1
Rocks (%) and type:	No rocks	Soil colour:	/
Litter:	% (,,)	Vegetation condition:	Degraded



Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R3

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R3: Page 2 of 2

Species Data

* denotes non-native species

Status	Confirmed name
*	*Phalaris sp.*
	Gahnia trifida
	Melaleuca sp.
*	*Carex divisa*
*	*Rumex acetosella*
	Eucalyptus rudis

Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: Q4

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, Q4: Page 1 of 2

Quadrat and landform details

Sample type:	quadrat	Size:	other
NW corner easting:	435090.2358	NW corner northing:	6315750.073
Altitude (m):	0	Geographic datum/zone:	GDA94/Zone 50
Soil water content:	dry	Landform:	mid-slope
Time since fire:	> 5 yrs	Disturbance:	moderate - grazing
Soil type/texture	loam/sand	Bare ground (%):	1
Rocks (%) and type:	2%, laterite	Soil colour:	/
Litter:	95% (leaves,twigs,branches)	Vegetation condition:	very good - good



Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: Q4

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, Q4: Page 2 of 2

Species Data

* denotes non-native species

Status	Confirmed name	Cover (%)
	Amphipogon laguroides	0.5
	Amphipogon laguroides	0.1
	Austrostipa ?mollis	0.1
	Banksia grandis	opp
*	*Briza maxima*	0.1
	Chamaescilla corymbosa var. corymbosa	0.1
	Eucalyptus marginata	70
	Hakea lissocarpha	1
	Hakea prostrata	opp
	Hibbertia commutata	0.5
	Hypochaeris radicata	0.1
	Kennedia prostrata	0.1
	Lomandra ?sonderi	0.1
	Lomandra hermaphrodita	0.1
	Persoonia longifolia	opp
	Thysanotus patersonii	0.1
	Xanthorrhoea preissii	0.5

Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R5

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R5: Page 1 of 2

Quadrat and landform details

Sample type:	releve	Size:	other
NW corner easting:	435559.9838	NW corner northing:	6315131.31
Altitude (m):	0	Geographic datum/zone:	GDA94/Zone 50
Soil water content:	dry	Landform:	mid-slope
Time since fire:	> 5 yrs	Disturbance:	moderate - grazing
Soil type/texture	loam/sand	Bare ground (%):	1
Rocks (%) and type:	No rocks	Soil colour:	/
Litter:	% (,,)	Vegetation condition:	Good



Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R5

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R5: Page 2 of 2

Species Data

* denotes non-native species

Status	Confirmed name
	Acacia pulchella var. glaberrima
	Austrostipa ?mollis
	Corymbia calophylla
*	*Ehrharta longiflora*
	Eucalyptus marginata
	Eucalyptus wandoo
	Hakea lissocarpha
	Lomandra hermaphrodita
	Persoonia longifolia
	Rytidosperma sp.
*	*Trifolium dubium*
	Xanthorrhoea preissii
	Xanthorrhoea preissii

Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R6

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R6: Page 1 of 2

Quadrat and landform details

Sample type:	releve	Size:	10 m x 10 m
NW corner easting:	434388.5879	NW corner northing:	6315111.163
Altitude (m):	0	Geographic datum/zone:	GDA94/Zone 50
Soil water content:	damp	Landform:	waterway
Time since fire:	> 5 yrs	Disturbance:	high - Weeds, clearing
Soil type/texture	loam/sand	Bare ground (%):	1
Rocks (%) and type:	No rocks	Soil colour:	/
Litter:	% (,,)	Vegetation condition:	Degraded



Vegetation Sample Data
Collie BESS and Solar PV

Sample Name: R6

Project no.: EP24-016
Date: 29/02/2024, 17/10/2024 **Status** Non-permanent
Author: MS, R6: Page 2 of 2

Species Data

* denotes non-native species

Status	Confirmed name
*	*Bromus sp.*
*	*Carex divisa*
*	*Cirsium vulgare*
*	*Cotula coronopifolia*
*	*Cyperus congestus*
*	*Ehrharta longiflora*
	Eucalyptus rudis
*	*Polypogon monspeliensis*
	Typha orientalis

Appendix C

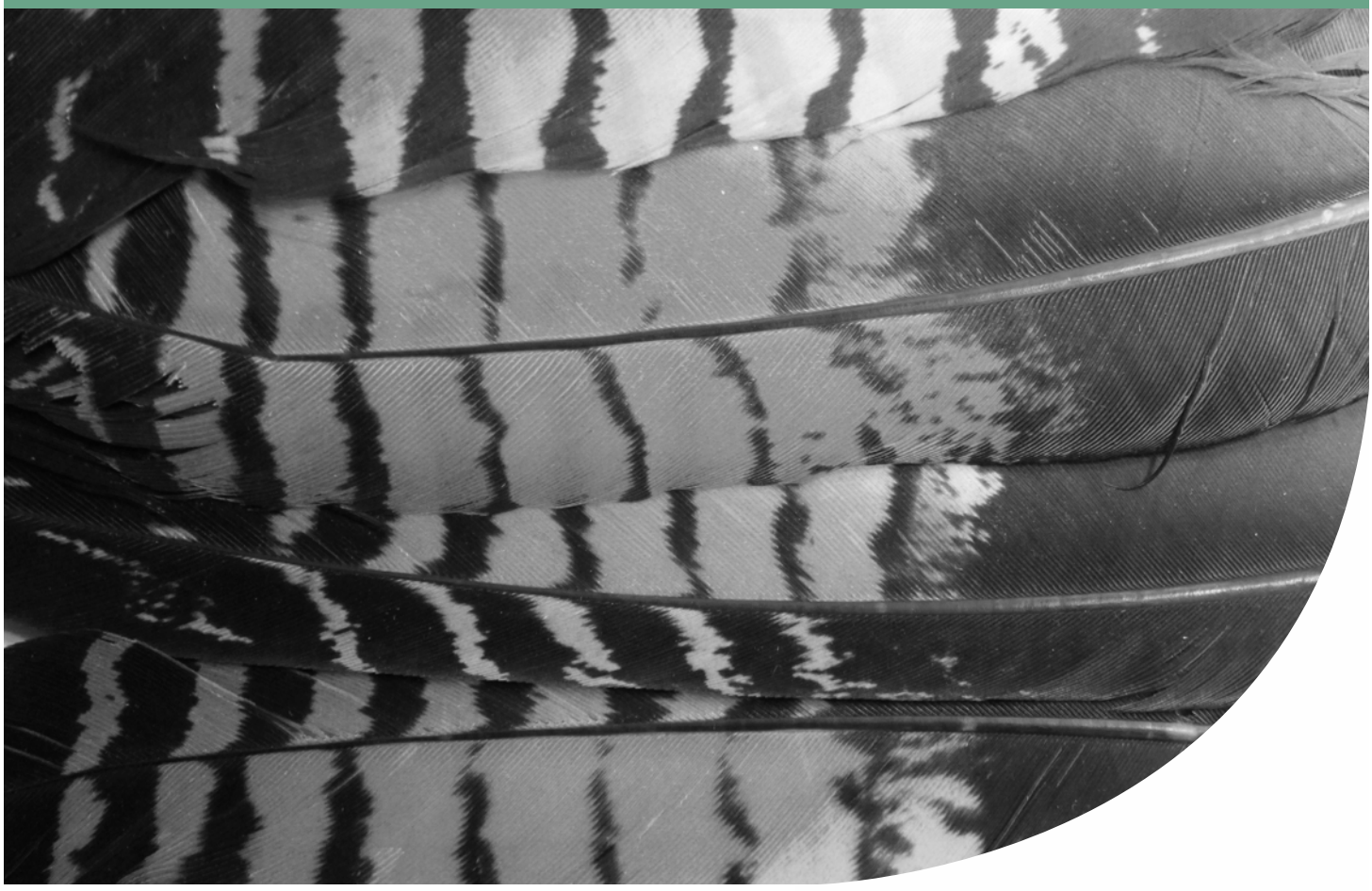
Basic Fauna and Targeted Black Cockatoo Assessment

Basic Fauna and Targeted Black Cockatoo Assessment

Collie BESS and Solar PV Project

Project No: EP24-016(03)

Prepared for Enpowered Pty Ltd
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Executive Summary

Enpowered Pty Ltd, a subsidiary of Hesperia Property Pty Ltd, engaged Emerge Associates to conduct a basic fauna and a targeted black cockatoo assessment within multiple lots in Collie which are associated with the Collie Palmer BESS and Solar PV project (referred to herein as the 'site').

As part of the assessment a desktop review of relevant background information was completed, and a field survey was undertaken on 28 February to 1 March, 17 October and 6 December 2024. During the field survey opportunistic sightings of fauna were recorded and an assessment was made on the fauna habitat within the site and its suitability to provide habitat for threatened, specially protected and priority fauna. A targeted black cockatoo survey was also undertaken within part of the site to determine the presence of habitat for threatened black cockatoo species.

Outcomes of the basic fauna assessment include the following:

- A total of 36 native and five non-native fauna species were recorded within the site.
- Three threatened species were recorded during the survey:
  - Carnaby's black cockatoo (endangered (EN) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Biodiversity Conservation Act 2016* (BC Act)
  - Baudin's black cockatoo (EN under the EPBC Act and BC Act)
  - Forest red-tailed black cockatoo (vulnerable (VU) under the EPBC Act and BC Act).
- Despite not being recorded during the survey, the following species were considered to have a high or moderate likelihood of occurring within the site:
  - Pacific swift (migratory (MI) under the EPBC Act)
  - Peregrine falcon (OS under the BC Act)
  - Western rosella (inland) (priority 4 (P4) in WA)
  - Chuditch (VU under the EPBC Act and BC Act)
  - Quenda (P4 in WA)
  - Quokka (VU under the EPBC Act and BC Act)
  - South-western brush-tailed phascogale (conservation dependent under the BC Act)
  - Western false pipistrelle (P4 in WA)
  - Western ringtail possum (critically endangered under the EPBC Act and BC Act)
  - Dell's skink (P4 in WA)
  - Rakali (P4 in WA)
- The site consists of five broad habitat types:
  - **Eucalyptus forest:** open forest *Eucalyptus marginata* and/or *Corymbia calophylla* and occasional *Banksia grandis* over occasional *Hakea prostrata*, *Persoonia longifolia* and *Xanthorrhoea preissii* over sparse shrubland (57.96 (ha).
  - **Riparian woodland:** scattered *Eucalyptus marginata* and *Corymbia calophylla* trees over weeds (56.17 ha).
  - **Scattered trees and shrubs**: occasional scattered eucalypts or non-native trees (24.09 ha).
  - **Grassland and bare ground**: heavily disturbed areas comprising predominantly non-native grassland of pasture weeds and scattered native and non-native trees (281.70 ha).
  - **Dams: non-vegetated** areas and water bodies associated with dams (0.72 ha).

Outcomes of the targeted black cockatoo survey include the following:

- All three species of black cockatoo were recorded in the survey area.
- The site occurs within the modelled distribution of all three species but only the breeding distribution of Carnaby's black cockatoo and forest red-tailed black cockatoo.
- The survey area contains 1,354 habitat trees of which 32 contain hollows suitable for use by black cockatoos for breeding from ground inspection. Therefore, the site does currently provide suitable breeding habitat for Carnaby's black cockatoo and forest red-tailed black cockatoo.
- White-tailed black cockatoo (most likely Carnaby's black cockatoo) and forest red-tailed black cockatoo roosts occur in close proximity to the site (Birdlife Australia 2023). No roosts or evidence of roosting by any species of black cockatoo was recorded within the site during the field survey. Tall native and non-native trees within the site represent suitable roosting habitat for species of black cockatoo.
- A total of 71.06 ha of foraging habitat for Carnaby's black cockatoo was mapped within the of which 70.63 ha (99.4%) comprises native primary plants and 0.43 ha (0.6%) comprises native secondary plants.
- A total of 70.57 ha of foraging habitat for Baudin's black cockatoo was mapped within the of which 68.58 ha (97.18%) comprises native primary plants and 1.99 ha (2.82%) comprises native secondary plants.
- A total of 71.06 ha of foraging habitat for forest red-tailed black cockatoo was mapped within the of which 70.63 ha (99.4%) comprises native primary plants and 0.43 ha (0.6%) comprises native secondary plants.
- Additional areas of foraging habitat of similar or higher value occur adjacent to the site and in the wider local area including areas designated as state forest.

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Appendix A

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Appendix B

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Appendix C

Conservation significant species and likelihood of occurrence assessment

Appendix D

Black cockatoo foraging plants species list

Appendix E

Black cockatoo roost counts

Appendix F

Species list

Appendix G

Black cockatoo habitat tree data

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Abbreviation Tables

Table A1: Abbreviations – Organisations

Organisations	
ALA	Atlas of Living Australia
BoM	Bureau of Meteorology
EPA	Environmental Protection Authority
DAWE	Department of Agriculture, Water and the Environment (now DCCEEW)
DBCA	Department of Biodiversity, Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DoW	Department of Water (now DWER)
DPaW	Department of Parks and Wildlife (now DBCA)
DPIRD	Department of Primary Industries and Regional Development
DWER	Department of Water and Environmental Regulation
WAM	Western Australian Museum
WALIA	Western Australian Land Information Authority

Table A2: Abbreviations – Conservation codes

Conservation Codes	
CD	Conservation dependent
CR	Critically endangered
EN	Endangered
MI	Migratory
P1	Priority 1
P2	Priority 2
P3	Priority 3
P4	Priority 4
OS	Other specially protected
VU	Vulnerable

Table A3: Abbreviations –Legislation

Legislation	
BAM Act	*Biosecurity and Agriculture Management Act 2007*
BC Act	*Biodiversity Conservation Act 2016*
CALM Act	*Conservation and Land Management Act 1984*
EBPC Act	*Environment Protection and Biodiversity Conservation Act 1999*
LA Act	*Land Administration Act 1997*
SCRM Act	*Swan and Canning Rivers Management Act 2006*

Table A4: Abbreviations – Units of measurement

Units of measurement	
DBH	Diameter at breast height
cm	Centimetre
ha	Hectare
km	Kilometre
m	Metre
m AHD	m in relation to the Australian height datum
mm	Millimetre

Table A5: Abbreviations - General

General terms	
AFD	Australian Faunal Database
DP (C3)	Category 3 Declared Pest
IBRA	Interim Biogeographic Regionalisation for Australia
MNES	Matters of National Significance
UFI	Unique Feature Identifier

1 Introduction

1.1 Purpose

Enpowered Pty Ltd, a subsidiary of Hesperia Property Pty Ltd, engaged Emerge Associates to conduct a basic fauna and targeted black cockatoo assessment within the following lots in Collie (referred to herein as the 'site' and shown in **Figure 1**):

- Lot 1179 on P232886
- Lot 1164 on P232886 (4873 Collie-Wiliams Road)
- Lot 785 on P232871 (4997 Collie-Williams Road)
- Lot 788 on P232871
- Lot 787 on P232871
- Lot 786 on P232871
- Part Lot 613 on P251358
- Part Lot 775 on P232871
- Part Lot 784 on P232871
- Part Lot 782 on P232871
- Crown land (creek to the south of Collie-Williams Road)
- Public road reserve.

Fauna assessments are required to characterise fauna values and, in particular, confirm the presence or absence of values relevant to environmental approvals process, such as 'fauna habitat', 'threatened' fauna, 'specially protected' fauna and 'priority' fauna.

1.2 Legislation and policy

Fauna may be listed as threatened, extinct or specially protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the State *Biodiversity Conservation Act 2016* (BC Act). Threatened fauna are classified as either 'critically endangered' (CR), 'endangered' (EN) or 'vulnerable' (VU). Extinct species are classified as 'extinct' (EX) or 'extinct in the wild' (EW)[1]. Specially protected species are classified as 'migratory species' (MI), 'species of special conservation interest' (CD) or 'other specially protected' (OS). Commonwealth and/or State ministerial approval is required to impact threatened and specially protected fauna.

Native fauna that are not listed as threatened or specially protected, but are otherwise rare, under threat or poorly known, may be added to a Department of Biodiversity Conservation and Attractions (DBCA) priority list. Priority fauna are classified as either 'priority 1' (P1), 'priority 2' (P2), 'priority 3' (P3) or 'priority 4' (P4). Priority listing does not afford direct statutory protection. However, the classification of priority species is taken into account during State and Local government approval processes.

[1] Currently there are no threatened species listed as extinct in the wild in Western Australia.

Non-native fauna that are regarded as having negative environmental or economic impacts may be listed as a 'declared pest' pursuant to the *State Biosecurity and Agriculture Management Act 2007* (BAM Act). Management of declared pests may be required during government approval processes.

Further information on legislation and policy relevant to fauna assessments is provided in **Appendix A**.

1.3 Scope of work

The scope of work was specifically to undertake a terrestrial vertebrate fauna assessment to the standard required of a 'basic' fauna survey and a 'targeted' black cockatoo survey with reference to the Environmental Protection Authority's (EPA's) technical guidance (EPA 2020) and the *Environment Protection and Biodiversity Conservation Act* black cockatoo referral guidelines (DAWE 2022).

As part of this scope of work, the following tasks were undertaken:

- Desktop study to provide contextual information and determine the likelihood of occurrence of threatened, specially protected and priority fauna.
- Field surveys to record fauna and fauna habitats, with a particular focus on habitat for threatened species of black cockatoo.
- Analysis and mapping of contextual information, fauna habitat and black cockatoo breeding, roosting and foraging (if present).
- Documentation of the desktop study, methods, results, discussion and conclusions.

2 Desktop Study

2.1 Site context

2.1.1 Location and extent

The site is located in the Shire of Collie in the South West Region of Western Australia and extends over 420.64 hectares (ha) as shown in **Figure 1**. The site is dissected by Collie-Williams Road which passes through the centre and is surrounded by farmland and native vegetation.

2.1.2 Climate

The Collie region of Western Australia experiences a Mediterranean climate of hot dry summers and cool wet winters (BoM 2024). Recent rainfall at the closest weather station to the site has been inconsistent with long term averages, with generally less than average rainfall in summer and greater than average rainfall in winter (see **Plate 1**) (BoM 2024). Targeted surveys should be undertaken during the season that is most suitable for detection and identification of the targeted species (EPA 2020).

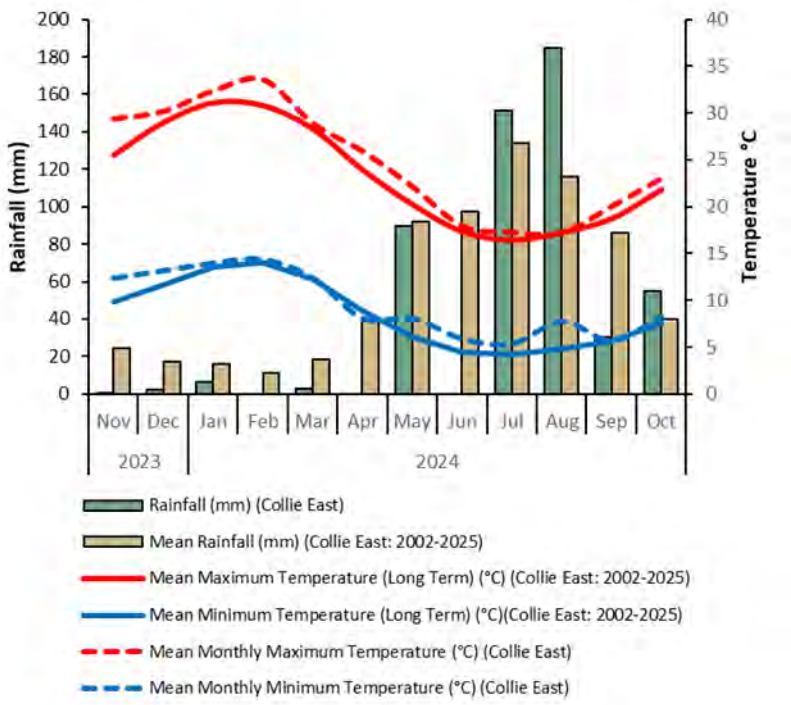


Plate 1: Rainfall and temperature 12 months prior to the initial survey date compared to long-term means

2.1.3 Geomorphology and soils

The site occurs on the Darling Plateau which is an ancient erosion surface capped with laterite and dissected by drainage channels (Beard 1990). The eastern part of the Plateau is characterised by flat-topped hills bound by breakaways and more prominent hills (monadnocks) which protrude above the

general level of the plateau (Gozzard 2011). The western part comprises valleys with steep, rocky slopes and narrow, flat floors (Gozzard 2011).

Fine scale soil landscape mapping by DPIRD (2022) shows four units as occurring within the site, as described in **Table 1** and shown in **Figure 2**.

Table 1: Soil landscape mapping units within the site (DPIRD 2022)

Soil landscape unit	Location within site	Description
Pindalup downstream valleys	Western, central and eastern portions	Shallow minor valleys (5-10 m) dominated by broad (75-250 m) swampy floors. Soils are loamy gravels, deep sands, with saline and non-saline wet soils on the valley floors.
Wilga ironstone gravel flats	Central-northern portion	Flats where the soil parent material is laterite. Soils are gravels with some sands.
Dwellingup ironstone gravel divides Phase	South-eastern portion	The soil parent material is laterite, soils are gravels with some sands.
Wilga Subsystem	Central-eastern portion	Broad gently undulating (1-5%) plains and low rises (2-15 m) with swampy depressions. Lateritic terrain over Eocene sediments. Soils are sandy and loamy gravels, with some deep sands, semi-wet soils and wet soils.

The site is not known to contain any restricted landforms or unique geological features.

2.1.4 Topography

The elevation of the site ranges from 200 metres in relation to the Australian height datum (mAHD) on the western side to 260 mAHD in the central portion (WALIA 2024) (**Figure 2**).

2.1.5 Hydrology and wetlands

Wetlands are areas of seasonally, intermittently or permanently waterlogged land such as poorly drained soils, ponds, billabongs, lakes, swamps, tidal flats, estuaries, rivers and their tributaries (Wetlands Advisory Committee 1977). Wetlands can be recognised by the presence of vegetation associated with waterlogging or the presence of hydric soils such as peat, peaty sand or carbonate mud (Hill et al. 1996). Wetlands of national or international significance may be afforded special protection under Commonwealth or international agreements. The following lists of important wetlands were checked as part of this assessment:

- Ramsar List of Wetlands of International Importance (DBCA 2017c)
- A Directory of Important Wetlands in Australia (DBCA 2018)

No Ramsar or listed 'important wetlands' are located within or near the site.

The Department of Water and Environmental Regulation (DWER) hydrology linear dataset (DWER 2018) records the following three water related features within the site:

- A major perennial watercourse along the western boundary (Bingham River)
- Eight earth dams
- A minor drain along the southern boundary.

2.1.6 Regional vegetation

Native vegetation is described and mapped at different scales to illustrate patterns in its distribution. At a continental scale the *Interim Biogeographic Regionalisation for Australia* (IBRA) divides Australia into floristic subregions (Environment Australia 2000). The site is contained within the Jarrah Forest region and within the 'JF1' or northern jarrah forest subregion. The northern jarrah forest subregion is characterised by *Eucalyptus marginata* (jarrah) – *Corymbia calophylla* (marri) forest on laterite gravels with *Eucalyptus wandoo* – marri woodlands in the eastern part (CALM 2003).

Variations in native vegetation can be further classified based on regional vegetation mapping. DBCA (2019) mapping shows the site as comprising four vegetation complexes as outlined in **Table 2**.

The vegetation complexes outlined in **Table 2** were determined to have varying percentages of their pre-European extent remaining on the Swan Coastal Plain in 2018, with differing percentages protected for conservation purposes (Government of Western Australia 2019).

Table 2: Vegetation complex units mapped within the site (DBCA 2019)

Vegetation complex	Location within site	Description
Dwellingup (D4)	Northern portion	Open forest to woodland of *Eucalyptus marginata* subsp. *thalassica-Corymbia calophylla* on lateritic uplands in semiarid and arid zones.
Pindalup	Central-northern portion	Open forest of *Eucalyptus marginata* subsp. *thalassica-Corymbia calophylla* on slopes and open woodland of *Eucalyptus wandoo* with some *Eucalyptus patens* on the lower slopes in semiarid and arid zones.
Swamp	Western, central and eastern portions	Mosaic of low open woodland of *Melaleuca preissiana-Banksia littoralis*, closed scrub of *Myrtaceae* spp., closed heath of *Myrtaceae* spp. and sedgelands of *Baumea* and *Leptocarpus* spp. on seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones.
Yarragil 2	Southern portion	Open forest of *Eucalyptus marginata* subsp. *thalassica-Corymbia calophylla* on slopes, woodland of *Eucalyptus patens-Eucalyptus rudis* with *Hakea prostrata* and *Melaleuca viminea* on valley floors in subhumid and semiarid zones.

2.1.7 Historic land use

Review of historical images available from 1996 onwards shows that most of the site had been cleared of native vegetation by 1996 and was in a similar state to current conditions. Since 1996 there has been some land-use changes, such as the construction of earth dams, and some infrastructure such as housing (WALIA 2025).

2.1.8 Ecological linkages

Ecological linkages are linear landscape elements that allow the movement of fauna, flora and genetic material between areas of remnant habitat. This exchange of genetic material between vegetation remnants improves the viability of those remnants by allowing greater access to breeding partners and food sources, refuge from disturbances such as fire and maintenance of genetic diversity of plant communities and populations. Ecological linkages are ideally continuous or near-

continuous as the more fractured a linkage is, the less ease flora and fauna have in moving within the corridor (Alan Tingay and Associates 1998).

The South West Biodiversity Project identified and mapped ecological linkages within the South West region of Western Australia (Molloy *et al.* 2009). One ecological linkage (no. 186) runs along the western boundary and intersects the site north of Collie-Williams Road. Review of aerial imagery indicates that some vegetation within the site is associated with this linkage.

2.1.9 Threatened, specially protected and priority fauna

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) has compiled various datasets relating to 'matters of national environmental significance' (MNES) (DCCEEW 2025). The *Protected Matters Search Tool* provides general guidance on threatened and specially protected fauna listed under the EPBC Act that may occur within a location based on validated records and less reliable unvalidated habitat distribution modelling (DCCEEW 2025).

DBCA's *Threatened and Priority Fauna* database as well as the spatial portal of the Atlas of Living Australia (ALA) contain records of threatened specially protected and priority fauna in Western Australia (ALA 2025; DBCA 2025). Searches of these databases provide point data for threatened, specially protected and priority fauna within a location, comprising validated and historical unvalidated records.

A search was conducted for fauna species that have been recorded within a 20 km radius of the site using the *Protected Matters Search Tool* (DCCEEW 2025), *NatureMap* (DBCA 2024a), DBCA's conservation significant fauna database (reference no. 17-0224FA (DBCA 2024b), Atlas of Living Australia (ALA 2025) and literature references.

A total of 1268 fauna species were identified from database searches as occurring or potentially occurring within 20 km of the site[2] as listed in **Appendix B.**

2.1.10 Pest fauna

The term 'pest fauna' can refer to any animal that requires some form of action to reduce its effect on the economy, the environment, human health and amenity. Pest fauna species are generally not native but some Australian or Western Australian fauna may also be considered pests.

A particularly invasive or detrimental pest species may be listed as a 'declared pest' pursuant to Western Australia's *Biosecurity and Agriculture Management Act 2007* (BAM Act), indicating that it warrants special management to limit its spread. Current pest status and control categories for Western Australia are provided in the *Western Australian Organism List* (DPIRD 2025). Further information on categories of declared pests is provided in **Appendix A**.

2.1.11 Previous surveys

No previous fauna surveys are known to have been undertaken over the site.

[2] Includes native and non-native species

2.2 Likelihood of occurrence

The distribution and habitat preferences of the threatened and priority fauna species listed in **Appendix B** was reviewed against site context information described in **Section 2.1**. Likelihood of occurrence of threatened, specially protected and priority fauna species within the site was classified as 'high', 'moderate', 'low', 'very low, 'negligible' or 'nil' as outlined in **Table 3**.

Table 3: Likelihood of occurrence assessment categories and definitions

		Reliable record[1]		Unreliable record[2]
		Access to site not impeded	Access to site impeded	
Habitat	Suitable	High	Very low	Negligible
	Potentially suitable	Moderate		
	Unsuitable	Low		
	Absent	Nil		

[1]Reliable record defined as DBCA or validated ALA record from the last ~20 years, [2]Unreliable record defined as record >20 years old or PMST prediction.

Six threatened, three specially protected and five priority species were classified as having a 'high' or 'moderate' likelihood of occurrence. The legislative or policy status and habitat preferences of these species are shown in **Table 4**.

The remainder of the conservation significant fauna species identified in the desktop assessment (22 species) were considered as having a 'low', 'very low', 'negligible' or 'nil' likelihood of occurrence. Refer to **Table 4** and **Appendix C** for detail on individual species likelihood of occurrence.

Table 4: Summary of conservation significant fauna species with a 'high' or 'moderate' likelihood of occurrence in the site

Species name	Common name	Status		Habitat description	Likelihood
		WA	EPBC Act		
Birds					
Apus pacificus	Pacific Swift	MI	MI	Aerial, migratory species that is most often seen over inland plains and sometimes above open areas, foothills or in coastal areas. Sometimes occurs over settled areas, including towns, urban areas and cities.	Moderate
Calyptorhynchus banksii nasho	Forest red-tailed black cockatoo	VU	VU	Eucalypt and Corymbia forests, often in hilly interior. More recently also observed in more open agricultural and suburban areas including Perth metropolitan area. Attracted to seeding *Corymbia calophylla, Eucalyptus marginata,* introduced *Melia azedarach* and *Eucalyptus* spp. trees (Johnstone et al. 2013).	High
Falco peregrinus	Peregrine falcon	OS	-	Mainly found around cliffs along coasts, rivers, ranges and around wooded watercourses and lakes	Moderate

Table 4: Summary of conservation significant fauna species with a 'high' or 'moderate' likelihood of occurrence in the site (continued)

Species name	Common name	Status		Habitat description	Likelihood
		WA	EPBC Act		
Platycercus icterotis xanthogenys	Western rosella (inland)	P4	-	Open eucalypt woodlands with heath understorey (Pizzey & Knight 2012).	Moderate
Zanda baudinii	Baudin's black cockatoo	EN	EN	Mainly eucalypt forests. Attracted to seeding *Corymbia calophylla*, Banksia spp., Hakea spp., and to fruiting apples and pears	High
Zanda latirostris	Carnaby's black cockatoo	EN	EN	Mainly proteaceous scrubs and heaths and adjacent eucalypt woodlands and forests; also plantations of *Pinus* spp. Attracted to seeding *Banksia* spp., *Dryandra* spp., *Hakea* spp., *Eucalyptus* spp., *Corymbia calophylla*, *Grevillea* spp., and *Allocasuarina* spp.	High
Mammals					
Dasyurus geoffroii	Chuditch	VU	VU	Wide range of habitats from woodlands, dry sclerophyll forests, riparian vegetation, beaches and deserts. Appears to utilise native vegetation along roadsides in the wheatbelt (DEC 2012).	Moderate
Falsistrellus mackenziei	Western false pipistrelle	P4	-	High rainfall forests dominated by jarrah, karri, marri, and tuart. Occupies hollow logs for breeding and resting (Van Dyck and Strahan 2008). Also known to utilise Banksia woodland on the Swan Coastal Plain (Hosken and O'Shea 1995).	High
Hydromys chrysogaster	Rakali	P4	-	Areas with permanent water, fresh, brackish or marine. Likely to occur in all major rivers and most of the larger streams as well as bodies of permanent water in the lower south-west (Christensen et al. 1984). Intact riparian vegetation and associated bank stability is critical to their survival (DWER 2023).	Moderate
Isoodon fusciventer	Quenda	P4	-	Dense scrubby, often swampy, vegetation with dense cover up to one metre high (DEC 2012)	High
Phascogale tapoatafa wambenger	South-western brush-tailed phascogale	CD	-	Dry sclerophyll forests and open woodlands that contain hollow-bearing trees but a sparse ground cover (Triggs 2003).	High

Table 4: Summary of conservation significant fauna species with a 'high' or 'moderate' likelihood of occurrence in the site (continued)

Species name	Common name	Status		Habitat description	Likelihood
		WA	EPBC Act		
Pseudocheirus occidentalis	Western ringtail possum	CR	CR	On the Swan Coastal Plain in *Agonis flexuosa* woodlands and *Agonis flexuosa/ Eucalyptus gomphocephala* forests. Also *Eucalyptus marginata* forests (DBCA 2017).	Moderate
Setonix brachyurus	Quokka	VU	VU	On the mainland mostly dense streamside vegetation or shrubland and heath areas, particularly around swamps (Cronin 2007).	Moderate
Reptiles					
Ctenotus delli	Dell's skink	P4	-	Jarrah and marri woodland with a shrub dominated understorey, sheltering in dense vegetation, inside grass trees and beneath rocks, sometimes in burrows (Nevill 2005).	Moderate

2.3 Black cockatoos

Three threatened species of black cockatoo occur in the south-west of WA (referred to herein collectively as 'black cockatoos'):

- *Zanda*[3] *latirostris* (Carnaby's black cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Zanda*[3] *baudinii* (Baudin's black cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) which is listed as 'vulnerable' under the EPBC Act and the BC Act.

Black cockatoo habitat is conventionally separated into breeding, roosting and foraging categories. **Breeding habitat** refers to 'habitat trees' which consist of native trees of a suitable species that either contain nesting hollows or have a large enough diameter at breast height[4] (DBH) to develop a nesting hollow over time (DAWE 2022). Black cockatoos typically utilise breeding habitat within their defined breeding season: August to March for Baudin's black cockatoo, July to December for Carnaby's black cockatoo breed and throughout the year for forest red-tailed black cockatoo, with peaks in April – June and August – October (DAWE 2022). **Roosting habitat** consists of a stand of tall trees (>8 m) within 6 km of water and food resources and 12 km of additional foraging resources where black cockatoos rest overnight (Shah 2006; Glossop *et al.* 2011; Le Roux 2017; DAWE 2022). **Foraging habitat** is vegetation that black cockatoos are known to feed on, which varies between black cockatoo species (Groom 2011; Johnstone *et al.* 2011; DAWE 2022). A full range of foraging plants and their foraging category assigned by Emerge Associates is available in **Appendix D**.

[3] Previously *Calyptorhynchus*
[4] ≥50 cm or ≥30 cm for wandoo or salmon gum

A review of black cockatoo datasets was undertaken as outlined in **Table 5** and shown in **Figure 4**. Further information on black cockatoo habitat is available in **Appendix A**. Counts for all known black cockatoo roosts within 12 km are available in **Appendix E**.

Table 5: Summary of black cockatoo background review

Category	Black cockatoo site context			Source
	Carnaby's	Baudin's	Forest red-tailed	
Site located within species distribution	Yes	Yes	Yes	(DAWE 2022)
Site in known breeding distribution	Yes	No	N/A*	(DAWE 2022)
Confirmed or possible breeding hollows within 12 kmˇ	0		0	(Glossop *et al.* 2011; DBCA 2024c)
Site located in important bird area	No	N/A	N/A	(DPaW 2013; BirdLife International 2024)
Known roosts occur within site^	0		0	(Birdlife Australia 2024)
Known roosts occur within 12 km of site^	1		1	
Potential foraging habitat within site	Yes	Yes	Yes	(Forest Products Commission 2020; Emerge Associates 2021)
Potential foraging habitat in local area (including pine plantations)	Yes	Yes	Yes	

*Whilst no datasets of breeding distributions are available for forest red-tailed black cockatoos, they are known to breed across their range (Johnstone *et al.* 2013).
ˇResults from DBCA database search.
^'White-tailed black cockatoo roosts can be Carnaby's black cockatoo and/or Baudin's black cockatoo.

3 Methods

3.1 Field survey

Two zoologists from Emerge visited the site on the following dates to conduct the basic fauna and targeted black cockatoo assessment:

- 28 February – 1 March 2024
- 17 October 2024
- 6 December 2024

Transects were traversed across the site during the day to evaluate the fauna habitat and record the presence of fauna species. An opportunistic fauna list was compiled which included evidence of species presence such as tracks, scats, skeletal remains, foraging evidence and calls.

3.1.1 Targeted black cockatoo

Transects were traversed across the site and the presence of potential black cockatoo breeding[5], night roosting and foraging habitat was recorded. If observed, the presence of black cockatoos within or near the site was noted. Active searches for evidence of breeding, roosting and foraging activity such as chew marks, branch clippings, droppings, moulted feathers and chewed marri or banksia fruit were conducted.

3.1.1.1 Breeding habitat

All native eucalypts within the tree survey area that met the required DBH were recorded. Occasionally, native eucalypts were encountered that met DBH requirements but did not contain a trunk/branch of a sufficient size to support a hollow suitable for use by black cockatoos. For example, the tree may have been less than 3 m tall or had a trunk that forked between 1.3 m and 3 m in height and after the fork no limbs had a diameter of ≥50 cm or ≥30 cm for wandoo or salmon gum. These trees were not recorded as habitat trees as the likelihood they would form a suitable hollow was low.

Habitat trees were individually identified and the attributes outlined in **Table 6** were recorded for each tree.

[5] Note breeding habitat was only assessed within the tree survey area.

Table 6: Attributes recorded for each habitat tree in the tree survey area

Attribute	Description
GPS location	The location was recorded using a handheld GPS unit
Tree species	Species and common name were identified
Diameter at breast height (DBH) (cm)	DBH was measured at breast height (1.3 m) using a diameter tape
Hollows potentially suitable for breeding by a black cockatoo	Number of hollows potentially suitable for breeding by a black cockatoo recorded (assessed from ground level only)

Each habitat tree was assigned to a category listed in **Table 7** based on current black cockatoo guidelines (DAWE 2022).

Table 7: Habitat tree categories (DAWE 2022)

Category	Specifications
Known nesting tree	Trees (live or dead but still standing) which contains a hollow where black cockatoo breeding has been recorded or which demonstrates evidence of breeding (i.e. showing evidence of use through scratches, chew marks or feathers).
Suitable nesting tree	Trees with suitable nesting hollows present^, although no evidence of use. Note that any species of tree may develop suitable hollows for breeding.
Potential nesting tree	Trees that have a suitable DBH to develop a nest hollow, but do not currently have suitable nesting hollows. Trees suitable to develop a nest hollow in the future are ≥300 or ≥500 mm DBH. Note that many species of eucalypt may develop suitable hollows for breeding.

^Hollow determined to be suitable for use as breeding habitat by black cockatoos as listed above in **Section 3.1.1.1**

3.1.1.2 Roosting habitat

If present, groups of tall native and non-native trees were assumed to provide roosting habitat. The presence of active or historical roosts in these trees was determined through evidence of roosting activity, such as branch clippings, droppings or moulted feathers.

3.1.1.3 Foraging habitat

Foraging habitat was identified by assessing vegetation in the site for plant species known to provide food for black cockatoos (Davies 1966; Saunders 1980; Johnstone and Storr 1998; Johnstone and Kirkby 1999; Groom 2011; Johnstone *et al.* 2011; DAWE 2022).

Foraging habitat was classified as either 'native' or 'non-native' based on the predominant vegetation's naturalised status and in accordance with DAWE (2022).

It was also classified as either 'primary' or 'secondary' based on black cockatoo foraging preferences. Primary food plants were defined as those with historical and contemporary records of regular consumption by a black cockatoo species. Secondary food plants were defined as plants that black cockatoo species have been recorded consuming occasionally or that, based on their limited extent or agricultural origin, should not be considered a sustaining resource. A list of plant species classified as primary or secondary food plants is provided as **Appendix D**.

Each patch of foraging habitat was assigned a foraging value for each species of black cockatoo likely to occur within the site. As it is not always possible to separate out food plants from non-food plants,

mapped foraging habitat may also include vegetation comprising non-food plants. The proportion of non-food plants in mapped foraging habitat was minimised as far as practicable.

Evidence of black cockatoo foraging, such as chewed fruits, was searched for within the site and allocated to a black cockatoo species where possible.

3.2 Data analysis

3.2.1 Fauna identification

Fauna observed during the survey were identified in the field unless unknown. Where fauna was unknown, photographs and/or noted observations were recorded. Unknown fauna was identified through the use of taxonomic keys and field guides.

3.2.1.1 Nomenclature and sources of information

Taxonomy and nomenclature of scientific and common names for mammals, reptiles and amphibians follow *the Western Australian Museum* (WAM) *Checklist of the Terrestrial Vertebrate Fauna of Western Australia* (WAM 2022). For birds taxonomy and nomenclature of scientific and common names follows the Australian Faunal Directory (AFD)(DCCEEW 2024). Where common names were not provided by the WAM or the AFD, these have been derived from other sources as noted.

Literature listed in **Appendix A** represent the main publications used to identify fauna species and habitats within the site.

3.2.2 Fauna habitat

Fauna habitats were described according to the habitat assessment results as well as the dominant flora species and vegetation type present, as determined from observations made during the field survey and information provided in the '*Reconnaissance Flora and Vegetation Assessment'* (Emerge Associates 2025).

The identified fauna habitats were mapped on aerial photography with the boundaries interpreted from aerial photography, Emerge Associates (2025) plant communities and notes taken in the field.

3.2.3 Black cockatoo habitat

3.2.3.1 Habitat trees

Habitat trees were classified according to the scheme outlined in **Table 7** and mapped on aerial imagery. A complete summary of the recorded attributes of habitat trees was compiled in a tabular format.

3.2.3.2 Roosting habitat

In accordance with DAWE (2022), trees within 500 m of a known night roosting tree are part of a 'night roosting site'. Therefore all vegetation in this site that lies within 500 m of a registered roost from Birdlife Australia's *Great Cocky Count Roost Dataset* (2024) were classified as a night roosting site and mapped on aerial imagery.

3.2.3.3 Foraging habitat value

Foraging habitat was described according to the dominant flora species or vegetation type present and mapped using boundaries interpreted from aerial photography and notes taken in the field. The foraging value of each patch of foraging habitat was attributed separately for each species of black cockatoo likely to occur in the site. Foraging value was assigned as outlined in **3.1.1.3**.

3.3 Survey limitations

It is important to note the specific constraints imposed on surveys and the degree to which these may have limited survey outcomes. An evaluation of the survey methodology against standard constraints outlined in the EPA's document *Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment* (EPA 2020) is provided in **Table 8**.

Table 8: Evaluation of survey methodology against standard constraints outlined in the EPA's Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020)

Constraint	Degree of limitation	Details
Level of survey	No limitation	A basic survey (desktop study and field survey) in combination with a targeted black cockatoo survey was undertaken. The level of survey and survey effort are considered adequate to assess the fauna and black cockatoo habitat values within the site. Recommendations for further targeted survey are outlined in the discussion and conclusions sections but a detailed level survey is not considered to be required. EPA (2020) state that basic and targeted level surveys are usually sufficient in the jarrah forest bioregion in which the site lies.
Scope	No limitation	The survey focused on vertebrate fauna and habitat values, with particular focus on black cockatoos and other conservation significant taxa with potential to occur within the site.
Proportion of fauna identified, recorded and/or collected.	No limitation	All observed vertebrate fauna were identified.
Sources of information e.g. previously available information (whether historic or recent) as distinct from new data.	No limitation	Adequate information was available from database searches, previous surveys and literature references.
The proportion of the task achieved and further work which might be needed.	No limitation	The task was achieved in its entirety.
Experience level of personnel	No limitation	This fauna and black cockatoo assessment was undertaken by two qualified zoologist with over five and three years of zoological experience in Western Australia and two environmental consultants with two years of environmental experience. Technical review was undertaken by a senior environmental consultant with over 15 years' experience in environmental science in Western Australia.
Suitability of timing, weather and season	No limitation	Survey timing is not considered to be of great importance for basic fauna assessments but the weather conditions during the survey were ideal for detecting fauna species. The survey was undertaken during breeding and non-breeding season for Carnaby's black cockatoo and Baudin's black cockatoo.

Table 8: Evaluation of survey methodology against standard constraints outlined in the EPA's Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020) (continued)

Constraint	Degree of limitation	Details
Completeness	No limitation	The desktop assessment, field survey and targeted black cockatoo components of the survey were completed comprehensively.
Spatial coverage and access	No limitation	Site coverage was comprehensive (track logged).
	No limitation	All parts of the site could be accessed as required.
Survey intensity	No limitation	The intensity of the survey was adequate given the size of the site and the relatively low habitat value present.
Influence of disturbance	No limitation	The site is highly modified due to historical disturbance. However, no recent disturbance was noted that may have affected outcomes of the survey.
Adequacy of resources	No limitation	All resources required to perform the survey were available. The guidance currently available from Commonwealth and State agencies on the assessment of black cockatoo habitat is limited and relies heavily on technical experts preparing their own methodology. This assessment applies an internally developed methodology that is considered to provide a systematic and balanced characterisation of black cockatoo habitat.
Compliance with EPA (2020) guidance	No limitation	The EPA guidance requires that a full list of all fauna species with potential to occur within the site is compiled. As part of this assessment a comprehensive list of fauna species of conservation significance was compiled. Non-conservation taxa with potential to occur within the site were not compiled into a list but are provided as raw data in **Appendix B**. Given that all species with potential to occur within the site are still identified within the relevant appendices this is not considered to affect the outcomes of this assessment.

4 Results

4.1 Fauna

4.1.1 Species inventory

A total of 36 native and five non-native fauna species were directly or indirectly (from foraging evidence) recorded during the field survey.

A summary of legal and policy status of fauna records is provided in **Table 9**. A complete species list is provided in **Appendix F**.

Table 9: Summary of legal and policy status of taxa recorded in the site.

Status	Unlisted	Threatened	Specially Protected	Priority	Declared Pest	Total
Native	33	3	0	0	N/A	**36**
Non-native	3	N/A	N/A	N/A	2	**5**

4.1.2 Threatened, specially protected and priority fauna

Three threatened fauna species were recorded in the site during the survey:

- Forest red-tailed black cockatoos (VU) were recorded foraging on marri fruits.
- Carnaby's black cockatoos (EN) were recorded through foraging evidence on marri fruits.
- Baudin's black cockatoos (EN) were recorded through foraging evidence on marri fruits.

4.1.3 Declared pests

Two species listed as a declared pest (C3) pursuant to the BAM Act, **Oryctolagus cuniculus* (rabbit) and *Vulpes vulpes* (fox), were identified from scats within the site.

4.1.4 Fauna habitat

Five broad fauna habitats were identified within the site, as listed in in **Table 10**.

A description, the size of the area and a representative photograph of each habitat is provided in **Table 10**. The location of each fauna habitat and sample (habitat assessment) are shown on **Figure 5**.

Table 10: Fauna habitats identified within the site

Fauna habitat	Description	Total area (ha)	Proportion of site (%)	Representative photograph
Eucalypt forest	Open forest *Eucalyptus marginata* and/or *Corymbia calophylla* and occasional *Banksia grandis* over occasional *Hakea prostrata*, *Persoonia longifolia* and *Xanthorrhoea preissii* over sparse shrubland. • High microhabitat complexity. • Microhabitats consist of woody debris, fallen logs, areas of dense leaf litter. • High value habitat for a wide array of species from all fauna groups. • **Carnaby's black cockatoo**, **Baudin's black cockatoo**, **forest red-tailed black cockatoo** were recorded within the habitat. • Provides habitat for **Chuditch, Dell's skink, Pacific swift, peregrine falcon, Quenda, South-western brush-tailed phascogale, Western false pipistrelle, Western ringtail possum** and **Western rosella (inland)**.	57.96	14	
Riparian woodland	Scattered *Eucalyptus marginata* and *Corymbia calophylla* trees over weeds. • Moderate microhabitat complexity. • Microhabitats consist of woody debris, fallen logs. • High value habitat for a wide array of species from all fauna groups. When inundated likely supports amphibians. • Provides habitat for: **Pacific swift**, **peregrine falcon**, **rakali** and **quokka.**	56.17	13	

Table 10: Fauna habitats identified within the site (continued)

Fauna habitat	Description	Total area (ha)	Proportion of site (%)	Representative photograph
Scattered trees and shrubs	Occasional scattered eucalypts or non-native trees. • Low to medium microhabitat complexity • Likely to be used by avifauna and mammals traversing into other habitats. • Scattered marris and jarrah constitute foraging resources for **Baudin's black cockatoo**, **Carnaby's black cockatoo** and **forest red-tailed black cockatoo**.	24.09	6	
Grassland and bare ground	Heavily disturbed areas comprising predominantly non-native grassland of pasture weeds and scattered native and non-native trees. • Provides little value to fauna aside from occasional traversal between other habitats.	281.70	70	

Table 10: Fauna habitats identified within the site (continued)

Fauna habitat	Description	Total area (ha)	Proportion of site (%)	Representative photograph
Dams	Bare ground and water bodies associated with dams. • Low microhabitat complexity • Any fauna occurrences in these areas would likely be temporary while traversing to other areas. • Highly disturbed by livestock.	0.72	<1	

4.2 Black cockatoo habitat

4.2.1 Breeding

A total of 1,354 black cockatoo habitat trees were recorded within the tree survey area as shown in **Figure 6**.

The habitat trees comprised 391 marri, 543 jarrah, 364 *Eucalyptus rudis* (flooded gum), 2 *Eucalyptus todtiana* and 54 stag (dead) trees.

Of the 1,354 black cockatoo habitat trees, 32 were considered to have suitable hollows for breeding based on inspection from ground-level.

A summary of the habitat trees recorded within the site is provided in **Table 11** and an inventory in **Appendix G**.

Table 11: Habitat trees recorded within the site

Category	No. trees
Known nesting trees	0
Suitable nesting trees	32
Potential nesting trees	1322
Total nesting trees	1354

4.2.2 Roosting

No roosts or evidence of roosting were observed within the site during the survey. Tall trees within the site have the potential to provide roosting habitat.

4.2.3 Foraging

A total of 71.06 ha of foraging habitat for Carnaby's black cockatoo, 70.58 ha for Baudin's black cockatoo and 71.06 ha for forest red-tailed black cockatoo were recorded in the site as shown in **Figure 7** to **Figure 9**.

The extent of foraging habitat by value category is detailed in **Table 12**.

Table 12: Foraging habitat recorded within the site

Foraging habitat	Black cockatoo species and area of foraging habitat (ha)		
	Carnaby's	Baudin's	Forest red-tailed
Native primary	70.63	68.58	70.63
Native secondary	0.43	1.99	0.43
Non-native primary	0	0	0
Non-native secondary	0	0	0
Total	71.06	70.58	71.06

5 Discussion

5.1 Fauna

5.1.1 Threatened, specially protected and priority fauna

Fourteen conservation significant species were considered to possibly occur in the site, as discussed below.

- Pacific swift (MI) and peregrine falcon (OS) are highly mobile species that may opportunistically fly over or forage in the site for short periods of time as part of a much larger home range. Neither of these species would breed within the site. Any occurrence of pacific swift or peregrine falcon in the site would likely be in the air space and largely independent from terrestrial habitat.
- Baudin's black cockatoo (EN) occur across the South West and forage on the Swan Coastal Plain in the non-winter months before moving to the Wheatbelt, Jarrah Forest and South Coast regions to breed (DAWE 2022). Baudin's will feed primarily marri and supplement their diet with *Banksia* spp. and jarrah, all of which occur throughout the site. Foraging evidence on marri fruits were recorded all across the **eucalypt forest** and **scattered trees**.
- Carnaby's black cockatoo (EN) occur throughout the South West, breeding and foraging on the Swan Coastal Plain and adjacent areas (DAWE 2022). They feed on a number of species present throughout the site, primarily marri and jarrah and subsequent foraging evidence on marri was recorded.
- Western rosella (inland) (P4) can be found in open eucalypt woodlands with a heath understory (Pizzey and Knight 2012). The **eucalypt forest** would be suitable habitat for this species.
- Chuditch (VU) are a small marsupial carnivore which once existed across most of Australia but now occur mainly in jarrah forests and woodlands, mallee shrublands and heaths along the south coast and occasionally in dry woodland and mallee shrubland in the Wheatbelt (DEC 2012b). Numerous DBCA records of the species occur approximately 10 km east of the site within Muja State Forest and, although the site is more disturbed than the surrounding forest, chuditch may use the site as part of their home range. The **eucalypt forest** and **riparian woodland** represents suitable habitat.
- Quenda (P4) are ubiquitous marsupials which are well adapted to most of the habitats within the South West, particularly dense, shrubby or swampy vegetation. It is highly likely the species could utilise **eucalypt forest** and **riparian woodland** habitats within the site, particularly given its high connectivity to large areas of suitable habitat to the north of the site.
- Quokka (VU) are can be found around mostly dense streamside vegetation or shrubland and heath areas, particularly around swamps (Cronin 2007). Similarly Rakali (P4) inhabit areas of permanent freshwater and area likely to occur in major rivers and most larger streams of water within the lower south-west (Christensen and Strahan 1984). Both species are likely to be found in the surrounding region and may utilise the **riparian woodland** habitat and surrounding river as an ecological corridor.
- South-western brush-tailed phascogale (CD) is an arboreal mammal that is distributed throughout the forests of the South West. Individuals are typically found in habitats with a high number of hollow bearing trees and are susceptible to fragmentation (DEC 2012a). The **eucalypt**

forest habitat in the site represents suitable habitat, particularly as it is connected to extensive areas of suitable forest habitat to the north of the site.

- Western false pipistrelle (P4) is a large forest bat occurring mostly in old-growth eucalyptus forest in the South West (Australasian Bat Society 2021). Given the number of trees in the site, particularly older eucalypts, the species may roost in the site in conjunction with the surrounding forest.
- Western ringtail possum (CR) is a medium sized herbivorous, social, nocturnal marsupial that inhabits forests and thicket woodlands in the South West of WA (Menkhorst and Knight 2011; DPaW 2017). Multiple DBCA records of the species occur to the west and north-west of the site. Three key management zones have been identified for the species, which are defined as areas considered the most important extant populations (DPaW 2017). The site lies outside of these management zones, with the Swan Coastal Plain zone being the closest. Critical habitat within this zone is defined as 'long unburnt mature remnant peppermint woodlands with high canopy continuity and high nutrient foliage with minimal periods of summer moisture stress, and habitat connecting patches of remnants' (DPaW 2017). The habitat in the site does not meet this definition of critical habitat but the species does utilise eucalyptus species for refuge and foraging, meaning the **eucalypt forest** habitat may support individuals.
- Dell's skink (P4) is found along the Darling Scarp within jarrah and marri woodlands over a shrubby understory of sandy and clay soils (Wilson and Swan 2021). The **eucalypt woodland** would provide suitable habitat for the species and provide an ecological corridor to more suitable habitat surrounding the site to the north.

5.2 Fauna habitat

Habitat values in the site are greatest with respect to areas of **eucalypt forest**. It contains a complex structure of vegetation in the ground, shrub and canopy layers and an array of microhabitats which support species from across all faunal groups. Its value is enhanced by the contiguity with extensive areas of intact native forest outside of the site.

The **riparian woodland** has been subject to disturbance in the ground layer but the native trees and association with a waterway and ecological linkage mean that it has high value to a range of common and conservation significant fauna.

The remaining habitats are likely to be predominantly used by common and widespread native and non-native fauna with non-specific habitat requirements, which enable them to persist in highly modified environments. The scattered vegetation within the site may contribute to the linkage and be used by some fauna to migrate between habitats.

5.3 Black cockatoo habitat values

All three species of black cockatoo were recorded flying over the site and evidence of foraging attributed to this species was recorded within the site. Records for this all species are not unexpected as the site is located within the modelled distribution range and suitable habitat occurs within the site and the local area.

5.3.1 Breeding

Information regarding breeding habitat is pertinent to forest red-tailed black cockatoos, which breed throughout the Swan Coastal Plain, and Carnaby's black cockatoo as the site lies within their breeding distribution, but not Baudin's black cockatoo as the site lies outside their breeding range (DAWE 2022).

Identification of hollows suitable for breeding by black cockatoos within the 32 suitable nesting trees was completed from ground level only. Internal inspection of hollows would be required to confirm whether these trees are suitable and is likely to reduce the number of potential nesting trees (transferring them to the potential nesting tree category). Regardless, many habitat trees occur within the survey area and those without hollows have the potential to form suitable hollows in the future. However, it will likely take many decades for hollows to form that are large enough to be suitable for use by black cockatoos for breeding.

5.3.2 Roosting

No secondary evidence of roosting such as branch clippings, droppings or feathers were observed within the site. Therefore, there is no reason to suspect that roosting by black cockatoos has recently occurred in the site. Nevertheless, the site contains many tall trees and groups of tall trees that have the potential to provide roosting habitat for black cockatoos.

5.3.3 Foraging

The site contains native foraging habitat for all species of black cockatoo. The highest value foraging resource in the site is associated with the marri trees (native primary for all three species of black cockatoo) located with the **eucalypt forest** and **scattered trees**. Additionally, the jarrah provides high quality foraging for Carnaby's black cockatoo and forest red-tailed black cockatoo as well as secondary value to Baudin's black cockatoo.

The foraging habitat within the site provides a significant area of high-quality foraging resources for both species of black cockatoo with the wider region and is likely an important area of foraging for the high number of black cockatoos roosting in the surrounding 6 km.

6 Conclusions

Outcomes of the basic fauna assessment include the following:

- A total of 36 native and five non-native fauna species were recorded within the site.
- Three threatened species were recorded during the survey: Carnaby's black cockatoo (EN), Baudin's black cockatoo (EN) and forest red-tailed black cockatoo (VU).
- Despite not being recorded during the survey, the following species were considered to have a high or moderate likelihood of occurring within the site:
  - Pacific swift (MI)
  - Peregrine falcon (OS)
  - Western rosella (inland) (P4)
  - Chuditch (VU)
  - Quenda (P4)
  - Quokka (VU)
  - South-western brush-tailed phascogale (CD)
  - Western false pipistrelle (P4)
  - Western ringtail possum (CR)
  - Dell's skink (P4)
  - Rakali (P4)
- The site consists of five broad habitat types:
  - **Eucalyptus forest:** open forest *Eucalyptus marginata* and/or *Corymbia calophylla* and occasional *Banksia grandis* over occasional *Hakea prostrata*, *Persoonia longifolia* and *Xanthorrhoea preissii* over sparse shrubland (57.96 (ha).
  - **Riparian woodland:** Scattered *Eucalyptus marginata* and *Corymbia calophylla* trees over weeds (56.17 ha).
  - **Scattered trees and shrubs**: occasional scattered eucalypts or non-native trees (24.09 ha).
  - **Grassland and bare ground**: heavily disturbed areas comprising predominantly non-native grassland of pasture weeds and scattered native and non-native trees (281.70 ha).
  - **Dams: non-vegetated** areas and water bodies associated with dams (0.72 ha).

Outcomes of the targeted black cockatoo survey include the following:

- All three species of black cockatoo were recorded in the site.
- The site occurs within the modelled distribution of all three species but only the breeding distribution of Carnaby's black cockatoo and forest red-tailed black cockatoo.
- The survey area contains 1,354 habitat trees of which 32 contain hollows suitable for use by black cockatoos for breeding from ground inspection. Therefore, the site does currently provide suitable breeding habitat for Carnaby's black cockatoo and forest red-tailed black cockatoo.
- White-tailed black cockatoo (most likely Carnaby's black cockatoo) and forest red-tailed black cockatoo roosts occur in close proximity to the site (Birdlife Australia 2023). No roosts or evidence of roosting by any species of black cockatoo was recorded within the site during the field survey. Tall native and non-native trees within the site represent suitable roosting habitat for species of black cockatoo.

- A total of 71.06 ha of foraging habitat for Carnaby's black cockatoo was mapped within the site of which 70.63 ha (99.4%) comprises native primary plants and 0.43 ha (0.6%) comprises native secondary plants.
- A total of 70.57 ha of foraging habitat for Baudin's black cockatoo was mapped within the site of which 68.58 ha (97.18%) comprises native primary plants and 1.99 ha (2.82%) comprises native secondary plants.
- A total of 71.06 ha of foraging habitat for forest red-tailed black cockatoo was mapped within the site of which 70.63 ha (99.4%) comprises native primary plants and 0.43 ha (0.6%) comprises native secondary plants.
- Additional areas of foraging habitat of similar or higher value occur adjacent to the site and in the wider local area including areas designated as state forest.

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7.2 Online references

The online resources that have been utilised in the preparation of this report are referenced in **Section 7.1**, with access date information provided in **Table R 1**.

Table R 1 Access dates for online references

Reference	Date accessed	Website or dataset name
BirdLife International (2025)	Date Month 2025	Important Bird Areas
BoM (2025)	29 April 2025	Climate Data Online
DAWE (2025)	24 April 2025	Species Profile and Threats Database
DBCA (2025)	12 February 2024	NatureMap
DCCEEW (2025)	24 April 2025	Australian Faunal Directory
DCCEEW (2025)	22 February 2024	Protected Matters Search Tool
WALIA (2025)	29 April 2025	Landgate Map Viewer

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Figure 1: Site Location

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Figure 3: Environmental Features

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Figure 5: Fauna Habitat and observations of threatened species

Figure 6: Black Cockatoo Habitat Trees

Figure 7: Carnaby's Black Cockatoo Foraging Habitat

Figure 8: Baudin's Black Cockatoo Foraging Habitat

Figure 9: Forest Red-tailed Black Cockatoo Foraging Habitat

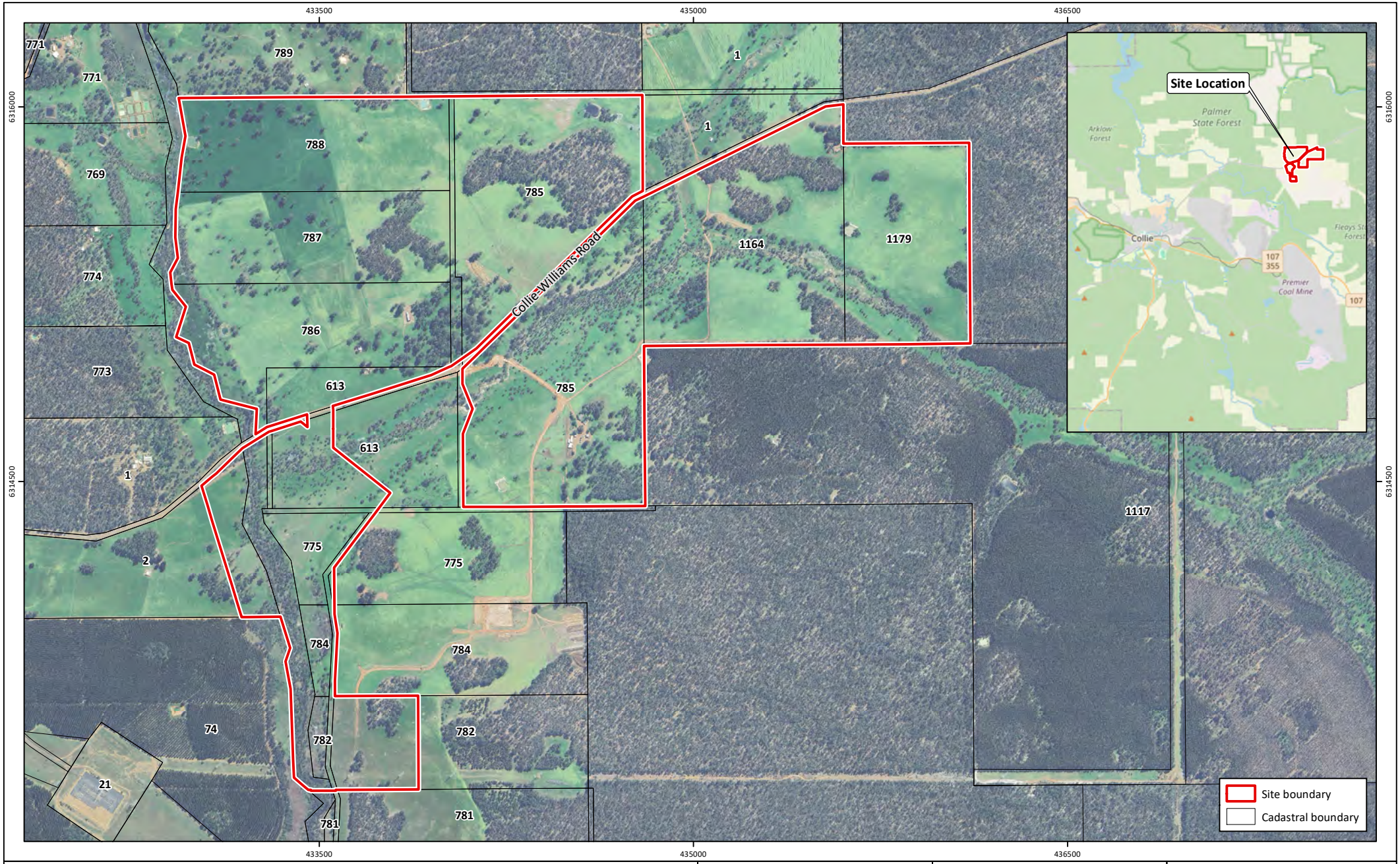


Figure 1: Site Location

Project:	Basic Fauna and Targeted Black Cockatoo Assessment Collie BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F13

Drawn:	CTH
Date:	28/04/2025
Checked:	AJU
Approved:	RAW
Date:	01/05/2025

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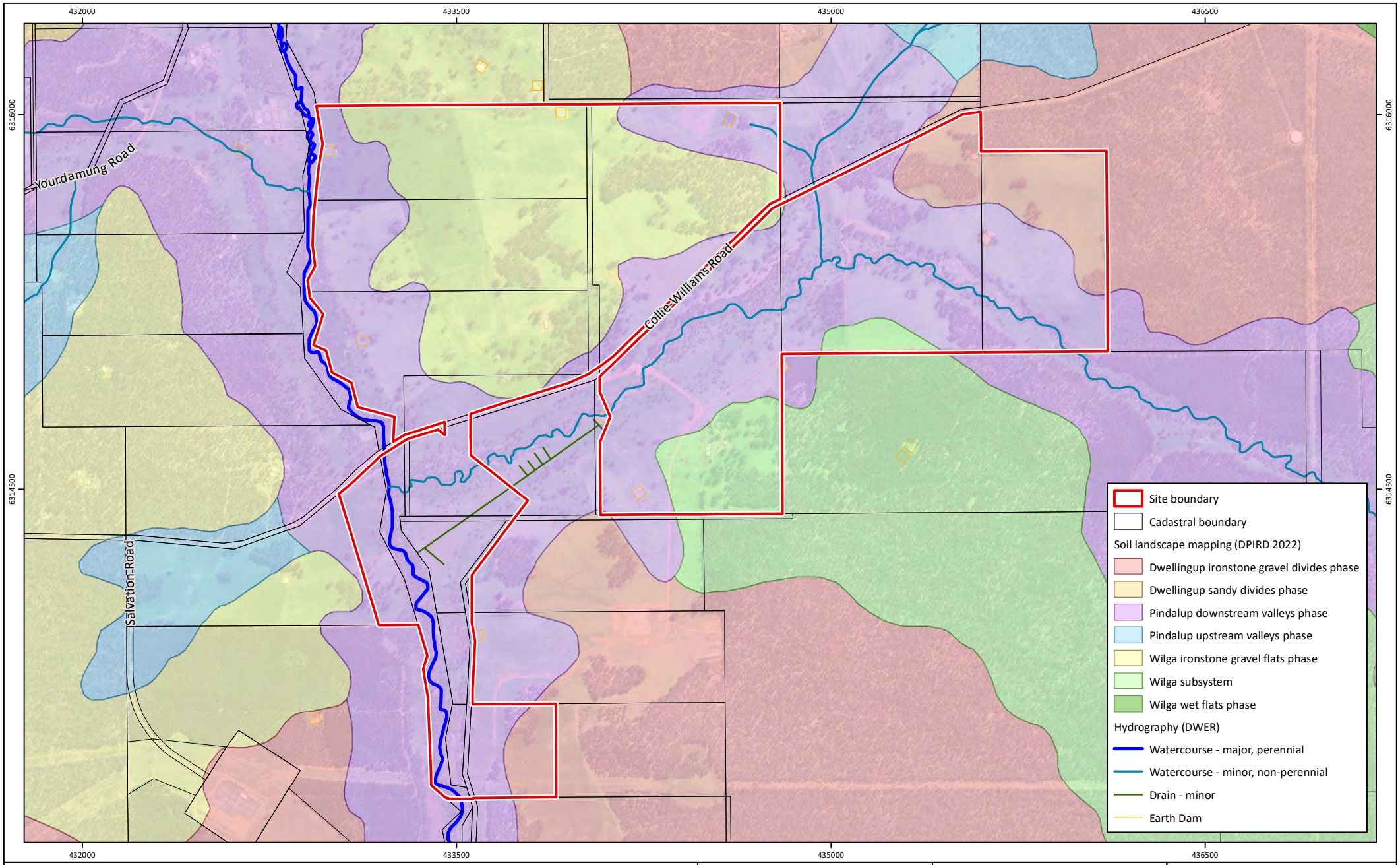


Figure 2: Soils, Topography and Hydrology

Project: Basic Fauna and Targeted Black Cockatoo Assessment
Collie BESS and Solar PV

Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F14

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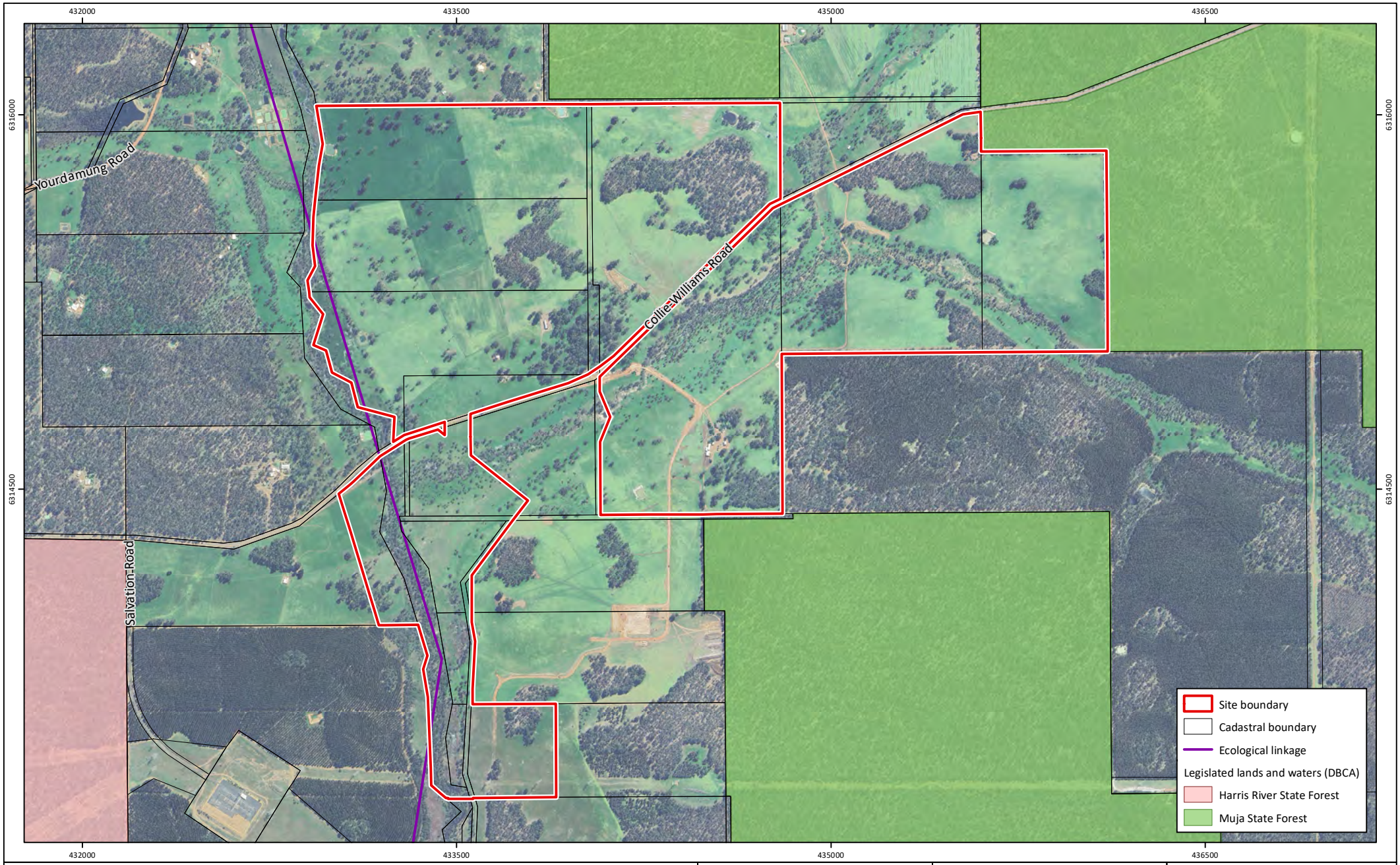


Figure 3: Environmental Features

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Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F15

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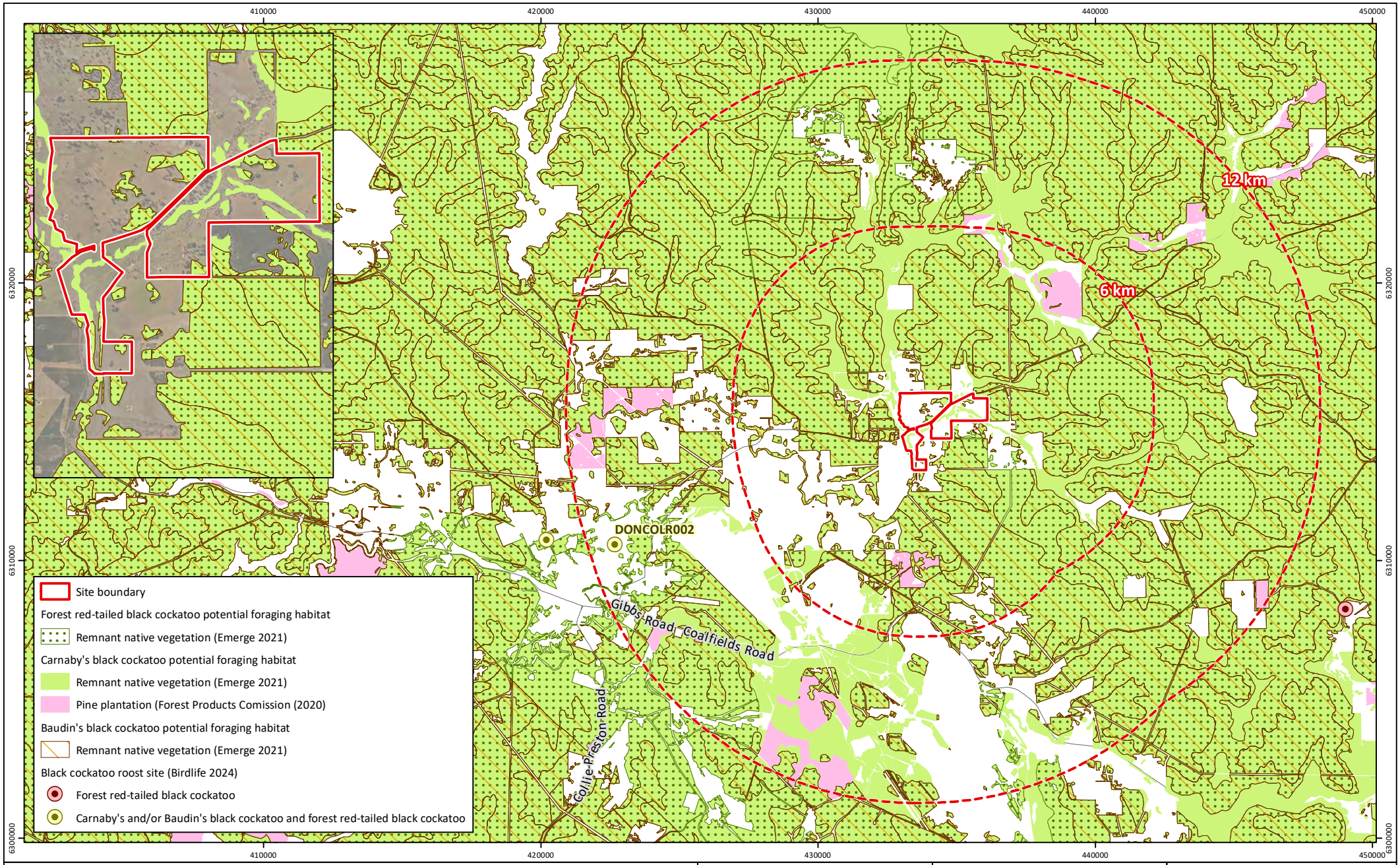


Figure 4: Black Cockatoo Habitat Context

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Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F16

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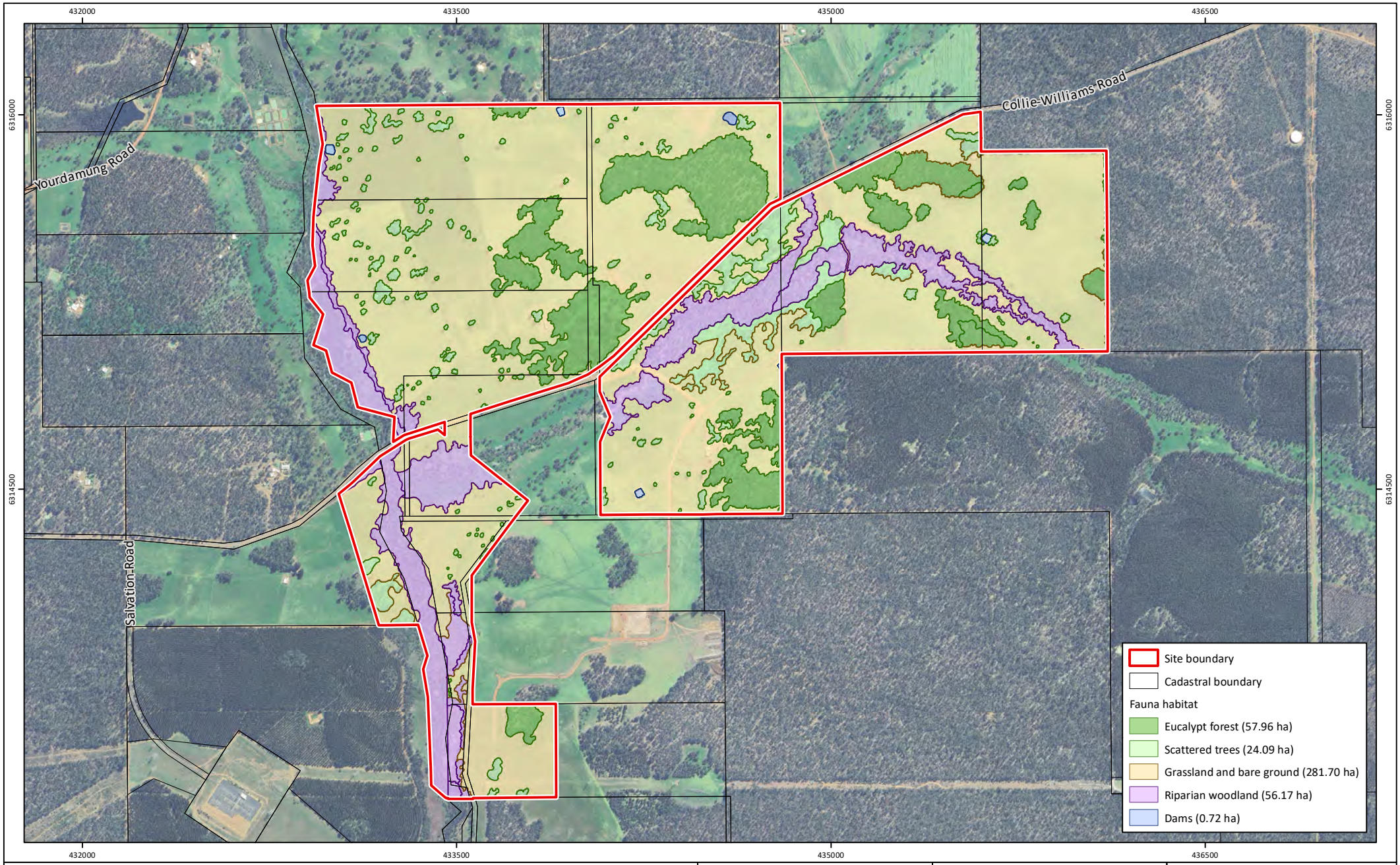


Figure 5: Fauna Habitat

Project: Basic Fauna and Targeted Black Cockatoo Assessment
Collie BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F17
Drawn: CTH
Date: 28/04/2025
Checked: AJU
Approved: RAW
Date: 01/05/2025

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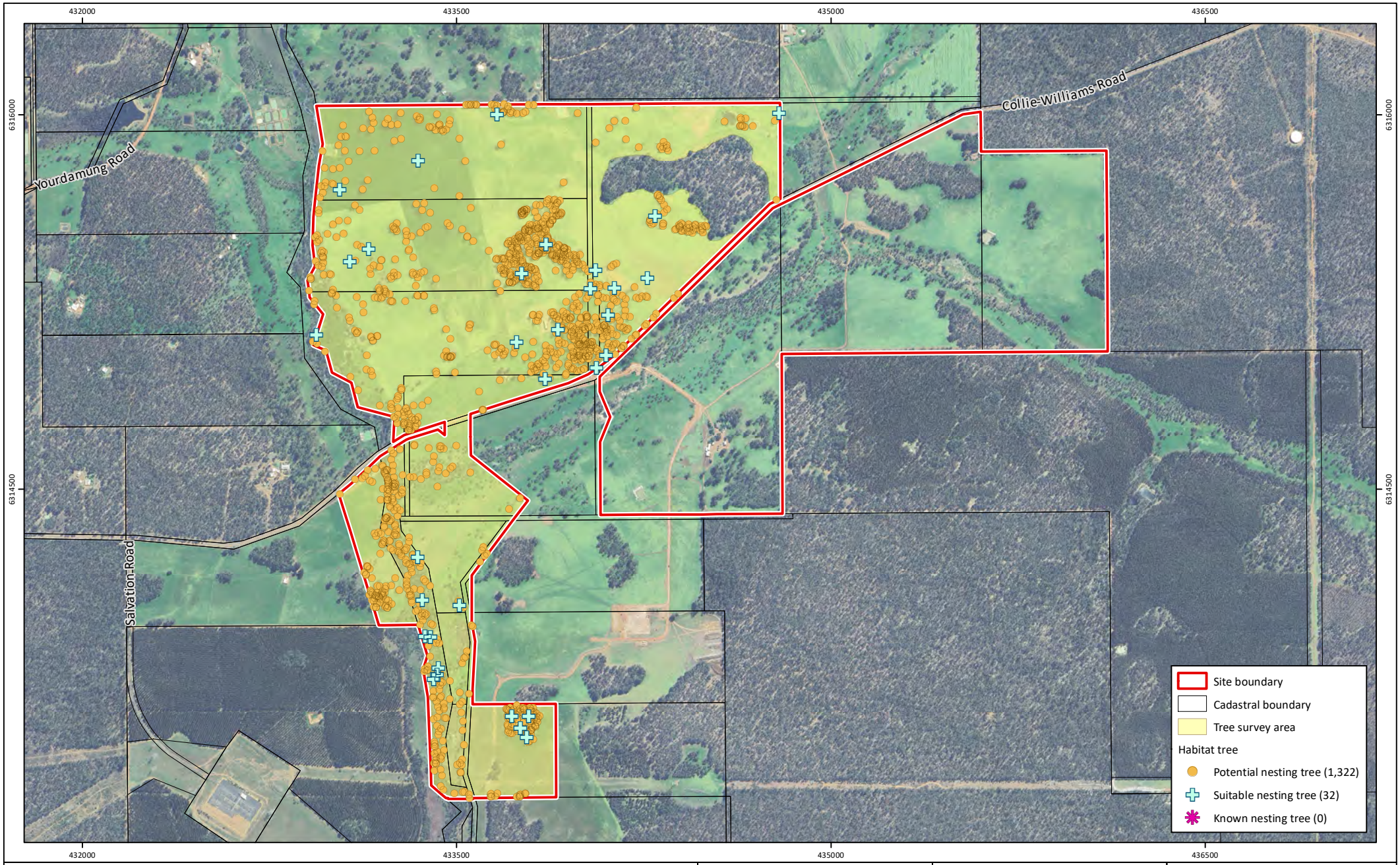


Figure 6: Black Cockatoo Habitat Trees

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Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F18a

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Date:	05/05/2025

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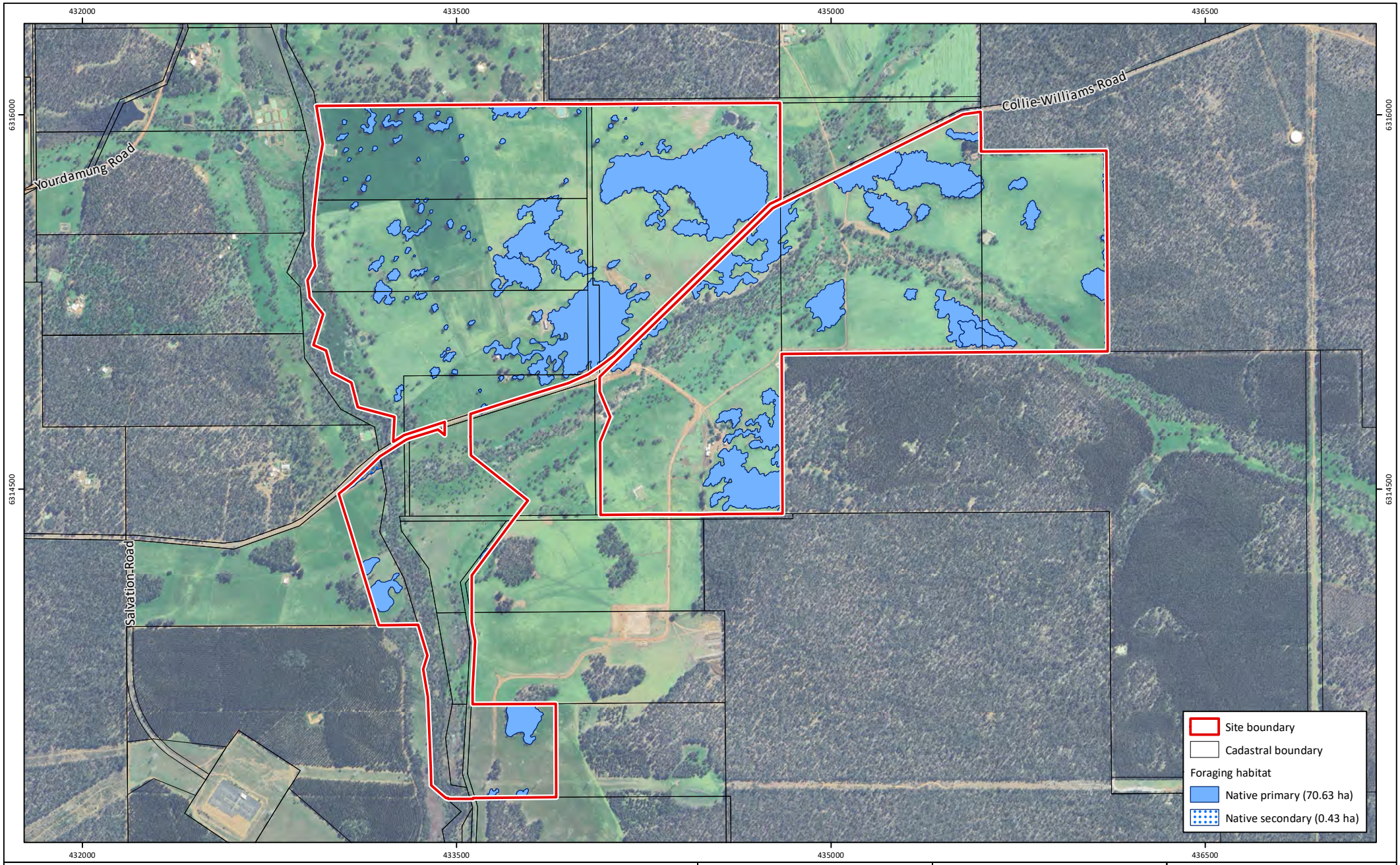


Figure 7: Carnaby's Black Cockatoo Foraging Habitat

Project:	Basic Fauna and Targeted Black Cockatoo Assessment Collie BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F19

Drawn:	CTH
Date:	28/04/2025
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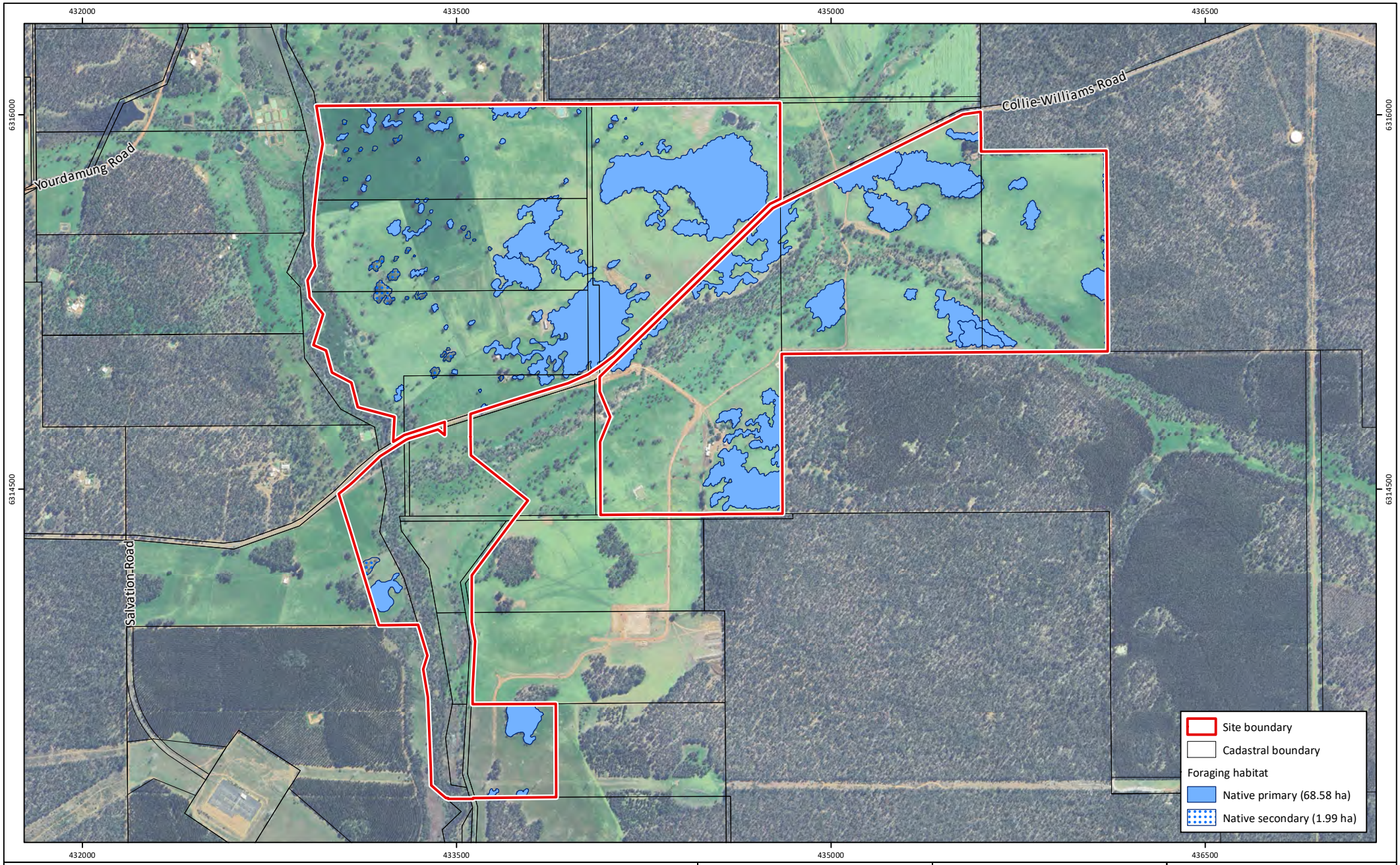


Figure 8: Baudin's Black Cockatoo Foraging Habitat

Project:	Basic Fauna and Targeted Black Cockatoo Assessment Collie BESS and Solar PV
Client:	Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
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Metres

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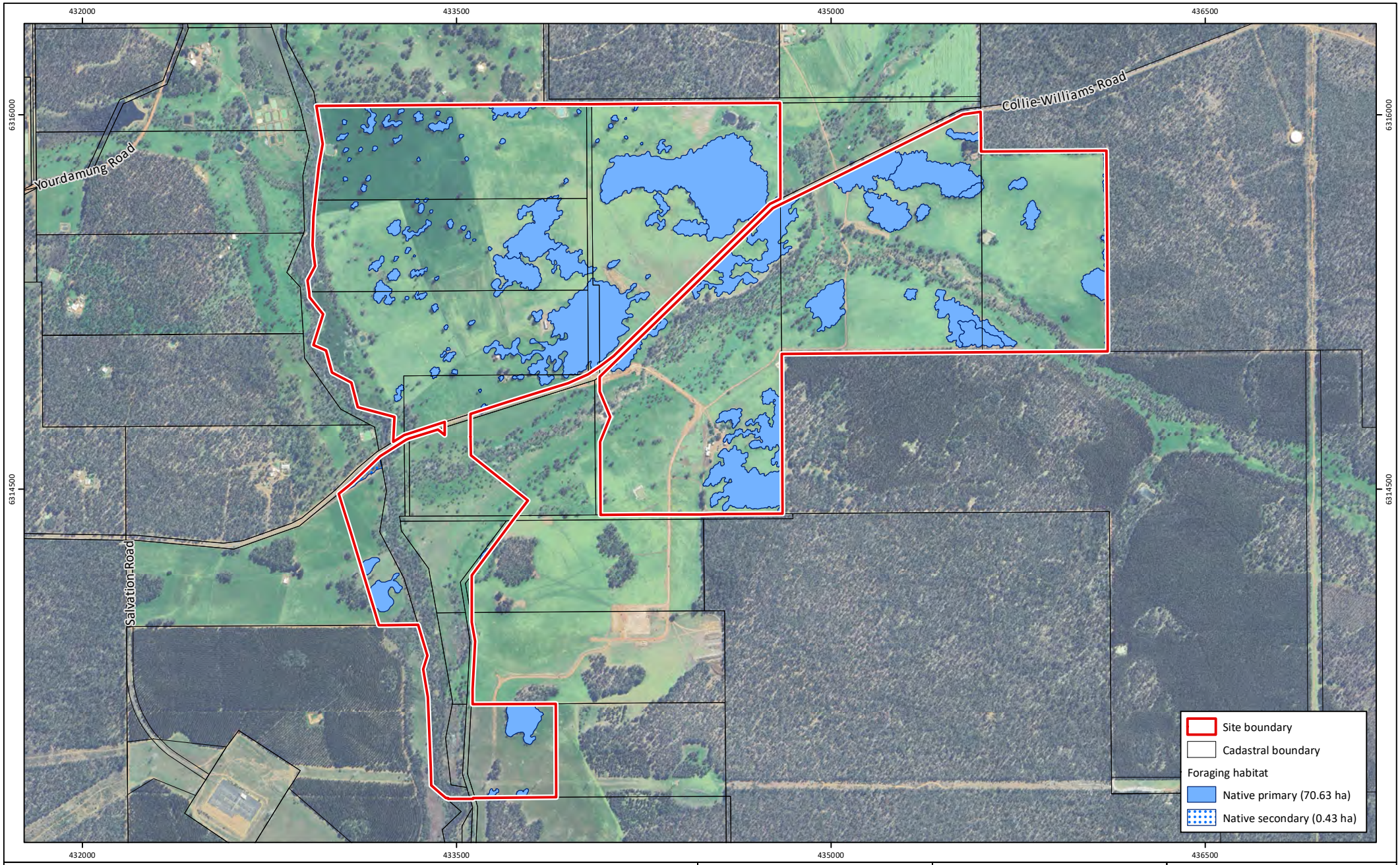


Figure 9: Forest Red-tailed Black Cockatoo Foraging Habitat

Project: Basic Fauna and Targeted Black Cockatoo Assessment
Collie BESS and Solar PV

Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(03)--F21

Drawn:	CTH
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Approved:	RAW
Date:	01/05/2025

N

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Metres

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Appendix A

Additional information

Conservation Significant Fauna

Threatened and priority fauna

Fauna species considered rare or under threat warrant special protection under Commonwealth and/or State legislation. At the Commonwealth level, fauna species can be listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as 'threatened', 'migratory' or 'marine' as described in **Table 1**.

Migratory species comprise birds recognised under international treaties including:

- Japan Australia Migratory Bird Agreement 1981 (JAMBA)
- China Australia Migratory Bird Agreement 1998 (CAMBA)
- Republic of Korea-Australia Migratory Bird Agreement 2007 (ROKAMBA)
- Bonn Convention 1979 (The Convention on the Conservation of Migratory Species of Wild Animals).

Fauna species listed as threatened and migratory are protected in Australia as 'matters of national environmental significance' (MNES) under the EPBC Act.

Table 1: Definitions of conservation significant fauna species pursuant to the EPBC Act

Conservation Code	Category
X	Threatened Fauna –Extinct There is no reasonable doubt that the last member of the species has died.
EW[#]	Threatened Fauna –Extinct in the Wild Taxa which are known only to survive in cultivation, captivity or as a naturalised population outside its past range, or taxa which have not been recorded in its known and/or expected habitat despite appropriate exhaustive surveys.
CR[#]	Threatened Fauna – Critically Endangered Taxa which are considered to be facing an extremely high risk of extinction in the wild.
EN[#]	Threatened Fauna – Endangered Taxa which are considered to be facing a very high risk of extinction in the wild.
VU[#]	Threatened Fauna – Vulnerable Taxa which are considered to be facing a high risk of extinction in the wild.
Migratory[#]	Migratory Fauna All migratory species that are: (i) native species; and (ii) from time to time included in the appendices to the Bonn Convention; and (b) all migratory species from time to time included in annexes established under JAMBA, CAMBA and ROKAMBA; and All native species from time to time identified in a list established under, or an instrument made under, an international agreement approved by the Minister.
Ma	Marine Fauna Species in the list established under s248 of the EPBC Act

[#]matters of national environmental significance (MNES) under the EPBC Act

In Western Australia, fauna taxa may be classed as 'threatened', 'extinct', or 'specially protected' under the *Biodiversity Conservation Act 2016* (BC Act), which is enforced by Department of Biodiversity Conservation and Attractions (DBCA) (DBCA 2019a). The definitions of these categories are provided in **Table 2**.

Table 2: Definitions of specially protected fauna schedules under the BC Act (DBCA 2019a)

Category	Conservation Code	Definition
Threatened	CR	Critically endangered Threatened species considered to be facing an extremely high risk of extinction in the wild in the immediate future.
	EN	Endangered Threatened species considered to be facing a very high risk of extinction in the wild in the near future.
	VU	Vulnerable Threatened species considered to be facing a high risk of extinction in the wild in the medium-term future.
Extinct	EX	Extinct Species where there is no reasonable doubt that the last member of the species has died.
	EW	Extinct in the wild Species that is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form. Note that no species are currently listed as EW.
Specially protected	MI	Migratory species Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth Includes birds that subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds.
	CD	Species of special conservation interest (conservation dependent fauna) Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened.
	OS	Other specially protected species Fauna otherwise in need of special protection to ensure their conservation.

Fauna species that may be threatened or near threatened but lack sufficient information to be legislatively listed may be added to the DBCA's *Priority Fauna List* (DBCA 2018b). Species listed under priorities 1-3 comprise possible threatened species that do not meet survey criteria or are otherwise data deficient. Species listed under priority 4 are those that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons (DBCA 2019a).

Priority fauna species are considered during State approval processes. Priority fauna categories and definitions are listed in **Table 3** (DBCA 2019a).

Table 3: Definitions of priority fauna categories on DBCA's Priority Fauna List (DBCA 2019a)

Conservation Code	Category
P1	Priority 1 – Poorly known Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
P2	Priority 2 – Poorly known Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
P3	Priority 3 – Poorly known Species that are known from several locations and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
P4	(a) Priority 4 – Rare species Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands. (b) Priority 4 – Near Threatened Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. (c) Priority 4 – Other Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Black cockatoos

Three threatened species of black cockatoo occur on the Swan Coastal Plain (referred to herein collectively as 'black cockatoos'):

- *Zanda*[1] *latirostris* (Carnaby's black cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Zanda*[1] *baudinii* (Baudin's black cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) which is listed as 'vulnerable' under the EPBC Act and the BC Act.

There are a range of regional studies and spatial datasets available which provide information on black cockatoo records and potential habitat mapping. These are detailed below.

Species distribution and breeding range

Broad-scale maps are available for the modelled distribution of Baudin's black cockatoo, Carnaby's black cockatoo and forest red-tailed black cockatoo (DSEWPaC 2011; DoEE 2016a, b).

The modelled distribution maps also include 'known breeding areas' and 'predicted breeding range' for Baudin's black cockatoo and 'breeding range' and 'non-breeding range' for Carnaby's black cockatoo.

No breeding range modelling is available for forest red-tailed black cockatoo but the species is known to breed mainly in the jarrah forest region (DBCA 2017a) and in small populations on the Swan Coastal Plain within the Baldivis, Stake Hill, Lake McLarty and Capel area and increasingly in the Perth metropolitan area (DAWE 2022).

Breeding habitat

Department of Environment and Conservation (DEC, now Department of Biodiversity, Conservation and Attractions (DBCA)) and fauna experts, have identified and mapped Carnaby's black cockatoo habitat on the Swan Coastal Plain and Jarrah Forest regions (Glossop *et al.* 2011). This dataset includes mapping of Carnaby's black cockatoo breeding sites based on point records of breeding from a range of sources. Breeding sites were classified as 'confirmed' where eggs or chicks were recorded and 'possible' where observations relating to Carnaby's black cockatoo breeding that did not include actual records of eggs or chicks (e.g. chewed hollows or records of breeding or nesting behaviour by an expert observer).

A 12 km buffer applies to each site to 'reflect the flexible use of these areas by cockatoos and to indicate the important zone for access to potential feeding habitat' (Glossop *et al.* 2011). Glossop *et al.* (2011) state that the areas mapped in the dataset are not a comprehensive record of Carnaby's black cockatoo breeding and that many nesting sites are not known.

While this dataset only applies to Carnaby's black cockatoo, the information it contains is also applicable for Baudin's black cockatoo and forest red-tailed black cockatoo as they have similar

[1] Previously *Calyptorhynchus*

breeding habitat requirements. That is, breeding sites that are suitable for Carnaby's black cockatoo may also be suitable for Baudin's black cockatoo and forest red-tailed black cockatoo, if located within their distribution/breeding ranges.

BirdLife Australia also maintain a database of confirmed black cockatoo breeding sites which is accessible via a paid search system. BirdLife Australia have advised that their database is comprised of data collected during surveys by staff and volunteers of which most (>99%) surveys are of Carnaby's black cockatoo. They have also advised that the dataset is not comprehensive and that an absence of known nests does not necessarily indicate a lack of breeding activity.

The Carnaby's black cockatoo recovery plan also identifies 13 'important bird areas' for Carnaby's black cockatoo, which are identified as 'sites of global bird conservation importance' (DPaW 2013). These 'important bird areas' comprise sites supporting at least 20 breeding pairs or 1% of the population regularly utilising an area in the non-breeding part of the range.

Confirmed roost sites

BirdLife Australia undertakes annual monitoring of black cockatoo overnight roost sites as part of the annual 'Great Cocky Count' community-based survey. Information gathered from these monitoring events provides roost locations and recorded black cockatoo number (Birdlife Australia 2024).

Native foraging habitat

Glossop *et al*. (2011) also mapped 'areas requiring investigation as Carnaby's black cockatoo feeding habitat' for the Swan Coastal Plain and Jarrah Forest regions, based on regional vegetation mapping that may contain plant species known to be foraged upon by Carnaby's black cockatoo. Note that this dataset does not include observations or point records of Carnaby's black cockatoo feeding. This dataset represents areas of vegetation that may potentially provide foraging habitat for Carnaby's black cockatoo.

In order to account for clearing of native vegetation that has occurred since the Glossop *et al.* (2011) dataset was created and to incorporate updated vegetation mapping and information on foraging behaviour of Carnaby's black cockatoo, Emerge have revised this dataset to represent the most up to date information available. Furthermore, Emerge have used a similar methodology to Glossop et al. (2011) to define potential foraging habitat for Baudin's black cockatoo and forest-red tailed cockatoos.

Specifically, DBCA (2021), DBCA (2019b) and DPIRD (2018) regional vegetation complex mapping was used to determine which areas of remnant vegetation support plant species known to be foraged upon by Carnaby's black cockatoo, Baudin's black cockatoo or forest red-tailed cockatoos. Where these vegetation complexes intersect remnant vegetation mapped by DPIRD (2020) they were considered to represent potential foraging habitat for Carnaby's black cockatoo, Baudin's black cockatoo and/or forest red-tailed cockatoo.

Pine plantations also provide an important food source for Carnaby's black cockatoo, but were not included in the original Glossop et al. (2011) dataset. Mapping of pine plantations is available from the Forest Products Commission (Forest Products Commission 2020) and was considered in the assessment of Carnaby's black cockatoo foraging habitat.

Pest fauna

A number of legislative and policy documents exist in relation to pest fauna management at state and national levels. The *Biosecurity and Agriculture Management Act 2007* (BAM Act) is the principle legislation guiding pest fauna management in Western Australia and lists declared pest species.

Declared Pests

Part 2.3.23 of the BAM Act requires a person must not "*a) keep, breed or cultivate the declared pest; b) keep, breed or cultivate an animal, plant or other thing that is infected or infested with the declared pest; c) release into the environment the declared pest, or an animal, plant or other thing that is infected or infested with the declared pest; or d) intentionally infect or infest, or expose to infection or infestation, a plant, animal or other thing with a declared pest*".

Under the BAM Act, all declared pests are assigned a legal status, as described in **Table 4**. Species assigned to the 'declared pest, prohibited - s12' category are placed in one of three control categories, as described in **Table 5**.

The *Biosecurity and Agriculture Management Regulations 2013* specify keeping categories for species assigned to the 'declared pest - s22(2)' category, which relate to the purposes of which species can be kept, as well as the entities that can keep them. The categories are described in **Table 6**.

The Western Australian Organism List (WAOL) provides the status of organisms which have been categorised under the BAM Act (DAFWA 2016).

Table 4: Legal status of declared pest species listed under the BAM Act (DAFWA 2016)

Category	Description
Declared Pest Prohibited - s12	May only be imported and kept subject to permits. Permit conditions applicable to some species may only be appropriate or available to research organisations or similarly secure institutions.
Declared Pest s22(2)	Must satisfy any applicable import requirements when imported and may be subject to an import permit if they are potential carriers of high-risk organisms. They may also be subject to control and keeping requirements once within Western Australia

Table 5: Control categories of declared pest species listed under the BAM Act (DAFWA 2016)

Category	Description
C1	Exclusion Not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.
C2	Eradication Present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.
C3	Management Established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.

Table 6: Keeping categories of declared pest species listed under the BAM Act (DAFWA 2016)

Category	Description
Prohibited	Can only be kept under a permit for public display and education purposes, and/or genuine scientific research, by entities approved by the state authority.
Exempt	No permit or conditions are required for keeping.
Restricted	Organisms which, relative to other species, have a low risk of becoming a problem for the environment, primary industry or public safety and can be kept under a permit by private individuals.

Wetland Habitat

Geomorphic wetland types

On the Swan Coastal Plain DBCA (2017b) have used the geomorphic wetland classification system developed by Semeniuk (1987) and Semeniuk and Semeniuk (1995) to classify wetlands based on the landform shape and water permanence (hydro-period) as outlined in **Table 7**. DBCA maintains a dataset of the *Geomorphic Wetlands of the Swan Coastal Plain* (DBCA 2018a).

Table 7: Geomorphic Wetlands of the Swan Coastal Plain classification categories (DBCA 2017b)

Level of inundation	Geomorphology			
	Basin	Flat	Channel	Slope
Permanently inundated	Lake	-	River	-
Seasonally inundated	Sumpland	Floodplain	Creek	-
Seasonally waterlogged	Dampland	Palusplain	-	Paluslope

Literature

The main literature used for identifying fauna and fauna habitats is listed in **Table 8** below.

Table 8: Standard literature used for identifying fauna species and habitats.

Conservation Code	Category
Birds	Johnstone and Storr (1998b), Johnstone and Storr (1998a), Pizzey and Knight (2012), Slater *et al.* (2003)
Mammals	Menkhorst and Knight (2011), Triggs (2003)
Amphibia	Tyler and Doughty (2009), Bush *et al.* (2002)
Reptiles	Bush *et al.* (2002), Wilson and Swan (2021)

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Appendix B

Database search results

Animalia	**11521**
AMPHI	**82**
Crinia georgiana	42
Crinia glauerti	12
Crinia pseudinsignifera	1
Crinia sp.	2
Geocrinia leai	13
Heleioporus eyrei	1
Heleioporus inornatus	3
Heleioporus psammophilus	1
Heleioporus sp.	2
Limnodynastes dorsalis	1
Litoria adelaidensis	2
Litoria moorei	1
Neobatrachus pelobatoides	1
BIRD	**1476**
Acanthagenys rufogularis	1
Acanthiza apicalis	41
Acanthiza chrysorrhoa	23
Acanthiza inornata	8
Acanthorhynchus superciliosus	12
Anas gracilis	2
Anas superciliosa	10
Anhinga novaehollandiae	2
Anthochaera carunculata	52
Anthochaera lunulata	8
Aquila audax	1
Ardea novaehollandiae	1
Ardea pacifica	1
Artamus cinereus	2
Artamus cyanopterus	6
Barnardius zonarius	49
Biziura lobata	3
Burhinus grallarius	1
Cacatua roseicapilla	1
Cacomantis flabelliformis	7
Cacomantis pallidus	5
Calyptorhynchus banksii	30
Calyptorhynchus banksii subsp. nano	1
Calyptorhynchus banksii subsp. naso	29
Calyptorhynchus sp.	9
Calyptorhynchus sp. 'white-tailed black cockatoo'	1
Chenonetta jubata	13
Chrysococcyx lucidus	1
Chrysococcyx lucidus subsp. plagosus	1
Cincloramphus mathewsi	1
Climacteris rufa	1
Colluricincla harmonica	9

Coracina novaehollandiae	11
Corvus coronoides	142
Corvus coronoides subsp. perplexus	1
Cracticus tibicen	61
Cracticus torquatus	5
Cygnus atratus	1
Dacelo novaeguinea	1
Dacelo novaeguineae	36
Daphoenositta chrysoptera	5
Dicaeum hirundinaceum	1
Dromaius novaehollandiae	1
Egretta novaehollandiae	8
Elanus axillaris	1
Elanus caeruleus subsp. axillaris	1
Elseyornis melanops	1
Eolophus roseicapillus	1
Eopsaltria australis	1
Eopsaltria australis subsp. griseogularis	1
Eopsaltria georgiana	22
Eopsaltria griseogularis	3
Falco berigora	1
Falco cenchroides	1
Falco peregrinus	1
Fulica atra	5
Gallinula tenebrosa	2
Gerygone fusca	51
Glossopsitta porphyrocephala	2
Glyciphila melanops	2
Grallina cyanoleuca	35
Haliastur sphenurus	1
Hieraaetus morphnoides	2
Hirundo neoxena	6
Hirundo nigricans	2
Ixobrychus flavicollis subsp. australis	1
Lichenostomus virescens	5
Lichmera indistincta	44
Malurus elegans	28
Malurus splendens	43
Melanodryas cucullata	1
Melithreptus brevirostris	2
Melithreptus chloropsis	1
Melithreptus lunatus	9
Merops ornatus	9
Microcarbo melanoleucos	7
Myiagra inquieta	1
Neophema elegans	5
Ninox novaeseelandiae	1
Ninox novaeseelandiae subsp. boobook	1

Ocyphaps lophotes	1
Pachycephala pectoralis	21
Pachycephala rufiventris	21
Pachyptila belcheri	1
Pardalotus punctatus	5
Pardalotus striatus	33
Petrochelidon nigricans	13
Petroica boodang	19
Petroica goodenovii	2
Petroica multicolor	3
Phalacrocorax carbo	1
Phalacrocorax sulcirostris	1
Phaps chalcoptera	31
Phaps elegans	2
Phylidonyris niger	3
Phylidonyris novaehollandiae	57
Platalea flavipes	1
Platycercus icterotis	26
Platycercus icterotis subsp. icterotis	2
Platycercus spurius	5
Platycercus zonarius	3
Podargus strigoides	2
Podiceps cristatus	1
Poliocephalus poliocephalus	1
Porphyrio porphyrio	6
Purpureicephalus spurius	28
Rhipidura albiscapa	63
Rhipidura fuliginosa	5
Rhipidura leucophrys	36
Rhipidura rufiventris	1
Sericornis frontalis	21
Smicrornis brevirostris	10
Stagonopleura oculata	4
Strepera versicolor	4
Streptopelia senegalensis	6
Tachybaptus novaehollandiae	5
Tadorna tadornoides	2
Threskiornis molucca	4
Todiramphus sanctus	8
Tribonyx ventralis	1
Zanda baudinii	34
Zanda latirostris	16
Zosterops lateralis	61
Zosterops lateralis subsp. gouldi	1
FISH	**43**
Edelia vittata	1
Galaxias occidentalis	16
Geotria australis	2

Leiopotherapon unicolor	8
Nannoperca vittata	16
INVERT	**4445**
Abantiades hydrographis	3
Abantiades ocellatus	1
Abantiades sp. fc958	2
Acantholophus sp. fc1486	1
Acantholophus sp. fc1523	1
Acantholophus sp. fc496	1
Acantholophus sp. fc869	2
Acantholophus sp. fc970	2
Acariformes sp.	30
Adelium sp. fc904	2
Adreppus sp. fc1323	1
Adreppus sp. fc868	2
Aedes (Och.) ENM's sp nr stricklandi (SAP)	1
Aedriodes sp. fc1597	1
Aeshnidae sp.	8
Agonocheila sp. fc1059	3
Agonocheila sp. fc1522	1
Agraptocorixa sp.	2
Agrotis munda	30
Alboa worooa	1
Alona cf. rusticoides (SAP)	1
Alona setigera	1
Alonella cf. exigua (SAP)	1
Alonella clathratula	1
Amorbus bispinus	4
Amphisopodidae sp.	2
Aname mainae	1
Aname tepperi	1
Ancylidae sp.	2
Anisops sp.	1
Anthela canescens	1
Anthela ferruginosa	37
Anthela sp. fc381	2
Anthicidae sp.	1
Antichiropus variabilis	4
Antiporus sp.	1
Aphanosperma sp. fc1418	1
Apis mellifera	23
Apterogryllus sp. fc811	1
Arcella discoides	1
Archiargiolestes pusillus	1
Archichauliodes sp.	3
Arcina fulgorigera	3
Arhodia sp. fc2	15
Arhodia sp. fc320	14

Arhodia sp. fc79	3
Armatalona macrocopa	1
Arrenurus (Truncaturus) sp. (SAP)	1
Artoriopsis expolita	1
Atelomastix nigrescens	1
Aturidae sp.	1
Austrolestes analis	1
Austrolestes sp. fc3021	1
Austromerope poultoni	2
Baetidae sp.	3
Baiami sp. fc732	2
Baiami tegenarioides	1
Baiami volucripes	3
Bassianobdella fusca	1
Bennelongia australis lineage	1
Bennelongia cygnus	1
Berosus discolor	1
Bolborhachium bainbridgei	1
Botryocladius freemani	1
Caenidae sp.	7
Calamoecia attenuata	1
Calamoecia tasmanica subattenuata	1
Calliphora sp. fc53	2
Calolampra sp. fc147	4
Calosoma schayeri	1
Camponotus sp. fc423	68
Candonocypris sp. 682 (?novaezelandiae) (SAP)	1
Canthocamptus australicus	1
Carabidae sp.	3
Carthaea saturnioides	28
Cedarinia sp. fc3014	2
Cedarinia sp. fc576	1
Cedarinia sp. fc722	1
Cedarinia sp. fc890	6
Ceinidae sp.	10
Cenogmus sp. fc264	1
Ceratopogonidae sp.	39
Ceriodaphnia n. sp. a (Berner sp.#3) (SAP)	1
Chalcopteroides sp. fc930	3
Chauliognathus sp. fc795	2
Chenistonia sp. fc567	2
Chenistonia sp. fc581	3
Chenistonia sp. fc721	16
Cherax cainii	28
Cherax destructor	1
Cherax plebejus	3
Cherax preissii	8
Cherax quinquecarinatus	23

Chironominae sp.	38
Chironomus aff. alternans (V24) (CB)	5
Chlorocoma dicloraria	20
Chlorocoma sp. fc22	28
Chrysodeixis argentifera	1
Chrysopa sp. fc361	4
Chrysopa sp. fc822	3
Ciampa arietaria	1
Coccinella repanda	3
Coenagrionidae sp.	14
Colpochila antennalis	14
Colpochila bogaria	2
Colpochila sp. fc1866	1
Colpochila sp. fc2164	2
Conchostraca (unident.)	1
Conoderus sp. fc1062	2
Conoderus sp. fc1109	4
Conoderus sp. fc135	4
Conoderus sp. fc1816	1
Conoderus sp. fc1818	1
Conoderus sp. fc444	14
Conoderus sp. fc909	3
Coptocercus rubripes	2
Corduliidae sp.	8
Corixidae sp.	26
Corynoneura sp. (V49) (SAP)	1
Coryphistes sp. fc231	14
Cricotopus 'parbicinctus'	1
Crypsiphona ocultaria	11
Cryptodus sp. fc189	7
Cucullothorax horridus	1
Culicidae sp.	16
Curculionidae sp.	4
Cypretta aff. globosa	1
Dasypodia selenophora	2
Destolmia sp. fc4	29
Dichromodes personalis	1
Dicrotendipes sp. A (V47) (SAP)	1
Dingosa serrata	1
Discophlebia lucasii	3
Dissotrocha sp.	1
Doratifera sp. fc1625	1
Doratifera sp. fc332	4
Doratifera sp. fc81	1
Drasterius sp. fc1120	2
Dugesiidae sp.	4
Dunhevedia cf. crassa (SAP)	1
Dytiscidae sp.	39

Ecnomidae sp.	6
Ecnomina F group sp. AV16 (SAP)	1
Ecnomina F group sp. AV18 (SAP)	1
Ecphantus quadrilobus sp nova	2
Ectropis sp. fc23	15
Edusella sp. fc155	1
Eleale sp. fc695	2
Empididae sp.	1
Entometa fervens	1
Entometa sp. fc426	5
Ephemeroporus cf. barroisi (SAP)	1
Ephydridae sp. 5 (SAP)	1
Epicoma melanostica	10
Eriophora biapicata	1
Ethmostigmus sp. fc223	25
Euchlanis dilatata	1
Eucyclodes buprestaria	1
Eunatalis spinicornis	1
Eylais sp.	1
Ferrissia petterdi	1
Gasteracantha minax	2
Genus fc1022 sp. fc1022	6
Genus fc1024 sp. fc1024	1
Genus fc1026 sp. fc1026	2
Genus fc1029 sp. fc1029	3
Genus fc1030 sp. fc1030	1
Genus fc1031 sp. fc1031	15
Genus fc1032 sp. fc1032	1
Genus fc1036 sp. fc1036	2
Genus fc1037 sp. fc1037	7
Genus fc1038 sp. fc1038	6
Genus fc104 sp. fc104	2
Genus fc1046 sp. fc1046	1
Genus fc1051 sp. fc1051	28
Genus fc1055 sp. fc1055	10
Genus fc1056 sp. fc1056	3
Genus fc1057 sp. fc1057	9
Genus fc106 sp. fc106	2
Genus fc1060 sp. fc1060	1
Genus fc1068 sp. fc1068	2
Genus fc1070 sp. fc1070	1
Genus fc1071 sp. fc1071	1
Genus fc1072 sp. fc1072	1
Genus fc1079 sp. fc1079	4
Genus fc108 sp. fc108	1
Genus fc1080 sp. fc1080	1
Genus fc1081 sp. fc1081	2
Genus fc1083 sp. fc1083	1

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Genus fc1093 sp. fc1093	1
Genus fc1094 sp. fc1094	1
Genus fc1098 sp. fc1098	2
Genus fc1099 sp. fc1099	1
Genus fc1101 sp. fc1101	3
Genus fc1106 sp. fc1106	2
Genus fc1115 sp. fc1115	2
Genus fc1118 sp. fc1118	2
Genus fc1126 sp. fc1126	2
Genus fc1128 sp. fc1128	1
Genus fc1134 sp. fc1134	2
Genus fc1135 sp. fc1135	1
Genus fc1139 sp. fc1139	1
Genus fc1150 sp. fc1150	1
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Genus fc1169 sp. fc1169	4
Genus fc12 sp. fc12	7
Genus fc123 sp. fc123	7
Genus fc1258 sp. fc1258	1
Genus fc126 sp. fc126	4
Genus fc129 sp. fc129	3
Genus fc130 sp. fc130	4
Genus fc1302 sp. fc1302	1
Genus fc132 sp. fc132	17
Genus fc1344 sp. fc1344	1
Genus fc1349 sp. fc1349	1
Genus fc137 sp. fc137	5
Genus fc1372 sp. fc1372	1
Genus fc139 sp. fc139	1
Genus fc14 sp. fc14	46
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Genus fc1415 sp. fc1415	1
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Genus fc376 sp. fc376	3

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Genus fc383 sp. fc383	7
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Genus fc421 sp. fc421	4
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Genus fc642 sp. fc642	4

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Genus fc662 sp. fc662	1
Genus fc669 sp. fc669	3
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Genus fc743 sp. fc743	5
Genus fc75 sp. fc75	4
Genus fc750 sp. fc750	7
Genus fc751 sp. fc751	1
Genus fc753 sp. fc753	5
Genus fc754 sp. fc754	7
Genus fc755 sp. fc755	10
Genus fc757 sp. fc757	7
Genus fc758 sp. fc758	16
Genus fc759 sp. fc759	1
Genus fc76 sp. fc76	22
Genus fc760 sp. fc760	3
Genus fc765 sp. fc765	1
Genus fc766 sp. fc766	15
Genus fc768 sp. fc768	1
Genus fc769 sp. fc769	1
Genus fc77 sp. fc77	7
Genus fc770 sp. fc770	5
Genus fc771 sp. fc771	1
Genus fc772 sp. fc772	1
Genus fc776 sp. fc776	4
Genus fc782 sp. fc782	8
Genus fc784 sp. fc784	2
Genus fc785 sp. fc785	1
Genus fc788 sp. fc788	1
Genus fc789 sp. fc789	1
Genus fc790 sp. fc790	1
Genus fc791 sp. fc791	1
Genus fc792 sp. fc792	2
Genus fc793 sp. fc793	1
Genus fc794 sp. fc794	1
Genus fc796 sp. fc796	1
Genus fc797 sp. fc797	16
Genus fc799 sp. fc799	1
Genus fc80 sp. fc80	12
Genus fc801 sp. fc801	2
Genus fc812 sp. fc812	1
Genus fc813 sp. fc813	1
Genus fc815 sp. fc815	2
Genus fc818 sp. fc818	4
Genus fc82 sp. fc82	2
Genus fc821 sp. fc821	2
Genus fc83 sp. fc83	1
Genus fc830 sp. fc830	2

Genus fc833 sp. fc833	2
Genus fc834 sp. fc834	2
Genus fc837 sp. fc837	9
Genus fc840 sp. fc840	1
Genus fc849 sp. fc849	1
Genus fc852 sp. fc852	1
Genus fc855 sp. fc855	1
Genus fc857 sp. fc857	8
Genus fc859 sp. fc859	2
Genus fc86 sp. fc86	1
Genus fc861 sp. fc861	4
Genus fc862 sp. fc862	2
Genus fc863 sp. fc863	2
Genus fc864 sp. fc864	5
Genus fc873 sp. fc873	2
Genus fc878 sp. fc878	3
Genus fc881 sp. fc881	1
Genus fc882 sp. fc882	1
Genus fc886 sp. fc886	1
Genus fc891 sp. fc891	1
Genus fc90 sp. fc90	7
Genus fc900 sp. fc900	1
Genus fc907 sp. fc907	1
Genus fc911 sp. fc911	1
Genus fc915 sp. fc915	1
Genus fc916 sp. fc916	1
Genus fc92 sp. fc92	1
Genus fc921 sp. fc921	1
Genus fc925 sp. fc925	2
Genus fc928 sp. fc928	1
Genus fc937 sp. fc937	2
Genus fc942 sp. fc942	1
Genus fc947 sp. fc947	1
Genus fc95 sp. fc95	16
Genus fc957 sp. fc957	7
Genus fc966 sp. fc966	1
Genus fc969 sp. fc969	1
Genus fc978 sp. fc978	1
Genus fc983 sp. fc983	1
Genus fc986 sp. fc986	2
Genus fc988 sp. fc988	1
Glacidorbis occidentalis	1
Glyptophysa cf. gibbosa (SAP)	1
Gomphidae sp.	10
Gomphodella aff. maia (SAP)	1
Goniaea opomaloides	1
Goniaea sp. fc1470	3
Goniaea sp. fc1547	1

Goniaea sp. fc1984	1
Goniaea sp. fc2019	1
Goniaea sp. fc233	6
Goniaea sp. fc235	4
Goniaea sp. fc272	6
Goniaea sp. fc3017	1
Goniaea sp. fc3022	1
Goniaea sp. fc304	1
Goniaea sp. fc871	2
Goniaea sp. fc872	17
Goniaea vocans	3
Goniaoidea sp. fc1261	1
Gripopterygidae sp.	14
Gyrinidae sp.	9
Haliplidae sp.	5
Haliplus gibbus	1
Harpacticoida sp	1
Harpechys chilo	2
Harpobittacus phaeoscius	11
Harpobittacus similis	4
Harrisius sp. A (SAP)	1
Hebridae sp.	1
Heliomystis sp. fc663	9
Hemicorduliidae sp.	11
Heteronyx sp. fc1073	2
Heteronyx sp. fc1820	2
Heteronyx sp. fc1904	1
Heteronyx sp. fc28	2
Heteronyx sp. fc347	4
Heteronyx sp. fc363	9
Heteronyx sp. fc94	1
Heteronyx sp. fc951	3
Heurodes turritus	1
Hierodula sp. fc767	5
Hydraena cygnus	1
Hydraena sp.	1
Hydraenidae sp.	4
Hydrometridae sp.	1
Hydrophilidae sp.	14
Hydroptilidae sp.	4
Hygrobia sp.	1
Hyocephalus auprugnus	5
Hypobapta barnardi	2
Hypobapta sp. fc955	1
Hyriidae sp.	2
Ilyocryptus smirnovi	1
Ilyodromus dikrus	1
Insulodrilus bifidus	1

Iphierga sp. fc1454	2
Isopeda leishmanni	1
Keratella procurva	1
Lacrimicypris kumbar	1
Lampona brevipes	1
Lancetes lanceolatus	27
Laxta sp. fc119	7
Laxta sp. fc27	12
Leberis cf. aenigmatosa (SAP)	1
Lecane bulla	1
Lepadella sp.	1
Lepidoptera (non-pyralid)	2
Lepidoptera (non-pyralid) sp. 3 (SAP)	1
Leptoceridae sp.	30
Leptoperla australica	3
Leptophlebiidae sp.	8
Lestidae sp.	4
Libellulidae sp.	18
Limbodessus inornatus	1
Limbodessus shuckhardi	1
Limnophyes vestitus (V41)	1
Limnoxenus sp.	1
Limnoxenus zelandicus	1
Longepi woodman	1
Lopescladius? V35 (=SO3 sp. D)	1
Lyncestis melanoschista	17
Maechidus sp. fc1388	1
Mandalotus sp. fc2088	1
Mandalotus sp. fc3149	1
Megapodagrionidae sp.	3
Megaporus solidus	1
Melobasis sp. fc701	2
Mesamphisopodidae sp.	1
Mesocyclops brooksi	1
Mesostigmata sp.	1
Mesoveliidae sp.	1
Metistete sp. fc1104	3
Metistete sp. fc340	4
Metriolagria sp. fc192	4
Metriorrhynchus sp. fc99	3
Microcyclops varicans	1
Microvelia (Pacificovelia) oceanica	1
Missulena hoggi	1
Mituliodon tarantulinus	1
Moerarchis clathrella	13
Moina australiensis	1
Monommata dentata	1
Muscidae sp.	1

Myrmecia analis	2
Myrmecia sp. fc252	6
Myrmecia sp. fc281	1
Myrmecia sp. fc408	1
Myrmecia sp. fc487	3
Myrmecia sp. fc998	2
Myrmecia vindex	4
Naididae (ex Tubificidae)	1
Naididae sp.	2
Necterosoma darwini	2
Nematoda sp.	2
Neohyborrhynchus sp. fc814	2
Neotemnopteryx sp. fc120	3
Nerthra femoralis	1
Nerthra sp. fc1567	2
Nerthra sp. fc1611	1
Nerthra sp. fc2694	1
Newmanoperla exigua	1
Newnhamia fenestrata	1
Notonectidae sp.	4
Notonomus sp. fc746	5
Nyctemera amica	1
Nyungara bunni	1
Ochrogaster sp. fc10	46
Ochrogaster sp. fc2655	7
Ochrogaster sp. fc7	21
Oectosis sp. fc711	3
Oenochroma cerasiplaga	4
Oenochroma sp. fc31	13
Oenochroma vinaria	1
Oenosandra boisduvalii	5
Oligochaeta sp.	21
Olios diana	2
Olios sp. fc939	1
Omorgus sp. fc1086	1
Omorgus sp. fc1097	2
Onosandrus sp. fc526	10
Onthophagus ferox	7
Onthophagus sp. fc3503	1
Onychohydrus scutellaris	1
Ophion sp. fc87	9
Opisthopora sp.	1
Opodiphthera helena	11
Oribatida sp. 2 (SAP)	1
Orthocladiinae SO3 sp. A (SAP)	2
Orthocladiinae sp.	27
Ostracoda (unident.)	3
Oxyops fasciata	20

Oxyops pictipennis	5
Pachycondyla sp. fc737	1
Pachysaga munggai	2
Pachysaga sp. fc688	1
Palaemonidae sp.	5
Pantydia sp. fc329	11
Pantydia sp. fc388	11
Pantydia sp. fc5	25
Paracymus pygmaeus	1
Parakiefferiella variegatus	3
Paralimnophyes pullulus (V42)	7
Paramelitidae sp.	2
Paramerina levidensis	6
Paraoxypilus tasmaniensis	3
Parastacidae sp.	20
Paropsis sp. fc2034	1
Paropsis sp. fc667	7
Paropsis sp. fc913	3
Paropsisterna sp. fc1092	1
Paropsisterna sp. fc112	2
Paropsisterna sp. fc1540	2
Paropsisterna sp. fc175	1
Paropsisterna sp. fc665	2
Paropsisterna sp. fc677	2
Paroster sp.	1
Pelororhinus sp. fc1182	1
Pentaneurini genus V20	1
Peripyra sanguinipucta	1
Persectania ewingii	34
Perthiidae sp.	25
Pescecyclops sp. 4 (=sp. 11 = arnaudi sensu Sars variant)	1
Peza sp.	1
Phallaria ophiusaria	7
Phaulacridium sp. fc293	1
Philophloeus eucalypti	3
Philopotamidae sp.	1
Pholodes sp. fc384	16
Phonographa graeffei	2
Phoracantha semipuncta	1
Phoracantha sp. fc1067	1
Phreatoicidae sp.	1
Phreodrilidae sp.	4
Phyllotocus ustulatus	1
Planorbidae sp.	2
Platycoelus sp. fc2127	3
Platyzosteria sp. fc1474	2
Platyzosteria sp. fc2015	1
Platyzosteria sp. fc219	2

Platyzosteria sp. fc254	1
Platyzosteria sp. fc282	1
Platyzosteria sp. fc483	1
Platyzosteria sp. fc507	3
Platyzosteria sp. fc874	1
Platyzosteria sp. fc899	3
Platyzosteria sp. fc971	1
Podykipus leptoiuloides	3
Poecilasthena sp. fc2630	4
Pollanisus cupreus	6
Pollanisus sp. fc78	14
Polypedilum nr. convexum (SAP)	4
Polypedilum watsoni	2
Polyphrades aesalon	2
Polyzosteria mitchelli	1
Polyzosteria sp. fc592	1
Porela sp. fc749	17
Prasinocyma sp. fc393	3
Prionopelta sp. fc542	1
Promecoderus sp. fc253	8
Promochlonyx australiensis	1
Proteuxoa pissonephra	45
Proteuxoa sp. fc2752	1
Ptomaphila lacrymosa	3
Rak sp. nov. b (Venemores) (SAP)	1
Rebilus sp. fc1427	2
Rebilus sp. fc620	1
Rebilus sp. fc938	2
Rhadinosomus lacordaire	3
Rhantus suturalis	6
Rhinaria sp. fc209	1
Rhinotia sp. fc168	1
Rhytidoponera sp. fc543	9
Richardsonianidae sp.	1
Riekoperla occidentalis	1
Sandava scitisigna	21
Sceleocantha sp. fc1082	4
Scirtidae sp.	9
Scolecobrotus sp. fc1041	1
Semanopterus sp. fc1021	1
Semanopterus sp. fc824	2
Simocephalus cf. heilongjiangensis (CB)	1
Simocephalus elizabethae	1
Simuliidae sp.	14
Sorama bicolor	16
Spencerhydrus pulchellus	1
Spilosoma sp. fc445	17
Staphylinidae sp.	2

Stenoderus suturalis	1
Sternopriscus browni	1
Sternopriscus marginatus	1
Sternopriscus sp.	3
Sternopriscus storeyi	1
Stibaroma melanotoxa	8
Storena sp. fc468	1
Synchaeta pectinata	1
Tabanidae sp.	3
Talaurinus roei	1
Talaurinus sp. fc817	1
Tanychilus sp. fc348	1
Tanypodinae sp.	25
Tanytarsus aff manleyensis	1
Tanytarsus fuscithorax/semibarbitarsus	3
Tasmanicosa leuckartii	2
Teia athlophora	4
Telephlebiidae sp.	1
Temnocephalidea sp.	1
Thalaina clara	3
Thalamarchella alveola	13
the dart sp. fc322	23
Theridion mortuale	1
Thiaridae sp.	1
Tipulidae sp.	8
Tranes vigorsii	4
Triplectides sp. AV21 (SFM)	2
Trissodon sp. fc1562	1
Turbellaria sp.	1
unidentifiable unidentifiable	24
Uresiphita ornithopteralis	13
Urodacus novaehollandiae	2
Utetheisa pulchelloides	5
Uvarus pictipes	1
Vanessa kershawi	1
Veliidae sp.	9
Venator immansueta	2
Venatrix pullastra	5
Westralunio carteri	3
Xanthorhoe sp. fc42	18
Xanthorhoe sp. fc455	8
Zygopella pista	1
MAMMAL	**4870**
Antechinus flavipes	3
Antechinus flavipes subsp. leucogaster	111
Bettongia penicillata subsp. ogilbyi	2611
Canis lupus subsp. familiaris	1
Cercartetus concinnus	2

Chalinolobus gouldii	8
Chalinolobus morio	1
Dasyurus geoffroii	835
Falsistrellus mackenziei	3
Felis catus	4
Hydromys chrysogaster	5
Isoodon fusciventer	36
Isoodon obesulus subsp. fusciventer	212
Macropus fuliginosus	11
Macropus irma	8
Macrotis lagotis	2
Mormopterus planiceps	1
Mus musculus	16
Myrmecobius fasciatus	11
Notamacropus eugenii subsp. derbianus	10
Notamacropus irma	35
Nyctophilus geoffroyi	1
Oryctolagus cuniculus	5
Ovis aries	1
Phascogale tapoatafa	1
Phascogale tapoatafa subsp. tapoatafa	24
Phascogale tapoatafa subsp. wambenger	12
Pseudocheirus occidentalis	8
Rattus norvegicus	2
Rattus rattus	8
Setonix brachyurus	6
Sminthopsis gilberti	2
Sminthopsis granulipes	1
Sus scrofa	1
Tachyglossus aculeatus	17
Tadarida australis	1
Trichosurus vulpecula subsp. vulpecula	847
Vespadelus regulus	6
Vulpes vulpes	1
REPTILE	**605**
Acritoscincus trilineatus	4
Aprasia pulchella	3
Aprasia repens	4
Christinus marmoratus	7
Cryptoblepharus buchananii	3
Cryptoblepharus plagiocephalus	1
Ctenotus delli	3
Ctenotus impar	2
Ctenotus labillardieri	12
Diplodactylus calcicolus	1
Diplodactylus polyophthalmus	3
Egernia napoleonis	9
Hemiergis gracilipes	2

Hemiergis initialis subsp. initialis	13
Hemiergis peronii subsp. tridactyla	2
Lerista distinguenda	15
Lerista microtis subsp. microtis	2
Menetia greyii	8
Morelia spilota	3
Morelia spilota subsp. imbricata	1
Morethia obscura	23
Notechis scutatus	3
Parasuta nigriceps	1
Pseudonaja affinis	1
Pseudonaja affinis subsp. affinis	18
Pseudonaja mengdeni	1
Ramphotyphlops australis	4
Ramphotyphlops pinguis	1
Tiliqua occipitalis	1
Tiliqua rugosa	409
Tiliqua rugosa subsp. rugosa	1
Underwoodisaurus milii	1
Varanus gouldii	28
Varanus rosenbergi	15
Grand Total	**11521**

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 22-Feb-2024

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	25
Listed Migratory Species:	7

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	13
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	7
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	22
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Peel-yalgorup system	40 - 50km upstream from Ramsar site	In buffer area only

Listed Threatened Species			[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Rostratula australis](#)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In buffer area only
[Zanda baudinii listed as Calyptorhynchus baudinii](#)			
Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Breeding known to occur within area	In feature area
[Zanda latirostris listed as Calyptorhynchus latirostris](#)			
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Species or species habitat known to occur within area	In feature area
FISH			
[Nannatherina balstoni](#)			
Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Bettongia penicillata ogilbyi](#)			
Woylie [66844]	Endangered	Species or species habitat known to occur within area	In feature area
[Dasyurus geoffroii](#)			
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Myrmecobius fasciatus](#)			
Numbat [294]	Endangered	Translocated population known to occur within area	In feature area
[Phascogale calura](#)			
Red-tailed Phascogale, Red-tailed Wambenger, Kenngoor [316]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Pseudocheirus occidentalis](#)			
Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Setonix brachyurus](#)			
Quokka [229]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
OTHER			
[Westralunio carteri](#)			
Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
PLANT			
Caladenia leucochila Collie Spider Orchid [88196]	Endangered	Species or species habitat known to occur within area	In buffer area only
Caladenia lodgeana Lodge's Spider-orchid [68664]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Commersonia erythrogyna Trigwell's Rulingia [86397]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat known to occur within area	In feature area
Drakaea confluens Late Hammer-orchid [56778]	Endangered	Species or species habitat may occur within area	In buffer area only
Grevillea rara Rare Grevillea [64911]	Endangered	Species or species habitat known to occur within area	In buffer area only
Jacksonia velveta Collie Jacksonia [82671]	Endangered	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Pandion haliaetus			
Osprey [952]		Species or species habitat likely to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [50964]	WA	In buffer area only
Commonwealth Land - [50962]	WA	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In buffer area only
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Lane Poole Reserve	5(1)(g) Reserve	WA	In buffer area only
Muja	Conservation Park	WA	In buffer area only
NTWA Bushland covenant (0041)	Conservation Covenant	WA	In buffer area only
Unnamed WA47688	National Park	WA	In buffer area only
Westralia	Conservation Park	WA	In buffer area only
Wyvern Road	Nature Reserve	WA	In buffer area only
Yallatup	Nature Reserve	WA	In buffer area only

Regional Forest Agreements	[Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
South West WA RFA	Western Australia	In feature area

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
The Collie Battery Energy Storage System	2023/09462		Completed	In feature area
Controlled action				
Bluewaters Power Station Expansion Phases 3 & 4	2008/4113	Controlled Action	Proposed Decision	In buffer area only
Bowelling curves realignment - Collie Lake King Road 64.76 - 69.84 SLK, WA	2016/7757	Controlled Action	Post-Approval	In buffer area only
Coal Mine Expansion	2001/376	Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Collie Motorplex Dragstrip, WA	2015/7455	Controlled Action	Completed	In buffer area only
Extension of coal mine, abutting Muja Mine, Collie, WA	2009/5014	Controlled Action	Assessment Approach	In buffer area only
Muja Power Station FAD Raising Project, near Collie, WA	2019/8495	Controlled Action	Assessment Approach	In buffer area only
Proposed land clearing for Shotts Industrial Park	2009/5086	Controlled Action	Post-Approval	In buffer area only
Stage 2 Buckingham Way- Collie Residential Development	2011/6049	Controlled Action	Post-Approval	In buffer area only
Transmission Line Project	2011/6066	Controlled Action	Post-Approval	In buffer area only
Worsley Mine Expansion, WA	2019/8437	Controlled Action	Assessment Approach	In buffer area only
Not controlled action				
300MW Coal-fired Power Station Expansion	2005/2233	Not Controlled Action	Completed	In feature area
Collie Solar Farm, WA	2018/8160	Not Controlled Action	Completed	In buffer area only
Construction and operation of Bluewaters II power station	2004/1632	Not Controlled Action	Completed	In buffer area only
Construction of Bluewaters Power Station	2003/1289	Not Controlled Action	Completed	In feature area
Discharge of Water From Reverse Osmosis Treatment	2003/1154	Not Controlled Action	Completed	In feature area
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Premier Coal Mine Pit 3 North Extension, Collie, WA	2015/7493	Not Controlled Action	Completed	In buffer area only
Water Corporation, Storage and Pipeline, Collie, WA	2021/8936	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
Construction of urea production plant and supporting infrastructure	2009/5067	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111

Appendix C

Conservation significant species and likelihood of occurrence assessment

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Birds					
Actitis hypoleucos	Common sandpiper	MI	MI	Edge of sheltered waters salt or fresh, e.g. estuaries, mangrove creeks, rocky coasts, near-coastal saltlakes (including saltwork ponds), river pools, lagoons, claypans, drying swamps, flood waters, dams and sewage ponds. Preferring situations where low perches are available (Johnstone & Storr 1998).	Negligible
Aphelocephala leucopsis	Southern whiteface	-	VU	Relatively undisturbed open woodlands and shrublands with low tree densities, with an understory of grasses or herbaceous litter cover. They require hollows and crevices in living or dead trees for roosting and nesting (DCCEEW 2023).	Negligible
Apus pacificus	Pacific swift	MI	MI	Aerial, migratory species that is most often seen over inland plains and sometimes above open areas, foothills or in coastal areas. Sometimes occurs over settled areas, including towns, urban areas and cities (Pizzey & Knight 2012).	Moderate
Botaurus flavicollis australis	Black bittern	P2	-	Freshwater pools, swamps and lagoons, well-screened with trees. Occasionally feeding by day but mainly sheltering in dense waterside vegetation (Melaleuca spp., Eucalyptus camaldulensis, Pandanus spp. and long grass) (Johnstone and Storr 1998).	Negligible

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Botaurus poiciloptilus	Australasian bittern	EN	EN	In or over water, in tall reedbeds, sedges, rushes, cumbungi, lignum. Also occurs in ricefields, drains in tussocky paddocks and occasionally in saltmarshes and brackish wetlands (TSSC 2019).	Negligible
Calidris acuminata	Sharp-tailed sandpiper	VU (M	VU (MI	Occurs in tidal mudflats, saltmarshes and mangroves, as well as, shallow fresh, brackish or saline inland wetlands. It is also known from floodwaters, irrigated pastures and crops, sewage ponds, saltfields (Pizzey & Knight 2012).	Negligible
Calidris ferruginea	Curlew sandpiper	CR	CR (MI	Mainly shallows of estuaries and near-coastal saltlakes (including saltwork ponds) and drying near-coastal freshwater lakes and swamps. Also beaches and near-coastal sewage ponds (Johnstone & Storr 1988).	Negligible
Calidris melanotos	Pectoral sandpiper	MI	MI	Mainly fresh waters (swamps, lagoons, river pools, irrigation channels and sewage ponds); also samphire flats around estuaries and saltlakes (Johnstone & Storr 1998).	Negligible
Calyptorhynchus banksii naso	Forest red-tailed black cockatoo	VU	VU	Eucalypt and Corymbia forests, often in hilly interior. More recently also observed in more open agricultural and suburban areas including Perth metropolitan area. Attracted to seeding Corymbia calophylla, Eucalyptus marginata, introduced Melia azedarach and Eucalyptus spp. trees (Johnstone et al. 2013).	High

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Falco hypoleucos	Grey falcon	VU	VU	Species occurs in arid and semi-arid Australia, where it inhabits timbered lowland plains. In particular Acacia shrublands and that are crossed by tree-lined water courses. Species has also been observed hunting in treeless areas and frequenting tussock grassland and open woodlands (TSSC 2020).	Negligible
Falco peregrinus	Peregrine falcon	OS	-	Mainly found around cliffs along coasts, rivers, ranges and around wooded watercourses and lakes (Johnstone and Storr 1998).	Moderate
Leipoa ocellata	Malleefowl	VU	VU	Scrubs and thickets of Eucalyptus spp., Melaleuca lanceolata and Acacia linophylla; also other dense litter-forming shrublands. Attracted to fallen wheat in stubbles and along roads (Johnstone and Storr 1998).	Negligible
Motacilla cinerea	Grey wagtail	MI	MI	In Australia mostly near running water in disused quarries, sandy and rocky streams in escarpments and rainforests, sewage ponds, ploughed fields and airfields (Pizzey & Knight 2012).	Negligible
Pandion haliaetus	Osprey	MI	MI	Coasts, estuaries, bays, inlets, islands, and surrounding waters; coral atolls, reefs, lagoons, rock cliffs, stacks (Pizzey & Knight 2012).	Negligible
Platycercus icterotis xanthogenys	Western rosella (inland)	P4	-	Open eucalypt woodlands with heath understorey (Pizzey & Knight 2012).	Moderate

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Rostratula australis	Australian painted snipe	EN	EN	Mainly shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans (Marchant and Higgins 1993).	Negligible
Zanda baudinii	Baudin's black cockatoo	EN	EN	Mainly eucalypt forests. Attracted to seeding Corymbia calophylla, Banksia spp., Hakea spp., and to fruiting apples and pears (Johnstone and Storr 1998).	High
Zanda latirostris	Carnaby's black cockatoo	EN	EN	Mainly proteaceous scrubs and heaths and adjacent eucalypt woodlands and forests; also plantations of Pinus spp. Attracted to seeding Banksia spp., Hakea spp., Eucalyptus spp., Corymbia calophylla, Grevillea spp., and Allocasuarina spp. (Johnstone and Storr 1998).	High
Fish					
Geotria australis	Pouched lamprey	P3	-	Marine, estuarine and coastal rivers and streams. Adults live in Southern Ocean and migrate upstream to spawn. Larvae live in muddy burrows in the upper reaches of streams (Bray and Gomon 2018).	Negligible
Nannatherina balstoni	Balston's pygmy perch	VU	VU	Acidic, tannin-stained freshwater pools, streams and lakes in peat flats within 30 km of the coast of south-west Western Australia, preferring shallow water, and commonly associated with tall sedge thickets and inundated riparian vegetation (DAWE 2020).	Negligible
Invertebrate					

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Glacidorbis occidentalis	-	P3	P3	Found in freshwater streams in Jarrah forests in the edges of the Darling Ranges (Bunn & Stoddard 1988)	Very low
Westralunio carteri	Carter's freshwater mussel	VU	VU	Occurs in greatest abundance in slower flowing streams with stable sediments that are soft enough for burrowing amongst woody debris and exposed tree roots. Also occupies lentic systems including large water supply dams and even on-stream farm dams. Salinity tolerance quite low (Morgan et al. 2011).	Negligible
Bettongia penicillata ogilbyi	Woylie	CR	EN	Woodlands and adjacent heaths with a dense understorey of shrubs, particularly Gastrolobium spp. (TSSC 2018).	Very low
Dasyurus geoffroii	Chuditch	VU	VU	Wide range of habitats from woodlands, dry sclerophyll forests, riparian vegetation, beaches and deserts. Appears to utilise native vegetation along roadsides in the wheatbelt (DEC 2012).	Moderate
Falsistrellus mackenziei	Western false pipistrelle	P4	-	High rainfall forests dominated by jarrah, karri, marri, and tuart. Occupies hollow logs for breeding and resting (Van Dyck and Strahan 2008). Also known to utilise Banksia woodland on the Swan Coastal Plain (Hosken and O'Shea 1995).	High

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Hydromys chrysogaster	Rakali	P4	-	Areas with permanent water, fresh, brackish or marine. Likely to occur in all major rivers and most of the larger streams as well as bodies of permanent water in the lower south-west (Christensen et al. 1984). Intact riparian vegetation and associated bank stability is critical to their survival (DWER 2023).	Moderate
Isoodon fusciventer	Quenda	P4	-	Dense scrubby, often swampy, vegetation with dense cover up to one metre high (DEC 2012)	High
Macrotis lagotis	Bilby	VU	VU	Open tussock grassland on uplands and hills, mulga woodland/shrubland growing on ridges and rises and hummock grassland (spinifex) growing on sandplains and dunes, drainage systems, salt lake systems and other alluvial areas (DBCA 2017).	Negligible
Myrmecobius fasciatus	Numbat	EN	EN	Generally dominated by Eucalyptus spp. that provide hollow logs and branches for shelter and termites for food (van Dyck & Strahan 2008).	Very low
Notamacropus eugenii derbianus	Tammar wallaby	P4	-	Dry sclerophyll forest, Banksia spp. woodlands and shrublands, typically favouring dense low vegetation that provides dense cover (Christensen and Strahan 1983).	Low
Notamacropus irma	Western brush wallaby	P4	-	Dry sclerophyll forest, Banksia spp. woodlands and shrublands, typically favouring dense low vegetation that provides dense cover (Christensen and Strahan 1983).	Low

Species name	Common name	Level of significance		Habitat	Likelihood of occurrence
		WA	EPBC Act		
Phascogale calura	Red-tailed phascogale	CD	VU	Historically occurred in a variety of woodland habitats but not restricted to remnants of mature Eucalyptus wandoo or Allocasuarina huegeliana woodlands in the south-western Wheatbelt where annual rainfall is 300-600 mm (Menkhorst & Knight 2011).	Negligible
Phascogale tapoatafa wambenger	South-western brush-tailed phascogale	CD	-	Dry sclerophyll forests and open woodlands that contain hollow-bearing trees but a sparse ground cover (Triggs 2003).	High
Pseudocheirus occidentalis	Western ringtail possum	CR	CR	On the Swan Coastal Plain in Agonis flexuosa woodlands and Agonis flexuosa/ Eucalyptus gomphocephala forests. Also Eucalyptus marginata forests (DBCA 2017).	Moderate
Setonix brachyurus	Quokka	VU	VU	On the mainland mostly dense streamside vegetation or shrubland and heath areas, particularly around swamps (Cronin 2007).	Moderate
Reptile					
Ctenotus delli	Dell's skink	P4	-	Jarrah and marri woodland with a shrub dominated understorey, sheltering in dense vegetation, inside grass trees and beneath rocks, sometimes in burrows (Nevill 2005).	Moderate

Note: CR=critically endangered, EN=endangered, VU=vulnerable, CD=conservation dependent, MI=migratory, OS=other specially protected, P1=Priority 1, P2=Priority 2, P3=Priority 3, P4=Priority 4. Species with a high or moderate likelihood to occur within the site are shaded green.

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Appendix D

Black cockatoo foraging plants species list

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Acacia baileyana	Cootamundra wattle	Secondary	-	-	Groom 2011
Acacia pentadenia	Karri wattle	Secondary	-	-	Groom 2011
Acacia saligna	Orange wattle	Secondary	-	-	Groom 2011
Agonis flexuosa	Peppermint tree	Secondary	-	-	Groom 2011
Allocasuarina fraseriana	Sheoak	Secondary	Secondary	Secondary	Johnstone & Storr 1998; Johnstone *et al.* 2010; Johnstone 2017; DoEE 2017
Allocasuarina spp.		Secondary	-	Secondary	Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Anigozanthos flavidus	Tall kangaroo paw	-	Secondary	-	Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017
Araucaria heterophylla	Norfolk island pine	Secondary	-	-	Groom 2011; DoEE 2017
Banksia ashbyi	Ashby's banksia	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Banksia attenuata	Slender banksia	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia baxteri	Baxter's banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia carlinoides	Pink dryandra	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia coccinea	Scarlet banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia dallanneyi	Couch honeypot dryandra	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia ericifolia	Heath-leaved banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia fraseri		Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia gardneri	Prostrate banksia	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia grandis	Bull banksia	Primary	Secondary	-	Saunders 1980; Johnstone & Storr 1998; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia hookeriana	Hooker's banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia ilicifolia	Holly banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; Johnstone & Storr 1998; DoEE 2017
Banksia kippistiana		Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia leptophylla		Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia lindleyana	Porcupine banksia	Primary	Secondary	-	Johnstone *et al.* 2010; DoEE 2017

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Banksia littoralis	Swamp banksia	Primary	Secondary	-	Saunders 1980; Groom 2011Johnstone & Storr 1998; Johnstone *et al.* 2010; DoEE 2017
Banksia menziesii	Firewood banksia	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia mucronulata	Swordfish dryandra	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia nivea	Honeypot dryandra	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Banksia nobilis	Golden dryandra	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Banksia praemorsa	Cut-leaf banksia	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia prionotes	Acorn banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia prolata		Primary	Secondary	-	Johnstone *et al.* 2010; DoEE 2017
Banksia quercifolia	Oak-leaved banksia	Primary	Secondary	-	Johnstone & Storr 1998; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia sessilis	Parrot bush	Primary	Secondary	-	Saunders 1980; Johnstone & Storr 1998; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia speciosa	Showy banksia	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia spp.		Primary	Secondary	-	Saunders 1979; DSEWPaC 2012; DoEE 2017
Banksia squarrosa	Pingle	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Banksia tricuspis	Pine banksia	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia undata	Urchin dryandra	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia verticillata	Granite banksia	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Brassica campestris	Canola	Secondary	-	-	Groom 2011; DoEE 2017
Callistemon spp.		Secondary	Secondary	-	Johnstone *et al.* 2010; DoEE 2017
Callistemon viminalis	Captain cook bottlebrush	Secondary	-	-	Groom 2011
Callitris sp.		Secondary	-	-	Johnstone *et al.* 2010; Groom 2011
Carya illnoinensis	Pecan	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; Groom 2014; DoEE 2017
Casuarina cunninghamiana	River sheoak	Secondary	-	-	Groom 2011
Citrullus lanatus	Pie or afghan melon	Secondary	-	-	Johnstone *et al.* 2010; Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Corymbia calophylla	Marri	Primary	Primary	Primary	Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017; Johnstone 2017; Saunders 1979; Johnstone & Kirkby 2008
Corymbia citriodora	Lemon scented gum	Secondary	Secondary	Secondary	Johnstone *et al.* 2010; DSEWPaC 2012; Groom 2011; Johnstone 2017
Corymbia ficifolia	Red flowering gum	Secondary	-	-	Groom 2011
Corymbia haematoxylon	Mountain marri	Secondary	-	Secondary	Groom 2011; DoEE 2012; DoEE 2017
Corymbia maculata	Spotted gum	-	-	-	-
Darwinia citriodora	Lemon-scented darwinia	Secondary	Secondary	-	Groom 2011; Johnstone *et al.* 2010
Diospryros sp.	Sweet persimmon	Secondary	Secondary	-	Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Eremophila glabra	Tarbush	Secondary	-	-	Groom 2011
Erodium aureum		Secondary	-	-	Groom 2011
Erodium botrys	Long storksbill	Secondary	Secondary	-	Groom 2011; Johnstone & Storr 1998; Johnstone *et al.* 2010
Erodium spp.		Secondary	Secondary	-	Johnstone *et al.* 2010; DoEE 2017
Eucalyptus caesia	Silver princess	Secondary	-	Secondary	Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DoEE 2017; Johnstone 2017
Eucalyptus camaldulensis	River red gum	-	-	Secondary	DoEE 2012; DoEE 2017
Eucalyptus decipiens	Red heart/moit	-	-	Secondary	Johnstone 2017
Eucalyptus diversicolor	Karri	-	-	Primary	Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017; Johnstone & Storr 1998
Eucalyptus erythrocorys	Illyarrie	Secondary	-	Secondary	DSEWPaC 2012; DoEE 2017; Johnstone 2017, Johnstone *et al.* 2010
Eucalyptus gomphocephala	Tuart	Secondary	-	Secondary	Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Eucalyptus grandis	Flooded gum, rose gum	-	-	Secondary	DoEE 2012; DoEE 2017
Eucalyptus lehmannii	Bushy yate	-	-	Secondary	Johnstone 2017
Eucalyptus leucoxylon	Yellow gum	Secondary	-	-	Groom 2014

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Eucalyptus loxophleba	York gum	Secondary	-	-	Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Eucalyptus marginata	Jarrah	Primary	Secondary	Primary	Saunders 1980; Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DoEE 2017; Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone 2017
Eucalyptus patens	Blackbutt	Primary	-	Primary	Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017; Johnstone 2017; Groom 2011
Eucalyptus pleurocarpa	Tallerack	Secondary	-	-	Groom 2011
Eucalyptus preissiana	Bell-fruited mallee	Secondary	-	-	Groom 2011
Eucalyptus robusta	Swamp mahogany	Secondary	-	-	Johnstone *et al.* 2010; Groom 2011
Eucalyptus salmonophloia	Salmon gum	Primary	-	-	Johnstone *et al.* 2010; Groom 2011; DSEWPaC 2012; DSEWPaC 2012; DoEE 2017
Eucalyptus staeri	Albany blackbutt	-	-	Secondary	Johnstone & Storr 1998
Eucalyptus todtiana	Coastal blackbutt	Secondary	-	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011; Johnstone & Kirkby 2008
Eucalyptus wandoo	Wandoo	Primary	Secondary	Primary	Saunders 1980; Johnstone *et al* . 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Ficus sp.	Fig	Secondary	-	-	Groom 2011
Grevillea armigera	Prickly toothbrushes	Primary	-	-	Groom 2011
Grevillea bipinnatifida	Fuschia grevillea	Primary	-	-	Groom 2011
Grevillea hookeriana	Red toothbrushes	Primary	-	-	Groom 2011
Grevillea hookeriana subsp. api	Black toothbrushes	Primary	-	-	Groom 2011
Grevillea paniculata	Kerosene bush	Primary	-	-	Groom 2011
Grevillea paradoxa	Bottlebrush grevillea	Primary	-	-	Groom 2011
Grevillea petrophiloides	Pink poker	Primary	-	-	Groom 2011
Grevillea robusta	Silky oak	Primary	-	-	Johnstone *et al.* 2010; Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Grevillea spp.		Primary	-	-	Saunders 1979; Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017
Grevillea wilsonii	Native fuchsia	-	Secondary	-	Johnstone *et al.* 2010
Hakea auriculata		Primary	-	-	Saunders 1980; Groom 2011
Hakea candolleana		Primary	-	-	Groom 2011
Hakea circumalata	Coastal hakea	Primary	-	-	Groom 2011
Hakea commutata		Primary	-	-	Groom 2011
Hakea conchifolia	Shell-leaved hakea	Primary	-	-	Groom 2011
Hakea costata	Ribbed hakea	Primary	-	-	Groom 2011
Hakea cristata	Snail hakea	Primary	Secondary	-	Groom 2011; Johnstone *et al.* 2010
Hakea cucullata	Snail hakea	Primary	-	-	Groom 2011
Hakea cyclocarpa	Ramshorn	Primary	-	-	Saunders 1980; Groom 2011
Hakea eneabba		Primary	-	-	Groom 2011
Hakea erinacea	Hedgehog hakea	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011
Hakea falcata	Sickle hakea	Primary	-	-	Groom 2011
Hakea flabellifolia	Fan-leaved hakea	Primary	-	-	Groom 2011
Hakea gilbertii		Primary	-	-	Saunders 1980; Groom 2011
Hakea incrassata	Golfball or marble hakea	Primary	-	-	Johnstone *et al.* 2010; Groom 2011
Hakea lasiantha	Woolly flowered hakea	Primary	-	-	Johnstone *et al* . 2010; Groom 2011
Hakea lasianthoides		Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011
Hakea laurina	Pin-cushion hakea	Primary	-	-	Johnstone *et al.* 2010; Groom 2011
Hakea lissocarpha	Honeybush	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011
Hakea marginata		-	Secondary	-	Johnstone *et al.* 2010
Hakea megalosperma	Lesueur hakea	Primary	-	-	Groom 2011
Hakea multilineata	Grass leaf hakea	Primary	-	-	Groom 2011
Hakea neospathulata		Primary	-	-	Groom 2011
Hakea obliqua	Needles and corks	Primary	-	-	Saunders 1980; Groom 2011
Hakea oleifolia	Dungyn	Primary	-	-	Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Hakea pandanicarpa subsp. crassifolia	Thick-leaved hakea	Primary	-	-	Groom 2011
Hakea petiolaris	Sea urchin hakea	Primary	-	-	Groom 2011
Hakea polyanthema		Primary	-	-	Groom 2011
Hakea preissii	Needle tree	Primary	-	-	Groom 2011
Hakea prostrata	Harsh hakea	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011
Hakea psilorrhyncha		Primary	-	-	Groom 2011
Hakea ruscifolia	Candle hakea	Primary	Secondary	-	Saunders 1980; Groom 2011; Johnstone *et al.* 2010
Hakea scoparia	Kangaroo bush	Primary	-	-	Groom 2011
Hakea smilacifolia		Primary	-	-	Groom 2011
Hakea spp.		Primary	Secondary	-	Saunders 1979; DSEWPaC 2012; DoEE 2017
Hakea stenocarpa	Narrow-fruited hakea	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011
Hakea sulcata	Furrowed hakea	Primary	-	-	Groom 2011
Hakea trifurcata	Two-leaved hakea	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011
Hakea undulata	Wavy-leaved hakea	Primary	Secondary	-	Saunders 1980; Johnstone *et al.* 2010; Groom 2011
Hakea varia	Variable-leaved hakea	Primary	Secondary	-	Saunders 1980; Groom 2011
Harpephyllum caffrum	Kaffir plum	-	-	Secondary	Johnstone 2017
Helianthus annuus	Sunflower	Secondary	-	-	Johnstone *et al.* 2010; Groom 2011
Hibiscus sp.	Hibiscus	Secondary	-	-	Groom 2011
Isopogon scabriusculus		Secondary	-	-	Groom 2011
Jacaranda mimosifolia	Jacaranda	Secondary	Secondary	-	Johnstone *et al.* 2010; Groom 2011
Jacksonia furcellata	Grey stinkwood	Secondary	-	-	Groom 2011
Kingia australis	Kingia	-	Secondary	-	Johnstone *et al.* 2010
Lambertia inermis	Chittick	Secondary	-	-	Johnstone & Storr 1998; Groom 2011
Lambertia multiflora	Many-flowered honeysuckle	Secondary	-	-	Saunders 1980; Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Liquidamber styraciflua	Liquid amber	Primary	-	Secondary	Johnstone *et al.* 2010; Groom 2011; Groom 2014; Personal observation
Lupinus sp.	Lupin	Secondary	-	-	Saunders 1980; Groom 2011
Macadamia integrifolia	Macadamia	Primary	Secondary	-	Johnstone *et al.* 2010; Grooms 2011; Groom 2014
Malus domestica	Apple	Secondary	Secondary	-	Johnstone *et al* . 2010; Johnstone & Storr 1998; DSEWPaC 2012; DoEE 2017; Groom 2011
Melaleuca leuropoma		Secondary	-	-	Saunders 1980; Groom 2011
Melia azedarach	Cape lilac or white cedar	Secondary	-	Primary	Johnstone *et al.* 2010; Groom 2011
Mesomeleana spp.		Secondary	-	-	Johnstone *et al.* 2010; Groom 2011
Olea europea	Olive	-	-	Secondary	Johnstone 2017
Persoonia longifolia	Snottygobble	-	-	Secondary	Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017
Pinus canariensis	Canary island pine	Primary	-	-	Johnstone *et al.* 2010; Groom 2011
Pinus caribea	Caribbean pine	Primary	-	-	Johnstone *et al.* 2010; Groom 2011
Pinus pinaster	Pinaster or maritime pine	Primary	-	-	Groom 2011
Pinus radiata	Radiata pine	Primary	Secondary	-	Johnstone *et al.* 2010; Groom 2011
Pinus spp.		Primary	Secondary	-	Johnstone & Storr 1998; Saunders 1979; Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017
Protea 'Pink Ice'		Secondary	-	-	Groom 2011
Protea repens		Secondary	-	-	Groom 2011
Protea spp.		Secondary	-	-	Johnstone *et al.* 2010
Prunus amygdalus	Almond tree	Secondary	-	-	Johnstone & Storr 1998; Johnstone *et al.* 2010; Groom 2011; DoEE 2017
Pyrus communis	European pear	-	Secondary	-	Johnstone & Storr 1998; Johnstone *et al.* 2010; DSEWPaC 2012; DoEE 2017
Quercus spp.	Oak	-	Secondary	-	Johnstone *et al.* 2010

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Raphanus raphanistrum	Wild radish	Secondary	-	-	Groom 2011; DoEE 2017
Reedia spathacea		-	Secondary	-	Johnstone *et al.* 2010
Rumex hypogaeus	Doublegee	Secondary	-	-	Saunders 1980
Stenocarpus sinuatus		Secondary	-	-	Johnstone *et al.* 2010
Syzygium smithii	Lilly pilly	Secondary	-	-	Groom 2014
Tipuana tipu	Tipu or rosewood tree	Primary	-	-	Groom 2011, Groom 2014
Xanthorrhoea preissii	Grass tree	Secondary	Secondary	-	Groom 2011; Johnstone *et al.* 2010
Xylomelum occidentale	Woody pear	Secondary	-	-	Groom 2014

CBC=Carnaby's black cockatoo, BBC=Baudin's black cockatoo and FRTBC=Forest red-tailed black cockatoo

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Appendix E

Black cockatoo roost counts

Table 1: White-tailed black cockatoo recorded in roosts within 12 km of the site

Roost ID	Year and number of individuals									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
DONCOLR002	NS	NS	NS	6	0	NS	15	0	0	0

NS = not surveyed

Table 2: Forest red-tailed black cockatoo recorded in roosts within 12 km of the site

Roost ID	Year and number of individuals									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
DONCOLR002	NS	NS	NS	27	0	NS	12	9	3	5

NS = not surveyed

Appendix F

Species list

Species list
Collie Palmer BESS and Solar PV project

Category	Status	Species name	Common name	Record type
Birds				
		Acanthiza apicalis	Inland thornbill	Sight, call
		Acanthiza chrysorrhoa	Yellow-rumped thornbill	Sight, call
		Acanthiza inornata	Western thornbill	Sight, call
		Anas supercliosa	Pacific black duck	Sight
		Artamus cyanopterus	Dusky woodswallow	Sight, call
		Barnardius zonarius	Australian ringneck	Sight, call
	VU	*Calyptorhynchus banksii naso*	Forest red-tailed black cockatoo	Sight, foraging evidence
		Chenonetta jubata	Australian wood duck	Sight
		Coracina novaehollandiae	Black-faced cuckoo-shrike	Sight
		Corvus coronoides	Australian raven	Sight, call
		Cracticus nigrogularis	Pied butcherbird	Sight, call
	*	*Dacelo novaeguineae*	Laughing kookaburra	Sight, call
		Dromaius novaehollandiae	Emu	Sight
		Egretta novaehollandiae	White-faced heron	Sight
		Fulica atra	Eurasian coot	Sight
		Gavicalis virescens	Singing honeyeater	Call
		Geryone fusca	Western gerygone	Call
		Grallina cyanoleuca	Magpie-lark	Sight, call
		Gymorhina tibicen	Australian magpie	Sight, call
		Malurus splendens	Splendid fairy-wren	Sight, call
		Ocyphaps lophotes	Crested pigeon	Sight
		Pachycephala rufiventris	Rufous whistler	Call
		Pardalotus striatus	Striated pardalote	Call
		Parvipsitta porphyrocephala	Purple-crowned lorikeet	Sight, call
		Petrochelidon nigricans	Tree martin	Sight, call
		Petroica bodang	Scarlet robin	Sight, call
		Phylidonyrs novaehollandiae	New Holland honeyeater	Sight, call
		Purpureicephalus spurius	Red-capped parrot	Sight, call
		Rhipidura albiscapa	Grey fantail	Sight, call
		Rhipidura leucophrys	Willy wagtail	Sight, call

Category	Status	Species name	Common name	Record type
		Smicrornis brevirostris	Weebill	Sight, call
		Tachybaptus novaehollandiae	Australasian grebe	Sight
	EN	*Zanda baudinii*	Baudin's black cockatoo	Foraging evidence
	EN	*Zanda latirostris*	Carnaby's black cockatoo	Foraging evidence
		Zosterops lateralis	Silvereye	Sight, call
Mammals				
	*	*Canis familiaris*	Dog	Sight
		Macropus fuliginosus	Western grey kangaroo	Sight
	*DP	*Oryctolagus cuniculus*	Rabbit	Scats, diggings
	*	*Ovis aries*	Sheep	Sight
	*DP	*Vulpes vulpes*	Fox	Scats
Reptiles				
		Pseudonaja affinis affinis	Dugite	Skin shed

Note: * denotes introduced fauna species, DP=declared pest under the BAM Act, EN=Endangered under the BC and EPBC Acts, P4=Priority 4 in WA, VU=Vulnerable under the BC and EPBC Acts

Appendix G

Black cockatoo habitat tree data

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
25	433905.65	6315139.38	140	*Corymbia calophylla*	Suitable nesting tree	
	433907.83	6315133.52	131	*Corymbia calophylla*	Potential nesting tree	
	433899.40	6315127.14	148	*Corymbia calophylla*	Potential nesting tree	
	433998.50	6315190.57	96	*Corymbia calophylla*	Potential nesting tree	
	433998.26	6315184.58	156	*Corymbia calophylla*	Potential nesting tree	
	434018.45	6315199.91	73	*Eucalyptus marginata*	Potential nesting tree	
	434024.74	6315192.63	81	*Corymbia calophylla*	Potential nesting tree	
	434024.74	6315192.52	96	*Corymbia calophylla*	Potential nesting tree	
	434021.48	6315192.39	75	*Corymbia calophylla*	Potential nesting tree	
	434023.00	6315189.18	51	*Corymbia calophylla*	Potential nesting tree	
	434022.48	6315183.30	129	*Corymbia calophylla*	Potential nesting tree	
	434022.21	6315167.56	112	*Corymbia calophylla*	Potential nesting tree	
	434026.79	6315150.73	76	*Eucalyptus marginata*	Potential nesting tree	
	434030.25	6315148.54	62	*Eucalyptus marginata*	Potential nesting tree	
	434039.18	6315150.71	55	*Corymbia calophylla*	Potential nesting tree	
	434015.31	6315141.34	102	*Corymbia calophylla*	Potential nesting tree	
	434016.04	6315143.90	105	*Corymbia calophylla*	Potential nesting tree	
	434010.67	6315153.29	78	*Corymbia calophylla*	Potential nesting tree	
	434005.00	6315152.03	59	*Corymbia calophylla*	Potential nesting tree	
	434005.39	6315135.62	81	*Corymbia calophylla*	Potential nesting tree	
	433991.58	6315139.96	81	*Corymbia calophylla*	Potential nesting tree	
	433990.51	6315161.02	92	*Corymbia calophylla*	Potential nesting tree	
	433977.31	6315143.41	79	*Corymbia calophylla*	Potential nesting tree	
	433972.60	6315138.06	64	*Corymbia calophylla*	Potential nesting tree	
	433961.56	6315133.10	64	*Corymbia calophylla*	Potential nesting tree	
	433961.67	6315130.22	88	*Corymbia calophylla*	Potential nesting tree	
	433966.92	6315152.21	79	*Corymbia calophylla*	Potential nesting tree	
	433956.11	6315153.36	109	*Eucalyptus marginata*	Potential nesting tree	
	433937.01	6315141.14	106	*Corymbia calophylla*	Potential nesting tree	
	433933.59	6315137.35	109	*Corymbia calophylla*	Potential nesting tree	
	433969.83	6315120.74	98	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433957.78	6315113.90	55	*Eucalyptus marginata*	Potential nesting tree	
	433969.97	6315113.54	105	*Eucalyptus marginata*	Potential nesting tree	
	433969.96	6315101.67	59	*Eucalyptus marginata*	Potential nesting tree	
	433974.73	6315098.93	59	*Eucalyptus marginata*	Potential nesting tree	
	434099.16	6315037.02	119	*Corymbia calophylla*	Suitable nesting tree	
	434094.37	6315043.87	131	*Corymbia calophylla*	Potential nesting tree	
	434106.58	6315069.12	135	*Eucalyptus marginata*	Potential nesting tree	
	434085.88	6315101.57	127	*Eucalyptus marginata*	Potential nesting tree	
	434088.48	6315115.34	66	*Stag*	Potential nesting tree	
	434106.00	6315113.57	120	*Corymbia calophylla*	Potential nesting tree	
	434126.15	6315121.92	103	*Eucalyptus marginata*	Potential nesting tree	
	434143.41	6315116.49	115	*Corymbia calophylla*	Potential nesting tree	
	434141.30	6315083.99	71	*Corymbia calophylla*	Potential nesting tree	
	434130.97	6315083.47	56	*Corymbia calophylla*	Potential nesting tree	
	434127.29	6315077.13	92	*Corymbia calophylla*	Potential nesting tree	
	434122.41	6315068.67	64	*Eucalyptus marginata*	Potential nesting tree	
	434109.92	6315085.11	110	*Eucalyptus marginata*	Potential nesting tree	
	434075.31	6315136.10	107	*Corymbia calophylla*	Potential nesting tree	
	434083.58	6315151.45	129	*Corymbia calophylla*	Potential nesting tree	
	434087.80	6315147.27	53	*Eucalyptus marginata*	Potential nesting tree	
	434089.68	6315158.48	62	*Corymbia calophylla*	Potential nesting tree	
	434094.05	6315159.06	62	*Corymbia calophylla*	Potential nesting tree	
	434092.21	6315156.39	50	*Eucalyptus marginata*	Potential nesting tree	
	434097.91	6315153.32	89	*Eucalyptus marginata*	Potential nesting tree	
	434099.26	6315145.90	57	*Eucalyptus marginata*	Potential nesting tree	
	434103.76	6315141.72	55	*Corymbia calophylla*	Potential nesting tree	
	434095.53	6315132.80	101	*Corymbia calophylla*	Potential nesting tree	
	434102.53	6315131.29	52	*Corymbia calophylla*	Potential nesting tree	
	434118.29	6315140.49	150	*Corymbia calophylla*	Potential nesting tree	
	433493.62	6314968.26	214	*Corymbia calophylla*	Potential nesting tree	
	433604.14	6314817.89	100	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433604.03	6314820.11	150	*Corymbia calophylla*	Potential nesting tree	
	433608.22	6314819.92	125	*Corymbia calophylla*	Potential nesting tree	
29	434055.70	6315377.45	115	*Eucalyptus marginata*	Suitable nesting tree	
	434121.14	6315393.86	111	*Corymbia calophylla*	Potential nesting tree	
	434129.57	6315400.12	178	*Corymbia calophylla*	Potential nesting tree	
	434141.64	6315404.31	110	*Corymbia calophylla*	Potential nesting tree	
96	434264.85	6315345.16	110	*Eucalyptus marginata*	Suitable nesting tree	
	434213.42	6315309.88	139	*Corymbia calophylla*	Potential nesting tree	
	434306.62	6315681.05	53	*Eucalyptus marginata*	Potential nesting tree	
	434305.06	6315677.72	54	*Eucalyptus marginata*	Potential nesting tree	
	434314.77	6315674.35	73	*Eucalyptus marginata*	Potential nesting tree	
	434314.16	6315668.13	54	*Eucalyptus marginata*	Potential nesting tree	
	434319.81	6315658.19	101	*Corymbia calophylla*	Potential nesting tree	
	434331.84	6315641.09	95	*Corymbia calophylla*	Potential nesting tree	
	434343.41	6315623.65	118	*Corymbia calophylla*	Potential nesting tree	
	434332.80	6315610.16	117	*Eucalyptus marginata*	Potential nesting tree	
	434303.41	6315604.97	112	*Eucalyptus marginata*	Potential nesting tree	
95	434294.91	6315595.27	131	*Corymbia calophylla*	Suitable nesting tree	
	434501.89	6315553.76	52	*Corymbia calophylla*	Potential nesting tree	
	434494.14	6315556.59	63	*Corymbia calophylla*	Potential nesting tree	
	434481.67	6315555.95	89	*Eucalyptus marginata*	Potential nesting tree	
	434485.26	6315547.88	64	*Corymbia calophylla*	Potential nesting tree	
	434486.32	6315543.34	75	*Corymbia calophylla*	Potential nesting tree	
	434478.07	6315538.52	107	*Corymbia calophylla*	Potential nesting tree	
	434487.82	6315528.50	81	*Corymbia calophylla*	Potential nesting tree	
	434782.93	6315658.87	97	*Eucalyptus marginata*	Potential nesting tree	
94	434792.70	6316006.75	154	*Eucalyptus marginata*	Suitable nesting tree	
	434636.71	6315955.81	50	*Eucalyptus rudis*	Potential nesting tree	
	434574.77	6315973.13	55	*Eucalyptus rudis*	Potential nesting tree	
	434342.53	6315878.43	81	*Stag*	Potential nesting tree	
	434343.16	6315867.79	54	*Stag*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434348.25	6315858.51	138	*Corymbia calophylla*	Potential nesting tree	
	434323.54	6315864.33	113	*Corymbia calophylla*	Potential nesting tree	
	434328.14	6315872.12	94	*Corymbia calophylla*	Potential nesting tree	
	434317.05	6315873.71	96	*Corymbia calophylla*	Potential nesting tree	
	434330.61	6315892.32	90	*Corymbia calophylla*	Potential nesting tree	
	434113.09	6315948.84	93	*Corymbia calophylla*	Potential nesting tree	
	433678.62	6315881.68	155	*Corymbia calophylla*	Potential nesting tree	
	433725.04	6316011.39	53	*Eucalyptus marginata*	Potential nesting tree	
	433703.62	6316025.21	79	*Eucalyptus marginata*	Potential nesting tree	
	433715.94	6316007.11	74	*Eucalyptus marginata*	Potential nesting tree	
	433689.64	6316013.70	55	*Eucalyptus marginata*	Potential nesting tree	
	433688.63	6316010.81	69	*Eucalyptus marginata*	Potential nesting tree	
	433685.85	6316010.12	55	*Eucalyptus marginata*	Potential nesting tree	
	433683.15	6316009.33	51	*Eucalyptus marginata*	Potential nesting tree	
93	433661.60	6316001.87	94	*Eucalyptus marginata*	Suitable nesting tree	
	433663.19	6316001.32	120	*Corymbia calophylla*	Potential nesting tree	
	433661.59	6316016.28	64	*Eucalyptus marginata*	Potential nesting tree	
	433579.96	6316040.34	64	*Corymbia calophylla*	Potential nesting tree	
	433579.58	6316040.67	52	*Eucalyptus marginata*	Potential nesting tree	
	433571.29	6316041.05	58	*Corymbia calophylla*	Potential nesting tree	
	433559.56	6316041.42	59	*Corymbia calophylla*	Potential nesting tree	
	433555.10	6316039.83	51	*Corymbia calophylla*	Potential nesting tree	
	433548.01	6316041.23	85	*Corymbia calophylla*	Potential nesting tree	One hollow deemed suitable.
	433474.22	6315979.19	105	*Eucalyptus marginata*	Potential nesting tree	
	433470.62	6315962.31	129	*Corymbia calophylla*	Potential nesting tree	
	433458.82	6315943.93	73	*Eucalyptus marginata*	Potential nesting tree	
	433446.87	6315934.76	67	*Eucalyptus marginata*	Potential nesting tree	
	433438.83	6315940.58	77	*Eucalyptus marginata*	Potential nesting tree	
	433442.82	6315942.16	76	*Eucalyptus marginata*	Potential nesting tree	
	433432.74	6315959.39	73	*Corymbia calophylla*	Potential nesting tree	
	433431.32	6315962.26	60	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433429.12	6315957.48	82	*Corymbia calophylla*	Potential nesting tree	
	433416.11	6315939.76	96	*Eucalyptus marginata*	Potential nesting tree	
	433403.19	6315951.09	76	*Eucalyptus marginata*	Potential nesting tree	
	433395.00	6315949.37	75	*Eucalyptus marginata*	Potential nesting tree	
	433390.60	6315953.56	113	*Eucalyptus marginata*	Potential nesting tree	
	433421.83	6316002.44	120	*Corymbia calophylla*	Potential nesting tree	
	433354.31	6315991.23	130	*Corymbia calophylla*	Potential nesting tree	
	433353.73	6315980.25	72	*Corymbia calophylla*	Potential nesting tree	
	433349.16	6315980.77	89	*Corymbia calophylla*	Potential nesting tree	
	433339.66	6315995.23	53	*Eucalyptus marginata*	Potential nesting tree	
	433276.53	6316009.32	150	*Corymbia calophylla*	Potential nesting tree	
	433263.54	6315961.78	170	*Corymbia calophylla*	Potential nesting tree	
	433277.62	6315903.55	139	*Eucalyptus marginata*	Potential nesting tree	
	433250.86	6315895.28	133	*Corymbia calophylla*	Potential nesting tree	One hollow deemed suitable.
	433238.78	6315960.39	133	*Corymbia calophylla*	Potential nesting tree	
	433225.86	6315983.58	104	*Corymbia calophylla*	Potential nesting tree	
	433214.33	6315967.42	36	*Corymbia calophylla*	Potential nesting tree	
	433149.57	6316014.99	104	*Corymbia calophylla*	Potential nesting tree	
	433162.22	6315990.46	175	*Corymbia calophylla*	Potential nesting tree	
	433167.58	6315968.77	145	*Eucalyptus marginata*	Potential nesting tree	
30	433345.36	6315815.87	146	*Eucalyptus marginata*	Suitable nesting tree	
	433512.16	6315905.94	125	*Eucalyptus marginata*	Potential nesting tree	
	433534.65	6315816.84	136	*Corymbia calophylla*	Potential nesting tree	
	433550.13	6315145.49	120	*Corymbia calophylla*	Potential nesting tree	
	433551.72	6315158.81	70	*Corymbia calophylla*	Potential nesting tree	
	433554.59	6315160.93	150	*Corymbia calophylla*	Potential nesting tree	
	433418.05	6315344.27	120	*Corymbia calophylla*	Potential nesting tree	
	433370.37	6315372.77	96	*Eucalyptus marginata*	Potential nesting tree	
	433566.74	6315494.63	145	*Eucalyptus marginata*	Potential nesting tree	
	433543.35	6315511.22	140	*Eucalyptus marginata*	Potential nesting tree	
	433542.77	6315514.76	147	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433522.75	6315542.34	160	*Eucalyptus marginata*	Potential nesting tree	
	433556.24	6315627.61	116	*Eucalyptus marginata*	Potential nesting tree	
	433510.85	6315675.20	126	*Corymbia calophylla*	Potential nesting tree	
	433474.34	6315554.98	180	*Corymbia calophylla*	Potential nesting tree	
	433463.17	6315567.10	184	*Corymbia calophylla*	Potential nesting tree	
	433345.11	6315349.53	100	*Eucalyptus marginata*	Potential nesting tree	
	433338.04	6315362.46	122	*Corymbia calophylla*	Potential nesting tree	
	433324.77	6315369.91	92	*Corymbia calophylla*	Potential nesting tree	
	433327.15	6315361.72	76	*Corymbia calophylla*	Potential nesting tree	
	433253.65	6315421.64	139	*Eucalyptus marginata*	Potential nesting tree	
	433199.77	6315417.94	98	*Eucalyptus marginata*	Potential nesting tree	
	433198.65	6315417.94	179	*Eucalyptus marginata*	Potential nesting tree	
	433168.25	6315397.55	113	*Eucalyptus marginata*	Potential nesting tree	
	433190.92	6315391.49	75	*Eucalyptus marginata*	Potential nesting tree	
	433249.83	6315368.73	122	*Eucalyptus marginata*	Potential nesting tree	
	433263.68	6315357.29	101	*Eucalyptus marginata*	Potential nesting tree	
	433249.74	6315354.20	116	*Eucalyptus marginata*	Potential nesting tree	
	433239.38	6315344.93	109	*Eucalyptus marginata*	Potential nesting tree	
	433235.60	6315352.44	120	*Eucalyptus marginata*	Potential nesting tree	
	433188.61	6315307.10	165	*Corymbia calophylla*	Potential nesting tree	
	433193.60	6315300.26	58	*Eucalyptus marginata*	Potential nesting tree	
	433191.96	6315294.27	75	*Eucalyptus marginata*	Potential nesting tree	
	433209.87	6315303.48	60	*Eucalyptus marginata*	Potential nesting tree	
	433212.36	6315293.19	51	*Eucalyptus marginata*	Potential nesting tree	
	433216.83	6315292.33	65	*Eucalyptus marginata*	Potential nesting tree	
	433217.54	6315284.68	58	*Eucalyptus marginata*	Potential nesting tree	
	433232.08	6315281.57	70	*Eucalyptus marginata*	Potential nesting tree	
	433203.29	6315270.73	82	*Eucalyptus rudis*	Potential nesting tree	
	433197.55	6315266.47	163	*Eucalyptus marginata*	Potential nesting tree	
	433184.88	6315267.94	64	*Eucalyptus rudis*	Potential nesting tree	
	433172.13	6315267.19	58	*Eucalyptus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433236.18	6315255.10	105	*Eucalyptus marginata*	Potential nesting tree	
	433240.18	6315254.57	163	*Eucalyptus marginata*	Potential nesting tree	
	433243.27	6315253.15	99	*Eucalyptus marginata*	Potential nesting tree	
	433155.46	6315362.53	89	*Eucalyptus rudis*	Potential nesting tree	
	433153.63	6315384.36	68	*Eucalyptus rudis*	Potential nesting tree	
92	433147.13	6315463.26	96	*Eucalyptus rudis*	Suitable nesting tree	
	433118.76	6315473.27	123	*Eucalyptus rudis*	Potential nesting tree	
	433101.68	6315479.36	109	*Eucalyptus rudis*	Potential nesting tree	
	433111.88	6315620.68	122	*Eucalyptus rudis*	Potential nesting tree	
	433064.33	6315575.12	61	*Eucalyptus rudis*	Potential nesting tree	
	433028.94	6315575.98	84	*Eucalyptus rudis*	Potential nesting tree	
	433004.55	6315562.73	64	*Eucalyptus rudis*	Potential nesting tree	
	433047.73	6315524.78	76	*Eucalyptus rudis*	Potential nesting tree	
	433019.07	6315509.61	75	*Eucalyptus rudis*	Potential nesting tree	
	433094.38	6315416.33	87	*Eucalyptus rudis*	Potential nesting tree	
	433100.22	6315271.90	93	*Eucalyptus rudis*	Potential nesting tree	
	433125.83	6315243.14	53	*Eucalyptus rudis*	Potential nesting tree	
	433127.75	6315209.00	164	*Eucalyptus rudis*	Potential nesting tree	
	433281.63	6314900.06	84	*Corymbia calophylla*	Potential nesting tree	
	433277.54	6314899.14	99	*Corymbia calophylla*	Potential nesting tree	
	433278.98	6314905.81	106	*Corymbia calophylla*	Potential nesting tree	
	433417.53	6314972.17	143	*Eucalyptus marginata*	Potential nesting tree	
	433449.86	6315036.37	104	*Eucalyptus marginata*	Potential nesting tree	
	433459.62	6315052.40	140	*Eucalyptus marginata*	Potential nesting tree	
	433476.71	6315031.78	55	*Eucalyptus marginata*	Potential nesting tree	
189	434220.49	6315268.46	98	*Eucalyptus marginata*	Potential nesting tree	One hollow deemed suitable.
446	434232.44	6315264.00	104	*Eucalyptus marginata*	Potential nesting tree	
188	434264.25	6315269.43	60	*Eucalyptus marginata*	Potential nesting tree	
187	434244.02	6315272.62	96	*Eucalyptus marginata*	Potential nesting tree	
	434327.67	6315556.13	99	*Corymbia calophylla*	Potential nesting tree	
	434327.89	6315564.67	64	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434329.74	6315565.90	72	*Eucalyptus marginata*	Potential nesting tree	
	434289.71	6315565.96	83	*Eucalyptus marginata*	Potential nesting tree	
	434282.10	6315561.70	70	*Stag*	Potential nesting tree	
	434274.50	6315571.07	79	*Corymbia calophylla*	Potential nesting tree	
	434276.77	6315578.63	70	*Eucalyptus marginata*	Potential nesting tree	
	434220.28	6316029.17	93	*Corymbia calophylla*	Potential nesting tree	
	434132.94	6315974.58	146	*Corymbia calophylla*	Potential nesting tree	
	434176.21	6315977.31	84	*Eucalyptus marginata*	Potential nesting tree	
	433742.39	6316006.41	0	*Eucalyptus marginata*	Potential nesting tree	
	433717.37	6316016.44	64	*Eucalyptus marginata*	Potential nesting tree	
	433707.38	6316033.89	61	*Eucalyptus marginata*	Potential nesting tree	
	433691.12	6316042.76	58	*Eucalyptus marginata*	Potential nesting tree	
	433662.66	6316037.91	58	*Eucalyptus marginata*	Potential nesting tree	
	433651.66	6316039.94	79	*Corymbia calophylla*	Potential nesting tree	
	433655.21	6316024.44	76	*Eucalyptus marginata*	Potential nesting tree	
	433639.63	6316041.85	51	*Corymbia calophylla*	Potential nesting tree	
	433538.80	6316039.61	95	*Corymbia calophylla*	Potential nesting tree	
	433045.03	6315957.83	140	*Eucalyptus marginata*	Potential nesting tree	
	433037.43	6315912.54	124	*Corymbia calophylla*	Potential nesting tree	
	433054.64	6315913.77	91	*Corymbia calophylla*	Potential nesting tree	
176	433058.29	6315912.02	167	*Stag*	Suitable nesting tree	
	433027.32	6315879.77	152	*Eucalyptus rudis*	Potential nesting tree	
	433052.61	6315857.66	145	*Eucalyptus marginata*	Potential nesting tree	
180	433111.84	6315855.29	164	*Eucalyptus marginata*	Suitable nesting tree	
199	433170.31	6315856.58	159	*Eucalyptus marginata*	Potential nesting tree	
	433126.11	6315946.75	137	*Eucalyptus marginata*	Potential nesting tree	
	433370.64	6315646.52	142	*Corymbia calophylla*	Potential nesting tree	
	433338.06	6315644.19	130	*Corymbia calophylla*	Potential nesting tree	
428	433362.08	6315617.97	151	*Corymbia calophylla*	Potential nesting tree	
	433394.36	6315607.99	134	*Corymbia calophylla*	Potential nesting tree	
	433384.87	6315552.82	132	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433355.05	6315529.11	144	*Corymbia calophylla*	Potential nesting tree	
	433376.42	6315549.66	158	*Corymbia calophylla*	Potential nesting tree	
181	433320.61	6315514.90	160	*Eucalyptus marginata*	Potential nesting tree	
	433265.46	6314801.27	67	*Eucalyptus rudis*	Potential nesting tree	
	433256.82	6314784.91	57	*Eucalyptus rudis*	Potential nesting tree	
	433249.70	6314790.30	52	*Eucalyptus rudis*	Potential nesting tree	
	433262.73	6314764.66	86	*Eucalyptus rudis*	Potential nesting tree	
	433287.76	6314767.16	57	*Eucalyptus rudis*	Potential nesting tree	
	433289.58	6314758.53	51	*Eucalyptus rudis*	Potential nesting tree	
	433292.25	6314763.76	98	*Eucalyptus rudis*	Potential nesting tree	
	433291.18	6314769.85	84	*Eucalyptus rudis*	Potential nesting tree	
	433304.61	6314766.28	90	*Eucalyptus rudis*	Potential nesting tree	
	433310.93	6314754.46	85	*Eucalyptus rudis*	Potential nesting tree	
	433310.81	6314745.70	54	*Eucalyptus rudis*	Potential nesting tree	
	433309.28	6314738.04	89	*Eucalyptus rudis*	Potential nesting tree	
	433306.95	6314738.25	57	*Eucalyptus rudis*	Potential nesting tree	
	433318.50	6314737.44	54	*Eucalyptus rudis*	Potential nesting tree	
	433335.54	6314750.75	78	*Eucalyptus rudis*	Potential nesting tree	
	433334.58	6314754.18	53	*Eucalyptus rudis*	Potential nesting tree	
	433344.18	6314765.78	111	*Eucalyptus rudis*	Potential nesting tree	
	433334.60	6314777.91	82	*Eucalyptus rudis*	Potential nesting tree	
	433335.25	6314779.24	101	*Eucalyptus rudis*	Potential nesting tree	
	433323.89	6314779.05	69	*Eucalyptus rudis*	Potential nesting tree	
	433320.01	6314788.34	53	*Eucalyptus rudis*	Potential nesting tree	
	433307.63	6314801.78	67	*Eucalyptus rudis*	Potential nesting tree	
	433305.58	6314815.07	86	*Eucalyptus rudis*	Potential nesting tree	
	433289.97	6314810.42	104	*Eucalyptus rudis*	Potential nesting tree	
	433288.88	6314793.78	79	*Stag*	Potential nesting tree	
	433296.03	6314822.66	62	*Eucalyptus rudis*	Potential nesting tree	
	433297.32	6314825.55	90	*Eucalyptus rudis*	Potential nesting tree	
	433328.06	6314836.07	145	*Eucalyptus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433361.57	6314837.41	73	*Eucalyptus rudis*	Potential nesting tree	
	433386.30	6314856.09	155	*Eucalyptus rudis*	Potential nesting tree	
	433346.71	6314790.96	112	*Eucalyptus rudis*	Potential nesting tree	
	433336.87	6315315.44	70	*Eucalyptus marginata*	Potential nesting tree	
	433294.37	6315255.17	131	*Eucalyptus marginata*	Potential nesting tree	
	433342.90	6315278.78	121	*Eucalyptus marginata*	Potential nesting tree	
	433344.98	6315274.58	137	*Eucalyptus marginata*	Potential nesting tree	
	433369.36	6315276.19	90	*Eucalyptus marginata*	Potential nesting tree	
	433371.22	6315275.87	125	*Eucalyptus marginata*	Potential nesting tree	
	433409.65	6315226.02	161	*Corymbia calophylla*	Potential nesting tree	
	433410.91	6315218.71	171	*Corymbia calophylla*	Potential nesting tree	
	433459.39	6315140.66	173	*Corymbia calophylla*	Potential nesting tree	
	433475.19	6315103.40	86	*Eucalyptus marginata*	Potential nesting tree	
	433482.28	6315034.04	100	*Eucalyptus marginata*	Potential nesting tree	
	433477.47	6315028.91	102	*Eucalyptus marginata*	Potential nesting tree	
	433475.68	6315031.67	73	*Eucalyptus marginata*	Potential nesting tree	
	432983.31	6315524.11	107	*Eucalyptus rudis*	Potential nesting tree	
	432941.17	6315517.72	65	*Eucalyptus rudis*	Potential nesting tree	
	432949.02	6315499.70	53	*Eucalyptus rudis*	Potential nesting tree	
	432940.52	6315491.33	52	*Eucalyptus rudis*	Potential nesting tree	
	432936.30	6315413.69	53	*Eucalyptus rudis*	Potential nesting tree	
	432966.42	6315408.24	58	*Eucalyptus rudis*	Potential nesting tree	
	432946.11	6315395.91	53	*Eucalyptus rudis*	Potential nesting tree	
	432960.76	6315390.80	55	*Eucalyptus rudis*	Potential nesting tree	
	432913.46	6315351.00	60	*Eucalyptus rudis*	Potential nesting tree	
	432917.13	6315345.70	55	*Eucalyptus rudis*	Potential nesting tree	
	432914.91	6315342.80	62	*Eucalyptus rudis*	Potential nesting tree	
	432908.62	6315297.30	63	*Eucalyptus rudis*	Potential nesting tree	
	432931.06	6315256.43	60	*Eucalyptus rudis*	Potential nesting tree	
	432929.49	6315241.12	105	*Eucalyptus rudis*	Potential nesting tree	
	432938.06	6315119.44	180	*Stag*	Suitable nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	432924.47	6315091.52	50	*Eucalyptus rudis*	Potential nesting tree	
	432940.45	6315083.31	53	*Eucalyptus rudis*	Potential nesting tree	
	432973.26	6315050.39	61	*Eucalyptus rudis*	Potential nesting tree	
	433075.15	6314951.53	60	*Eucalyptus rudis*	Potential nesting tree	
	433105.03	6314897.07	54	*Eucalyptus rudis*	Potential nesting tree	
	433192.69	6314836.36	75	*Eucalyptus rudis*	Potential nesting tree	
	433265.20	6314825.33	69	*Eucalyptus rudis*	Potential nesting tree	
	433242.49	6314823.29	87	*Eucalyptus rudis*	Potential nesting tree	
	433237.98	6314829.91	87	*Eucalyptus rudis*	Potential nesting tree	
	433507.43	6314053.20	100	*Stag*	Potential nesting tree	
31	433511.92	6314036.26	104	*Stag*	Suitable nesting tree	
	433565.94	6313950.82	67	*Eucalyptus marginata*	Potential nesting tree	
	433536.05	6313828.98	78	*Eucalyptus rudis*	Potential nesting tree	
	433529.75	6313824.39	53	*Eucalyptus rudis*	Potential nesting tree	
	433522.72	6313804.39	60	*Eucalyptus rudis*	Potential nesting tree	
	433549.72	6313682.61	89	*Corymbia calophylla*	Potential nesting tree	
	433523.97	6313649.28	55	*Eucalyptus rudis*	Potential nesting tree	
	433513.62	6313639.01	74	*Eucalyptus rudis*	Potential nesting tree	
	433520.64	6313605.58	39	*Eucalyptus rudis*	Potential nesting tree	
	433527.30	6313571.14	55	*Eucalyptus rudis*	Potential nesting tree	One hollow was deemed potentially suitable as the base was not visable during the inspection.
	433857.66	6315076.85	80	*Corymbia calophylla*	Potential nesting tree	
	433860.23	6315055.25	133	*Corymbia calophylla*	Potential nesting tree	
	433874.51	6315063.99	152	*Corymbia calophylla*	Potential nesting tree	
	433877.30	6315050.60	123	*Corymbia calophylla*	Potential nesting tree	
	433862.22	6315036.97	126	*Corymbia calophylla*	Potential nesting tree	
	433857.51	6315031.06	96	*Corymbia calophylla*	Potential nesting tree	
	433847.28	6315015.91	104	*Corymbia calophylla*	Potential nesting tree	
	433853.75	6315008.30	95	*Corymbia calophylla*	Potential nesting tree	
	433858.32	6314993.48	139	*Corymbia calophylla*	Potential nesting tree	
	433834.59	6314991.65	105	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433829.10	6315004.59	154	*Corymbia calophylla*	Potential nesting tree	
	433825.13	6315000.57	100	*Corymbia calophylla*	Potential nesting tree	
	433821.66	6314991.01	65	*Corymbia calophylla*	Potential nesting tree	
	433800.58	6314996.41	180	*Corymbia calophylla*	Potential nesting tree	
	433808.67	6314984.49	81	*Corymbia calophylla*	Potential nesting tree	
	433799.73	6314970.46	124	*Corymbia calophylla*	Potential nesting tree	
	433813.66	6314976.32	127	*Corymbia calophylla*	Potential nesting tree	
	433820.98	6314980.47	82	*Corymbia calophylla*	Potential nesting tree	
	433847.91	6314964.03	172	*Corymbia calophylla*	Potential nesting tree	
525	433854.39	6314941.45	165	*Corymbia calophylla*	Suitable nesting tree	
	433874.38	6314946.02	130	*Corymbia calophylla*	Potential nesting tree	
	433937.98	6314957.32	90	*Corymbia calophylla*	Potential nesting tree	
	433939.05	6314964.31	92	*Corymbia calophylla*	Potential nesting tree	
	433901.46	6314989.34	113	*Corymbia calophylla*	Potential nesting tree	
	433910.20	6315004.25	119	*Corymbia calophylla*	Potential nesting tree	
	433896.07	6315028.11	135	*Corymbia calophylla*	Potential nesting tree	
	433905.83	6315044.36	150	*Corymbia calophylla*	Potential nesting tree	
	433918.54	6315051.32	116	*Corymbia calophylla*	Potential nesting tree	
	433888.31	6315047.12	125	*Corymbia calophylla*	Potential nesting tree	
	433909.38	6315098.05	56	*Corymbia calophylla*	Potential nesting tree	
	433923.50	6315088.50	129	*Corymbia calophylla*	Potential nesting tree	
526	433935.17	6315083.14	148	*Stag*	Potential nesting tree	
	433960.31	6315070.45	101	*Corymbia calophylla*	Potential nesting tree	
	433967.04	6315051.54	83	*Corymbia calophylla*	Potential nesting tree	
	433970.05	6315048.01	80	*Corymbia calophylla*	Potential nesting tree	
	433970.19	6315040.03	65	*Corymbia calophylla*	Potential nesting tree	
	433971.28	6315031.72	95	*Corymbia calophylla*	Potential nesting tree	
	433970.47	6315027.61	86	*Corymbia calophylla*	Potential nesting tree	
	433975.75	6315017.67	90	*Corymbia calophylla*	Potential nesting tree	
	433986.15	6315021.84	60	*Corymbia calophylla*	Potential nesting tree	
	433998.85	6315016.05	63	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434004.47	6315024.63	175	*Corymbia calophylla*	Potential nesting tree	
	434007.55	6315023.10	58	*Corymbia calophylla*	Potential nesting tree	
527	434016.68	6315035.58	152	*Corymbia calophylla*	Potential nesting tree	
	434019.03	6315032.38	68	*Corymbia calophylla*	Potential nesting tree	
	434029.82	6315034.00	87	*Corymbia calophylla*	Potential nesting tree	
	434033.44	6315035.25	61	*Corymbia calophylla*	Potential nesting tree	
	434029.99	6315023.14	152	*Corymbia calophylla*	Potential nesting tree	
	434024.62	6315046.05	72	*Corymbia calophylla*	Potential nesting tree	
	434015.52	6315056.30	74	*Eucalyptus marginata*	Potential nesting tree	
	434006.26	6315049.26	68	*Corymbia calophylla*	Potential nesting tree	
	433992.64	6315038.63	77	*Corymbia calophylla*	Potential nesting tree	
	433991.73	6315035.41	59	*Eucalyptus marginata*	Potential nesting tree	
	433987.45	6315035.38	57	*Corymbia calophylla*	Potential nesting tree	
	433983.13	6315054.31	54	*Corymbia calophylla*	Potential nesting tree	
	433993.00	6315055.04	124	*Corymbia calophylla*	Potential nesting tree	
	433997.45	6315070.93	73	*Corymbia calophylla*	Potential nesting tree	
	434012.74	6315081.34	83	*Corymbia calophylla*	Potential nesting tree	
	434018.44	6315079.16	95	*Corymbia calophylla*	Potential nesting tree	
	434026.85	6315087.76	61	*Corymbia calophylla*	Potential nesting tree	
	434026.61	6315082.66	52	*Corymbia calophylla*	Potential nesting tree	
	434033.78	6315082.04	51	*Corymbia calophylla*	Potential nesting tree	
	434035.96	6315090.37	60	*Corymbia calophylla*	Potential nesting tree	
	434041.63	6315090.52	94	*Corymbia calophylla*	Potential nesting tree	
	434044.61	6315091.43	78	*Corymbia calophylla*	Potential nesting tree	
	434039.59	6315076.87	135	*Corymbia calophylla*	Potential nesting tree	
	434039.26	6315070.55	73	*Corymbia calophylla*	Potential nesting tree	
	434046.76	6315076.36	61	*Corymbia calophylla*	Potential nesting tree	
	434034.92	6315064.53	98	*Corymbia calophylla*	Potential nesting tree	
	434036.30	6315053.89	75	*Corymbia calophylla*	Potential nesting tree	
	433989.79	6315129.75	87	*Corymbia calophylla*	Potential nesting tree	
	433999.16	6315121.16	82	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434009.51	6315104.27	126	*Corymbia calophylla*	Potential nesting tree	
	434006.46	6315101.03	102	*Corymbia calophylla*	Potential nesting tree	
	434015.91	6315094.56	114	*Corymbia calophylla*	Potential nesting tree	
	434005.04	6315078.19	68	*Corymbia calophylla*	Potential nesting tree	
	434003.12	6315072.30	81	*Corymbia calophylla*	Potential nesting tree	
	433990.15	6315077.20	83	*Corymbia calophylla*	Potential nesting tree	
	433994.76	6315082.77	54	*Stag*	Potential nesting tree	
	433994.30	6315082.21	57	*Eucalyptus marginata*	Potential nesting tree	
	433989.60	6315089.72	58	*Corymbia calophylla*	Potential nesting tree	
	433990.50	6315107.47	73	*Corymbia calophylla*	Potential nesting tree	
	434135.26	6315041.70	104	*Eucalyptus marginata*	Potential nesting tree	
	434160.89	6315065.16	50	*Eucalyptus marginata*	Potential nesting tree	
	434161.34	6315066.83	55	*Corymbia calophylla*	Potential nesting tree	
	434168.27	6315074.64	64	*Eucalyptus marginata*	Potential nesting tree	
	434171.25	6315074.77	65	*Eucalyptus marginata*	Potential nesting tree	
	434202.71	6315103.81	99	*Eucalyptus marginata*	Potential nesting tree	
	434216.49	6315117.21	77	*Eucalyptus marginata*	Potential nesting tree	
	434220.09	6315121.44	55	*Eucalyptus marginata*	Potential nesting tree	
	434184.96	6315140.16	75	*Corymbia calophylla*	Potential nesting tree	
	434188.94	6315144.07	70	*Corymbia calophylla*	Potential nesting tree	
	434179.68	6315136.58	77	*Eucalyptus marginata*	Potential nesting tree	
	434170.84	6315148.83	88	*Eucalyptus marginata*	Potential nesting tree	
	434165.63	6315148.46	90	*Eucalyptus marginata*	Potential nesting tree	
	434154.62	6315152.38	124	*Corymbia calophylla*	Potential nesting tree	
	434155.02	6315175.44	137	*Corymbia calophylla*	Potential nesting tree	
	434145.23	6315191.12	111	*Eucalyptus marginata*	Potential nesting tree	
	434122.58	6315181.76	113	*Corymbia calophylla*	Potential nesting tree	
	434121.15	6315186.08	108	*Corymbia calophylla*	Potential nesting tree	
	434120.62	6315194.83	105	*Eucalyptus marginata*	Potential nesting tree	
528	434107.94	6315197.52	99	*Eucalyptus marginata*	Suitable nesting tree	
	434085.43	6315195.70	111	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434112.58	6315214.07	146	*Corymbia calophylla*	Potential nesting tree	
	434118.19	6315237.39	105	*Eucalyptus marginata*	Potential nesting tree	
	434102.73	6315266.34	133	*Eucalyptus marginata*	Potential nesting tree	
	434087.35	6315268.56	118	*Corymbia calophylla*	Potential nesting tree	
	434073.57	6315309.82	122	*Corymbia calophylla*	Potential nesting tree	
	434073.23	6315318.69	75	*Corymbia calophylla*	Potential nesting tree	
	434057.29	6315322.13	80	*Corymbia calophylla*	Potential nesting tree	
	434100.72	6315315.99	110	*Corymbia calophylla*	Potential nesting tree	
529	434132.26	6315305.67	102	*Eucalyptus marginata*	Suitable nesting tree	
	434143.17	6315288.90	95	*Eucalyptus marginata*	Potential nesting tree	
	434128.74	6315288.24	110	*Eucalyptus marginata*	Potential nesting tree	
	434127.04	6315265.50	90	*Corymbia calophylla*	Potential nesting tree	
	434132.66	6315260.00	80	*Eucalyptus marginata*	Potential nesting tree	
	434143.51	6315252.31	105	*Corymbia calophylla*	Potential nesting tree	
	434164.67	6315275.74	79	*Eucalyptus marginata*	Potential nesting tree	
	434178.44	6315263.30	105	*Eucalyptus marginata*	Potential nesting tree	
	434172.64	6315241.20	138	*Eucalyptus marginata*	Potential nesting tree	
	434175.88	6315216.27	120	*Corymbia calophylla*	Potential nesting tree	
	434175.00	6315194.87	99	*Eucalyptus marginata*	Potential nesting tree	
	434195.78	6315192.46	0	*Eucalyptus marginata*	Potential nesting tree	
	434253.76	6315155.04	108	*Eucalyptus marginata*	Potential nesting tree	
	434260.40	6315163.40	84	*Corymbia calophylla*	Potential nesting tree	
	434289.93	6315188.44	114	*Eucalyptus marginata*	Potential nesting tree	
	434300.16	6315203.70	107	*Eucalyptus marginata*	Potential nesting tree	
	434371.99	6315266.16	121	*Eucalyptus marginata*	Potential nesting tree	
	434388.45	6315283.13	90	*Eucalyptus marginata*	Potential nesting tree	
	434259.57	6315272.94	90	*Corymbia calophylla*	Potential nesting tree	
	434376.47	6315540.05	97	*Eucalyptus marginata*	Potential nesting tree	
	434379.99	6315543.96	55	*Eucalyptus marginata*	Potential nesting tree	
	434393.09	6315547.37	52	*Eucalyptus marginata*	Potential nesting tree	
	434397.25	6315552.28	58	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434392.27	6315559.34	74	*Corymbia calophylla*	Potential nesting tree	
	434395.00	6315554.48	58	*Eucalyptus marginata*	Potential nesting tree	
	434401.63	6315565.06	85	*Corymbia calophylla*	Potential nesting tree	
	434407.52	6315561.22	88	*Corymbia calophylla*	Potential nesting tree	
	434399.20	6315538.54	65	*Eucalyptus marginata*	Potential nesting tree	
	434404.45	6315533.59	78	*Eucalyptus marginata*	Potential nesting tree	
	434415.58	6315539.87	83	*Corymbia calophylla*	Potential nesting tree	
	434424.47	6315547.03	60	*Eucalyptus marginata*	Potential nesting tree	Inspected hollows was deemed unsuitable for black cockatoos. One hollow above 16 m height could not be inspected and was deemed potentially suitable.
	434430.79	6315562.93	68	*Eucalyptus marginata*	Potential nesting tree	
	434433.22	6315547.97	68	*Stag*	Potential nesting tree	
	434426.90	6315532.52	81	*Eucalyptus marginata*	Potential nesting tree	
	434433.04	6315532.01	90	*Corymbia calophylla*	Potential nesting tree	
	434445.47	6315526.21	57	*Eucalyptus marginata*	Potential nesting tree	
	434449.65	6315540.43	111	*Corymbia calophylla*	Potential nesting tree	
	434446.87	6315552.28	52	*Eucalyptus marginata*	Potential nesting tree	
	434455.29	6315561.10	85	*Corymbia calophylla*	Potential nesting tree	
	434459.30	6315559.24	81	*Corymbia calophylla*	Potential nesting tree	
	434460.05	6315545.83	64	*Eucalyptus marginata*	Potential nesting tree	
	434775.95	6315977.14	116	*Stag*	Potential nesting tree	
	434688.49	6315954.83	50	*Eucalyptus rudis*	Potential nesting tree	
	434655.92	6315951.84	60	*Eucalyptus rudis*	Potential nesting tree	
	434647.22	6315956.66	60	*Eucalyptus rudis*	Potential nesting tree	
	434643.30	6315958.85	68	*Eucalyptus rudis*	Potential nesting tree	
	434638.92	6315958.82	50	*Eucalyptus rudis*	Potential nesting tree	
	434640.44	6315982.22	65	*Eucalyptus rudis*	Potential nesting tree	
	434639.18	6315989.53	70	*Eucalyptus rudis*	Potential nesting tree	
	434230.94	6315870.91	120	*Corymbia calophylla*	Potential nesting tree	
	434180.44	6315902.84	107	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	434058.47	6315888.70	192	*Corymbia calophylla*	Potential nesting tree	
	433984.47	6316007.94	112	*Corymbia calophylla*	Potential nesting tree	
	433930.04	6315729.17	123	*Corymbia calophylla*	Potential nesting tree	
	433808.55	6316039.90	68	*Eucalyptus marginata*	Potential nesting tree	
	433788.91	6316039.21	55	*Eucalyptus marginata*	Potential nesting tree	
	433777.64	6316012.19	98	*Eucalyptus marginata*	Potential nesting tree	
	433766.22	6316007.46	104	*Eucalyptus marginata*	Potential nesting tree	
	433144.21	6315738.43	183	*Corymbia calophylla*	Potential nesting tree	
	433123.24	6315701.81	213	*Corymbia calophylla*	Potential nesting tree	
	433093.78	6315638.85	200	*Corymbia calophylla*	Potential nesting tree	
530	433030.41	6315701.50	165	*Eucalyptus marginata*	Suitable nesting tree	
	432965.40	6315689.63	81	*Eucalyptus rudis*	Potential nesting tree	
	432952.05	6315669.14	150	*Eucalyptus rudis*	Potential nesting tree	
	432948.48	6315619.67	56	*Eucalyptus rudis*	Potential nesting tree	
	432948.38	6315606.36	56	*Eucalyptus rudis*	Potential nesting tree	
	432971.09	6315715.17	54	*Eucalyptus rudis*	Potential nesting tree	
	432958.06	6315714.64	56	*Eucalyptus rudis*	Potential nesting tree	
	433007.54	6315722.41	113	*Corymbia calophylla*	Potential nesting tree	
	433001.10	6315724.69	109	*Eucalyptus rudis*	Potential nesting tree	
	432974.34	6315730.61	85	*Eucalyptus rudis*	Potential nesting tree	
	432963.33	6315855.16	55	*Eucalyptus rudis*	Potential nesting tree	
	433004.70	6315783.59	120	*Eucalyptus rudis*	Potential nesting tree	
	433054.01	6315735.93	130	*Eucalyptus marginata*	Potential nesting tree	
	433260.85	6315566.05	178	*Corymbia calophylla*	Potential nesting tree	
	433245.11	6315553.41	107	*Corymbia calophylla*	Potential nesting tree	
	433252.98	6315546.92	80	*Corymbia calophylla*	Potential nesting tree	
	433257.09	6315544.07	114	*Corymbia calophylla*	Potential nesting tree	
	433248.63	6315542.24	105	*Corymbia calophylla*	Potential nesting tree	
	433261.25	6315535.67	115	*Corymbia calophylla*	Potential nesting tree	
	433298.40	6315536.04	106	*Eucalyptus marginata*	Potential nesting tree	
	433300.75	6315518.42	87	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433298.60	6315492.80	154	*Eucalyptus marginata*	Potential nesting tree	
	433310.18	6315460.39	129	*Stag*	Potential nesting tree	
	433308.81	6315456.28	80	*Eucalyptus marginata*	Potential nesting tree	Tree not tagged due to presence of bees at the tree base.
	433326.41	6315429.57	110	*Eucalyptus marginata*	Potential nesting tree	
	433357.55	6315368.47	136	*Corymbia calophylla*	Potential nesting tree	
	433590.60	6314891.53	86	*Corymbia calophylla*	Potential nesting tree	
	433760.15	6314944.47	120	*Corymbia calophylla*	Potential nesting tree	
	433674.07	6314938.56	60	*Eucalyptus marginata*	Potential nesting tree	
	433624.58	6315056.19	83	*Corymbia calophylla*	Potential nesting tree	
	433652.07	6315079.55	118	*Eucalyptus marginata*	Potential nesting tree	
	433654.31	6315078.79	97	*Eucalyptus marginata*	Potential nesting tree	
	433658.30	6315080.04	126	*Eucalyptus marginata*	Potential nesting tree	
	433654.39	6315039.98	65	*Eucalyptus marginata*	Potential nesting tree	
	433672.76	6315048.76	130	*Corymbia calophylla*	Potential nesting tree	
	433678.24	6315064.54	110	*Eucalyptus marginata*	Potential nesting tree	
	433680.38	6315064.89	77	*Eucalyptus marginata*	Potential nesting tree	
	433687.45	6315038.77	69	*Corymbia calophylla*	Potential nesting tree	
	433690.96	6315042.56	163	*Corymbia calophylla*	Potential nesting tree	
	433695.92	6315052.80	138	*Eucalyptus marginata*	Potential nesting tree	
	433731.15	6315046.83	192	*Corymbia calophylla*	Potential nesting tree	
	433736.41	6315067.49	113	*Corymbia calophylla*	Potential nesting tree	
531	433739.62	6315088.80	168	*Corymbia calophylla*	Suitable nesting tree	
	433775.96	6315029.62	205	*Corymbia calophylla*	Potential nesting tree	
	433803.81	6315041.56	136	*Corymbia calophylla*	Potential nesting tree	
	433807.00	6315092.58	112	*Eucalyptus marginata*	Potential nesting tree	
	433819.64	6315176.93	139	*Corymbia calophylla*	Potential nesting tree	
	433825.89	6315175.76	120	*Corymbia calophylla*	Potential nesting tree	
532	433071.32	6315411.96	145	*Corymbia calophylla*	Suitable nesting tree	
	433159.81	6315109.55	60	*Eucalyptus rudis*	Potential nesting tree	
	433166.13	6315096.51	60	*Eucalyptus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433181.75	6315113.25	65	*Eucalyptus rudis*	Potential nesting tree	
	433265.60	6314875.67	133	*Eucalyptus marginata*	Potential nesting tree	
	433266.41	6314866.36	91	*Corymbia calophylla*	Potential nesting tree	
	433260.03	6314858.78	135	*Eucalyptus marginata*	Potential nesting tree	
	433420.12	6314960.99	93	*Eucalyptus marginata*	Potential nesting tree	
	433462.95	6315028.47	132	*Eucalyptus marginata*	Potential nesting tree	
	433464.32	6315033.03	56	*Eucalyptus marginata*	Potential nesting tree	
	433467.38	6315033.72	63	*Eucalyptus marginata*	Potential nesting tree	
	433474.28	6315032.43	66	*Eucalyptus marginata*	Potential nesting tree	
	433829.84	6315333.33	140	*Corymbia calophylla*	Potential nesting tree	
	433815.20	6315323.14	65	*Corymbia calophylla*	Potential nesting tree	
	433815.07	6315314.94	54	*Stag*	Potential nesting tree	
	433819.86	6315309.54	76	*Corymbia calophylla*	Potential nesting tree	
	433807.32	6315318.21	55	*Corymbia calophylla*	Potential nesting tree	
	433815.89	6315346.10	100	*Corymbia calophylla*	Potential nesting tree	
	433824.84	6315356.69	90	*Corymbia calophylla*	Potential nesting tree	
	433819.90	6315372.29	55	*Eucalyptus marginata*	Potential nesting tree	
	433816.49	6315381.03	81	*Eucalyptus marginata*	Potential nesting tree	
	433812.94	6315382.45	55	*Eucalyptus marginata*	Potential nesting tree	
	433804.22	6315377.40	52	*Eucalyptus marginata*	Potential nesting tree	
	433798.45	6315390.33	52	*Eucalyptus marginata*	Potential nesting tree	
	433799.48	6315390.12	82	*Eucalyptus marginata*	Potential nesting tree	
	433792.11	6315392.06	61	*Eucalyptus marginata*	Potential nesting tree	
	433789.48	6315382.07	54	*Eucalyptus marginata*	Potential nesting tree	
	433787.08	6315364.64	51	*Corymbia calophylla*	Potential nesting tree	
	433785.36	6315357.53	55	*Corymbia calophylla*	Potential nesting tree	
	433776.46	6315324.54	71	*Eucalyptus marginata*	Potential nesting tree	
	433782.53	6315321.81	55	*Eucalyptus marginata*	Potential nesting tree	
	433786.44	6315322.17	74	*Eucalyptus marginata*	Potential nesting tree	
	433786.56	6315331.27	55	*Eucalyptus marginata*	Potential nesting tree	
	433765.92	6315340.77	56	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433765.60	6315346.87	57	*Eucalyptus marginata*	Potential nesting tree	
	433763.56	6315345.74	56	*Eucalyptus marginata*	Potential nesting tree	
	433773.95	6315351.91	57	*Corymbia calophylla*	Potential nesting tree	
	433776.65	6315351.49	51	*Corymbia calophylla*	Potential nesting tree	
	433770.22	6315365.97	53	*Eucalyptus marginata*	Potential nesting tree	
22	433760.73	6315365.13	87	*Stag*	Suitable nesting tree	
	433741.05	6315357.01	73	*Corymbia calophylla*	Potential nesting tree	
	433738.01	6315364.75	63	*Eucalyptus marginata*	Potential nesting tree	
	433740.75	6315345.59	93	*Corymbia calophylla*	Potential nesting tree	
	433734.48	6315336.56	99	*Corymbia calophylla*	Potential nesting tree	
	433712.83	6315330.87	74	*Eucalyptus marginata*	Potential nesting tree	
	433712.83	6315330.21	60	*Eucalyptus marginata*	Potential nesting tree	
	433712.00	6315328.65	96	*Corymbia calophylla*	Potential nesting tree	
	433722.90	6315328.72	51	*Eucalyptus marginata*	Potential nesting tree	
	433722.90	6315328.72	54	*Eucalyptus marginata*	Potential nesting tree	
	433728.92	6315333.20	81	*Eucalyptus marginata*	Potential nesting tree	
	433728.05	6315350.93	53	*Eucalyptus marginata*	Potential nesting tree	
	433717.32	6315354.30	66	*Corymbia calophylla*	Potential nesting tree	
	433715.42	6315360.16	96	*Eucalyptus marginata*	Potential nesting tree	
	433714.05	6315369.91	51	*Eucalyptus marginata*	Potential nesting tree	
	433759.80	6315392.29	112	*Eucalyptus marginata*	Potential nesting tree	
	433777.38	6315395.29	78	*Eucalyptus marginata*	Potential nesting tree	
	433774.98	6315391.17	83	*Eucalyptus marginata*	Potential nesting tree	
	433784.46	6315393.89	67	*Eucalyptus marginata*	Potential nesting tree	
	433767.36	6315403.20	60	*Eucalyptus marginata*	Potential nesting tree	
	433765.63	6315410.84	51	*Eucalyptus marginata*	Potential nesting tree	
	433763.81	6315418.26	63	*Eucalyptus marginata*	Potential nesting tree	
	433756.65	6315417.32	71	*Eucalyptus marginata*	Potential nesting tree	
	433752.58	6315386.47	76	*Eucalyptus marginata*	Potential nesting tree	
	433698.10	6315374.68	57	*Eucalyptus marginata*	Potential nesting tree	
	433690.53	6315364.76	61	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433692.29	6315365.88	53	*Eucalyptus marginata*	Potential nesting tree	
	433694.06	6315378.98	58	*Eucalyptus marginata*	Potential nesting tree	
	433690.87	6315383.50	51	*Eucalyptus marginata*	Potential nesting tree	
	433686.70	6315379.92	52	*Eucalyptus marginata*	Potential nesting tree	
	433678.88	6315379.65	66	*Corymbia calophylla*	Potential nesting tree	
	433677.43	6315387.84	55	*Corymbia calophylla*	Potential nesting tree	
	433668.92	6315421.16	54	*Eucalyptus marginata*	Potential nesting tree	
	433659.23	6315422.09	66	*Eucalyptus marginata*	Potential nesting tree	
	433660.80	6315423.54	51	*Eucalyptus marginata*	Potential nesting tree	
	433680.43	6315425.23	77	*Eucalyptus marginata*	Potential nesting tree	
	433685.75	6315424.38	59	*Eucalyptus marginata*	Potential nesting tree	
	433690.58	6315425.19	55	*Eucalyptus marginata*	Potential nesting tree	
	433691.52	6315424.19	71	*Eucalyptus marginata*	Potential nesting tree	
	433695.81	6315409.59	75	*Eucalyptus marginata*	Potential nesting tree	
	433705.75	6315398.68	72	*Corymbia calophylla*	Potential nesting tree	
	433719.70	6315400.88	53	*Eucalyptus marginata*	Potential nesting tree	
	433729.82	6315405.50	55	*Eucalyptus marginata*	Potential nesting tree	
	433736.45	6315402.22	68	*Eucalyptus marginata*	Potential nesting tree	
	433738.85	6315420.19	60	*Eucalyptus marginata*	Potential nesting tree	
	433731.23	6315417.37	85	*Eucalyptus marginata*	Potential nesting tree	
	433720.95	6315423.40	69	*Eucalyptus marginata*	Potential nesting tree	
	433739.25	6315429.18	61	*Eucalyptus marginata*	Potential nesting tree	
	433753.85	6315432.16	69	*Eucalyptus marginata*	Potential nesting tree	
	433752.58	6315440.80	59	*Eucalyptus marginata*	Potential nesting tree	
	433739.83	6315439.27	60	*Eucalyptus marginata*	Potential nesting tree	
	433713.63	6315444.64	75	*Eucalyptus marginata*	Potential nesting tree	
	433716.71	6315443.88	71	*Eucalyptus marginata*	Potential nesting tree	
	433709.32	6315434.74	50	*Eucalyptus marginata*	Potential nesting tree	
	433727.45	6315452.93	59	*Eucalyptus marginata*	Potential nesting tree	
	433736.71	6315446.90	54	*Eucalyptus marginata*	Potential nesting tree	
	433747.06	6315458.28	58	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433722.59	6315469.53	133	*Eucalyptus marginata*	Potential nesting tree	
	433740.92	6315471.21	69	*Eucalyptus marginata*	Potential nesting tree	
	433743.74	6315466.90	53	*Eucalyptus marginata*	Potential nesting tree	
	433745.54	6315462.59	56	*Eucalyptus marginata*	Potential nesting tree	
	433741.18	6315488.18	96	*Eucalyptus marginata*	Potential nesting tree	
	433734.44	6315493.12	82	*Eucalyptus marginata*	Potential nesting tree	
	433734.38	6315502.32	132	*Eucalyptus marginata*	Potential nesting tree	
	433717.56	6315496.22	127	*Eucalyptus marginata*	Potential nesting tree	
	433711.89	6315495.18	87	*Eucalyptus marginata*	Potential nesting tree	
	433704.42	6315484.93	78	*Eucalyptus marginata*	Potential nesting tree	
	433706.66	6315484.39	80	*Eucalyptus marginata*	Potential nesting tree	
	433722.30	6315484.61	57	*Eucalyptus marginata*	Potential nesting tree	
	433720.29	6315478.17	76	*Eucalyptus marginata*	Potential nesting tree	
	433750.26	6315494.67	72	*Eucalyptus marginata*	Potential nesting tree	
	433745.61	6315507.16	72	*Eucalyptus marginata*	Potential nesting tree	
	433748.07	6315515.05	74	*Eucalyptus marginata*	Potential nesting tree	
	433752.23	6315519.30	85	*Eucalyptus marginata*	Potential nesting tree	
	433760.92	6315514.59	106	*Eucalyptus marginata*	Potential nesting tree	
	433766.07	6315510.30	83	*Eucalyptus marginata*	Potential nesting tree	
	433755.66	6315507.57	71	*Eucalyptus marginata*	Potential nesting tree	
	433751.08	6315510.75	70	*Eucalyptus marginata*	Potential nesting tree	
	433757.67	6315499.82	50	*Eucalyptus marginata*	Potential nesting tree	
	433768.22	6315495.01	59	*Eucalyptus marginata*	Potential nesting tree	
	433845.63	6315545.21	66	*Stag*	Potential nesting tree	
	433856.35	6315543.18	55	*Eucalyptus marginata*	Potential nesting tree	
	433860.01	6315538.10	94	*Eucalyptus marginata*	Potential nesting tree	
	433853.98	6315562.23	96	*Eucalyptus marginata*	Potential nesting tree	
	433846.57	6315570.16	56	*Eucalyptus marginata*	Potential nesting tree	
	433840.08	6315566.68	64	*Eucalyptus marginata*	Potential nesting tree	
	433853.09	6315584.73	52	*Eucalyptus marginata*	Potential nesting tree	
	433862.13	6315597.10	61	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433885.06	6315579.63	75	*Eucalyptus marginata*	Potential nesting tree	
	433884.86	6315580.63	76	*Eucalyptus marginata*	Potential nesting tree	
	433883.31	6315576.84	63	*Eucalyptus marginata*	Potential nesting tree	
	433874.61	6315568.47	55	*Eucalyptus marginata*	Potential nesting tree	
	433873.14	6315566.02	50	*Eucalyptus marginata*	Potential nesting tree	
	433875.58	6315563.38	76	*Eucalyptus marginata*	Potential nesting tree	
	433872.80	6315561.14	60	*Eucalyptus marginata*	Potential nesting tree	
	433885.42	6315594.49	72	*Eucalyptus marginata*	Potential nesting tree	
	433902.98	6315599.82	79	*Eucalyptus marginata*	Potential nesting tree	
	433901.42	6315596.26	72	*Eucalyptus marginata*	Potential nesting tree	
	433909.12	6315600.41	55	*Eucalyptus marginata*	Potential nesting tree	
	433908.80	6315606.95	51	*Eucalyptus marginata*	Potential nesting tree	
	433915.89	6315605.23	82	*Eucalyptus marginata*	Potential nesting tree	
	433916.20	6315600.46	68	*Eucalyptus marginata*	Potential nesting tree	
	433921.75	6315606.04	80	*Eucalyptus marginata*	Potential nesting tree	
	433919.68	6315609.02	62	*Stag*	Potential nesting tree	
	433897.07	6315620.07	55	*Eucalyptus marginata*	Potential nesting tree	
	433887.20	6315620.67	85	*Eucalyptus marginata*	Potential nesting tree	
	433895.67	6315635.14	57	*Eucalyptus marginata*	Potential nesting tree	
	433899.71	6315642.70	50	*Eucalyptus marginata*	Potential nesting tree	
	433903.30	6315648.61	60	*Eucalyptus marginata*	Potential nesting tree	
	433905.63	6315648.07	73	*Eucalyptus marginata*	Potential nesting tree	
	433914.13	6315657.77	61	*Eucalyptus marginata*	Potential nesting tree	
	433893.82	6315659.85	66	*Eucalyptus marginata*	Potential nesting tree	
	433890.29	6315658.27	82	*Eucalyptus marginata*	Potential nesting tree	
	433869.78	6315662.57	77	*Eucalyptus marginata*	Potential nesting tree	
	433863.95	6315656.99	51	*Eucalyptus marginata*	Potential nesting tree	
	433861.42	6315646.77	77	*Eucalyptus marginata*	Potential nesting tree	
	433876.09	6315638.77	80	*Eucalyptus marginata*	Potential nesting tree	
	433834.37	6315639.04	152	*Corymbia calophylla*	Potential nesting tree	
	433820.03	6315639.83	107	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433814.07	6315612.19	68	*Eucalyptus marginata*	Potential nesting tree	
	433824.27	6315590.86	78	*Eucalyptus marginata*	Potential nesting tree	
	433781.19	6315614.18	55	*Eucalyptus marginata*	Potential nesting tree	
	433782.63	6315621.40	62	*Eucalyptus marginata*	Potential nesting tree	
	433779.74	6315621.49	58	*Eucalyptus marginata*	Potential nesting tree	
	433772.88	6315618.11	53	*Eucalyptus marginata*	Potential nesting tree	
	433773.81	6315617.57	61	*Eucalyptus marginata*	Potential nesting tree	
	433770.54	6315620.20	97	*Eucalyptus marginata*	Potential nesting tree	
	433762.94	6315614.72	92	*Eucalyptus marginata*	Potential nesting tree	
	433764.52	6315614.51	52	*Eucalyptus marginata*	Potential nesting tree	
	433762.21	6315612.83	50	*Eucalyptus marginata*	Potential nesting tree	
	433761.01	6315610.49	64	*Eucalyptus marginata*	Potential nesting tree	
	433762.04	6315609.61	56	*Eucalyptus marginata*	Potential nesting tree	
	433761.14	6315605.84	71	*Eucalyptus marginata*	Potential nesting tree	
	433762.95	6315599.75	60	*Eucalyptus marginata*	Potential nesting tree	
	433765.64	6315601.10	82	*Eucalyptus marginata*	Potential nesting tree	
	433772.42	6315603.59	82	*Eucalyptus marginata*	Potential nesting tree	
	433769.51	6315606.67	65	*Eucalyptus marginata*	Potential nesting tree	
	433630.04	6315456.37	112	*Corymbia calophylla*	Potential nesting tree	
	433662.77	6315326.21	179	*Corymbia calophylla*	Potential nesting tree	
	433675.09	6315294.25	198	*Corymbia calophylla*	Potential nesting tree	
	433805.91	6315197.79	112	*Corymbia calophylla*	Potential nesting tree	
	433807.38	6315199.91	140	*Corymbia calophylla*	Potential nesting tree	
	433826.34	6315191.06	100	*Corymbia calophylla*	Potential nesting tree	
	433831.69	6315199.63	149	*Corymbia calophylla*	Potential nesting tree	
	433939.34	6315251.48	87	*Stag*	Potential nesting tree	
	433974.41	6315269.01	137	*Eucalyptus marginata*	Potential nesting tree	
	434028.83	6315276.04	114	*Eucalyptus marginata*	Potential nesting tree	
23	434035.62	6315304.13	124	*Eucalyptus marginata*	Suitable nesting tree	
	434021.28	6315264.12	95	*Eucalyptus marginata*	Potential nesting tree	
	433991.50	6315234.43	148	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433981.82	6315247.22	147	*Corymbia calophylla*	Potential nesting tree	
	433969.70	6315236.83	109	*Corymbia calophylla*	Potential nesting tree	
	433968.92	6315228.06	102	*Eucalyptus marginata*	Potential nesting tree	
	433983.90	6315215.53	130	*Eucalyptus marginata*	Potential nesting tree	
	433928.51	6315214.48	176	*Corymbia calophylla*	Potential nesting tree	
	433940.69	6315203.04	136	*Corymbia calophylla*	Potential nesting tree	
	433955.76	6315191.05	61	*Corymbia calophylla*	Potential nesting tree	
	433958.39	6315187.74	89	*Corymbia calophylla*	Potential nesting tree	
	433958.03	6315185.41	80	*Corymbia calophylla*	Potential nesting tree	
	433953.68	6315181.84	63	*Corymbia calophylla*	Potential nesting tree	
	433950.32	6315183.37	54	*Corymbia calophylla*	Potential nesting tree	
	433940.13	6315188.95	89	*Corymbia calophylla*	Potential nesting tree	
	433940.20	6315179.42	63	*Corymbia calophylla*	Potential nesting tree	
	433886.36	6315210.87	123	*Corymbia calophylla*	Potential nesting tree	
	433930.70	6315193.54	137	*Corymbia calophylla*	Potential nesting tree	
	433879.02	6315207.94	70	*Stag*	Potential nesting tree	
	433888.58	6315199.02	133	*Corymbia calophylla*	Potential nesting tree	
	433892.59	6315198.16	119	*Corymbia calophylla*	Potential nesting tree	
	433904.15	6315195.58	123	*Corymbia calophylla*	Potential nesting tree	
	433899.55	6315186.79	125	*Corymbia calophylla*	Potential nesting tree	
	433910.58	6315181.10	93	*Corymbia calophylla*	Potential nesting tree	
	433911.64	6315176.12	147	*Corymbia calophylla*	Potential nesting tree	
	433921.28	6315154.01	103	*Corymbia calophylla*	Potential nesting tree	
	433922.52	6315149.69	58	*Corymbia calophylla*	Potential nesting tree	
	433922.82	6315147.26	62	*Corymbia calophylla*	Potential nesting tree	
	434028.36	6315373.38	100	*Corymbia calophylla*	Potential nesting tree	
	434016.08	6315384.94	104	*Corymbia calophylla*	Potential nesting tree	
	434005.64	6315400.17	130	*Corymbia calophylla*	Potential nesting tree	
103	433990.75	6315399.18	0	*Corymbia calophylla*	Potential nesting tree	
	433967.24	6315378.40	106	*Corymbia calophylla*	Potential nesting tree	
	433953.40	6315359.68	80	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433939.61	6315375.99	124	*Corymbia calophylla*	Potential nesting tree	
	433968.46	6315390.93	107	*Corymbia calophylla*	Potential nesting tree	
	433971.90	6315405.26	93	*Corymbia calophylla*	Potential nesting tree	
	433986.30	6315410.90	85	*Corymbia calophylla*	Potential nesting tree	
	433981.26	6315412.75	104	*Corymbia calophylla*	Potential nesting tree	
	433980.93	6315419.73	68	*Corymbia calophylla*	Potential nesting tree	
	433973.92	6315424.01	81	*Corymbia calophylla*	Potential nesting tree	
	433978.81	6315430.14	89	*Corymbia calophylla*	Potential nesting tree	
	433979.32	6315436.91	86	*Corymbia calophylla*	Potential nesting tree	
	433995.60	6315439.79	152	*Corymbia calophylla*	Potential nesting tree	
	433969.62	6315440.28	73	*Corymbia calophylla*	Potential nesting tree	
	433954.28	6315436.41	60	*Eucalyptus marginata*	Potential nesting tree	
	433946.45	6315396.44	122	*Corymbia calophylla*	Potential nesting tree	
	433939.06	6315401.27	93	*Eucalyptus marginata*	Potential nesting tree	
	433927.42	6315415.16	103	*Eucalyptus marginata*	Potential nesting tree	
	433926.10	6315432.00	73	*Corymbia calophylla*	Potential nesting tree	
	433936.43	6315432.07	91	*Eucalyptus marginata*	Potential nesting tree	
	433935.46	6315438.05	60	*Eucalyptus marginata*	Potential nesting tree	
	433948.90	6315446.46	60	*Eucalyptus marginata*	Potential nesting tree	
	433944.98	6315461.51	60	*Eucalyptus marginata*	Potential nesting tree	
	433935.18	6315465.99	63	*Eucalyptus marginata*	Potential nesting tree	
	433933.40	6315466.64	90	*Eucalyptus marginata*	Potential nesting tree	
	433930.79	6315467.85	59	*Eucalyptus marginata*	Potential nesting tree	
	433929.31	6315466.95	65	*Eucalyptus marginata*	Potential nesting tree	
	433931.94	6315462.86	68	*Eucalyptus marginata*	Potential nesting tree	
	433931.54	6315452.55	85	*Eucalyptus marginata*	Potential nesting tree	
	433931.65	6315450.89	74	*Stag*	Potential nesting tree	
	433913.43	6315474.49	68	*Eucalyptus marginata*	Potential nesting tree	
	433915.67	6315445.79	78	*Eucalyptus marginata*	Potential nesting tree	
	433919.28	6315435.61	89	*Corymbia calophylla*	Potential nesting tree	
	433902.98	6315421.64	54	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433895.06	6315423.48	59	*Eucalyptus marginata*	Potential nesting tree	
	433900.13	6315430.94	99	*Eucalyptus marginata*	Potential nesting tree	
	433900.59	6315472.41	73	*Stag*	Potential nesting tree	
	433901.27	6315468.09	60	*Eucalyptus marginata*	Potential nesting tree	
	433909.11	6315479.56	55	*Eucalyptus marginata*	Potential nesting tree	
	433886.75	6315480.96	54	*Eucalyptus marginata*	Potential nesting tree	
	433880.60	6315481.92	61	*Eucalyptus marginata*	Potential nesting tree	
	433882.40	6315490.69	73	*Eucalyptus marginata*	Potential nesting tree	
	433866.86	6315503.45	72	*Eucalyptus marginata*	Potential nesting tree	
	433863.76	6315507.64	57	*Eucalyptus marginata*	Potential nesting tree	
	433866.37	6315507.88	50	*Stag*	Potential nesting tree	
	433863.88	6315517.17	70	*Eucalyptus marginata*	Potential nesting tree	
	433854.30	6315502.03	53	*Eucalyptus marginata*	Potential nesting tree	
	433851.79	6315528.84	82	*Eucalyptus marginata*	Potential nesting tree	
	433844.34	6315529.79	62	*Eucalyptus marginata*	Potential nesting tree	
	433839.17	6315523.10	76	*Eucalyptus marginata*	Potential nesting tree	
	433827.94	6315531.45	51	*Eucalyptus marginata*	Potential nesting tree	
	433829.80	6315545.32	57	*Eucalyptus marginata*	Potential nesting tree	
	433826.81	6315547.08	51	*Eucalyptus marginata*	Potential nesting tree	
	433826.35	6315546.08	55	*Eucalyptus marginata*	Potential nesting tree	
	433821.64	6315553.58	54	*Eucalyptus marginata*	Potential nesting tree	
	433821.88	6315559.91	53	*Eucalyptus marginata*	Potential nesting tree	
	433816.31	6315543.13	55	*Eucalyptus marginata*	Potential nesting tree	
	433808.68	6315542.85	57	*Eucalyptus marginata*	Potential nesting tree	
	433803.26	6315559.11	57	*Eucalyptus marginata*	Potential nesting tree	
	433792.73	6315559.93	51	*Eucalyptus marginata*	Potential nesting tree	
	433791.45	6315543.84	55	*Eucalyptus marginata*	Potential nesting tree	
	433793.99	6315539.54	56	*Eucalyptus marginata*	Potential nesting tree	
	433787.21	6315550.36	96	*Eucalyptus marginata*	Potential nesting tree	
	433779.98	6315545.32	50	*Eucalyptus marginata*	Potential nesting tree	
	433775.35	6315542.40	80	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433775.83	6315540.19	50	*Eucalyptus marginata*	Potential nesting tree	
	433776.22	6315537.42	87	*Eucalyptus marginata*	Potential nesting tree	
	433788.73	6315532.96	63	*Eucalyptus marginata*	Potential nesting tree	
	433788.51	6315537.95	52	*Eucalyptus marginata*	Potential nesting tree	
	433796.36	6315533.57	62	*Eucalyptus marginata*	Potential nesting tree	
	433818.14	6315507.66	55	*Eucalyptus marginata*	Potential nesting tree	
	433821.08	6315499.92	80	*Eucalyptus marginata*	Potential nesting tree	
	433823.37	6315490.84	57	*Eucalyptus marginata*	Potential nesting tree	
	433826.98	6315480.78	60	*Eucalyptus marginata*	Potential nesting tree	
	433839.91	6315481.75	58	*Eucalyptus marginata*	Potential nesting tree	
	433850.70	6315483.71	64	*Eucalyptus marginata*	Potential nesting tree	
523	433858.27	6315479.55	85	*Stag*	Suitable nesting tree	
	433901.86	6315437.05	73	*Eucalyptus marginata*	Potential nesting tree	
	433901.32	6315433.94	89	*Eucalyptus marginata*	Potential nesting tree	
	433892.43	6315440.53	54	*Eucalyptus marginata*	Potential nesting tree	
	433887.51	6315438.17	112	*Eucalyptus marginata*	Potential nesting tree	
	433884.35	6315437.93	80	*Eucalyptus marginata*	Potential nesting tree	
	433884.32	6315442.14	137	*Eucalyptus marginata*	Potential nesting tree	
	433867.34	6315460.10	100	*Eucalyptus marginata*	Potential nesting tree	
	433863.12	6315464.39	55	*Eucalyptus marginata*	Potential nesting tree	
	433861.39	6315458.84	55	*Eucalyptus marginata*	Potential nesting tree	
	433861.87	6315457.51	66	*Eucalyptus marginata*	Potential nesting tree	
	433848.55	6315457.64	79	*Eucalyptus marginata*	Potential nesting tree	
	433848.05	6315449.54	70	*Eucalyptus marginata*	Potential nesting tree	
	433827.11	6315447.18	70	*Eucalyptus marginata*	Potential nesting tree	
	433829.33	6315449.30	113	*Eucalyptus marginata*	Potential nesting tree	
	433846.73	6315465.72	59	*Eucalyptus marginata*	Potential nesting tree	
	433843.44	6315470.25	67	*Stag*	Potential nesting tree	
	433829.27	6315458.73	64	*Eucalyptus marginata*	Potential nesting tree	
	433821.10	6315483.18	65	*Eucalyptus marginata*	Potential nesting tree	
	433801.16	6315485.04	54	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433787.58	6315496.81	50	*Eucalyptus marginata*	Potential nesting tree	
	433785.93	6315507.00	70	*Eucalyptus marginata*	Potential nesting tree	
	433781.71	6315510.40	116	*Eucalyptus marginata*	Potential nesting tree	
	433773.12	6315528.20	76	*Eucalyptus marginata*	Potential nesting tree	
	433784.75	6315473.84	50	*Eucalyptus marginata*	Potential nesting tree	
	433789.88	6315459.90	94	*Eucalyptus marginata*	Potential nesting tree	
	433795.17	6315462.27	55	*Eucalyptus marginata*	Potential nesting tree	
	433792.11	6315446.94	140	*Eucalyptus marginata*	Potential nesting tree	
	433814.82	6315433.79	77	*Eucalyptus marginata*	Potential nesting tree	
	433819.86	6315432.61	113	*Eucalyptus marginata*	Potential nesting tree	
	433823.91	6315439.73	92	*Eucalyptus marginata*	Potential nesting tree	
	433818.58	6315442.25	88	*Eucalyptus marginata*	Potential nesting tree	
	433831.52	6315443.33	55	*Eucalyptus marginata*	Potential nesting tree	
	433831.50	6315446.44	52	*Eucalyptus marginata*	Potential nesting tree	
	433897.90	6315375.38	120	*Eucalyptus marginata*	Potential nesting tree	
	434038.15	6315329.21	86	*Corymbia calophylla*	Potential nesting tree	
	434042.50	6315306.40	84	*Eucalyptus marginata*	Potential nesting tree	
	434051.49	6315312.11	60	*Corymbia calophylla*	Potential nesting tree	
	434067.26	6315278.85	98	*Eucalyptus marginata*	Potential nesting tree	
	434068.47	6315279.41	72	*Eucalyptus marginata*	Potential nesting tree	
	434067.27	6315250.57	127	*Eucalyptus marginata*	Potential nesting tree	
	434056.41	6315190.63	113	*Corymbia calophylla*	Potential nesting tree	
	434060.94	6315168.37	122	*Eucalyptus marginata*	Potential nesting tree	
	434066.23	6315157.10	74	*Corymbia calophylla*	Potential nesting tree	
	434053.33	6315136.83	98	*Corymbia calophylla*	Potential nesting tree	
	434058.55	6315067.13	120	*Corymbia calophylla*	Potential nesting tree	
	434065.30	6315060.63	75	*Corymbia calophylla*	Potential nesting tree	
	434060.70	6315052.51	82	*Corymbia calophylla*	Potential nesting tree	
	434072.69	6315042.50	83	*Corymbia calophylla*	Potential nesting tree	
	434072.10	6315033.29	120	*Corymbia calophylla*	Potential nesting tree	
	434061.62	6315012.60	85	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
524	434059.19	6314986.31	167	*Eucalyptus marginata*	Suitable nesting tree	
	434012.11	6314982.88	97	*Corymbia calophylla*	Potential nesting tree	
	434011.27	6314982.88	136	*Corymbia calophylla*	Potential nesting tree	
	433998.73	6314978.13	133	*Corymbia calophylla*	Potential nesting tree	
	433981.62	6314975.47	118	*Corymbia calophylla*	Potential nesting tree	
	433968.71	6314984.69	135	*Corymbia calophylla*	Potential nesting tree	
	433964.55	6314979.45	107	*Corymbia calophylla*	Potential nesting tree	
	433959.11	6314985.96	110	*Corymbia calophylla*	Potential nesting tree	
	433948.62	6314994.65	100	*Eucalyptus marginata*	Potential nesting tree	
	433950.43	6315003.31	135	*Corymbia calophylla*	Potential nesting tree	
	433956.09	6315032.84	95	*Corymbia calophylla*	Potential nesting tree	
	433551.48	6313261.41	79	*Corymbia calophylla*	Potential nesting tree	
	433550.44	6313278.15	55	*Eucalyptus rudis*	Potential nesting tree	
	433525.43	6313287.18	58	*Eucalyptus rudis*	Potential nesting tree	
	433531.00	6313289.21	64	*Stag*	Potential nesting tree	
	433491.49	6313281.51	50	*Eucalyptus rudis*	Potential nesting tree	
	433518.65	6313365.30	56	*Eucalyptus rudis*	Potential nesting tree	
	433515.66	6313367.72	51	*Eucalyptus rudis*	Potential nesting tree	
	433521.70	6313395.70	94	*Eucalyptus rudis*	Potential nesting tree	
	433503.44	6313398.12	50	*Eucalyptus rudis*	Potential nesting tree	
	433514.65	6313406.30	52	*Eucalyptus rudis*	Potential nesting tree	
	433523.33	6313417.33	82	*Eucalyptus marginata*	Potential nesting tree	
	433530.27	6313477.69	69	*Eucalyptus rudis*	Potential nesting tree	
	433525.31	6313535.09	65	*Eucalyptus rudis*	Potential nesting tree	
	432932.20	6315509.23	55	*Eucalyptus rudis*	Potential nesting tree	
	432968.17	6315450.05	62	*Eucalyptus rudis*	Potential nesting tree	
	432960.69	6315455.21	59	*Eucalyptus rudis*	Potential nesting tree	
	432957.38	6315449.20	53	*Eucalyptus rudis*	Potential nesting tree	
	432962.33	6315433.83	55	*Eucalyptus rudis*	Potential nesting tree	
	432965.31	6315432.85	55	*Eucalyptus rudis*	Potential nesting tree	
	432966.35	6315431.19	52	*Eucalyptus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	432996.44	6315361.66	98	*Eucalyptus rudis*	Potential nesting tree	
	432992.25	6315361.96	88	*Eucalyptus rudis*	Potential nesting tree	
	432967.41	6315358.91	54	*Eucalyptus rudis*	Potential nesting tree	
	433005.24	6315300.63	60	*Eucalyptus rudis*	Potential nesting tree	
	433002.63	6315287.97	56	*Eucalyptus rudis*	Potential nesting tree	
	433000.40	6315286.85	58	*Eucalyptus rudis*	Potential nesting tree	
	433000.60	6315283.97	57	*Eucalyptus rudis*	Potential nesting tree	
	433017.61	6315275.77	60	*Eucalyptus rudis*	Potential nesting tree	
	433020.54	6315228.00	55	*Eucalyptus rudis*	Potential nesting tree	
	433068.76	6315189.53	56	*Eucalyptus rudis*	Potential nesting tree	
	433072.66	6315177.14	60	*Eucalyptus rudis*	Potential nesting tree	
	433092.78	6315135.59	68	*Eucalyptus rudis*	Potential nesting tree	
	433100.00	6315127.99	69	*Eucalyptus rudis*	Potential nesting tree	
	433099.92	6315125.55	60	*Eucalyptus rudis*	Potential nesting tree	
	433104.90	6315133.12	60	*Eucalyptus rudis*	Potential nesting tree	
	433183.60	6315115.15	65	*Eucalyptus rudis*	Potential nesting tree	
	433158.20	6315112.20	63	*Eucalyptus rudis*	Potential nesting tree	
	433164.55	6315096.94	85	*Eucalyptus rudis*	Potential nesting tree	
	433140.93	6315038.24	91	*Eucalyptus rudis*	Potential nesting tree	
	433139.56	6314979.80	84	*Eucalyptus rudis*	Potential nesting tree	
	433158.13	6314973.83	60	*Eucalyptus rudis*	Potential nesting tree	
	433161.88	6314956.67	111	*Eucalyptus rudis*	Potential nesting tree	
	433238.07	6314843.55	96	*Eucalyptus rudis*	Potential nesting tree	
	433456.46	6314562.87	53	*Eucalyptus rudis*	Potential nesting tree	
	433475.30	6314584.62	51	*Eucalyptus rudis*	Potential nesting tree	
	433484.09	6314592.88	50	*Eucalyptus rudis*	Potential nesting tree	
	433499.45	6314674.70	135	*Eucalyptus rudis*	Potential nesting tree	
	433555.10	6314568.53	55	*Eucalyptus rudis*	Potential nesting tree	
	433528.85	6314024.63	67	*Stag*	Potential nesting tree	
	433513.30	6314025.08	51	*Stag*	Potential nesting tree	
	433560.97	6313955.99	74	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433541.02	6313851.53	55	*Eucalyptus rudis*	Potential nesting tree	
	433513.85	6313686.69	50	*Eucalyptus rudis*	Potential nesting tree	
	433474.84	6313659.70	55	*Eucalyptus rudis*	Potential nesting tree	
	433473.88	6313732.21	50	*Eucalyptus rudis*	Potential nesting tree	
	433992.00	6315283.88	115	*Eucalyptus marginata*	Potential nesting tree	
	434028.60	6315302.59	147	*Corymbia calophylla*	Potential nesting tree	
	434276.63	6315581.55	53	*Eucalyptus marginata*	Potential nesting tree	
	434659.79	6315985.57	74	*Eucalyptus rudis*	Potential nesting tree	
	433156.99	6315942.75	128	*Corymbia calophylla*	Potential nesting tree	
455	433411.65	6315707.89	128	*Corymbia calophylla*	Suitable nesting tree	
	433917.53	6315416.28	60	*Eucalyptus marginata*	Potential nesting tree	
	433921.01	6315419.75	81	*Eucalyptus marginata*	Potential nesting tree	
	433939.87	6315418.90	90	*Corymbia calophylla*	Potential nesting tree	
	433068.08	6315814.85	178	*Eucalyptus marginata*	Potential nesting tree	
	433031.59	6315786.88	94	*Eucalyptus rudis*	Potential nesting tree	
	433902.19	6315446.97	56	*Eucalyptus marginata*	Potential nesting tree	
	433909.99	6315081.68	108	*Corymbia calophylla*	Potential nesting tree	
	433985.01	6315082.39	63	*Corymbia calophylla*	Potential nesting tree	
	432971.71	6315788.36	73	*Eucalyptus rudis*	Potential nesting tree	
	433741.53	6313635.03	72	*Eucalyptus marginata*	Potential nesting tree	
	433729.17	6313617.31	70	*Eucalyptus marginata*	Potential nesting tree	
	433713.75	6313626.19	71	*Corymbia calophylla*	Potential nesting tree	
	433702.25	6313619.79	57	*Eucalyptus marginata*	Potential nesting tree	
	433700.02	6313620.44	66	*Eucalyptus marginata*	Potential nesting tree	
	433705.64	6313615.27	56	*Corymbia calophylla*	Potential nesting tree	
	433711.24	6313612.31	58	*Corymbia calophylla*	Potential nesting tree	
	433720.91	6313614.26	59	*Corymbia calophylla*	Potential nesting tree	
	433723.22	6313602.64	86	*Eucalyptus marginata*	Potential nesting tree	
	433721.63	6313591.21	81	*Eucalyptus marginata*	Potential nesting tree	
	433723.25	6313585.56	60	*Corymbia calophylla*	Potential nesting tree	
	433726.25	6313582.15	70	*Corymbia calophylla*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433714.42	6313583.62	56	*Corymbia calophylla*	Potential nesting tree	
	433712.82	6313585.94	57	*Corymbia calophylla*	Potential nesting tree	
	433704.21	6313593.19	63	*Corymbia calophylla*	Potential nesting tree	
	433706.60	6313583.45	54	*Eucalyptus marginata*	Potential nesting tree	
	433704.45	6313557.49	110	*Eucalyptus marginata*	Potential nesting tree	
	433705.42	6313552.29	89	*Eucalyptus marginata*	Potential nesting tree	
	433723.04	6313560.73	125	*Eucalyptus marginata*	Potential nesting tree	
	433718.77	6313545.95	95	*Eucalyptus marginata*	Potential nesting tree	
	433708.96	6313537.24	100	*Eucalyptus marginata*	Potential nesting tree	
	433707.90	6313529.80	52	*Eucalyptus marginata*	Potential nesting tree	
	433715.58	6313523.09	60	*Stag*	Potential nesting tree	
	433723.77	6313522.92	78	*Corymbia calophylla*	Potential nesting tree	
	433741.71	6313540.12	70	*Eucalyptus marginata*	Potential nesting tree	
	433744.00	6313532.60	68	*Corymbia calophylla*	Potential nesting tree	
	433755.74	6313543.54	136	*Eucalyptus marginata*	Potential nesting tree	
	433753.95	6313547.85	89	*Eucalyptus marginata*	Potential nesting tree	
	433773.35	6313541.22	67	*Corymbia calophylla*	Potential nesting tree	
	433777.35	6313541.69	61	*Corymbia calophylla*	Potential nesting tree	
	433780.12	6313531.40	68	*Eucalyptus marginata*	Potential nesting tree	
	433785.35	6313529.00	51	*Eucalyptus marginata*	Potential nesting tree	
	433781.51	6313518.44	105	*Eucalyptus marginata*	Potential nesting tree	
	433786.38	6313514.92	55	*Corymbia calophylla*	Potential nesting tree	
	433780.20	6313505.90	75	*Eucalyptus marginata*	Potential nesting tree	
	433787.58	6313488.99	100	*Corymbia calophylla*	Potential nesting tree	
	433791.56	6313492.12	80	*Corymbia calophylla*	Potential nesting tree	
	433806.78	6313498.88	96	*Corymbia calophylla*	Potential nesting tree	
	433799.30	6313517.89	84	*Corymbia calophylla*	Potential nesting tree	
	433798.53	6313535.52	97	*Corymbia calophylla*	Potential nesting tree	
	433797.77	6313536.62	65	*Eucalyptus marginata*	Potential nesting tree	
	433801.40	6313537.20	62	*Corymbia calophylla*	Potential nesting tree	
	433805.89	6313547.10	67	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433813.59	6313552.25	75	*Eucalyptus marginata*	Potential nesting tree	
	433817.14	6313549.06	62	*Corymbia calophylla*	Potential nesting tree	
	433815.79	6313556.48	55	*Eucalyptus marginata*	Potential nesting tree	
	433823.99	6313569.18	93	*Corymbia calophylla*	Potential nesting tree	
	433820.59	6313576.36	122	*Corymbia calophylla*	Potential nesting tree	
	433826.40	6313583.61	76	*Eucalyptus marginata*	Potential nesting tree	
	433833.23	6313592.74	82	*Corymbia calophylla*	Potential nesting tree	
	433819.48	6313589.21	59	*Corymbia calophylla*	Potential nesting tree	
	433813.25	6313587.29	52	*Eucalyptus marginata*	Potential nesting tree	
	433810.05	6313578.95	64	*Eucalyptus marginata*	Potential nesting tree	
	433799.22	6313570.01	51	*Eucalyptus marginata*	Potential nesting tree	
	433795.04	6313569.64	100	*Eucalyptus marginata*	Potential nesting tree	
	433800.05	6313558.15	68	*Corymbia calophylla*	Potential nesting tree	
	433766.76	6313566.01	101	*Eucalyptus marginata*	Potential nesting tree	
	433743.87	6313577.72	93	*Eucalyptus marginata*	Potential nesting tree	
	433743.58	6313580.05	53	*Eucalyptus marginata*	Potential nesting tree	
	433739.91	6313598.65	87	*Eucalyptus marginata*	Potential nesting tree	
	433733.83	6313604.04	53	*Stag*	Potential nesting tree	
	433745.50	6313612.66	65	*Eucalyptus marginata*	Potential nesting tree	
	433754.28	6313608.62	74	*Eucalyptus marginata*	Potential nesting tree	
	433755.87	6313620.05	64	*Eucalyptus marginata*	Potential nesting tree	
	433764.97	6313624.10	56	*Eucalyptus marginata*	Potential nesting tree	
	433771.87	6313622.37	85	*Eucalyptus marginata*	Potential nesting tree	
	433770.41	6313617.26	65	*Eucalyptus marginata*	Potential nesting tree	
	433764.82	6313605.14	97	*Eucalyptus marginata*	Potential nesting tree	
	433772.41	6313597.98	98	*Eucalyptus marginata*	Potential nesting tree	
	433779.31	6313595.59	78	*Eucalyptus marginata*	Potential nesting tree	
	433783.16	6313591.07	64	*Eucalyptus marginata*	Potential nesting tree	
	433789.58	6313591.12	86	*Stag*	Potential nesting tree	
	433794.74	6313586.16	62	*Eucalyptus marginata*	Potential nesting tree	
	433808.24	6313598.67	60	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433821.53	6313601.98	72	*Eucalyptus marginata*	Potential nesting tree	
	433813.38	6313609.46	117	*Eucalyptus marginata*	Potential nesting tree	
	433805.10	6313608.30	68	*Corymbia calophylla*	Potential nesting tree	
	433799.47	6313614.80	60	*Eucalyptus marginata*	Potential nesting tree	
	433795.67	6313613.44	58	*Corymbia calophylla*	Potential nesting tree	
	433798.13	6313620.33	68	*Eucalyptus marginata*	Potential nesting tree	
	433807.32	6313624.28	80	*Eucalyptus marginata*	Potential nesting tree	
	433794.56	6313626.41	77	*Eucalyptus marginata*	Potential nesting tree	
	433223.87	6314025.64	65	*Eucalyptus marginata*	Potential nesting tree	
	433221.63	6314025.74	70	*Eucalyptus marginata*	Potential nesting tree	
	433213.87	6314030.12	100	*Eucalyptus marginata*	Potential nesting tree	
	433216.91	6314035.02	117	*Eucalyptus marginata*	Potential nesting tree	
	433227.34	6314034.42	143	*Corymbia calophylla*	Potential nesting tree	
	433240.05	6314041.16	117	*Eucalyptus marginata*	Potential nesting tree	
	433227.01	6314055.26	92	*Eucalyptus marginata*	Potential nesting tree	
	433216.37	6314059.74	130	*Eucalyptus marginata*	Potential nesting tree	
	433195.05	6314046.40	86	*Eucalyptus marginata*	Potential nesting tree	
	433180.83	6314043.31	103	*Eucalyptus marginata*	Potential nesting tree	
	433177.12	6314027.09	80	*Eucalyptus marginata*	Potential nesting tree	
	433177.40	6314026.87	89	*Eucalyptus marginata*	Potential nesting tree	
	433167.90	6314028.58	105	*Eucalyptus marginata*	Potential nesting tree	
	433168.00	6314053.42	78	*Eucalyptus marginata*	Potential nesting tree	
	433161.75	6314055.26	71	*Eucalyptus marginata*	Potential nesting tree	
	433173.24	6314063.76	67	*Eucalyptus marginata*	Potential nesting tree	
	433164.11	6314078.23	69	*Eucalyptus marginata*	Potential nesting tree	
	433150.99	6314077.36	65	*Eucalyptus marginata*	Potential nesting tree	
	433163.13	6314085.98	89	*Eucalyptus marginata*	Potential nesting tree	
	433158.07	6314089.49	121	*Eucalyptus marginata*	Potential nesting tree	
	433155.16	6314094.13	110	*Eucalyptus marginata*	Potential nesting tree	
	433181.64	6314087.00	105	*Eucalyptus marginata*	Potential nesting tree	
	433180.07	6314072.46	76	*Eucalyptus marginata*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433174.74	6314076.30	69	*Eucalyptus marginata*	Potential nesting tree	
	433185.84	6314072.72	66	*Eucalyptus marginata*	Potential nesting tree	
	433190.43	6314068.87	56	*Eucalyptus marginata*	Potential nesting tree	
	433189.23	6314066.54	59	*Eucalyptus marginata*	Potential nesting tree	
	433196.90	6314061.38	96	*Eucalyptus marginata*	Potential nesting tree	
	433205.28	6314074.52	96	*Eucalyptus marginata*	Potential nesting tree	
	433198.37	6314077.69	54	*Eucalyptus marginata*	Potential nesting tree	
	433204.97	6314080.06	74	*Eucalyptus marginata*	Potential nesting tree	
	433201.78	6314083.03	84	*Eucalyptus marginata*	Potential nesting tree	
	433203.96	6314091.14	93	*Eucalyptus marginata*	Potential nesting tree	
	433211.07	6314085.76	80	*Eucalyptus marginata*	Potential nesting tree	
	433213.10	6314101.40	120	*Eucalyptus marginata*	Potential nesting tree	
	433217.13	6314112.19	103	*Eucalyptus marginata*	Potential nesting tree	
	433239.17	6314114.78	167	*Corymbia calophylla*	Potential nesting tree	
	433270.49	6314095.70	82	*Corymbia calophylla*	Potential nesting tree	
	433254.32	6314146.15	103	*Eucalyptus marginata*	Potential nesting tree	
	433192.84	6314111.24	99	*Eucalyptus marginata*	Potential nesting tree	
	433182.48	6314113.83	149	*Corymbia calophylla*	Potential nesting tree	
	433160.66	6314145.95	126	*Eucalyptus marginata*	Potential nesting tree	
	433137.68	6314157.76	102	*Eucalyptus marginata*	Potential nesting tree	
	433137.85	6314160.20	81	*Eucalyptus marginata*	Potential nesting tree	
	433129.80	6314167.24	75	*Eucalypus rudis*	Potential nesting tree	
	433143.05	6314189.07	55	*Eucalypus rudis*	Potential nesting tree	
	433141.26	6314192.60	87	*Eucalypus rudis*	Potential nesting tree	
	433144.32	6314193.62	50	*Eucalypus rudis*	Potential nesting tree	
	433152.87	6314182.81	50	*Eucalypus rudis*	Potential nesting tree	
	433195.00	6314243.20	77	*Eucalypus rudis*	Potential nesting tree	
	433202.10	6314280.83	71	*Eucalypus rudis*	Potential nesting tree	
	433203.03	6314280.06	54	*Eucalypus rudis*	Potential nesting tree	
	433205.40	6314287.73	59	*Eucalypus rudis*	Potential nesting tree	
	433211.63	6314289.33	62	*Eucalypus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433207.67	6314296.06	61	*Eucalypus rudis*	Potential nesting tree	
	433177.66	6314313.93	99	*Eucalypus rudis*	Potential nesting tree	
	433170.43	6314323.63	95	*Eucalypus rudis*	Potential nesting tree	
	433186.69	6314327.18	66	*Eucalypus rudis*	Potential nesting tree	
	433198.46	6314321.50	50	*Eucalypus rudis*	Potential nesting tree	
	433209.55	6314348.07	50	*Eucalypus rudis*	Potential nesting tree	
	433210.16	6314353.96	55	*Eucalypus rudis*	Potential nesting tree	
	433211.20	6314378.02	57	*Eucalypus rudis*	Potential nesting tree	
	433216.65	6314384.05	53	*Eucalypus rudis*	Potential nesting tree	
	433217.29	6314386.49	81	*Eucalypus rudis*	Potential nesting tree	
	433219.43	6314385.95	77	*Eucalypus rudis*	Potential nesting tree	
	433219.81	6314385.84	70	*Eucalypus rudis*	Potential nesting tree	
	433224.05	6314390.86	55	*Eucalypus rudis*	Potential nesting tree	
	433372.76	6313912.46	123	*Stag*	Potential nesting tree	
	433387.82	6313873.65	54	*Eucalypus rudis*	Potential nesting tree	
	433394.92	6313830.12	52	*Eucalypus rudis*	Potential nesting tree	
	433386.90	6313791.15	58	*Eucalypus rudis*	Potential nesting tree	
	433386.71	6313777.96	72	*Eucalypus rudis*	Potential nesting tree	
	433380.40	6313775.36	53	*Eucalypus rudis*	Potential nesting tree	
	433371.12	6313770.53	78	*Eucalypus rudis*	Potential nesting tree	
	433372.37	6313779.19	67	*Eucalypus rudis*	Potential nesting tree	
	433407.50	6313692.06	71	*Eucalypus rudis*	Potential nesting tree	
	433432.03	6313698.55	54	*Eucalypus rudis*	Potential nesting tree	
	433438.46	6313671.32	50	*Eucalypus rudis*	Potential nesting tree	
	433434.86	6313665.75	81	*Eucalypus rudis*	Potential nesting tree	
	433408.12	6313669.11	91	*Stag*	Potential nesting tree	
	433404.05	6313666.42	68	*Eucalypus rudis*	Potential nesting tree	
	433419.98	6313650.57	70	*Stag*	Potential nesting tree	
	433424.41	6313629.31	65	*Eucalyptus todtiana*	Potential nesting tree	
	433432.43	6313613.73	94	*Eucalypus rudis*	Potential nesting tree	
	433423.39	6313587.84	112	*Stag*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433408.37	6313579.42	131	*Eucalypus rudis*	Potential nesting tree	
	433422.33	6313552.35	78	*Eucalypus rudis*	Potential nesting tree	
	433438.88	6313541.04	57	*Stag*	Potential nesting tree	
	433429.64	6313532.00	60	*Eucalypus rudis*	Potential nesting tree	
	433426.84	6313518.34	71	*Eucalypus rudis*	Potential nesting tree	
	433411.69	6313489.08	59	*Eucalypus rudis*	Potential nesting tree	
	433413.14	6313480.77	50	*Eucalypus rudis*	Potential nesting tree	
	433410.97	6313471.67	56	*Eucalypus rudis*	Potential nesting tree	
	433414.32	6313470.91	50	*Eucalypus rudis*	Potential nesting tree	
	433424.15	6313449.14	102	*Eucalypus rudis*	Potential nesting tree	
	433411.73	6313441.96	97	*Stag*	Potential nesting tree	
	433418.44	6313427.37	57	*Eucalypus rudis*	Potential nesting tree	
	433415.93	6313413.82	54	*Eucalypus rudis*	Potential nesting tree	
	433417.28	6313406.63	0	*Eucalypus rudis*	Potential nesting tree	
	433417.88	6313400.20	52	*Eucalypus rudis*	Potential nesting tree	
	433410.61	6313401.92	79	*Eucalypus rudis*	Potential nesting tree	
	433412.20	6313373.66	50	*Eucalypus rudis*	Potential nesting tree	
	433436.37	6313310.63	61	*Stag*	Potential nesting tree	
	433447.26	6313296.73	104	*Stag*	Potential nesting tree	
	433353.27	6313957.23	82	*Eucalypus rudis*	Potential nesting tree	
	433365.14	6313976.94	121	*Eucalypus rudis*	Potential nesting tree	
	433358.70	6313993.64	50	*Eucalypus rudis*	Potential nesting tree	
	433374.80	6313994.86	59	*Stag*	Potential nesting tree	
	433378.86	6313999.76	61	*Eucalypus rudis*	Potential nesting tree	
	433372.21	6314005.81	61	*Eucalypus rudis*	Potential nesting tree	
	433362.45	6314003.97	60	*Eucalypus rudis*	Potential nesting tree	
	433345.60	6314016.94	62	*Eucalypus rudis*	Potential nesting tree	
	433336.98	6314011.89	71	*Eucalypus rudis*	Potential nesting tree	
	433321.75	6314046.05	69	*Eucalypus rudis*	Potential nesting tree	
	433319.64	6314056.01	68	*Eucalypus rudis*	Potential nesting tree	
	433311.31	6314075.47	64	*Eucalypus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433317.09	6314074.40	74	*Eucalypus rudis*	Potential nesting tree	
	433316.04	6314078.83	68	*Eucalypus rudis*	Potential nesting tree	
	433310.92	6314091.76	67	*Eucalypus rudis*	Potential nesting tree	
	433329.94	6314101.76	74	*Eucalypus rudis*	Potential nesting tree	
	433354.91	6314097.72	71	*Eucalyptus todtiana*	Potential nesting tree	
	433302.36	6314104.12	91	*Eucalypus rudis*	Potential nesting tree	
	433299.87	6314115.08	98	*Eucalypus rudis*	Potential nesting tree	
	433300.29	6314122.07	65	*Stag*	Potential nesting tree	
	433300.48	6314135.04	61	*Eucalypus rudis*	Potential nesting tree	
	433305.38	6314153.37	50	*Eucalypus rudis*	Potential nesting tree	
	433322.50	6314167.79	89	*Eucalypus rudis*	Potential nesting tree	
	433317.64	6314183.95	61	*Eucalypus rudis*	Potential nesting tree	
	433312.76	6314203.43	51	*Eucalypus rudis*	Potential nesting tree	
	433308.49	6314201.74	62	*Eucalypus rudis*	Potential nesting tree	
	433297.47	6314206.32	69	*Eucalypus rudis*	Potential nesting tree	
	433297.20	6314218.18	59	*Eucalypus rudis*	Potential nesting tree	
	433279.13	6314234.35	57	*Eucalypus rudis*	Potential nesting tree	
	433278.03	6314244.32	64	*Eucalypus rudis*	Potential nesting tree	
	433268.59	6314249.69	61	*Eucalypus rudis*	Potential nesting tree	
	433265.22	6314252.77	51	*Eucalypus rudis*	Potential nesting tree	
	433245.65	6314255.41	52	*Eucalypus rudis*	Potential nesting tree	
	433236.09	6314264.77	75	*Eucalypus rudis*	Potential nesting tree	
	433231.81	6314292.24	74	*Eucalypus rudis*	Potential nesting tree	
	433231.50	6314296.45	68	*Eucalypus rudis*	Potential nesting tree	
	433226.33	6314330.01	85	*Eucalypus rudis*	Potential nesting tree	
	433230.05	6314372.28	102	*Eucalypus rudis*	Potential nesting tree	
	433234.41	6314374.63	89	*Eucalypus rudis*	Potential nesting tree	
	433238.75	6314378.88	71	*Eucalypus rudis*	Potential nesting tree	
	433234.87	6314428.63	98	*Eucalypus rudis*	Potential nesting tree	
	433232.14	6314433.16	70	*Eucalypus rudis*	Potential nesting tree	
	433224.63	6314456.39	110	*Eucalypus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433223.31	6314458.60	66	*Eucalypus rudis*	Potential nesting tree	
	433222.75	6314459.37	89	*Eucalypus rudis*	Potential nesting tree	
	433226.12	6314469.93	67	*Eucalypus rudis*	Potential nesting tree	
	433224.25	6314483.66	85	*Eucalypus rudis*	Potential nesting tree	
	433231.36	6314493.03	78	*Eucalypus rudis*	Potential nesting tree	
	433225.35	6314499.75	101	*Eucalypus rudis*	Potential nesting tree	
	433224.23	6314501.40	70	*Eucalypus rudis*	Potential nesting tree	
	433245.40	6314509.31	56	*Eucalypus rudis*	Potential nesting tree	
	433242.40	6314512.06	56	*Eucalypus rudis*	Potential nesting tree	
	433251.88	6314513.68	66	*Eucalypus rudis*	Potential nesting tree	
	433251.62	6314512.24	67	*Eucalypus rudis*	Potential nesting tree	
	433226.17	6314516.72	89	*Eucalypus rudis*	Potential nesting tree	
	433226.38	6314527.03	74	*Eucalypus rudis*	Potential nesting tree	
	433226.45	6314529.58	70	*Eucalypus rudis*	Potential nesting tree	
	433224.81	6314538.77	76	*Eucalypus rudis*	Potential nesting tree	
	433224.82	6314537.22	72	*Eucalypus rudis*	Potential nesting tree	
	433221.10	6314549.28	76	*Eucalypus rudis*	Potential nesting tree	
	433216.85	6314558.34	81	*Eucalypus rudis*	Potential nesting tree	
	433213.08	6314565.19	75	*Eucalypus rudis*	Potential nesting tree	
	433212.13	6314567.73	94	*Eucalypus rudis*	Potential nesting tree	
	433210.42	6314573.71	67	*Eucalypus rudis*	Potential nesting tree	
	433216.53	6314577.74	79	*Eucalypus rudis*	Potential nesting tree	
	433221.28	6314577.55	75	*Eucalypus rudis*	Potential nesting tree	
	433222.67	6314579.01	99	*Eucalypus rudis*	Potential nesting tree	
	433205.81	6314592.86	70	*Eucalypus rudis*	Potential nesting tree	
	433203.84	6314595.62	130	*Eucalypus rudis*	Potential nesting tree	
	433173.68	6314582.22	101	*Eucalypus rudis*	Potential nesting tree	
	433144.10	6314577.47	61	*Eucalypus rudis*	Potential nesting tree	
	433134.02	6314554.67	103	*Eucalypus rudis*	Potential nesting tree	
	433121.71	6314544.38	82	*Eucalypus rudis*	Potential nesting tree	
	433093.62	6314540.20	69	*Eucalypus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433032.77	6314480.79	0	*Eucalyptus marginata*	Potential nesting tree	
	433151.94	6314534.39	115	*Eucalyptus marginata*	Potential nesting tree	
	433162.77	6314529.25	170	*Eucalypus rudis*	Potential nesting tree	
	433205.04	6314502.16	140	*Eucalypus rudis*	Potential nesting tree	
	433197.24	6314459.53	89	*Eucalypus rudis*	Potential nesting tree	
	433711.11	6314422.14	123	*Eucalypus rudis*	Potential nesting tree	
	433608.17	6314268.65	54	*Eucalypus rudis*	Potential nesting tree	
	433602.95	6314256.42	70	*Stag*	Potential nesting tree	
	433395.22	6313908.40	124	*Stag*	Potential nesting tree	
	433423.11	6313900.39	82	*Eucalypus rudis*	Potential nesting tree	
	433431.42	6313882.60	65	*Stag*	Potential nesting tree	
	433417.44	6313885.71	95	*Eucalypus rudis*	Potential nesting tree	
	433427.53	6313784.89	110	*Eucalypus rudis*	Potential nesting tree	
	433422.67	6313773.77	53	*Eucalypus rudis*	Potential nesting tree	
	433420.93	6313755.79	95	*Stag*	Potential nesting tree	
	433439.65	6313755.81	72	*Eucalypus rudis*	Potential nesting tree	
	433436.93	6313731.62	60	*Eucalypus rudis*	Potential nesting tree	
	433408.01	6313739.30	80	*Stag*	Potential nesting tree	
	433417.87	6313727.50	77	*Eucalypus rudis*	Potential nesting tree	
	433434.42	6313716.86	58	*Eucalypus rudis*	Potential nesting tree	
	433444.41	6313726.13	66	*Eucalypus rudis*	Potential nesting tree	
	433448.52	6313643.33	56	*Stag*	Potential nesting tree	
	433450.12	6313626.83	107	*Eucalypus rudis*	Potential nesting tree	
	433450.16	6313620.73	76	*Stag*	Potential nesting tree	
	433454.13	6313584.83	51	*Eucalypus rudis*	Potential nesting tree	
	433458.05	6313583.20	105	*Stag*	Potential nesting tree	
	433445.37	6313491.42	55	*Eucalypus rudis*	Potential nesting tree	
	433450.18	6313454.19	54	*Eucalypus rudis*	Potential nesting tree	
	433440.09	6313432.39	55	*Eucalypus rudis*	Potential nesting tree	
	433434.65	6313425.82	80	*Eucalypus rudis*	Potential nesting tree	
	433438.50	6313419.85	89	*Eucalypus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433437.59	6313376.61	84	*Eucalypus rudis*	Potential nesting tree	
	433441.75	6313353.91	86	*Eucalypus rudis*	Potential nesting tree	
	433637.64	6313280.85	75	*Eucalyptus marginata*	Potential nesting tree	
	433640.68	6313271.11	55	*Eucalyptus marginata*	Potential nesting tree	
	433636.98	6313268.65	85	*Corymbia calophylla*	Potential nesting tree	
	433654.93	6313270.77	94	*Eucalyptus marginata*	Potential nesting tree	
	433664.06	6313283.14	75	*Eucalyptus marginata*	Potential nesting tree	
	433741.14	6313269.36	60	*Eucalyptus marginata*	Potential nesting tree	
	433753.15	6313268.22	53	*Eucalyptus marginata*	Potential nesting tree	
	433755.56	6313270.46	63	*Corymbia calophylla*	Potential nesting tree	
	433753.49	6313273.22	54	*Corymbia calophylla*	Potential nesting tree	
	433756.24	6313279.78	82	*Eucalyptus marginata*	Potential nesting tree	
	433775.67	6313282.90	56	*Corymbia calophylla*	Potential nesting tree	
	433777.45	6313281.47	94	*Corymbia calophylla*	Potential nesting tree	
	433404.19	6313957.91	115	*Stag*	Potential nesting tree	
	433398.12	6313960.42	54	*Stag*	Potential nesting tree	
	433352.69	6314042.05	58	*Eucalypus rudis*	Potential nesting tree	
	433362.92	6314056.42	111	*Eucalypus rudis*	Potential nesting tree	
	433395.12	6314113.41	80	*Eucalypus rudis*	Potential nesting tree	
	433375.54	6314130.90	56	*Eucalypus rudis*	Potential nesting tree	
	433368.96	6314140.39	98	*Eucalypus rudis*	Potential nesting tree	
	433354.01	6314188.96	60	*Eucalypus rudis*	Potential nesting tree	
	433357.24	6314206.06	95	*Eucalypus rudis*	Potential nesting tree	
	433339.16	6314208.82	52	*Eucalypus rudis*	Potential nesting tree	
	433328.35	6314210.52	52	*Eucalypus rudis*	Potential nesting tree	
	433331.17	6314220.19	88	*Eucalypus rudis*	Potential nesting tree	
	433344.52	6314228.81	120	*Eucalypus rudis*	Potential nesting tree	
	433324.44	6314237.66	53	*Eucalypus rudis*	Potential nesting tree	
	433324.71	6314238.88	56	*Eucalypus rudis*	Potential nesting tree	
	433297.21	6314257.43	71	*Eucalypus rudis*	Potential nesting tree	
	433292.01	6314256.06	65	*Stag*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433300.50	6314267.76	78	*Eucalypus rudis*	Potential nesting tree	
	433309.10	6314289.33	54	*Eucalypus rudis*	Potential nesting tree	
	433310.74	6314307.52	58	*Eucalypus rudis*	Potential nesting tree	
	433271.31	6314274.21	59	*Eucalypus rudis*	Potential nesting tree	
	433268.57	6314280.29	66	*Eucalypus rudis*	Potential nesting tree	
	433260.32	6314315.94	61	*Eucalypus rudis*	Potential nesting tree	
	433249.42	6314316.75	93	*Eucalypus rudis*	Potential nesting tree	
	433252.62	6314325.86	94	*Stag*	Potential nesting tree	
	433258.59	6314336.88	57	*Eucalypus rudis*	Potential nesting tree	
	433252.89	6314353.81	60	*Eucalypus rudis*	Potential nesting tree	
	433254.63	6314358.36	54	*Eucalypus rudis*	Potential nesting tree	
	433263.40	6314395.23	53	*Eucalypus rudis*	Potential nesting tree	
	433250.13	6314416.76	92	*Eucalypus rudis*	Potential nesting tree	
	433261.98	6314426.82	55	*Eucalypus rudis*	Potential nesting tree	
	433274.99	6314415.71	75	*Eucalypus rudis*	Potential nesting tree	
	433246.56	6314448.12	62	*Eucalypus rudis*	Potential nesting tree	
	433242.66	6314461.17	60	*Eucalypus rudis*	Potential nesting tree	
	433244.59	6314464.18	70	*Eucalypus rudis*	Potential nesting tree	
	433250.99	6314494.71	155	*Eucalypus rudis*	Potential nesting tree	
	433267.22	6314476.42	121	*Eucalypus rudis*	Potential nesting tree	
	433280.65	6314487.05	61	*Eucalypus rudis*	Potential nesting tree	
	433255.66	6314519.91	70	*Eucalypus rudis*	Potential nesting tree	
	433248.28	6314523.30	63	*Eucalypus rudis*	Potential nesting tree	
	433254.03	6314526.11	74	*Eucalypus rudis*	Potential nesting tree	
	433243.96	6314528.81	73	*Eucalypus rudis*	Potential nesting tree	
	433248.67	6314548.25	54	*Eucalypus rudis*	Potential nesting tree	
	433246.29	6314596.80	58	*Eucalypus rudis*	Potential nesting tree	
	433243.47	6314573.38	82	*Eucalypus rudis*	Potential nesting tree	
	433238.02	6314620.36	75	*Eucalypus rudis*	Potential nesting tree	
	433246.90	6314643.04	79	*Eucalypus rudis*	Potential nesting tree	
	433238.61	6314657.28	56	*Eucalypus rudis*	Potential nesting tree	

Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
	433272.48	6314659.62	102	*Eucalypus rudis*	Potential nesting tree	
	433330.37	6314675.76	67	*Eucalypus rudis*	Potential nesting tree	
	433332.13	6314677.99	115	*Stag*	Potential nesting tree	
	433285.20	6314556.15	75	*Eucalypus rudis*	Potential nesting tree	
	433313.36	6314550.36	83	*Eucalypus rudis*	Potential nesting tree	
	433282.42	6314499.59	60	*Eucalypus rudis*	Potential nesting tree	
	433282.99	6314484.73	63	*Eucalypus rudis*	Potential nesting tree	
	433329.37	6314550.02	54	*Eucalypus rudis*	Potential nesting tree	
	433356.61	6314542.34	68	*Eucalypus rudis*	Potential nesting tree	
	433379.31	6314558.02	55	*Eucalypus rudis*	Potential nesting tree	
	433380.08	6314568.11	65	*Eucalypus rudis*	Potential nesting tree	
	433425.94	6314574.41	80	*Eucalypus rudis*	Potential nesting tree	
	433431.79	6314589.53	56	*Eucalypus rudis*	Potential nesting tree	
	433406.60	6314611.42	56	*Eucalypus rudis*	Potential nesting tree	
	433410.26	6314633.51	85	*Eucalypus rudis*	Potential nesting tree	
	433390.22	6314664.64	79	*Eucalypus rudis*	Potential nesting tree	
	433434.10	6314673.37	116	*Eucalypus rudis*	Potential nesting tree	
	433439.05	6314671.52	88	*Eucalypus rudis*	Potential nesting tree	
	433435.94	6314663.85	55	*Eucalypus rudis*	Potential nesting tree	
	433448.78	6314663.71	53	*Eucalypus rudis*	Potential nesting tree	
	433423.95	6314510.98	74	*Eucalypus rudis*	Potential nesting tree	
	433620.82	6314244.01	102	*Corymbia calophylla*	Potential nesting tree	
	433612.60	6314234.20	90	*Corymbia calophylla*	Potential nesting tree	
	433593.68	6314209.90	98	*Corymbia calophylla*	Potential nesting tree	
	433256.44	6314320.42	72	*Eucalypus rudis*	Potential nesting tree	
	433755.03	6314466.03	70	*Eucalypus rudis*	Potential nesting tree	

Appendix D

Water Management Plan

SW Office
Unit 6, 14 Fearn Avenue
PO Box 1129
Margaret River
Western Australia 6285

P +61 8 9758 8159
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN 57144772510 trading as Emerge Associates

Document Reference: EP24-016(06)—010C FMH

Emerge contact: David Coremans

20 May 2025

Attention: Enpowered Pty Ltd
PO Box782
Subiaco WA 6904

Delivered by email to: linh.le@enpowered.com.au

COLLIE BESS AND SOLAR PV – WATER MANAGEMENT PLAN

1 INTRODUCTION

Enpowered Pty Ltd (the proponent) are lodging a development approval (DA) application for the development of a photovoltaic (PV) solar and battery energy storage system (BESS) facility in Palmer within the Shire of Collie (SoC), Western Australia. The proposal is located across various freehold rural lots and road easements shown in **Table 1** and they are referred collectively as to 'the site'.

Table 1: Land holdings within the site

Lot	Plan	Vol	Folio	Street Address	Area (ha)	Proprietor
785	232871	2684	117	4997 Collie-Williams Road, Palmer	119.5225	Semlot Nominees Pty Ltd
786	232871	2684	117	4996 Collie-Williams Road, Palmer	39.6494	Semlot Nominees Pty Ltd
787	232871	2684	117	-	40.5117	Semlot Nominees Pty Ltd
788	232871	2102	12	-	40.6097	Semlot Nominees Pty Ltd
	Land ID 3539119			Unnamed unconstructed road	3.1543	State of WA
	Land ID 3539122			Unnamed unconstructed road	0.6191	State of WA
	Land ID 3539123			Unnamed unconstructed road	3.1728	State of WA

The site is bounded by Bingham River along the western boundary and generally surrounded by agricultural land and portions of the Muja State Forest to the north, east and south. The site is located approximately 13.5 km north-east from Collie town centre along both sides of the Collie-Williams Road. The proposed development will allow the creation of a PV Solar Farm with a capacity of up to 66 MW, a BESS facility with capacity of delivering 200 MW into the South West Interconnected System, a facility collector substation and a transmission cable to establish a connection between the facility collector substation and the Western Power Palmer Terminal station (currently under construction). The site is currently zoned as 'Rural' under the Shire of Collie Local Planning Scheme No.6. Location of the site is shown in **Figure 1** and the overall concept plan for the site is provided in Attachment A.

This Water Management Plan (WMP) is intended to support the DA and to demonstrate that site is capable of managing water in an appropriate manner. Water will be managed using an integrated water cycle management approach in which the first step in applying integrated water cycle management in catchments is to establish existing environmental values for receiving waters and/or ecosystems.

The overall objective for water management at the site is to consider the predevelopment characteristics and to maintain these as far as practicable. This document provides a WMP that supports the proposed development and provides a rationale for and demonstration of concept for water management at the site.

Given the proximity to the Bingham River and Pollard Brook, a flood modelling assessment has been undertaken to determine the spatial extent of inundation in response to a major (1% AEP) rainfall event. The integrated water cycle management approach responds to the environmental features of the site and considers:

- Potable water - Potable water would be required within the site during maintenance operations. The development will be serviced by the existing potable water network which runs along the Collie-William Road (DN750 referred to as the Great Southern Town Water Supply).
- Wastewater servicing – Limited onsite operation and maintenance uses will require wastewater servicing. Connection to reticulated sewage is not available, therefore the effluent will need to be managed onsite. The wastewater management approach will comply with the Government Sewerage Policy (GSP) (DPLH 2019b) and will be serviced by contemporary best-practice on-site wastewater treatment and disposal.
- Non-potable water – There will be some non-potable needs to meet bushfire servicing requirements. Non-potable water will be supplied by scheme water in addition to a surplus of harvested water collected from the operations buildings.
- Stormwater – Surface water will need to be managed for internal roads/access tracks and built portions of the site. A water sensitive design approach will be adopted which integrates water management into the landscape and mimics natural processes. This will include surface based runoff conveyance (roadside swales/v-drains) for localised treatment, erosion control and conveyance, and localised intervention/control (culverts) where appropriate to maintain catchment flows around infrastructure. Water quality treatment (i.e. sediment removal) will be undertaken within the site via sediment traps prior to discharge to the downstream environment.
- Groundwater – Groundwater management is not a significant consideration due to the lack of permanent groundwater. Management of groundwater will be passive and will avoid any interaction with permanent or perched groundwater.

This WMP demonstrates that the proposed use of the site and water management measures will provide an appropriate level of protection to the local environment and also meet the relevant requirements of the SoC.

2 EXISTING ENVIRONMENT

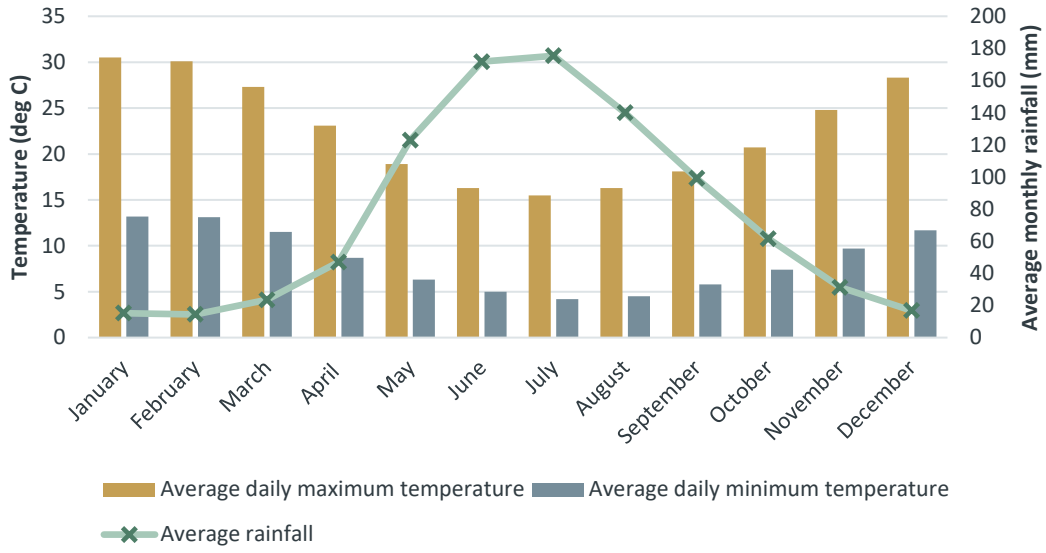
The environmental values identified within the site and that are relevant to water management are described in the following sections.

2.1 Climate and rainfall

2.1.1 Annual rainfall

Long term climatic averages from the nearest BOM station (Collie 009628 - located approximately 13.5 km northeast of the site) indicates that average maximum temperatures range from 15.5 °C in July through to 30.5 °C in January, whilst the average minimum temperatures range from 4.2 °C in July through to 13.2 °C in January (BoM 2025b). The average annual rainfall at the nearby station is 925.7 mm. The majority of the rainfall is received between May and September and the region experiences an annual average of 85 days of rain (>1 mm).

Chart 1: Average monthly temperatures and rainfall at Collie (BoM 2025b).



2.1.1 Intensity Frequency and Duration of storm events

The rainfall intensity, frequency and duration (IFD) of rainfall was obtained from the Design Rainfall Data System and is shown as total depth of rainfall for various storm events in **Table 2** (BoM 2016).

Table 2: IFD table for Collie

	Annual Exceedance Probability (%AEP)						
Duration (hrs)	***63.2***	***50***	***20***	***10***	***5***	***2***	***1***
5 min	5.12 mm	5.66 mm	7.47 mm	8.84 mm	10.3 mm	12.4 mm	14.2 mm
30 min	11.6 mm	12.8 mm	17 mm	20.2 mm	23.7 mm	28.8 mm	33.1 mm
1	15 mm	16.5 mm	21.7 mm	25.6 mm	29.8 mm	35.8 mm	40.7 mm
2	19.5 mm	21.4 mm	27.9 mm	32.7 mm	37.7 mm	45 mm	51 mm
3	22.7 mm	24.9 mm	32.3 mm	37.9 mm	43.8 mm	52.4 mm	59.5 mm
6	29.5 mm	32.3 mm	42 mm	49.5 mm	57.7 mm	69.8 mm	80.2 mm
9	34.3 mm	37.5 mm	49 mm	58.1 mm	68.2 mm	83.4 mm	96.7 mm
12	38.1 mm	41.6 mm	54.5 mm	64.9 mm	76.7 mm	94.5 mm	110 mm
18	44 mm	48 mm	63 mm	75.5 mm	90 mm	112 mm	132 mm
24	48.5 mm	52.9 mm	69.5 mm	83.5 mm	100 mm	125 mm	147 mm
36	55.5 mm	60.4 mm	79.2 mm	95.4 mm	115 mm	143 mm	168 mm
48	61 mm	66.4 mm	86.6 mm	104 mm	125 mm	154 mm	181 mm
72	70 mm	76 mm	98.3 mm	117 mm	139 mm	169 mm	196 mm

2.2 Topography

A topographical (LiDAR) dataset was obtained for the site from the Department of Water and Environmental Regulation (DWER) and Landgate to inform analysis of the existing topography of the site and for further hydrological assessment. Topographical contours were extracted from the LiDAR dataset with 1 m intervals.

Topography across the site generally slopes towards the Bingham River to the west and the Pollard Brook to the south and southeast. Topography ranges from 240 m Australian height datum (AHD) at a high point along the northern boundary to a low of 207 m AHD along the embankment of the Bingham River. Topographical contours derived from the DEM across the site and surrounding areas are shown in **Figure 2.**

2.3 Geology and soils

2.3.1 Regional geology

Regional soil mapping for the site provided on the 1:50,000 Environmental Geology Series for Collie (Gozzard J.R. and Jordan J.E. 1986) indicates that the surface geology expected at the site comprises:

- Gravel (G2) - identified across the majority of the site, described as 'yellow-brown to dark reddish brown, ferruginous or bauxite, pisolithic and irregular shape, poorly sorted, variable amounts of sand and silt in matrix'.
- Gravel (G3) - identified in the centre and northeastern boundary of the site, described as 'gravel (G2) but black, individual pisoliths exhibit coating, partial or total replacement by maghemite'.
- Sand (S5) – minor pockets observed along the western boundary of the site, described as 'yellow-brown, fine to medium, sub-angular quartz, no fines, moderately to well sorted, contains occasional well rounded pisolithic gravel'.
- Sand (S14) – observed along the northeastern boundary, described as 'white to pale grey, fine to medium, occasionally coarse, angular to sub-angular quartz, little fines, poorly to moderately sorted'.
- Clayey Silty Sand (Smc1) – minor pockets observed at the northern and southern boundaries, described as 'pale yellow-brown, mottled, fine to medium, angular quartz, well rounded pisolithic gravel at top, broken quartz veins common in places'.
- Laterite (LA1) – pockets observed at the southern and eastern portions of the site, described as 'massive, friable to strongly indurated, occasionally vesicular, iron rich, developed on granite'.

The regional geology expected beneath the site is shown in **Figure 3**.

2.3.2 Acid Sulfate Soils

A review of the Atlas of Australian Acid Sulfate Soils from CSRIO indicates that the site has an extremely low probability of Acid Sulfate Soils (ASS) of occurring. It is understood that major earthworks will not be required within the site, however in the event of any dewatering required, an ASS assessment should be undertaken to confirm and manage the risk.

2.4 Historical Land Use

Available historical imagery (WALIA 2025) indicates that the site has been cleared of native vegetation since 1996 and has been used for grazing purposes since this time.

2.5 Sewage Sensitive Areas

A review of the GSP dataset indicates that the site is not classified as a sewerage sensitive area. Notwithstanding, the site will not be connected to a regional reticulated sewage system, and therefore onsite treatment and effluent disposal will be required to manage wastewater within the site in a manner which complies with the GSP, including separation in excess of 100 m from watercourses and floodways.

2.6 Groundwater

A review of the water register (DWER 2025d) indicates that site is within the Upper Collie Water Management Area, which is underlain by the below fractured rock aquifers:

- Level 1 - Collie combined fractured rock west - Alluvium
- Level 2 - Collie combined fractured rock west - Calcrete
- Level 3 - Collie combined fractured rock west - Paleochannel
- Level 4 - Collie combined fractured rock west - Fractured rock.

The Collie area is within the proclaimed Collie Coal Basin which is made of the Premier and Cardiff sub-basins. Coal is mined from the Collie Coal Basin therefore needing dewatering for operations purposes. Surplus groundwater (mine dewater) is in high demand for cooling purposes of the local power industry (DWER 2025b).

Whilst groundwater sources beneath the site have not been classified in accordance with publicly available data, an assessment of estimated groundwater levels using the Australian Groundwater Explorer (BoM 2025a) and available literature on the formations suggest that if it were to be present the shallow groundwater within the superficial quaternary deposits would expected to be approximately 1 m below ground level (Mott MacDonald 2024). Due to the close proximity of the Bingham River and Pollard Brook, surficial groundwater could potentially be observed at the waterways level along the western and southern boundaries of the site.

2.7 Surface water

2.7.1 Wetlands

There are no mapped wetlands within the site (DBCA 2025).

2.7.2 Existing surface hydrology

The Bingham River and the Pollard Brook are the most prominent hydrological features within or in proximity to the site. The Bingham River and Pollard Brook are highly seasonal with the highest flows observed during the winter months when rainfall is the highest. During the summer months when the base flow is at its lowest, the system naturally ceases to flow forming a series of pools (DWER 2025a).The Bingham River flows southwards along the western boundary of the site before discharging into the Collie River approximately 3.2 km downstream of the site. The Pollard Brook is a tributary of the Bingham River and its waterway runs on a south westerly direction adjacently to the southern boundary of the site. Whilst the Bingham River and Pollard Brook waterways are observed along the western and southern boundaries, based on the surface runoff modelling undertaken for the site some minor portions of the site would be within major rainfall event (1% AEP) flood plain.

A flooding assessment was undertaken for the Bingham River and Pollard Brook using XPSWMM software to accurately define the hydrological and hydraulic regime for the broader catchment and identify the flooding extent for the major rainfall event for areas adjacent to the site. Based on the modelling objectives, the large catchment extent (shown in **Figure 4**) and expected runoff behaviour adjacent to the site, characterisation of the surface runoff is most appropriately represented by a combined 1D-2D hydraulic modelling approach. The flood modelling results which show the extent of inundation in a 1% AEP storm are shown in **Figure 5**.

Four minor manmade dams within the site are localised at the downstream end of the internal catchment. These intercept the localised flows along the main catchment streamline.

2.7.3 Surface water quality

The Collie River system, which includes the Bingham River, has experienced significant modification to its natural from due to agricultural activities (clearing of forest) and mining activities (prolonged mining dewatering). This has resulted in a dryland salinity, increased water salinity, increased peak volumes and reduced base flows across the upper catchment.

3 SURFACE WATER MANAGEMENT

The stormwater management approach for the site is to utilise water sensitive design (WSD) features that aim to maintain existing hydrological conditions. This will be achieved by intercepting surface runoff in localised roadside drains and directing runoff to sediment traps which provide temporary detention and remove mobilised sediments. These will be located at existing catchment low points prior to site discharge and will maintain catchment flows from and around impervious areas. The WSD features adopted for the site include:

- Roadside swales/v-drains
- Culvert crossings
- Sediment traps
- Erosion control measures

The stormwater management strategy/WSD features for the site are shown in **Figure 6**.

3.1.1 Roadside swales/v-drains

Swales/v-drains are proposed to intercept surface runoff generated from the internal road network (i.e. gravel roads and paved roads). These will provide inline detention as well as conveying surface runoff to the downstream treatment infrastructure. Management of surface runoff as close to the source as possible will assist protecting proposed infrastructure and the downstream environment. Swales are proposed to have a grade consistent with the natural topography in order to maintain the predevelopment catchment flows, to have a nominal depth of 300 mm and a maximum of 1:3 side slopes. Conveyance swales will be provided along the gravel roads within the Solar PV area and adjacently to the paved roads within the substations and BESS to assist managing scour/erosion and sediment immobilisation. Proposed location of roadside swales/v-drains are shown in **Figure 6**.

3.1.2 Culvert crossing

Culvert crossings will be strategically located either at the downstream end of a conveyance swales and at key road crossing so that they redirect runoff in a way that mimics the pre-development catchment areas as well as discharging into the treatment WSD features. The indicative location of the culvert crossings are shown in **Figure 6.**

3.1.3 Sediment traps

Sediment removal and treatment of the small (i.e. first 15 mm) rainfall event will be provided by the sediment traps located at the downstream end of the swales/v-drains. This will ensure that any sediment and contaminants transported by runoff are intercepted prior discharging into the downstream environments (i.e. Bingham River and Pollard Brook). Sediment traps may be vegetated however this will be varied to suit site constraints and requirements. If planted, vegetation within the treatment areas should be consistent with the local vegetation and drought tolerant species as these will be dry for extended periods of time.

Sediment traps will be designed to have a nominal depth of 300 mm, maximum side slopes of 1:3 and will be sized to cater the small rainfall event (i.e. first 15 mm of rainfall) from the road pavement/internal track areas. Excess runoff beyond the minor rainfall event will be allowed to discharge offsite into the downstream environment. Ultimate sizing and configuration should be determined as part of the detailed civil designs. Location of the treatment infrastructure is proposed to be outside the floodway/floodplain of the Bingham River as shown in **Figure 6**.

3.1.4 Erosion controls

Erosion control will be provided at the entry and exit to the sediment traps. This will take form of rock pitching or local materials shaped to slow down runoff and avoid erosion or scouring. Any erosion control infrastructure will be designed to be outside of the floodway/floodplain of the Bingham River.

3.2 Solar PV area drainage strategy

Whilst the majority of the development will occur around the Solar PV area, the hydrological regime is envisaged to remain unchanged as the portion of the rainfall falling over the solar panels will directly runoff onto the underlying undisturbed pasture. Solar panels will track the sun movement and even though this might change the direction of localised runoff depending on the solar panel position, runoff will still be discharged directly into the underlying soils and within the same catchment. On this basis, localised runoff dispersed across the Solar PV area (i.e. surface runoff will

not concentrate at a single location) will infiltrate or sheet flow over the land in the same direction as the existing hydrology. The Solar PV area would be designed to minimally disturb the underlying pasture and to maintain the existing topography that is shown in **Figure 2**. Given that the Solar PV area will mimic the existing hydrology no specific measures will be required to manage surface runoff from the Solar PV areas. Notwithstanding there are no catchment changes, any minor runoff and/or sediment that could be generated from these areas will be captured by the nearest downstream roadside v-drain and managed within the downstream sediment traps.

3.3 Substation and BESS drainage strategy

The substation and the BESS area will be designed to consider the existing topography of the site with some minor modifications for structural purposes, with the aim of maintaining the predevelopment hydrological regime. Additional runoff generated within the substation and BESS area as result of impervious areas would be intercepted via swales/v-drains around the boundary, conveyed and discharged into a downstream sediment trap where it will be treated prior to discharge to Bingham River. The proposed location of the swales/v-drains and sediment traps is shown in **Figure 6**.

4 WASTEWATER MANAGEMENT

4.1 Wastewater demand

During the construction stage, the site will be provided with temporary wastewater management facilities and any wastewater generated within the site will be taken offsite and disposed of at an appropriate wastewater facility. Once the site is under full operation, it is expected that daily operations can be undertaken remotely with minimal presence of personnel on site. Notwithstanding, it is anticipated that some level of wastewater will be generated during periodic maintenance. On this basis, some minor facilities which consist of a single toilet will be located within the maintenance shed. This is expected to generate less load than a typical single residential dwelling.

4.2 Onsite wastewater treatment plan and disposal

Whilst the wastewater generated within the site will be minimal, wastewater is still proposed to undergo secondary treatment in order to minimise any potential impact to the downstream environment. This will assist in the removal of biosolids and reducing the nutrient load of the effluent. To do so an alternative treatment unit (ATU) system (ATU approved by the Department of Health (DoH 2025)) will be located within/adjacent to the Maintenance Shed. Treated effluent is proposed to be disposed adjacent to the southern laydown area by the use of flatbed leach drains or similar. The proposed location is selected to provide appropriate separation to downstream hydrological features in accordance with the GSP (DPLH 2019b).

4.3 Site and Soil Evaluation

A review of the proposed effluent disposal area and treatment approach has been undertaken in accordance to the AS/NZS 1547 and the GSP (DPLH 2019a) to confirm that the risk to the receiving environment is appropriately mitigated. The analysis has been based on publicly available data (see **Section 2**) and is detailed in **Table 3**.

It is anticipated that at the detailed design stage, localised soil conditions (type and permeability) and clearance to localised groundwater at the proposed location will be assessed to corroborate the assumptions made in this report regarding on-site conditions.

Table 3: On-site wastewater disposal risk assessment

Site/system feature	*Less constrained*	*More constrained*	*Proposed approach*	*Risk category*	*Response to risk category*
Microbial quality of effluent	Effluent quality consistently producing ≤ 10 cfu/100 mL E. coli (secondary treated effluent with disinfection)	Effluent quality consistently producing ≥ 106 cfu/100 mL E. coli (e.g, primary treated effluent)	Secondary treatment will be adopted to ensure that the effluent quality achieves 10 cfu/100 mL of E. coli.	Low	No further actions will be required
Soil-terrain	Category 1 to 3 soils	Category 4 to 6 soils	The effluent disposal area is within the G2 soil which exhibits various contents of sand and silts. Based on the possibility of the fine material content and presence of sand and gravel, the shallow soils can be categorised as 'Sandy loam' (category 2). Based on a conservative permeability of 1 m/day, the soil can be classified as 'loam' (category 3).	Moderate	Soil permeability testing should be undertaken at the detailed design stage. The lowest recorded permeability should then be adopted for adequate sizing of the on-site effluent disposal area.
Slope	0 – 10% (subsurface effluent application)	> 10% (surface effluent application), > 30% subsurface effluent application	The proposed location for the effluent disposal area gently slopes towards the southwest with an approximate slope of 6%.	Low	No further action required.
Flood potential	Outside the maximum 10% AEP top water level	Located within low-lying or prone to flooding in a 10% AEP rainfall event	Effluent disposal area is proposed to be located approximately 135 m uphill from 1% AEP floodplain of the Bingham River.	Low	No further action required
Groundwater Separation within a sewage sensitive area	MGL is lower than 1.5 m below the natural surface level	MGL is within 1.5 m of the natural surface level	Based on the regional geology, it is expected that saturated soils within the G2 soil type may be present 1 m below the ground level. Given that a minimum clearance is not achieved, additional fill may need to be implemented within the effluent disposal area to achieve a minimum separation to the underlying low permeability soils of 1.5 m.	Moderate	As part of detailed design of the effluent disposal area, groundwater monitoring should be conducted to confirm seasonal peak levels. A minimum separation of 1.5 m should be provided which can be achieved via imported fill if required.
Application method	Subsurface application of effluent	Surface/above ground application of effluent.	Treated wastewater will be applied via subsurface application using flatbed leach drains or similar.	Low to moderate	Flatbed drains will provide sufficient clearance from groundwater when combined within minor imported fill if required.

The on-site wastewater disposal risk analysis detailed in **Table 3** confirms that there are no major constraints or physical characteristics that would prevent on-site sewage disposal being adopted. It is anticipated that soil type, permeability testing and groundwater monitoring will be undertaken to inform adequate sizing and design of the effluent disposal area. The location of the treated effluent disposal system is shown on **Figure 6**.

5 MANAGEMENT, MONITORING AND MAINTENANCE ACTIONS

The intent of the monitoring and maintenance program is to promote the long-term functioning of the water management features which include the roadside swales/v-drains, sediment traps, the ATU and effluent disposal area. The overall objectives will be achieved through the implementation

of number of management actions that will be carried out at regular intervals for the lifespan of the project. The key areas that will be addressed through the implementation of this management plan includes:

- Gross pollutants
- Sediments
- Erosion
- Nutrients (from the wastewater treatment system).

The actions and the manner in which they should be implemented are detailed in **Table 4**.

Table 4: Management actions

Actions	***Timing***	***Location***	***Responsibility***	***Contingency actions***
Inspect for gross pollutants	Minimum three-monthly	Entire development	Proponent/maintenance contractor	Remove and dispose at appropriate disposal facility
Inspect for sediments	Minimum three-monthly or after a significant rainfall event	Roadside swales and sediment traps	Proponent/maintenance contractor	Remove accumulated sediments at the base of the drainage features as required to enable correct functioning.
Inspect for erosion	Minimum three-monthly or after a significant rainfall event	Roadside swales, sediment traps and respective outlets	Proponent/maintenance contractor	If erosion is observed, maintenance should be undertaken to retrofit and repair erosion control measures (e.g. repair rock pitching)
Maintenance of ATUs	As recommended by manufactured	ATU within/adjacent the maintenance shed	Proponent/maintenance contractor	Undertake any maintenance requirements to enable adequate wastewater treatment
Maintenance of pumping systems and flatbed leach drains	Regular visual inspection during maintenance operation across the site and as recommended by manufacturer	ATU pumping system and effluent disposal areas	Proponent/maintenance contractor	Repair or replace as deemed necessary

6 SUMMARY AND CLOSING

This WMP has been developed to demonstrate how water will be managed across the site by adopting WSD principles which maintain the existing hydrological regime and avoid impact to the downstream environment. The overall water management approach plan for the site includes:

- Hydrological regime around the Solar PV area (largest part of the development) will remain unchanged as any rainfall falling over the solar panels will flow directly into the underlying soils therefore maintaining the existing hydrological regime.
- Additional stormwater generated as a result of the land change (i.e. access tracks, paved internal roads and impervious areas within the substation area) will be intercepted by WSD features that will follow the natural topography whilst maintaining the existing hydrological regime.
- The WSD features (i.e. roadside swales/v-drains and sediment traps) will be utilised to safely convey excess runoff as well as providing treatment prior to discharging into the downstream environment.
- Groundwater management across the site will be passive due to the lack of permanent groundwater.

- Wastewater generated within the site during maintenance operations will be treated using a secondary treatment ATU and infiltrated by the use of flatbed leach drains. The effluent disposal area has been selected to comply with the GSP and to ensure that the downstream environment is not impacted.

We trust the information provided in this WMP letter provides sufficient guidance as to how the development of the site will manage water resources whilst maintaining the site hydrology.

Yours sincerely
Emerge Associates



Dave Coremans
DIRECTOR, PRINCIPAL ENVIRONMENTAL CONSULTANT – HYDROLOGY

Encl: Figure 1 – Site Location Plan
Figure 2 – Topographical Contours
Figure 3 – Geological Mapping
Figure 4 – Hydrological Features and Upstream Catchment Areas
Figure 5 – Major Rainfall Event (1% AEP) Flooding Extent
Figure 6 – Water Management Plan

General References

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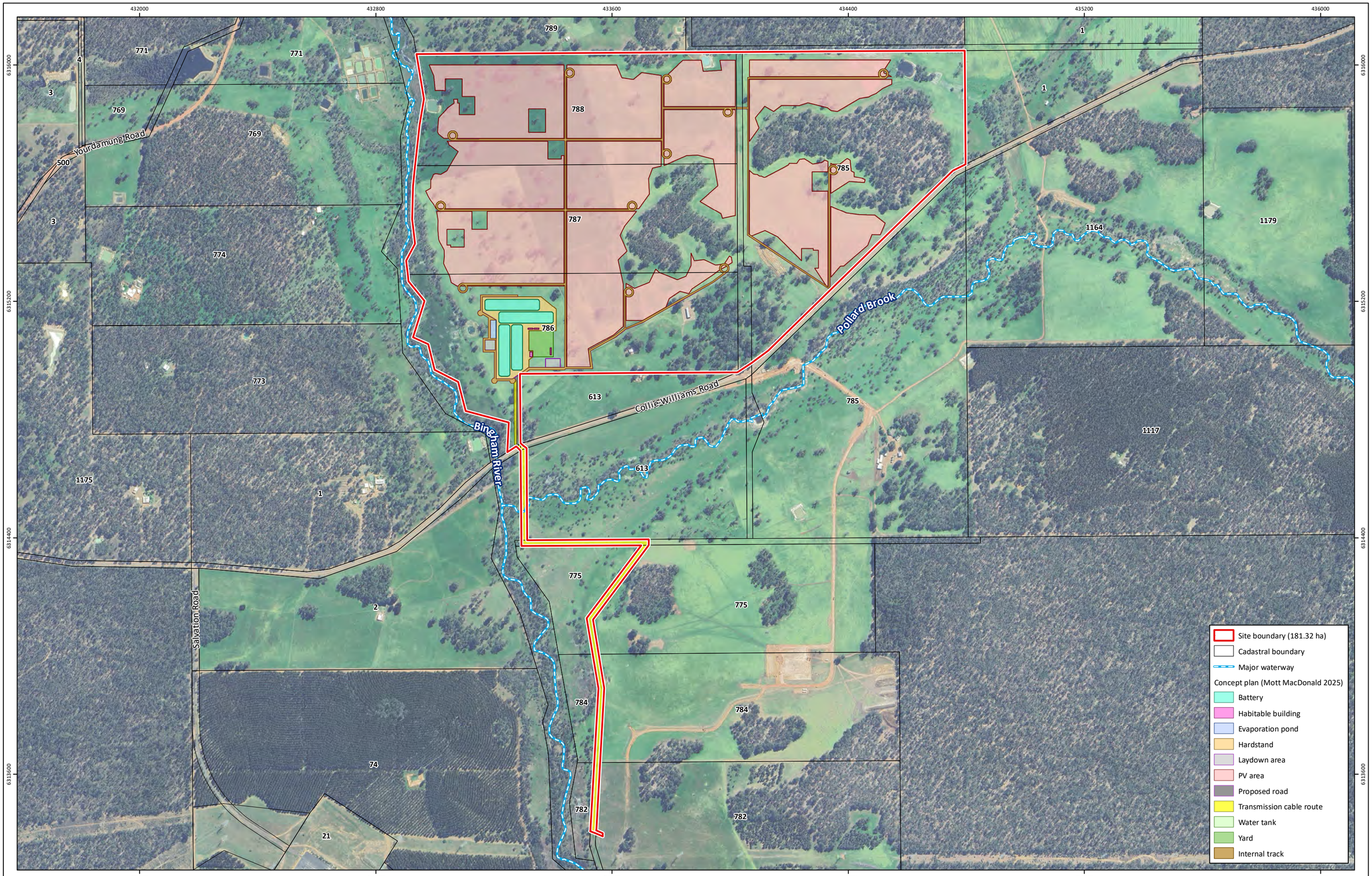


Figure 1: Site Location Plan

Project: Water Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F54

Drawn:	CTH
Date:	07/05/2025
Checked:	FMH
Approved:	DPC
Date:	09/05/2025

N

0 200 400
Metres

Scale: 1:11,500@A3

GDA2020 MGA Zone 50

emerge ASSOCIATES

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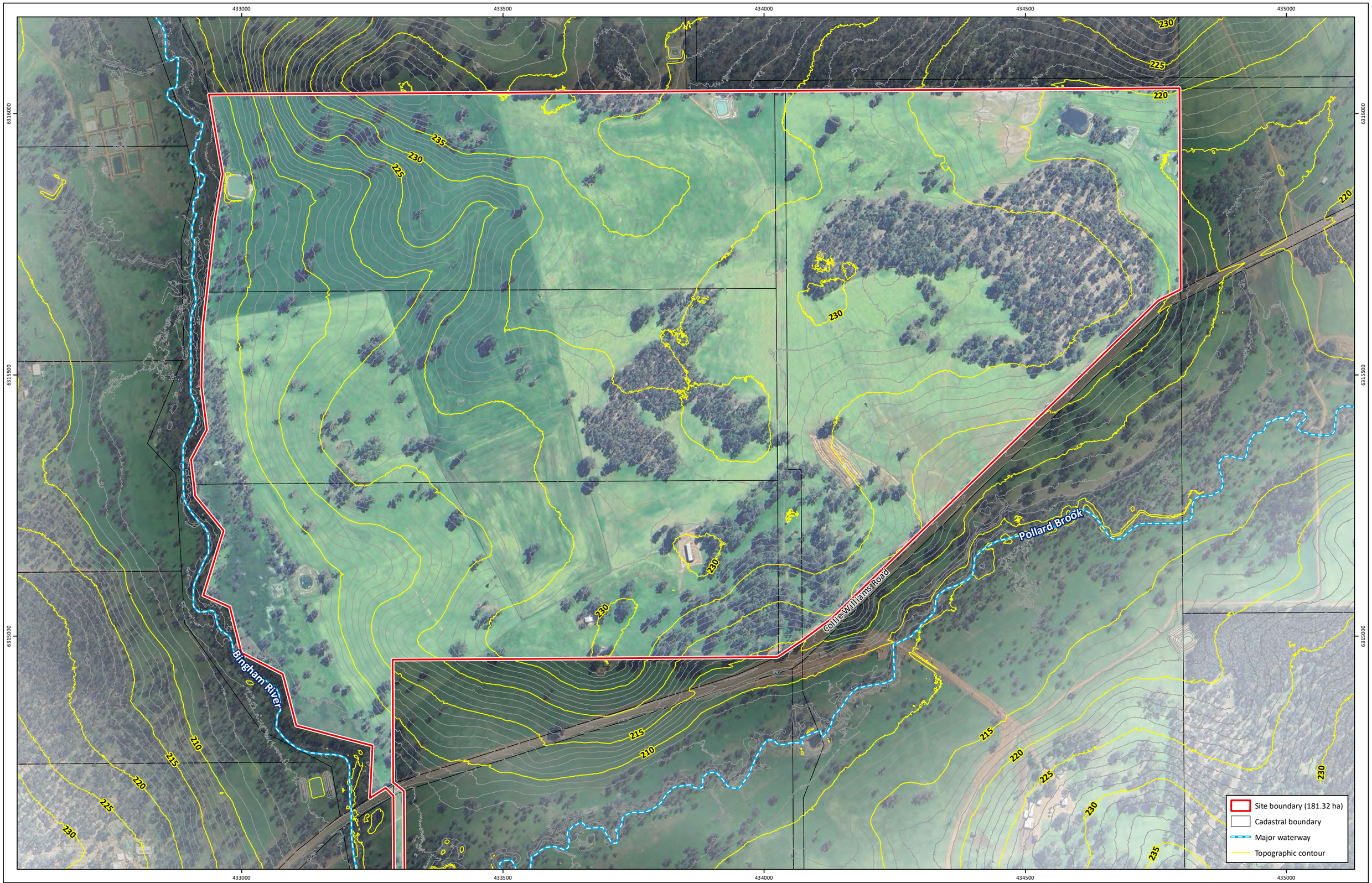


Figure 2: **Topographic Contours**

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F55
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

N

0 100 200
Metres
Scale: 1:6,500@A3
GDA2020 MGA Zone 50

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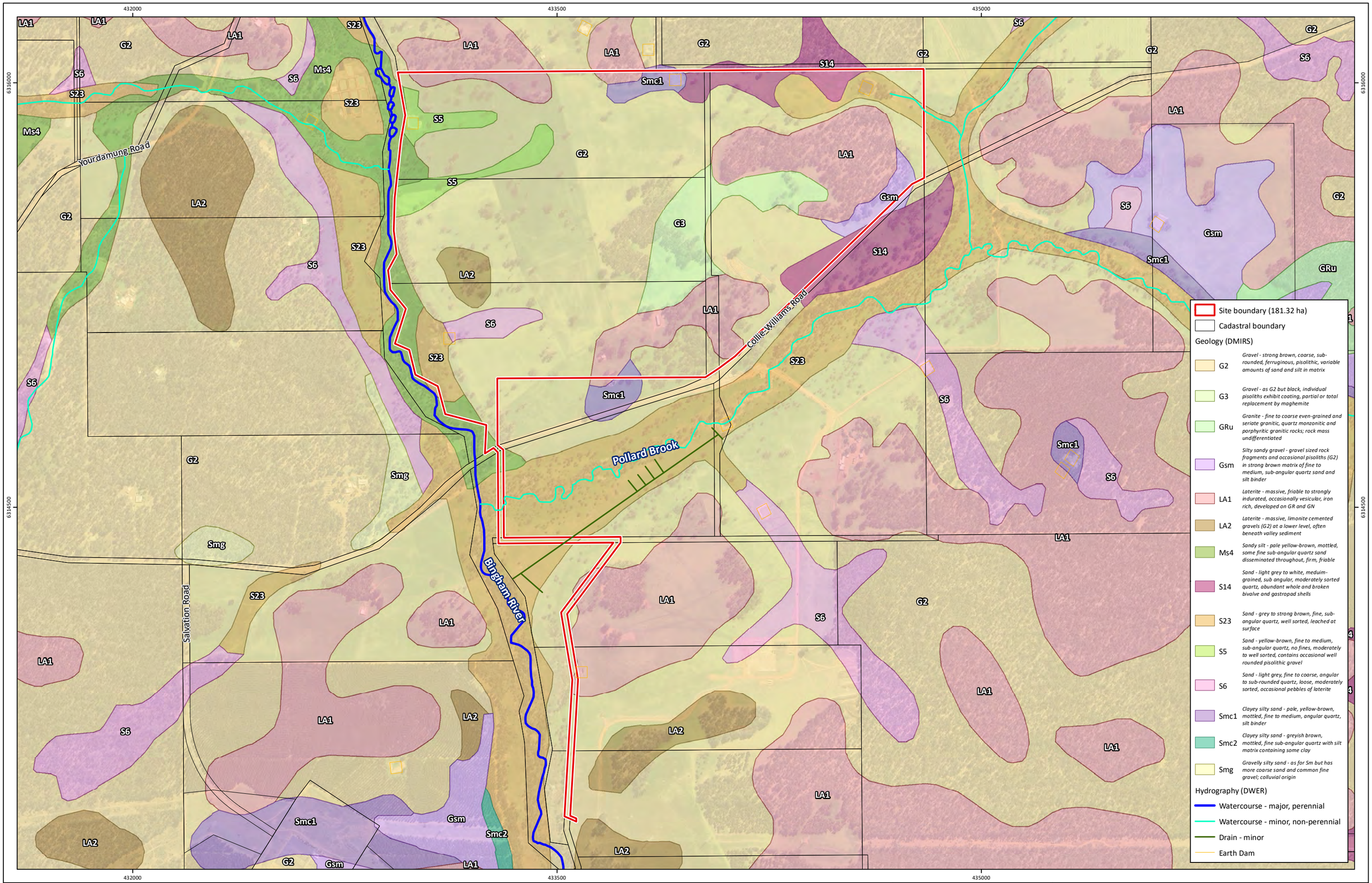


Figure 3: Geological Mapping

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F56

Drawn:	CTH
Date:	07/05/2025
Checked:	FMH
Approved:	DPC
Date:	09/05/2025

N

0 200 400
Metres
Scale: 1:12,000@A3
GDA2020 MGA Zone 50

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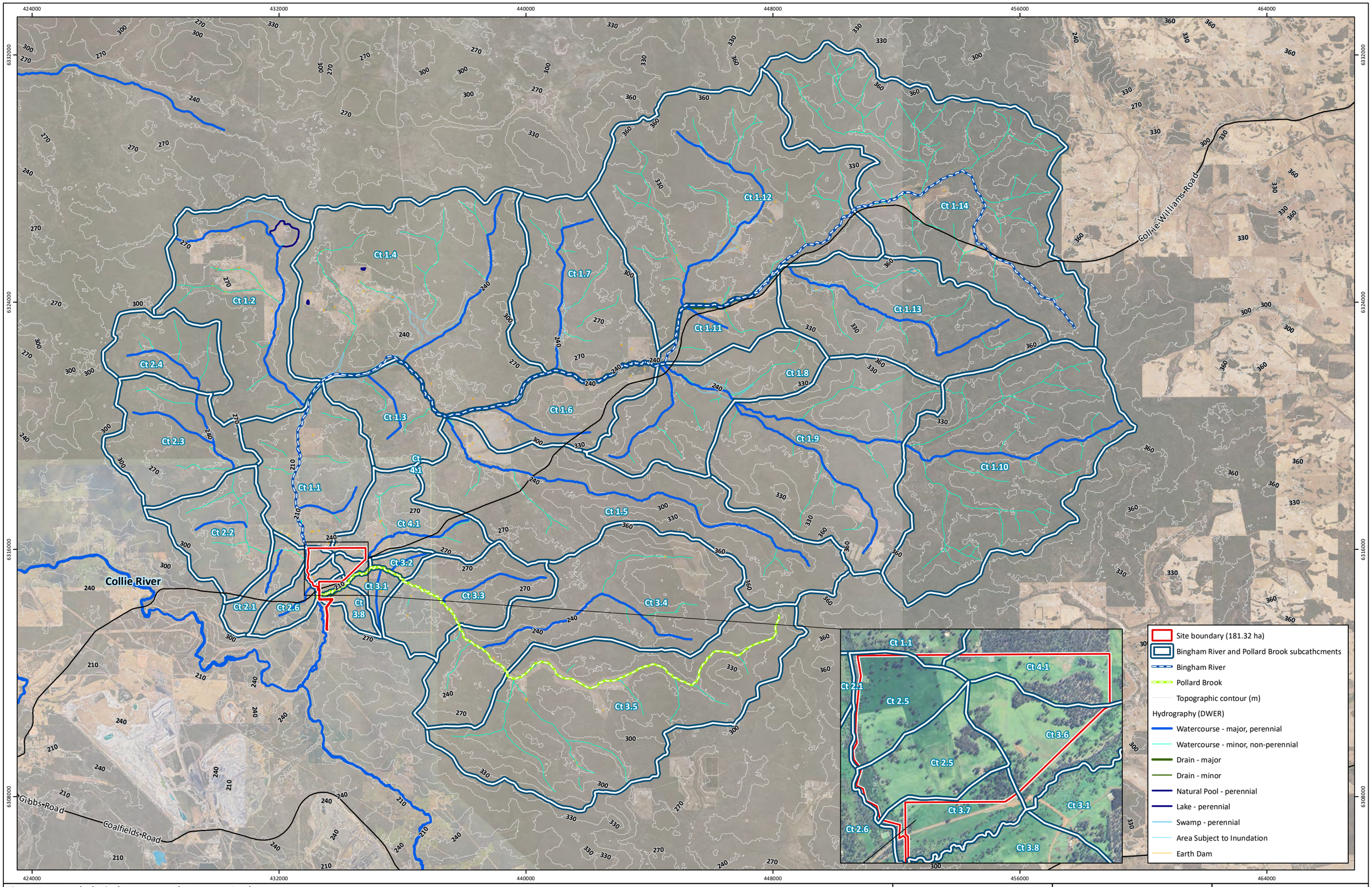


Figure 4: **Hydrological Features and Upstream Catchment Areas**

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F57
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

N

0 1,000 2,000 3,000
Metres
Scale: 1:110,000@A3
GDA2020 MGA Zone 50

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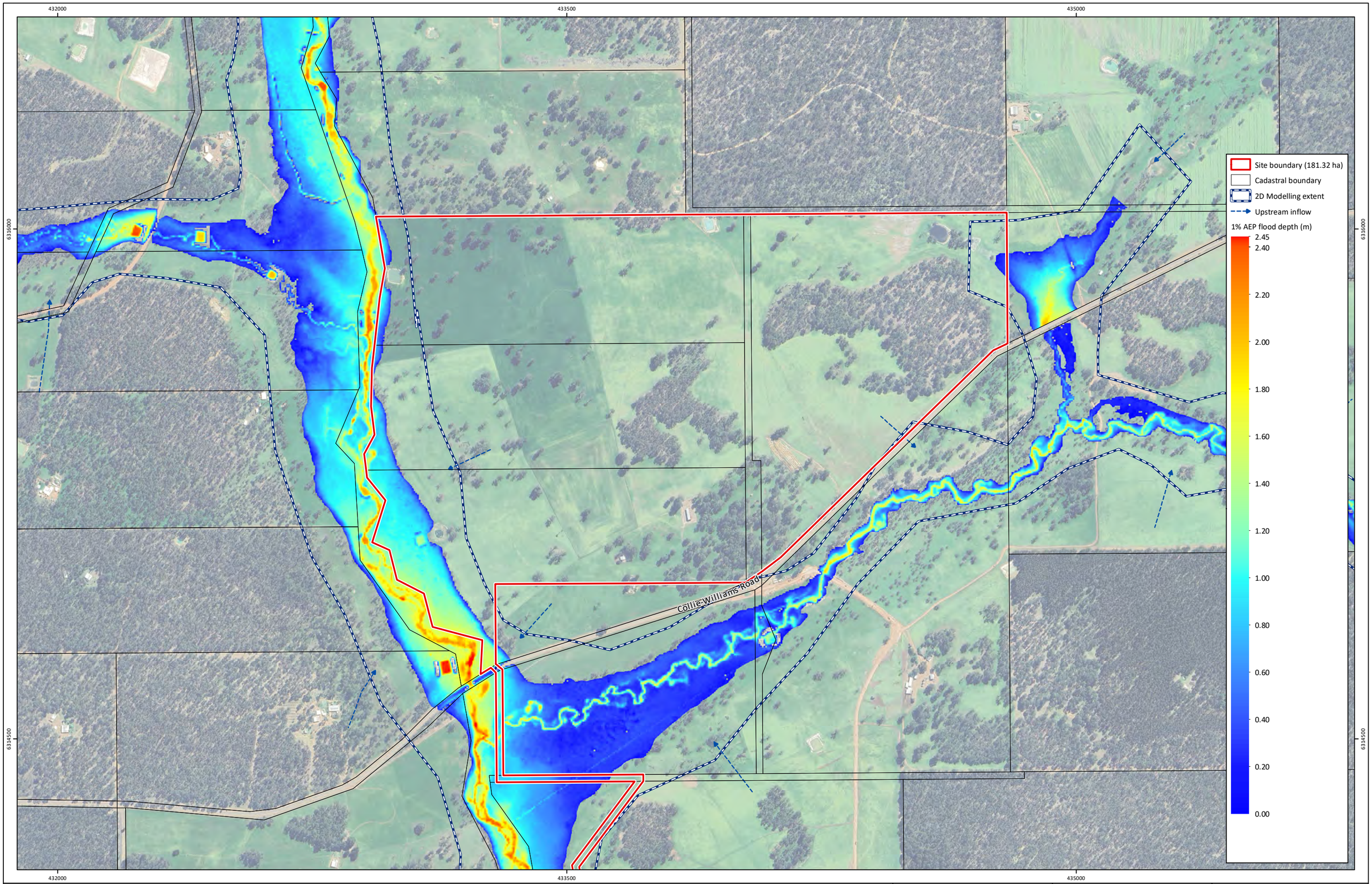


Figure 5: Major Rainfall Event (1% AEP) Flooding Extent

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F58
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

N

0 100 200 300
Metres
Scale: 1:10,000@A3
GDA2020 MGA Zone 50

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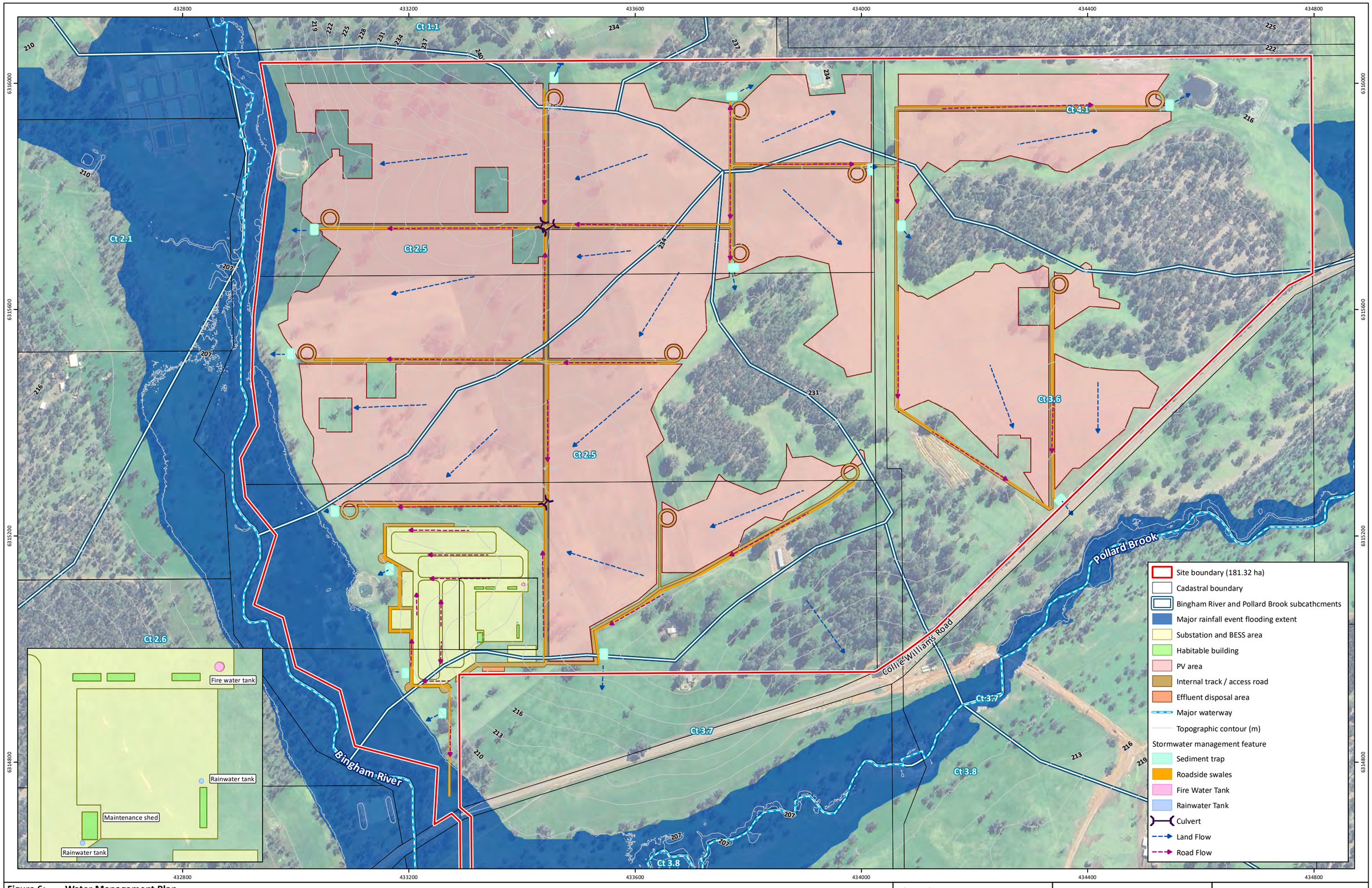


Figure 6: Water Management Plan

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F59
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

N

0 50 100 150
Metres
Scale: 1:2,000@A3
GDA2020 MGA Zone 50

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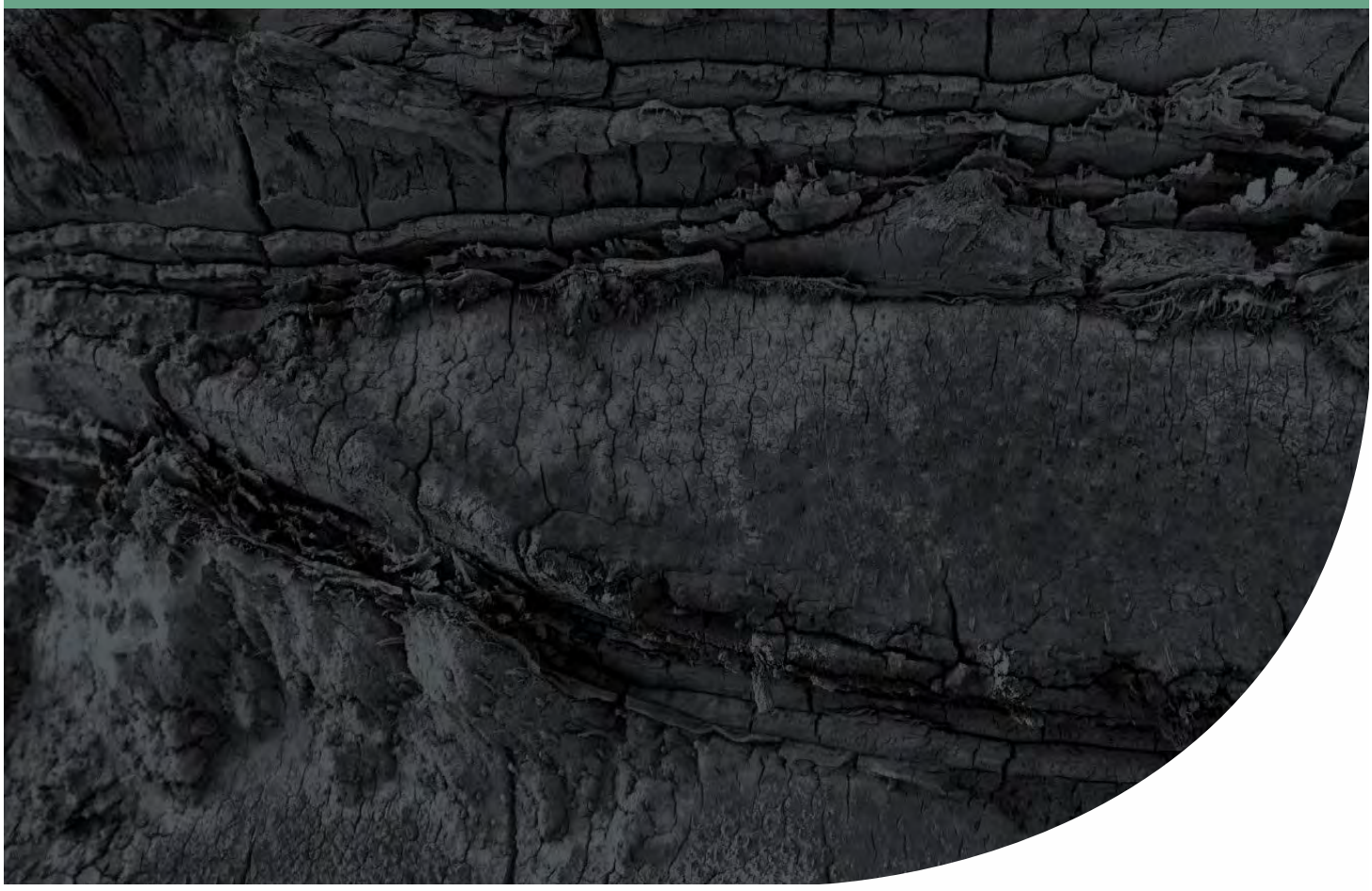
APPENDIX H – BUSHFIRE MANAGEMENT PLAN

Bushfire Management Plan

Collie BESS and Solar PV

Project No: EP24-016(08)

Prepared for Enpowered Pty Ltd
May 2025



Document Control

Doc name:	Bushfire Management Plan Collie BESS and Solar PV				
Doc no.:	**EP24-016(08)—011b CPW**				
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	Report revised to address client commentary. Draft report issued for client review.				
B	May 2025	Connor Porter-Wilkinson	CPW	Kirsten Knox	KK
				Anthony Rowe	AJR
	Report issued for Lodgement.				

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This document has been prepared primarily to consider the layout of development and/or the appropriate building construction standards applicable to development, where relevant. The measures outlined are considered to be prudent minimum standards only based on the standards prescribed by the relevant authorities. The level of bushfire risk mitigation achieved will depend upon the actions of the landowner or occupiers of the land and is not the responsibility of the author. The relevant local government and fire authority (i.e. Department of Fire and Emergency Services or local bushfire brigade) should be approached for guidance on preparing for and responding to a bushfire.

Notwithstanding the precautions recommended in this document, it should always be remembered that bushfires burn under a wide range of conditions which can be unpredictable. An element of risk, no matter how small, will always remain. The objective of the Australian Standard AS 3959:2018 is to “prescribe particular construction details for buildings to reduce the risk of ignition from a bushfire” (Standards Australia 2018). Building to the standards outlined in AS 3959 does not guarantee a building will survive a bushfire or that lives will not be threatened by the effects of bushfire attack.

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Executive Summary

Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd is proposing to develop a photovoltaic (PV) solar and battery energy storage system (BESS) facility (herein referred to as 'the proposal') in Palmer, within the Shire of Collie in Western Australia (WA). The proposal is approximately 13.5 km north-east of Collie town and 155 km south-east of the Perth Central Business District (CBD).

The proposal is located across various freehold rural lots and road easements, including Lots 785 - 788 Collie-Williams Road and is herein referred to as 'the broader proposal area'. The site is bound by Collie-Williams Road to the south, the Bingham River to the west and a mix of cleared agricultural land and extensive areas of native vegetation associated with the Muja and Harris River State Forests to the north, east, west and south. The constructed Western Power Shotts Terminal (electrical substation) and transmission line corridors are located to the south-west of the site, with the Collie Battery project currently under construction within a portion of Lots 775 and 784 to the south of Collie-Williams Road.

For the purpose of the Bushfire Management Plan (BMP), the assessment has been focused on the portion of the broader proposal area located to the north of Collie-Williams Road where the above-ground infrastructure and habitable buildings are proposed, an area herein referred to as 'site'. The alignment and infrastructure associated with the 330kV transmission line, which is proposed to be underground, has not been considered as part of this BMP.

A significant portion of the site is located within 'Area 2' (designated bushfire prone) on the state-wide Map of Bush Fire Prone Areas prepared by the Office of Bushfire Risk Management (OBRM 2024). Notwithstanding this, none of the proposed habitable structures (maintenance shed, control room and switch rooms) are sited within the bushfire-prone areas; only portions of the PV cells (not habitable) are within these areas. Ordinarily an assessment against *State Planning Policy 3.7 Bushfire* (SPP 3.7) (WAPC 2024b) would not be required. However, following consultation with the Shire of Collie, it was determined that due to the unique characteristics of the proposal, an assessment against SPP 3.7 will be opted into to alleviate any potential concerns relating to bushfire.

Based on the above, this BMP has been prepared to incorporate further assessment of the bushfire risk in accordance with *Australian Standard 3959:2018 Construction of buildings in bushfire prone areas* (AS 3959), and the required risk treatments through compliance of the proposal with the policy measures described in the *Planning for Bushfire Guidelines - For the implementation of State Planning Policy 3.7 Bushfire* (the Guidelines) (WAPC 2024a).

The policy intent for SPP 3.7 is:

> "*to implement effective, risk-based land use planning and development which in the first instance avoids the bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are paramount.*"

The proposal is in accordance with the existing zoning for the site, with the proposal to be assessed by the outcomes applicable to 'Bushfire Protection Criteria 7 Development Commercial and Industrial' in the Guidelines.

This BMP has followed the Department of Planning Lands and Heritage (DPLH) *Bushfire Management Plan Manual November 2024 - Bushfire Management Plan Development Applications*. Accordingly, it provides a Bushfire Attack Level (BAL) assessment involving the classification of vegetation and effective slope in accordance with AS 3959, extending 150 m from the site in accordance with the Guidelines.

The BMP includes two post development vegetation assessments. The first assessment reflects the current vegetation within and surrounding the site, while the second assessment details a revegetation scenario. The description of vegetation below describes the existing site conditions, with the revegetation scenario assuming all classifiable vegetation within and surrounding the site becomes forest (Class A), which given the agricultural and other uses of the land, is considered unlikely.

The following bushfire hazards were identified as applicable to the site based on existing conditions:

- **Forest (Class A) vegetation:** Forest vegetation has been identified internally within the site in two distinct patches located in the central and eastern portions, as well as a mix of small patches and extensive areas of intact remnant vegetation along the western and northern boundaries. None of this vegetation is proposed to be modified as part of the development within the site.
- **Woodland (Class B) vegetation:** Woodland vegetation has been identified centrally within the site along the southern boundary. Externally, woodland vegetation is identified to the north of the site and to the south of Collie Williams Road. None of this vegetation is proposed to be modified as part of the development within the site.
- **Grassland (Class G) vegetation:** Grassland vegetation has been identified internally in the western portion of the site within the Bingham River flood plain area. Externally, grassland vegetation is identified to the north, east, south, and west within existing cleared agricultural land used for livestock grazing and cropping. Grassland vegetation is also found in the verges of Collie Williams Road.

As part of assessing the long-term bushfire risk to the site, consideration is given to changes in vegetation classifications that will occur as a result of the proposed development (at development completion). A key change is that the majority of the site (excluding retained vegetation) will be cleared or managed to a low threat (exclusion 2.2.3.2(f)) and not considered a bushfire hazard. Conditions within the site will be maintained by the proponent/occupiers to achieve these standards in perpetuity.

Compliance Assessment

The bushfire protection criteria (BPC) provided in the Guidelines represent the risk treatment acceptable solutions applicable to achieving the intent and outcomes listed in SPP 3.7. The BPC are divided into five criteria with each having four elements aligning to an outcome. In this instance, the relevant criteria (category) is *Criteria 7: Development – Commercial and Industrial* (BPC 7). Compliance with each element (as a risk treatment) is required to demonstrate to the decision maker that the risk is within an acceptable level, either by compliance with the acceptable solution or by an outcome (alternate solution).

This BMP demonstrates that compliance with the acceptable solution at each element in BCP 7 can be achieved and is summarised below:

- **Element 1 Location**: Element 1 is not applicable at the development application stage under BCP 7. Notwithstanding this, a simplified assessment of the broader locality has been included in consideration of the request by the Shire of Collie to address bushfire risk, identifying the proximity of the proposal to similar scale projects such as the Collie BESS facility to the south, the legibility of the existing public road network in the area, with the key access route being Collie-Williams Road which provides direct routes to Williams in the east and Collie in the west, and the proximity of the site to surrounding agricultural land uses that result in large areas of lower bushfire hazard, compared to the extensive areas of state forest.

- **Element 2: Siting and Design:** The site will be developed and maintained to achieve a low-threat classification for the solar array areas. The proposal has been designed to address a potential risk scenario of revegetation of the adjacent land as forest (Class A) characteristics. Consequently, the BAL ratings applicable to the proposed built form are anticipated to be lower than those predicted by this Bushfire Management Plan (BMP). The siting of the proposal has also taken into consideration the retention of existing patches of vegetation throughout the site, ensuring that key ecological areas are preserved. Apart from the areas of retained vegetation, the site will continue to be managed to maintain a low-threat state, primarily through ongoing grazing activities (substituted with slashing when required), including areas under the solar PV units.

  The applicable BAL ratings to key components based on all vegetation being forest includes:
  - **Solar PV units:** which are sited within areas that achieve BAL-29 or below with large portions of the panels subject to BAL-LOW. While there is no requirement under SPP3.7 to locate this infrastructure in BAL-29 or below, the decision to do so is driven by commercial risk avoidance and is achieved. As such, there is no bush fire risk reason that solar PV cells could not be located in higher BAL rated areas if necessary.
  - **Battery storage units:** which are positioned to achieve BAL-19 or below, with the majority of units achieving BAL-LOW.
  - **Building maintenance and switchboard sheds (habitable buildings):** Located on the eastern portion of the proposed BESS facility, entirely within an area of BAL-LOW.

- **Element 3: Vehicular Access**: The internal private driveway network is designed to provide access to Collie-Williams Road to the south, ensuring connectivity to the broader public road network. It also provides for an interconnected access arrangement that facilitate access throughout the site, including to the BESS facility and solar PV units. The internal driveway network has been designed to address the requirements of Table 10 of Appendix B.3, with a trafficable surface of 6 m provided throughout to allow for two-way traffic movements. Where applicable, turnaround areas compliant with Figure 30 of Appendix B.3 have been incorporated, with internal intersections providing additional areas for turnaround. All proposed habitable buildings are located adjacent to internal loop roads, ensuring that they satisfy the functional consideration of providing turnaround areas within 30 m of habitable buildings, thereby enhancing accessibility and safety.

- **Element 4: Water Supply:** All development must have an adequate water supply available for bushfire defence. The proposed development will be serviced by a reticulated water supply, complemented by a dedicated 50,000 L water tank for firefighting purposes. This tank is strategically located within the BESS facility, adjacent to habitable buildings and the internal loop road network, ensuring both accessibility and effectiveness in emergency situations.

The management/mitigation measures to be implemented through the proposed development of the site have been outlined as part of this BMP.

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Appendices

Appendix A

Proposed Development Layout

List of Abbreviations

Table A1: Abbreviations – General terms

General terms	
AHD	Australian Height Datum
AS	Australian Standard
APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BESS	Battery energy storage system
BMP	Bushfire Management Plan
BPAD	Bushfire Planning and Design
ESA	Environmentally sensitive area
FDI	Fire Danger Index
FZ	Flame Zone
PV	Photovoltaic
TEC	Threatened ecological community

Table A2: Abbreviations – Organisations

Organisations	
DBCA	Department of Biodiversity, Conservation and Attractions
DWER	Department of Water and Environmental Regulation
DFES	Department of Fire and Emergency Services
DPLH	Department of Planning, Lands and Heritage
OBRM	Office of Bushfire Risk Management
WAPC	Western Australian Planning Commission

Table A3: Abbreviations – Legislation and policies

Legislation	
AS 3959	*Australian Standard 3959:2018 Construction of buildings in bushfire prone areas*
SPP 3.7	*State Planning Policy 3.7 Bushfire* (WAPC 2024b)
Guidelines	*Planning for Bushfire Guidelines - For the implementation of State Planning Policy 3.7 Bushfire* (WAPC 2024a)

Table A4: Abbreviations – Planning and building terms

Planning and building terms	
LPS	Local Planning Scheme
NCC	National Construction Code

Table A4: Abbreviations – units of measurement

Units of measurement	
cm	centimetre
ha	hectare
m	metre
m^2	square metre
m AHD	m in relation to the Australian height datum
mm	millimetre
km/h	kilometres per hour
L	Litres
MW	Megawatt
kV	Kilovolt

1 Introduction

1.1 Background

Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd, is proposing to develop a photovoltaic (PV) solar and battery energy storage system (BESS) facility (herein referred to as 'the proposal') in Palmer, in the Shire of Collie, Western Australia (WA). The proposal is located approximately 13.5 km north-east of Collie town and 155 km south-east of the Perth Central Business District (CBD). The proposal is shown in **Appendix A.**

The proposal is located across various freehold rural lots and road easements including Lots 785 - 788 Collie-Williams Road and is herein referred to as 'the broader proposal area', as shown in **Figure 1**. For the purpose of the Bushfire Management Plan (BMP), the assessment has been focused on the portion of the broader proposal area located to the north of Collie-Williams Road where the above-ground infrastructure and habitable buildings are proposed, an area herein referred to as 'site'. The BMP focus area is also identified in **Figure 1**. The alignment and infrastructure associated with the 330kV transmission line has not been considered as part of this BMP as it is proposed to be located underground and will not be subject to bushfire threats. The site is bound by Collie-Williams Road to the south, the Bingham River to the west and a mix of cleared agricultural land and extensive areas of native vegetation associated with the Muja and Harris River State Forests to the north, east, west and south. The constructed Western Power Shotts Terminal (electrical substation) and transmission line corridors are located to the south-west of the site, with the Collie Battery project currently under construction within a portion of Lots 775 and 784 to the south of Collie-Williams Road.

A significant portion of the site is located within 'Area 2' (designated bushfire prone) on the state-wide *Map of Bush Fire Prone Areas* prepared by the Office of Bushfire Risk Management (OBRM 2024) and shown in **Plate 1**. Notwithstanding this, none of the proposed habitable structures (maintenance shed, control room and switch rooms) are sited within the bushfire-prone areas; only portions of the solar PV units (not habitable) are within these areas. Ordinarily an assessment against *State Planning Policy 3.7 Bushfire* (SPP 3.7) (WAPC 2024b) would not be required. However, following consultation with the Shire of Collie, it was determined that due to the unique characteristics of the proposal, an assessment against SPP 3.7 will be opted into to alleviate any potential concerns relating to bushfire.

Based on the above, this BMP has been prepared to incorporate further assessment of the bushfire risk in accordance with *Australian Standard 3959:2018 Construction of buildings in bushfire prone areas* (AS 3959), and the required risk treatments through compliance of the proposal with the policy measures described in the *Planning for Bushfire Guidelines - For the implementation of State Planning Policy 3.7 Bushfire* (the Guidelines) (WAPC 2024a).

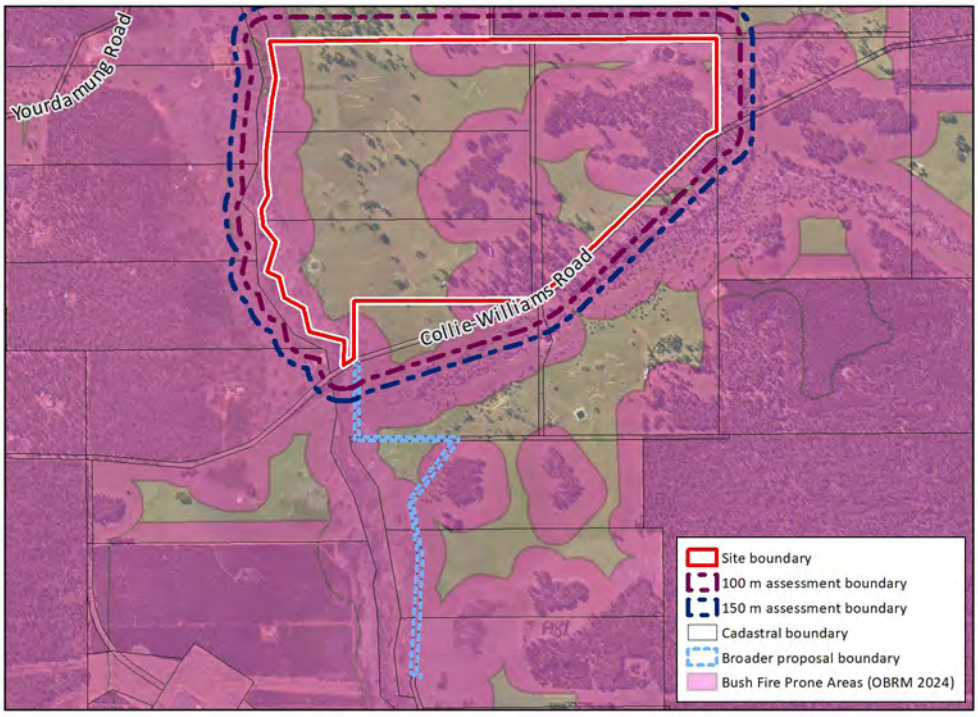


Plate 1: Areas within and nearby the site identified as 'bushfire prone areas' (as indicated in purple) under the state-wide Map of Bush Fire Prone Areas (OBRM 2024).

1.2 Aim of this report

The purpose of this BMP is to assess bushfire hazards both within the site, and nearby, and demonstrate that the threat posed by any identified hazards have been appropriately mitigated and managed. This BMP has been prepared in accordance with SPP 3.7 (WAPC 2024b), the Guidelines (WAPC 2024a) and AS 3959 (Standards Australia 2018). The document includes:

- An assessment of the existing classified vegetation in the vicinity of the site (within 150 m) and consideration of bushfire hazards that will exist in the post-development scenario (**Section 3**).
- Commentary on how the future development can achieve *Bushfire Protection Criteria 7: Development – Commercial and Industrial* (BPC 7) outlined within the Guidelines including an indication of BAL ratings likely to be applicable to future habitable buildings (**Section 5**).
- An outline of the roles and responsibilities associated with implementing this BMP (see **Section 6**).

1.3 Statutory policy and framework

The following key legislation, policies and guidelines have been applied to the preparation of this bushfire management plan:

- *Bush Fires Act 1954*
- *Fire and Emergency Services Act 1998*
- *Planning and Development Act 2005* and associated regulations
- *Building Act 2011* and associated regulations
- *State Planning Policy 3.7 Bushfire (WAPC 2024b)*

- *Planning for Bushfire Guidelines – For the implementation of State Planning Policy 3.7 Bushfire (WAPC 2024a)*
- *Australian Standard AS 3959 – 2018 Construction of buildings in bushfire prone areas* (Standards Australia 2018)

1.4 Description of the proposed development

The site is proposed to be developed for commercial energy production and storage purposes, in line with the proposed development plan provided in **Appendix A**. The development associated with the proposal will include:

- Solar PV units and inverters with a capacity of up to 66 MW AC.
- A 200 MW Battery Energy Storage System (BESS) facility.
- A 3 m tall fence surrounding the BESS facility.
- A maintenance shed (habitable building), laydown areas, and an evaporation pond.
- Internal access roads for construction and ongoing maintenance.
- A 50,000 L firefighting water tank connected to a reticulated water supply, with additional rainwater tanks throughout the BESS site provided as supplementary water supply for firefighting.
- A collector substation with transformers, switchgear, a control building (habitable building), and multiple 33 kV switch rooms (habitable building).
- A 330 kV underground cable system connecting the BESS to the Western Power Palmer Terminal Station.

The 330 kV underground cable system has been specifically excluded from the bushfire assessment and does not form part 'the site', on the basis that this infrastructure is underground and not subject to bushfire risk (or a possible risk for a bushfire event) to the same extent as the other infrastructure within the proposal.

The site is zoned 'Rural' under the *Shire of Collie Local Planning Scheme No. 6* (LPS No.6) as shown in **Plate 2** below. No R-codes, restricted uses or additional uses apply to the area. In accordance with LPS No.6, the construction of a renewable energy facility on land zoned 'Rural' is allowed where the local government has exercised its discretion by granting development approval after advertising the application in accordance with clause 64 of the deemed provisions.

Areas surrounding the site are also largely zoned 'Rural' or reserved as 'State Forest'. The State Forest areas are situated directly to the north and east of the site.

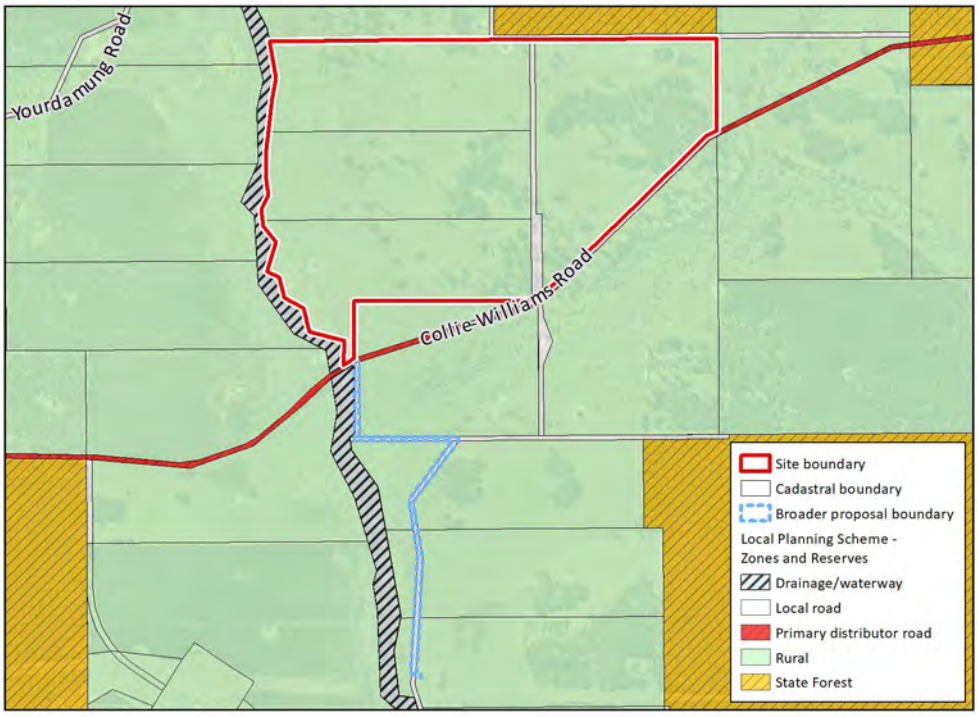


Plate 2: Local Planning Scheme No. 2 zoning, in and surrounding the site.

1.5 Description of land characteristics

A review of historical images available from 1996 onwards indicate conditions and land use of the site have not changed significantly in nearly 30 years. Large areas of the site were cleared of native vegetation prior to 1996, likely for livestock grazing. Since this time, the extent of native vegetation within the site has remained largely stable (WALIA 2024). The earliest publicly available aerial imagery shows that the surrounding areas have also supported agricultural land uses over the same time period, whilst power transmission line corridors to the south-west of the site were constructed pre-1996. Large areas of either native or plantation vegetation are present in the surrounding area, and are found in rural or state forest land.

Surrounding land uses include:

- The Collie Battery (which is a similar grid-scale storage supporting renewable energy in Western Australia) within a portion of Lots 775 and 784 directly to the south of the site, which is being built in two stages, with Stage 1 operational since October 2024.
- The Shotts electrical substation and associated 330 kV Western Power transmission line and corridors connecting to the Collie Power Station and the Bluewaters Power Station are located approximately 1.5 km south-west of the site.
- Muja State Forest directly to the east extending over a 74,000 ha area, with the Harris Rover State Forest further to the west.

Elevation generally ranges between 205 m AHD adjacent to the Bingham River (west of site) sloping upwards to 260 m AHD across the site in a north-east direction, with multiple high points across the site (Landgate 2025) (see **Figure 2**).

2 Environmental Considerations

In accordance with the *Bushfire Management Plan (BMP) Manual* (DPLH and WAPC 2024), this BMP has considered whether there are any environmental values that may require specific consideration through either protection, retention, or revegetation. It is based on the features relevant to the location of the site. To support this, a review of publicly available databases has been undertaken, with particular reference to the Shared Location Information Platform (SLIP) databases and site specific investigations undertaken to support the development application. A summary of the search results has been provided in **Table 1**.

Table 1: Summary of potential environmental considerations that may be associated with the site (based on a search of the SLIP databases)

Key environmental feature (information in brackets refers to mapping data source)	Yes / no / potentially occurring within the site	If yes / potentially, describe value that may be impacted
Conservation category wetlands and buffer (The *Geomorphic Wetlands of Wheatbelt Wetlands (DBCA-021)*)	No	No mapped wetland features occur within the site nor immediate surrounds. A waterway, Bingham River is located to the west of the site.
RAMSAR wetlands (DBCA-010)	No	No RAMSAR wetlands are identified within the mapping as occurring within the site or in close proximity.
Threatened and priority flora (DBCA-036)	No	Following a review of publicly available datasets, it was identified that no threatened or priority flora occur within the site. Site assessments by Emerge Associates (2025b), confirmed that no threatened or priority flora species were recorded within the site. Vegetation across the site is a mix of cleared paddocks of non-native grasses and stands native Eucalypt species over paddock grasses. The proposal has taken into consideration the minimisation of vegetation clearing, with the more distinct plots of vegetation within the site being retained and protected.
Threatened and priority fauna (DBCA-037)	Yes	Following a review of publicly available datasets, it was identified that threatened or priority fauna potentially occur within the site. Site assessments by Emerge Associates (2025a) identified the presence of habitat suitable for black cockatoos and would also be used by other species. The proposal has been designed to minimise impacts to existing vegetation within the site, with particular avoidance to large vegetation patches and significant trees within paddocks.
Threatened ecological communities (DBCA-038)	No	Following a review of publicly available datasets, it was identified that no threatened or priority ecological communities (TEC or PEC) occur within the site. This finding was further confirmed through site work conducted by Emerge Associates, which found a 'nil' likelihood of TEC or PEC occurrence within the site (Emerge Associates (2024).

Table 1: Summary of potential environmental considerations that may be associated with the site (based on a search of the SLIP databases) (continued).

Key environmental feature (information in brackets refers to mapping data source)	Yes / no / potentially occurring within the site	If yes / potentially, describe value that may be impacted
Department of Biodiversity Conservation and Attractions (DBCA) controlled lands or waters (DBCA-011)	No	Following a review of publicly available datasets, it has been determined that no DBCA-controlled lands or waters exist within the site. However, it is noted that directly to the north of the site, the Muja State Forest is present and identified as DBCA-controlled land. The proposal does not assume any modification to or management of this area for the purpose of implementing this BMP.
Clearing regulations – environmentally sensitive areas (DWER-046)	No	No environmentally sensitive areas (ESAs) are identified within the site.

2.1 Native vegetation – modification and clearing

As outlined above, the site has largely been previously cleared to allow for pastoral land uses and now primarily supports paddock grasses with three distinct patches of remnant trees over paddock grasses. The site is primarily utilised for low-intensity agricultural uses such as sheep grazing and is already largely disturbed and cleared.

The proponent aims to maximise tree retention wherever possible, given the environmental and amenity benefits that trees provide. Remnant native vegetation occurring in larger patches across the site are proposed to be retained. Some scattered native trees will need to be removed to enable the construction of the key infrastructure components of the proposal. No vegetation external to the site will be removed to reduce bushfire risk.

Regarding bushfire management, no additional vegetation clearing is required beyond what is necessary for construction purposes. The balance of the site, considered the 'avoidance area,' will not be encroached upon by construction activities ensuring that identified environmental values remain unaffected. It is important to note that additional opportunistic avoidance of mature trees may be possible within the development footprint. This will be further considered during the detailed design stage once civil engineering requirements are fully understood. For the purpose of this BMP, it is assumed that all classifiable vegetation within the development footprint will be removed. Retention of scattered mature trees will not change this assumption.

Where clearing/modification of vegetation is required, this will need to be undertaken with a valid clearing permit or through exemptions pursuant to the *Environmental Protection Act 1986* or the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*. Such exemptions include clearing associated with the construction of a building (or other structure), vehicle cross-over or in compliance with a requirement under Section 33 of the *Bush Fires Act 1954*.

2.2 Revegetation and landscape plans

No revegetation is proposed as part of the development. Existing areas of vegetation will be retained and the development has been designed to accommodate this.

The development footprint will include a mix of hard-stand areas and areas of managed grass. These areas will be designed and managed to achieve low-threat vegetation in accordance with Section 2.2.3.2 of AS 3959. The solar PV units have been designed to allow for the continued grazing of the area, ensuring that grazing will also make up a large portion of the necessary ongoing maintenance practices. Other ongoing management is likely to include:

- Irrigation of grass and garden beds (where required).
- Regular removal of weeds and built-up dead material (such as fallen branches, leaf litter, etc.).
- Low pruning of trees (branches below 2 m in height removed where appropriate).
- Application of ground/surface covers such as mulch or non-flammable materials as required.
- Regular mowing/slashing (or grazing) of grass to less than 100 mm in height.

The proponent (or future occupiers) will be responsible for the ongoing maintenance of these areas within the site.

3 Bushfire Assessment Results

Bushfire risk for the site has been appropriately considered with regard to the potential impact upon the site using AS 3959 and the Guidelines. The objective of AS 3959 is to reduce the risk of ignition and loss of a building to bushfire. It provides a consistent method for determining a radiant heat level (radiant heat flux) as a primary consideration of bushfire attack. AS 3959 measures the bushfire attack level (BAL) as the radiant heat level (kW/m^2) over a distance of 100 m. AS 3959 also prescribes deemed-to-satisfy construction responses that can resist the determined radiant heat level at a given distance from the fire. It is based on six BAL ratings: BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ.

A BAL contour plan has been prepared in accordance with Appendix A.3 of the Guidelines and Method 1 of AS 3959 to determine the BAL ratings likely to be applicable to future buildings. This has been based on the vegetation classifications and the effective slope under the vegetation (post-development scenario).

3.1 Assessment inputs

Vegetation classifications, reflective of the existing conditions, and effective slope have been detailed in **Table 2** and **Figure 2** (post-development). A site assessment was completed on 23 April 2025.

Additionally, a vegetation classification scenario (**Figure 3**) has been prepared to reflect the potential revegetation vegetation assumptions in and surrounding the site, where all classifiable vegetation is determined to be forest (Class A).

3.1.1 Assumptions

The BAL assessment is based on the following assumptions:

- **Designated FDI**: 80
- **Flame temperature**: 1090 K
- **Effective slope beneath classified vegetation**: flat/upslope, downslope 0-5 (**Figure 2**)
- The development area within the site, associated with the solar PV array areas will be developed and maintained to achieve a low-threat classification (in accordance with 2.2.3.2 (f)), while the BESS facility will remain non-vegetated (in accordance with 2.2.3.2 (e)).
- Classified vegetation that has been identified within the proponent's landholdings (retained patches of vegetation) has been assumed to remain in its current state (unless stated otherwise) and will therefore continue to be a bushfire hazard to development within the site.
- Areas of non-vegetated or low threat vegetation outside the site will continue to be managed and/or considered to achieve low threat (in accordance with Section 2.2.3.2 of AS 3959) based on the existing maintenance regimes.
- Classified vegetation that has been identified outside of the proponent's landholdings has been assumed to remain in its current state (unless stated otherwise) and will therefore continue to be a bushfire hazard to development within the site.
- Areas of grassland can include up to 10% foliage cover from shrubs and trees, as per AS 3959

3.1.2 Vegetation classification

All vegetation within 150 m of the site was classified in accordance with Section 2.2.3 of AS 3959. The assignment of vegetation classifications is based on an assessment of vegetation structure, including consideration of the various fuel layers of different vegetation types, as outlined in **Plate 3.** Each distinguishable vegetation plot is described in **Table 2** and shown in **Figure 2**.

Not all vegetation is classified as a bushfire risk. Vegetation and ground surfaces that are exempt from classification as a potential hazard are identified as a low threat under Section 2.2.3.2 of AS 3959. Low threat vegetation includes the following:

a) *Vegetation of any type that is more than 100 m from the site.*
b) *Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified.*
c) *Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified.*
d) *Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified.*
e) *Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings, and rocky outcrops.*
f) *Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves, and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and wind breaks.*



Plate 3: The five fuel layers in a forest environment that could be associated with fire behaviour (Gould et al. 2007)

*Table 2: AS 3959 vegetation classification (refer to **Figure 2**)*

Photo ID:	1	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified southwest of the site associated with Bingham River Reserve. The forest vegetation was observed with trees reaching heights of approximately 10-15 m with foliage cover of 30%. While the vegetation has been affected by fire in the last five years and not reflective of mature growth, multi-tiered vegetation is evident, with juvenile trees as shrubs creating bushfire fuels from ground to canopy. This vegetation is expected to remain in perpetuity.			



Photo ID:	2	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified southwest of the site associated with Bingham River Reserve. The forest vegetation was observed with trees reaching heights of approximately 10-15 m with foliage cover of 30%. While the vegetation has been affected by fire in the last five years and not reflective of mature growth, multi-tiered vegetation is evident, with juvenile trees as shrubs creating bushfire fuels from ground to canopy. This vegetation is expected to remain in perpetuity.			



Photo ID:	3	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the western portion of the site associated with Bingham River flood plain area. The vegetation was observed with trees reaching heights of approximately 10-15 m with foliage cover of 30%. While the vegetation has been affected by fire in the last five years and not reflective of mature growth, regrowth is evident and anticipated to return to a forest classification. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			

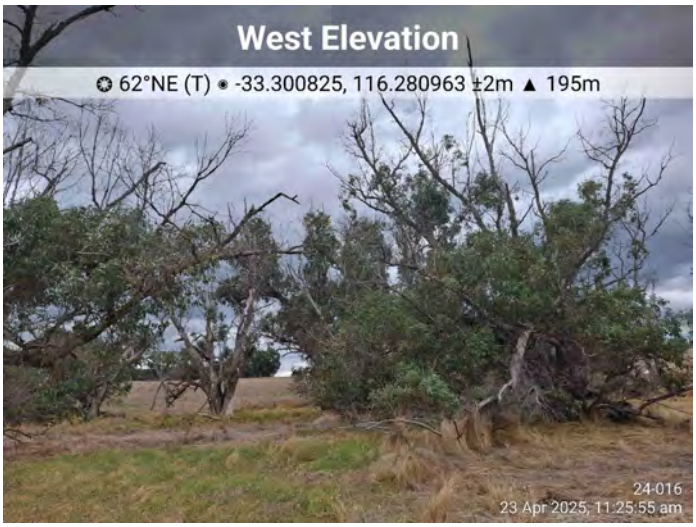


*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	4	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the western portion of the site associated with Bingham River flood plain area. The vegetation was observed with trees reaching heights of approximately 10-15 m with foliage cover of 20%. While the vegetation has been affected by fire in the last five years and not reflective of mature growth, regrowth is evident and anticipated to return toa forest classification. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			



Photo ID:	5	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified west of the site associated with Bingham River Reserve. The forest vegetation was observed with trees reaching heights of approximately 10-15 m with foliage cover of 30%. While the vegetation has been affected by fire in the last five years and not reflective of mature growth, multi-tiered vegetation is evident, with juvenile trees as shrubs creating bushfire fuels from ground to canopy. This vegetation is expected to remain in perpetuity.			



Photo ID:	6	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified northwest of the site associated with Bingham River Reserve. The forest vegetation was observed with trees reaching heights of approximately 10-15 m with foliage cover of 20%. While the vegetation has been affected by fire in the last five years and not reflective of mature growth, multi-tiered vegetation is evident, with juvenile trees as shrubs creating bushfire fuels from ground to canopy. This vegetation is expected to experience further regrowth and will remain a threat in perpetuity.			



*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	7	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the northern portion of the site and extending into the landholding to the north and is associated with a remnant patch of native vegetation. The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 40%. This vegetation is proposed for retention within the site and will likely experience further regrowth of understorey species and as such is expected to remain a threat in perpetuity.			



Photo ID:	8	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified to the north of the site associated with Muja State Forest. The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 70%. Multi-tiered vegetation is evident, with juvenile trees as shrubs creating bushfire fuels from ground to canopy. This vegetation is expected to remain a threat in perpetuity.			



Photo ID:	9	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified to the north of the site associated with Muja State Forest. The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 70%. Multi-tiered vegetation is evident, with juvenile trees as shrubs creating bushfire fuels from ground to canopy. This vegetation is expected to remain a threat in perpetuity.			

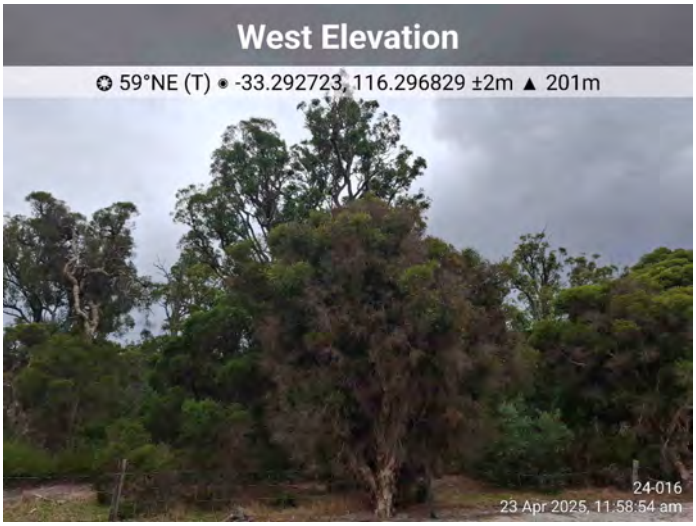


*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	10	**Plot:**	3
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified to the east of the site associated with a remnant patch of vegetation within an external private landholding. The forest vegetation was observed with trees reaching heights of approximately 10- 15 m with foliage cover of 40%. This vegetation will remain a threat in perpetuity.			
Photo ID:	11	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the central portion of the site associated with a remnant patch of native vegetation (trees over grasses). The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 50%. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			
Photo ID:	12	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the central portion of the site associated with a remnant patch of native vegetation (trees over grasses). The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 50%. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			

*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	13	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the central portion of the site associated with a remnant patch of native vegetation. The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 50%. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			



Photo ID:	14	**Plot:**	1/2
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope/downslope 0-5			
Description / Justification for Classification			
Forest vegetation is identified within the eastern portion of the site associated with a remnant patch of native vegetation. The vegetation was observed with trees reaching heights of approximately 15- 20 m with foliage cover of 45%. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			



Photo ID:	15	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the eastern portion of the site associated with a remnant patch of native vegetation. The vegetation was observed with a dense stand of trees reaching heights of approximately 15- 20 m with foliage cover of 60%. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			

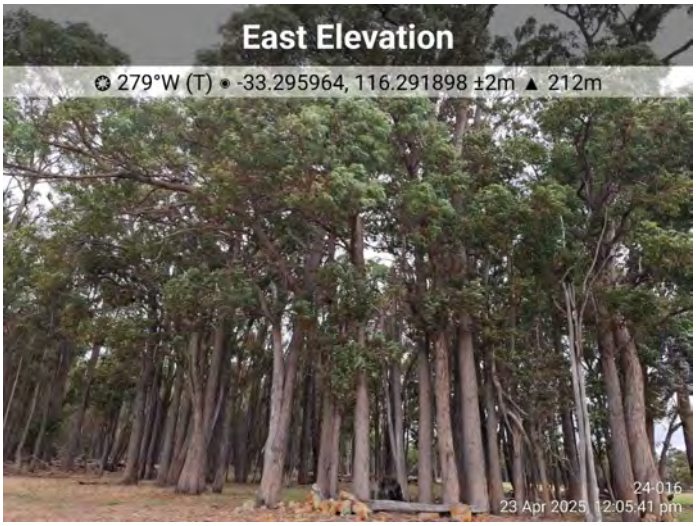


*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	16	**Plot:**	1
Vegetation Classification or Exclusion Clause and Effective Slope			
Forest (Class A) – Flat/upslope			
Description / Justification for Classification			
Forest vegetation is identified within the eastern portion of the site associated with a small remnant patch of native vegetation in proximity to a larger patch. The vegetation was observed with trees reaching heights of approximately 10- 15 m with foliage cover of 60%. This vegetation is proposed for retention within the site and is expected to remain a threat in perpetuity.			



Photo ID:	17	**Plot:**	7/9
Vegetation Classification or Exclusion Clause and Effective Slope			
Woodland (Class B) – downslope 0-5 (Plot 7) Grassland (Class G) – downslope 0-5 (Plot 9)			
Description / Justification for Classification			
Woodland (plot 7) vegetation is identified within an external private landholding located to the south of Collie-Williams Road and has a foliage cover of 20% over an understorey of largely grazed grassland. In areas where no overstorey is present, a grassland classification (plot 9) has been assumed. For this area, it is assumed that existing land management practices will continue.			



Photo ID:	18	**Plot:**	5
Vegetation Classification or Exclusion Clause and Effective Slope			
Woodland (Class B) – Flat/upslope			
Description / Justification for Classification			
Woodland vegetation is identified within the south-western portion of the site, associated with the Bingham River floodplain area. This vegetation was observed with trees reaching heights of approximately 10-15 m and a foliage cover of 20%. The understorey consists of grazed grasses, and no multi-tiered vegetation is evident. Apart from an access track, this vegetation is proposed for retention within the site. As such, it is expected to remain a threat in perpetuity.			



*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	19	**Plot:**	6
Vegetation Classification or Exclusion Clause and Effective Slope			
Woodland (Class B) – Flat/upslope			
Description / Justification for Classification			
Woodland vegetation is identified to the north of the site within an external private landholding. This vegetation was observed with trees reaching heights of approximately 15-20 m and a foliage cover of 20%. The understorey consists of grazed grasses, and no multi-tiered vegetation is evident. This vegetation is external to the site and is expected to remain a threat in perpetuity.			



Photo ID:	20	**Plot:**	4
Vegetation Classification or Exclusion Clause and Effective Slope			
Woodland (Class B) – downslope 0-5			
Description / Justification for Classification			
Woodland vegetation is identified within the southern portion of the site. This vegetation was observed with trees reaching heights of approximately 15-20 m and a foliage cover of 15%. The understorey consists of grazed grasses, and no multi-tiered vegetation is evident. This vegetation is proposed for retention within the site. As such, it is expected to remain a threat in perpetuity.			



Photo ID:	21	**Plot:**	4/5
Vegetation Classification or Exclusion Clause and Effective Slope			
Woodland (Class B) – downslope 0-5/Flat/upslope			
Description / Justification for Classification			
Woodland vegetation is identified within the southern portion of the site. This woodland vegetation was observed with trees reaching heights of approximately 15-20 m and a foliage cover of 15%. The understorey consists of grazed grasses, and no multi-tiered vegetation is evident. This vegetation is expected to remain a threat in perpetuity.			



*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	22	**Plot:**	9
Vegetation Classification or Exclusion Clause and Effective Slope			
Grassland (Class G) – Downslope 0-5			
Description / Justification for Classification			
Grassland vegetation is identified to the south of Collie-Williams Road. This vegetation consists primarily of grazed grasses, with no overstorey or multi-tiered vegetation evident. While the grass is low in height, it has been assumed grazing may not always occur. This vegetation is expected to remain a threat in perpetuity.			

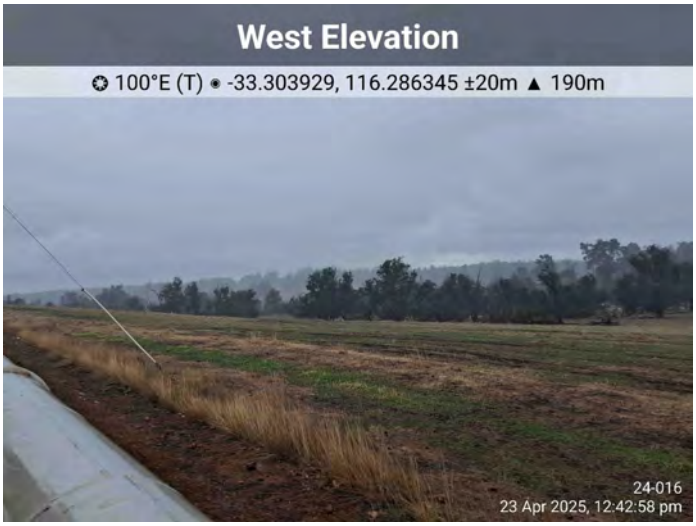


Photo ID:	23	**Plot:**	10
Vegetation Classification or Exclusion Clause and Effective Slope			
Grassland (Class G) – Flat/upslope			
Description / Justification for Classification			
Grassland vegetation is identified to the east of the site within an external private landholding. This grassland vegetation consists primarily of grazed grasses, with no overstorey or multi-tiered vegetation evident. While the grass is low in height, it has been assumed grazing may not always occur. This vegetation is expected to remain a threat in perpetuity.			



Photo ID:	24	**Plot:**	10
Vegetation Classification or Exclusion Clause and Effective Slope			
Grassland (Class G) – Flat/upslope			
Description / Justification for Classification			
Grassland vegetation is identified to the north of the site within an external private landholding. This grassland vegetation consists primarily of grazed grasses, with no overstorey or multi-tiered vegetation evident. While the grass is low in height, it has been assumed grazing may not always occur. This vegetation is expected to remain a threat in perpetuity.			

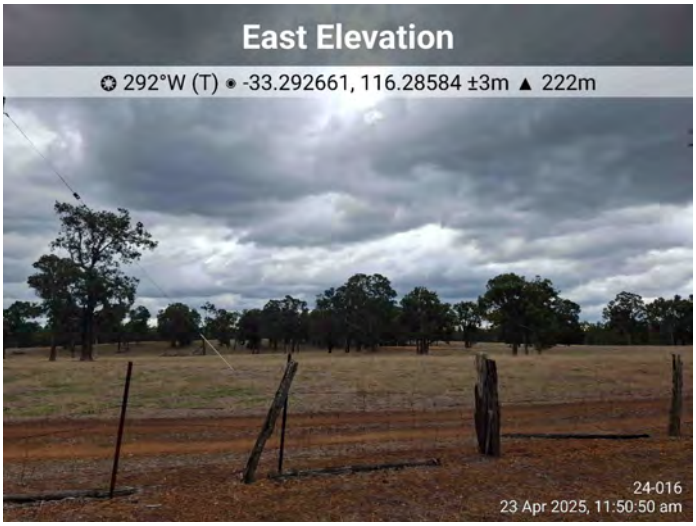


*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	25	**Plot:**	10
Vegetation Classification or Exclusion Clause and Effective Slope			
Grassland (Class G) – Flat/upslope			
Description / Justification for Classification			
Grassland vegetation is identified to the west of the site, associated with the Bingham River Reserve. This vegetation primarily consists of grazed grasses, with a sparse overstorey of trees and shrubs that have a foliage coverage of less than 10%. Based on this, the vegetation has been assessed according to its dominant typology, which is grassland. This vegetation is expected to remain a threat in perpetuity.			

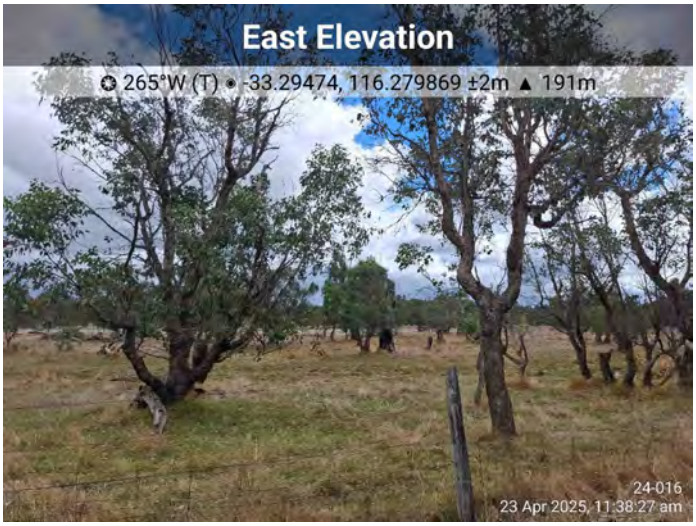


Photo ID:	26	**Plot:**	8
Vegetation Classification or Exclusion Clause and Effective Slope			
Grassland (Class G) – Flat/upslope			
Description / Justification for Classification			
Grassland vegetation is identified within the western portion of the site, associated with the Bingham River floodplain area. This vegetation primarily consists of grazed grasses, with a sparse overstorey of trees and shrubs that have a foliage coverage of less than 10%. Due to access issues during wet periods of the year, management of grasses in this area has not been assumed and classed on the dominant vegetation typology, it has been assessed as grassland. This vegetation is expected to remain a threat in perpetuity.			

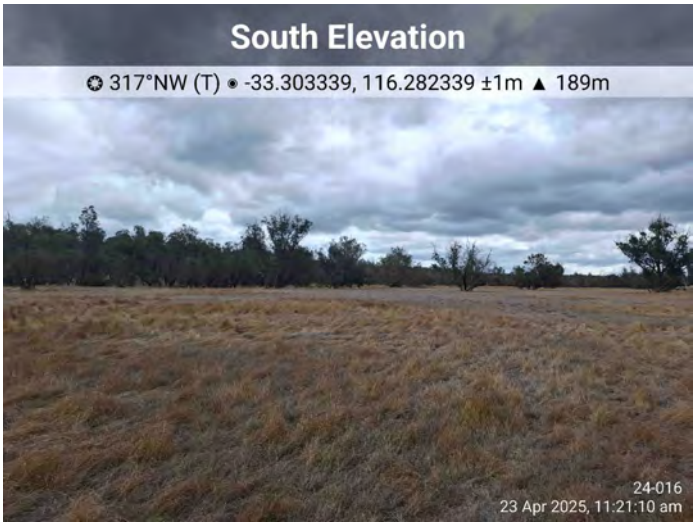


Photo ID:	27	**Plot:**	11
Vegetation Classification or Exclusion Clause and Effective Slope			
Exclusion 2.2.3.2 (e) – non-vegetated			
Description / Justification for Classification			
The Collie-Williams Road reserve consists of bituminised surfaces and cleared shoulders. Grassland vegetation is identified within the verges associated with plot 10. Plot 11 has been excluded in accordance with Section 2.2.3.2(e) of AS 3959.			



*Table 2: AS 3959 vegetation classification (refer to **Figure 2**) (continued)*

Photo ID:	28	**Plot:**	12
Vegetation Classification or Exclusion Clause and Effective Slope			
Exclusion 2.2.3.2 (f) low-threat vegetation			
Description / Justification for Classification			
Low threat vegetation has been identified within the site associated with frequently grazed pastures. The area consists of grasses less than 100 mm in height with sparse trees located throughout. It is proposed that current management practices within the grounds will continue indefinitely to support the function of the proposal, or where grazing is not undertaken grasses will be regularly mowed or slashed. Plot 12 has been excluded in accordance with Section 2.2.3.2(f) of AS 3959.			



Photo ID:	29	**Plot:**	12
Vegetation Classification or Exclusion Clause and Effective Slope			
Exclusion 2.2.3.2 (f) low-threat vegetation			
Description / Justification for Classification			
Low threat vegetation has been identified within the site associated with frequently grazed pastures. The area consists of grasses less than 100 mm in height with sparse trees located throughout. It is proposed that current management practices within the grounds will continue indefinitely to support the function of the proposal, or where grazing is not undertaken grasses will be regularly mowed or slashed. Plot 12 has been excluded in accordance with Section 2.2.3.2(f) of AS 3959.			



3.2 Assessment outputs

The vegetation classifications determined in **Section 3.1** are summarised in **Table 3** and shown in **Figure 2** and incorporate the known changes to vegetation post-development within the site and the determined effective slope.

Table 3: AS 3959 vegetation classification and effective slope applicable to the site

Plot	Applied vegetation classification	Effective slope
1	Class A – Forest	Flat/upslope
2	Class A – Forest	Downslope 0-5
3	Class A – Forest	Flat/upslope
4	Class B – Woodland	Downslope 0-5
5	Class B – Woodland	Flat/upslope
6	Class B – Woodland	Flat/upslope
7	Class B – Woodland	Flat/upslope
8	Class G – Grassland	Flat/upslope
9	Class G – Grassland	Downslope 0-5
10	Class G – Grassland	Flat/upslope
11	Exclusion 2.2.3.2(e)	Not applicable
12	Exclusion 2.2.3.2(f)	Not applicable

In addition to the assessment of current conditions affecting the site, this BMP has included an additional vegetation classification scenario (**Figure 3**) that details a revegetation assumption in which all classifiable vegetation identified within and surrounding the site experiences change/regrowth to a forest (Class A) state.

The resultant BAL rating applicable to the site under this revegetation assumption is provided in **Figure 4**. These BAL ratings are based on the minimum distances outlined in Table 2.5 of AS 3959 for the applicable vegetation classifications and effective slope, which have been summarised for ease of reference in **Table 4**.

A summary of the resulting BAL impacts on key elements of the proposal is provided below:

- **Solar PV units:** which are sited within areas that achieve BAL-29 or below with large portions of the panels subject to BAL-LOW. While there is no requirement under SPP3.7 to locate this infrastructure in BAL-29 or below, the decision to do so is driven by commercial risk avoidance and is achieved. As such, there is no bush fire risk reason that solar PV cells could not be located in higher BAL rated areas if necessary.
- **Battery storage units:** which are positioned to achieve BAL-19 or below, with the majority of units achieving BAL-LOW.
- **Building maintenance and switchboard sheds (habitable buildings):** Located on the eastern portion of the proposed BESS facility, entirely within an area of BAL-LOW.

The proposal has been designed to address the revegetation vegetation assumptions, ensuring that all key elements are appropriately sited to minimise bushfire risk.

Table 4: Setback distances based on vegetation classification and effective slope and Table 2.5 of AS 3959, as determined by the method 1 BAL assessment

Plot number (Figure 2)	Vegetation classification (see Figure 2)	Effective slope (see Figure 2)	Distance to vegetation (from Table 2.5 of AS 3959)	BAL rating (see Figure 3)
Plot 1 & 3	Forest (Class A)	Flat/upslope	< 16 m	BAL-FZ
			16 - < 21 m	BAL-40
			21 - < 31 m	BAL-29
			31 - < 42 m	BAL-19
			42 - < 100 m	BAL-12.5
			> 100 m	BAL-LOW
Plot 2	Forest (Class A)	Downslope 0-5	< 20 m	BAL-FZ
			20 - < 27 m	BAL-40
			27 - < 37 m	BAL-29
			37 - < 50 m	BAL-19
			50 - < 100 m	BAL-12.5
			> 100 m	BAL-LOW
Plot 4	Woodland (Class B)	Downslope 0-5	< 13 m	BAL-FZ
			13 - < 17 m	BAL-40
			17 - < 25 m	BAL-29
			25 - < 35 m	BAL-19
			35 - < 100 m	BAL-12.5
			> 100 m	BAL-LOW
Plot 5, 6 & 7	Woodland (Class B)	Flat/upslope	< 10 m	BAL-FZ
			10 - < 14 m	BAL-40
			14 - < 20 m	BAL-29
			20 - < 29 m	BAL-19
			29 - < 100 m	BAL-12.5
			> 100 m	BAL-LOW

Table 4: Setback distances based on vegetation classification and effective slope and Table 2.5 of AS 3959, as determined by the Method 1 BAL assessment

Plot number (Figure 2)	Vegetation classification (see Figure 2)	Effective slope (see Figure 2)	Distance to vegetation (from Table 2.5 of AS 3959)	BAL rating (see Figure 4)
Plot 8 & 10	Grassland (Class G)	Flat/upslope	< 6 m	BAL-FZ
			6 - < 8 m	BAL-40
			8 - < 12 m	BAL-29
			12 - < 17 m	BAL-19
			17 - < 50 m	BAL-12.5
			> 50 m	BAL-LOW
Plot 9	Grassland (Class G)	Downslope 0-5	< 7 m	BAL-FZ
			7 - < 9 m	BAL-40
			9 - < 14 m	BAL-29
			14 - < 20 m	BAL-19
			20 - < 50 m	BAL-12.5
			> 100 m	BAL-LOW

4 Identification of Bushfire Hazard Issues

From a bushfire hazard management perspective, based on the requirements of SPP 3.7 and the Guidelines, the key issues that are likely to require management and/or consideration as part of development within the site, include:

- Provision of appropriate separation distance from bushfire hazards to ensure a BAL rating of BAL-29 or less can be achieved at future habitable buildings.
- Ensuring that site access is designed, constructed and managed to enable safe access and egress for fire fighting vehicles and occupants.
- Ensuring that grasses throughout the site are managed to achieve low threat and APZ standards to reduce the risk of fires starting onsite, or being exacerbated by a large grass fuel load.
- Ensuring that the provision of water for firefighting is sufficient and accessible by firefighting services.

There are risks associated with a BESS facility, and knowledge of battery fires and the reasons why they should be isolated is a relevant consideration given battery fires can be difficult to extinguish however is not required to be specifically addressed in detail under SPP 3.7.

While Western Australia does not have any specific guidelines on renewable energy facilities, the *CFA Design Guidelines and Model Requirements: Renewable Energy Facilities* (CFA 2023) provides a useful guide and has been considered as part of this assessment.

The risk from bushfire associated with the proposal can be managed through the siting of the habitable components of development in an area subject to BAL-29 or less, outside of flame length, the isolation and separation of the battery with a 10 m separation from other assets within low threat land (paved or compacted earth), and through the provision of access for fire-fighting appliances and access to a reticulated water supply and static tank supply. An example of the siting considerations has been included in **Plate 4**.

The facility is designed to prevent fire from leaving the BESS facility. In the event of a battery fire, the battery units will be allowed to burn out in a controlled manner. A dedicated water supply will be available to prevent the fire from spreading to the surrounding vegetation. This water supply will be accessible to firefighting services to ensure they can effectively manage and contain any fire incidents. The design includes strategic placement of the water tank and hydrants to ensure quick and easy access for firefighting vehicles. Regular maintenance and inspections will be conducted to ensure the water supply infrastructure remains operational and compliant with safety standards.

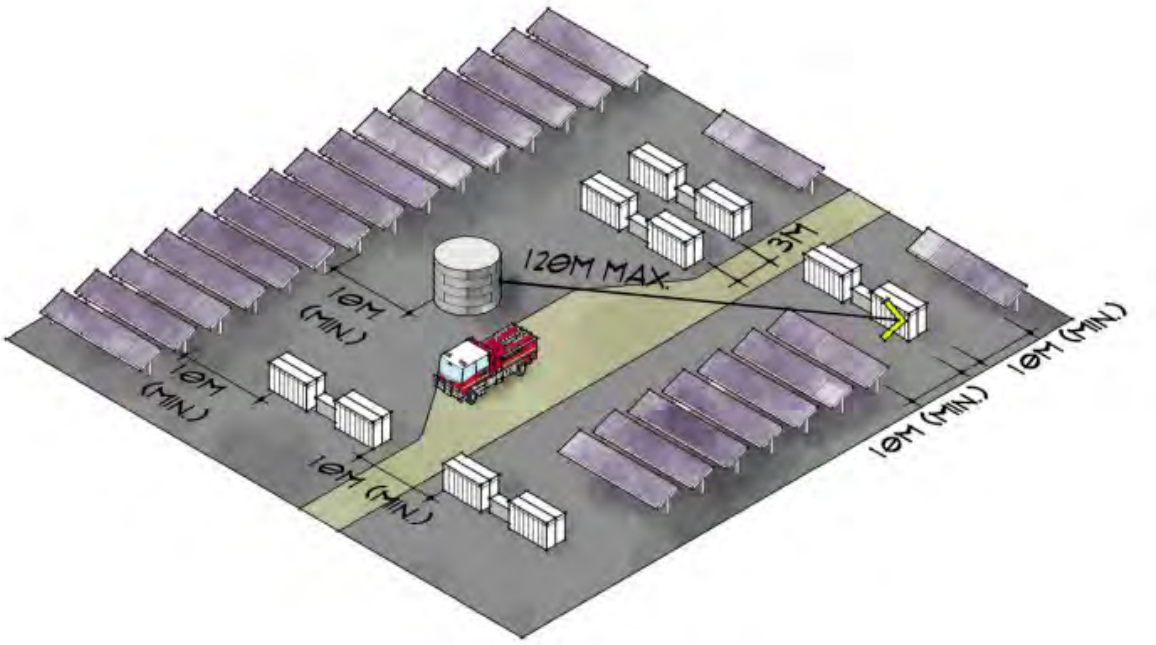


Plate 4: Excerpt from the CFA Design Guidelines and Model Requirements: Renewable Energy Facilities (CFA 2023) detailing potential siting considerations with water supply within 120 m of the battery storage area.

4.1 Permanent hazards

The site is located adjacent to areas of classified vegetation to the north, east, south, and west, which are associated with various landholdings not under the control of the proponent. Additionally, classifiable vegetation will be present within the site in patches of vegetation proposed for retention. Consequently, these areas cannot be modified by the landholder and are assumed to remain in the long term.

The permanent classified vegetation most affecting development within the site includes:

- **Forest (Class A) vegetation:** Forest vegetation has been identified internally within the site in two distinct patches located in the central and eastern portions, as well as a mix of small patches and extensive areas of intact remnant vegetation along the western and northern boundaries. None of this vegetation is proposed to be modified as part of the development within the site.
- **Woodland (Class B) vegetation:** Woodland vegetation has been identified centrally within the site along the southern boundary. Externally, woodland vegetation is identified to the north of the site and to the south of Collie Williams Road. None of this vegetation is proposed to be modified as part of the development within the site.
- **Grassland (Class G) vegetation:** Grassland vegetation has been identified internally in the western portion of the site within the Bingham River flood plain area. Externally, grassland vegetation is identified to the north, east, south, and west within existing cleared agricultural land used for livestock grazing and cropping. Grassland vegetation is also found in the verges of Collie Williams Road.

In addition to identifying the threat posed by vegetation within or surrounding the site in its current state, this BMP has been prepared to ensure the proposal remains compliant with the assumed revegetation scenario for revegetation within surrounding areas and the internal retained vegetation plots. In this revegetation scenario, all classified vegetation identified above and shown in **Figure 2** is assumed to become Forest to reflect revegetation revegetation patterns surrounding the site and is depicted in **Figure 3** and **Figure 4**, reflecting potentialrevegetation patterns surrounding the site.

4.2 Vulnerable land use

The definition of vulnerable land use as outlined in SPP 3.7 is a land use which "*is designed to accommodate people who are less physically or mentally able and likely to present evacuation challenges; and/or due to the building design or use, or the number of people accommodated, likely to present evacuation challenges; and or involves visitors who are unfamiliar with the surroundings*" (WAPC 2024b). This generally includes (but is not limited to) schools, hospitals, aged care facilities and similar.

No vulnerable land uses are identified as part of the proposal.

5 Assessment Against the Bushfire Protection Criteria

5.1 Bushfire protection criteria

The bushfire protection criteria provided in the Guidelines represent the risk treatments applicable to achieving the intent and the objectives listed in SPP 3.7. The bushfire protection criteria vary depending upon the stage of the planning process and development type and are divided into four subsystems (elements). Each subsystem is provided with an outcome, or an acceptable solution method (predetermined solution). Compliance with each subsystem (as a risk treatment) is required to demonstrate to the decision-maker that the risk is within acceptance.

The bushfire protection criteria identified in the Guidelines and addressed as part of this BMP are:

- Element 1: Location
- Element 2: Siting and design
- Element 3: Vehicular access
- Element 4: Water supply

Bushfire protection criteria 7 (BCP 7) *for commercial and industrial development applications* have been considered for the proposed development of the site. The assessment demonstrates that the proposal can achieve the objectives of SPP 3.7 and addresses BCP 7 through acceptable solutions detailed in the Guidelines, as summarised in **Table 5**.

Table 5: Assessment against the bushfire protection criteria from the Guidelines

Bushfire protection criteria	Proposed bushfire management strategies
Element 1: Location	
Not applicable	BPC 7 does not require assessment against Element 1: Location at the development application stage. However, to emphasise the suitability of the locality for the proposed solar PV/BESS facility, a simplified assessment of the broader area has been included below and visualised in **Figure 5**. The legibility of the existing public road network in the area is a significant advantage. The key access route, Collie-Williams Road (a primary distributor), provides direct routes for access to Williams in the east and Collie in the west, with Colie approximately 13.5 km from the site (an 8 to 15 minute drive, depending on roads speeds between 60 km/hr and 100 km/hr). This ensures that the site is well-connected and accessible, facilitating the transportation of materials, equipment, personnel, and emergency services. The robust road network supports the logistical needs of the development and enhances its operational viability. This has already been identified by other similar scale projects in the general locality, such as the Collie BESS facility located approximately 1 km to the south. This proximity highlights the suitability for such developments and suggests potential synergies between projects, which can enhance operational efficiencies and infrastructure sharing. Additionally, the site is in an existing location with a higher area of agricultural land uses, which results in managed fuel land adjacent to the majority of the site. This managed land provides a buffer that can help mitigate potential environmental impacts and reduce the risk of uncontrollable bushfires spreading to the facility. The location is suitable for the proposal.

Table 5: Assessment against the bushfire protection criteria from the Guidelines (continued)

Bushfire protection criteria	Proposed bushfire management strategies
Element 2: Siting and design *(Continued)*	
A2.1a Siting and design	The proposal incorporates five structures that will require access to internal spaces by workers as part of operational and maintenance activities and could be classified as 'habitable buildings' and are shown on **Figure 6**. These structures include a maintenance shed, a control building, and multiple 33 kV switch rooms, all of which have been considered as habitable for the purposes of this BMP. All habitable buildings are located within the eastern portion of the proposed BESS facility, providing sufficient separation from post-development classified vegetation to ensure they are entirely within an area of BAL-LOW. The BAL contour plan provided in **Figure 4** demonstrates that the proposal's habitable buildings can achieve a BAL rating of BAL-LOW under the assumed revegetation scenario for all vegetation to be forest within and surrounding the site. Additionally, the siting of other key components of the proposal has been carefully considered to minimise bushfire risk: • **Solar PV Units:** which are sited within areas that achieve BAL-29 or below with large portions of the panels subject to BAL-LOW. While there is no requirement under SPP3.7 to locate this infrastructure in BAL-29 or below, the decision to do so is driven by commercial risk avoidance and is achieved. As such, there is no bush fire risk reason that solar PV cells could not be located in higher BAL rated areas if necessary. • **Battery Storage Units:** which are positioned to achieve BAL-19 or below, with the majority of units achieving BAL-LOW. The proposal complies with **A2.1a**.
A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m^2 (BAL-40 or BAL-FZ)	All habitable buildings will achieve BAL-29 or below. The proposal complies with **A2.1b**.
A2.2 Asset Protection Zone (APZ)	A significant portion of the site will be developed and maintained to achieve a low-threat exclusion (solar PV unit areas and associated buffers) or remain non-vegetated (proposed BESS facility in the southwest portion of the site) in accordance with Section 2.2.3.2 of AS 3959. The areas within the site that will be subject to ongoing management to maintain low-threat or non-vegetated classifications are identified in **Figure 6**. The site is already largely managed to a low fuel state and is proposed to continue through ongoing grazing activities (substituted with slashing when required), including areas under the solar PV units. This management ensures that habitable buildings are not exposed to radiant heat levels exceeding BAL-LOW, and that the proposed battery units (considered hazardous, flammable, and/or combustible materials) will be subject to BAL-19 or less. The proposal complies with **A2.2**.
A2.3 Clearing of native vegetation	The site has historically been cleared and mainly supports paddock grasses, with native vegetation comprising scattered native trees and three large patches of trees. Remnant native vegetation occurring in larger patches across the site is proposed to be retained. Scattered trees will also be retained where maximising harvesting of solar energy is not compromised and would not change the ability for the majority of the site to achieve low threat. Some scattered native trees will need to be impacted or cleared to enable the construction of the key infrastructure components for the proposal. No vegetation external to the site is proposed to be removed or modified for bushfire management purposes and will remain in its existing condition. *(continued below)*

Table 5: Assessment against the bushfire protection criteria from the Guidelines (continued)

Bushfire protection criteria	Proposed bushfire management strategies
Element 2: Siting and design *(Continued)*	
A2.3 Clearing of native vegetation *(continued)*	Regarding bushfire management, no additional vegetation clearing is required beyond what is necessary for construction purposes. The balance of the site, considered the 'avoidance area,' will not be encroached upon by construction activities ensuring that identified environmental values remain unaffected. It is important to note that additional opportunistic avoidance of mature trees may be possible within the development footprint. This will be further considered during the detailed design stage once civil engineering requirements are fully understood. For the purpose of this BMP, none of the classified vegetation identified in **Figure 2** will need to be removed to support the siting of the proposal. The proposal complies with **A2.3.**
A2.4 Storage of hazardous, flammable and/or combustible materials	The proposal incorporates a 200 MW Battery Energy Storage System (BESS) facility within the southwest portion of the site. The battery units within this facility are considered hazardous, flammable, and/or combustible materials. Consequently, they have been appropriately sited away from significant sources of bushfire threat. The battery units are located within a hardstand area, surrounded by 10-m-wide horizontal clearance perimeter roads. This ensures that no flammable materials are within six meters of the battery units, thereby minimising the threat of ignition within the site and preventing the surrounding vegetation (paddock grasses managed to a low-threat state) from igniting. The battery units are securely installed on a firm, non-combustible base, adhering to the provisions outlined in the guidelines. The proposal complies with **A2.4.**
Element 3: Vehicular access	
A3.1 Private Driveway	The internal private driveway network is designed to provide access to Collie-Williams Road to the south, ensuring connectivity to the broader public road network. It also provides for an interconnected access arrangement that facilitate access throughout the site, including to the BESS facility and solar PV units. The internal driveway network has been designed to address the requirements of Table 10 of Appendix B.3,, as shown in **Plate 5,** with a trafficable surface of 6 m provided throughout to allow for two-way traffic movements. Where applicable, turnaround areas compliant with Figure 30 of Appendix B.3 have been incorporated (shown in **Figure 6**), with internal intersections providing additional areas for turnaround. All proposed habitable buildings are located adjacent to internal loop roads (private driveways), ensuring that fire units are capable of accessing habitable buildings and vacating the site whilst in forward gear, thereby enhancing accessibility and safety and providing the practical functionality of turnaround areas. The proposal complies with **A3.1.**

Table 5: Assessment against the bushfire protection criteria from the Guidelines (continued)

Bushfire protection criteria	Proposed bushfire management strategies
Element 4: Water	
A4.1 Water Supply	All development must have an adequate water supply available for bushfire defence. The proposal will be serviced by a reticulated water supply, complemented by a dedicated 50,000L water tank for firefighting purposes. This provision exceeds the requirements of Table 11 of Appendix B.3 of the guidelines, which as a minimum requires 10,000 L. The tank is strategically located within the BESS facility, adjacent to habitable buildings and the internal loop road network, ensuring both accessibility and effectiveness in emergency situations. The general location of the tank is shown in **Figure 6**. In addition to the dedicated 50,000L tank for firefighting purposes, habitable buildings are provided with additional rainwater tanks to act as supplementary water sources for firefighting purposes if required. This ensures that there is an ample and reliable water supply available to defend against bushfires. The proposal complies with **A4.2.**

Table 10: Vehicular access technical requirements

	1		2		3		4		5	
TECHNICAL REQUIREMENTS	**PERIMETER ROADS**		**PUBLIC ROADS**		**EMERGENCY ACCESS WAY[3]**		**FIRE SERVICE ACCESS ROUTE[3]**		**BATTLE-AXE & PRIVATE DRIVEWAYS[1]**	
MAP OF BUSH FIRE PRONE AREAS DESIGNATION	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**
Minimum horizontal clearance (metres)	12	8	See note 5		10	6	10	6	6	
Minimum vertical clearance (metres)	4.5									
Minimum weight capacity (tonnes)	15									
Maximum grade unsealed road[2]	See note 5		See note 5		1:10 (10% or 6°)					
Maximum grade sealed road[2,4]					1:7 (14.3% or 8°)					
Maximum average grade sealed road					1:10 (10% or 6°)					
Minimum inner radius of road curves (metres)					8.5					

Notes:
1. Driveways and battle-axe legs to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision where not required to comply with the widths in this Appendix or the Guidelines.
2. Dips must have no more than a 1 in 8 (12.5% - 7.1 degrees) entry and exit angle.
3. To have crossfalls between 3 per cent and 6 per cent.
4. For sealed roads only the maximum grade of no more than 1 in 5 (20 per cent) (11.3 degrees) for no more than 50 metres is permissible, except for short constrictions to 3.5 metres for no more than 30 metres in length where an obstruction cannot be reasonably avoided or removed.
5. As outlined in the Institute of Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards Main Roads standard, supplement, policy or guideline and/or any applicable or relevant local government standard or policy.

Plate 5: Excerpt of Table 10 from Appendix B.3 of The Guidelines outlining vehicle access requirements

5.2 Additional management strategies

5.2.1 Future approval considerations

The BAL assessment in this BMP assesses the potential bushfire risk posed to future habitable buildings within the site, based on the assumptions outlined in **Section 3.**

The development will be subject to a building licence application as part of the construction process. It is noted that the class of building (likely Class 5, 6, or 7) will not be subject to the requirements of AS 3959. However, commercial building construction typically exceeds the requirements of AS 3959.

The *Building Act 2011* does not apply a bushfire construction standard to commercial buildings such as those associated with the proposed facility (including a control building, multiple 33 kV switch rooms, and a maintenance shed). Nevertheless, SPP 3.7 encourages the adoption of equivalent construction standards and risk treatments at the applicant's discretion, as outlined in Clause 3.7 of the Guidelines.

5.2.2 Landscape management

5.2.2.1 Within the site

The development footprint will include a mix of hard-stand areas and areas of managed grass. These areas will be designed and managed to achieve low-threat vegetation in accordance with Section 2.2.3.2 of AS 3959. The solar PV units have been designed to allow for the continued grazing of the area, ensuring that grazing will also make up a large portion of the necessary ongoing maintenance practices. Other ongoing management is likely to include:

- Irrigation of grass and garden beds (where required).
- Regular removal of weeds and built-up dead material (such as fallen branches, leaf litter, etc.).
- Low pruning of trees (branches below 2 m in height removed where appropriate).
- Application of ground/surface covers such as mulch or non-flammable materials as required.
- Regular mowing/slashing (or grazing) of grass to less than 100 mm in height.

The proponent (or future occupiers) will be responsible for the ongoing maintenance of these areas within the site.

5.2.2.2 Surrounding the site

All classified vegetation and excluded areas surrounding the site are expected to remain in their current condition based on existing long-term management regimes, or for the purposes of this BMP been conservatively assessed as unmanaged as detailed in **Section 3** above. The possible revegetation classification (forest) has been considered as part of this BMP and siting and design is based on this output (not the current variable vegetation classifications).

As indicated in **Figure 2,** the private landholdings surrounding the site are assumed to be managed by the applicable landowners in accordance with existing maintenance regimes and firebreak requirements. All other vegetation will remain in its existing condition for the foreseeable future.

5.2.3 Shire of Collie Firebreak & Fuel Hazard Reduction Notice 2024-2025

The Shire of Collie releases a Firebreak & Fuel Hazard Reduction Notice on an annual basis to provide a framework for bushfire management within the Shire. The Shire of Collie are able to enforce this notice in accordance with Section 33 of the *Bush Fires Act 1954*. In addition, Section 33 1(b) also provides the Shire with additional power to direct landowners to undertake works to remedy conditions conducive to the outbreak or spread of bushfire.

Prior to and post development within the site, the proponent will be required to comply with the Firebreak & Fuel Hazard Reduction Notice (as published).

5.2.4 Public education and preparedness

Community bushfire safety is a shared responsibility between individuals, the community, government, and fire agencies. DFES has an extensive Community Bushfire Education Program including a range of publications, a website, and Bushfire Ready Groups. The DFES website (https://www.dfes.wa.gov.au/bushfire/prepare/) provides a range of materials to help the community prepare for and survive the bushfire season.

The Shire of Collie provides bushfire safety advice to residents available from their website https://www.collie.wa.gov.au/services/emergency-services/ Professional, qualified consultants also offer bushfire safety advice and relevant services to residents and businesses in high-risk areas in addition that provided in this BMP.

In the case of a bushfire in the area, advice would be provided to owners/occupants by DFES, the Department of Biodiversity Conservation and Attractions (DBCA) and/or the Shire of Collie on any specific recommendations with regard to responding to the bushfire, including shut down and/or evacuation if required.

6 Responsibilities for Implementation and Management of Bushfire Measures

Table 6 outlines the future responsibilities of the proponent (developer) and the Shire of Collie associated with implementing this BMP with reference to ongoing bushfire risk mitigation measures for existing land uses (through compliance with the Shire of Collie's Firebreak & Fuel Hazard Reduction Notice) or future mitigation measures to be accommodated as part of the development process. These responsibilities will need to be considered as part of the implementation and ongoing operation.

Table 6: Responsibilities for the implementation of this BMP during development and ongoing management

Proponent – Prior to Sale or Occupancy	
No.	Implementation and Management actions
1	Undertake development of the site in accordance with the proposed development layout plan, or as otherwise agreed with the Shire of Collie, ensuring habitable buildings are positioned to achieve BAL-29 or less.
2	Where indicated as managed on **Figure 6**, the site is to be implemented and then managed on an ongoing basis to achieve low threat in accordance with Section 2.2.3.2 of AS 3959 in perpetuity. The solar PV units have been designed to allow for the continued grazing of the area, ensuring that grazing will also make up a large portion of the necessary ongoing maintenance practices. Other ongoing management (to supplement grazing activities) is likely to include: • Irrigation of grass and garden beds (where required). • Regular removal of weeds and built-up dead material (such as fallen branches, leaf litter, etc.). • Low pruning of trees (branches below 2 m in height removed where appropriate). • Application of ground/surface covers such as mulch or non-flammable materials as required. • Regular mowing/slashing (or grazing) of grass to less than 100 mm in height
3	Install the private driveway network to the standards outlined in Appendix B.3 of the Guidelines or as agreed with the Shire of Collie. Privat driveway alignments should be designed and maintained to achieve low threat in accordance with Section 2.2.3.2 of AS 3959.
4	Connect the site to a reticulated water source and install a minimum 50,000L tank for firefighting purposes to the standards outlined in Appendix B.4 Table 11 of the Guidelines or as agreed with the Shire of Collie. Water supply systems should be within areas that achieve low threat in accordance with Section 2.2.3.2 of AS 3959.
Shire of Collie	
No.	Management action
1	Continue with existing controls to maintain fuel loads in existing public road reserves and public open space (under their management) in accordance with existing maintenance regimes, to minimise fuel loads.
2	Continue with existing controls to monitoring vegetation fuel loads in private landholdings against the requirements of the Shire of Collie's Firebreak & Fuel Hazard Reduction Notice and liaising with relevant stakeholders to maintain fuel loads at minimal/appropriate fuel levels, in accordance with the Shire of Collie's responsibilities under the *Bush Fires Act 1954*.

Table 6: Responsibilities for the implementation of this BMP during development and ongoing management (continued)

Property owner/occupier	
No.	Management action
1	Where indicated as managed on **Figure 6**, the site is to be implemented and then managed on an ongoing basis to achieve low threat in accordance with Section 2.2.3.2 of AS 3959 in perpetuity. The solar PV units have been designed to allow for the continued grazing of the area, ensuring that grazing will also make up a large portion of the necessary ongoing maintenance practices. Other ongoing management (to supplement grazing activities) is likely to include: • Irrigation of grass and garden beds (where required). • Regular removal of weeds and built-up dead material (such as fallen branches, leaf litter, etc.). • Low pruning of trees (branches below 2 m in height removed where appropriate). • Application of ground/surface covers such as mulch or non-flammable materials as required. Regular mowing/slashing (or grazing) of grass to less than 100 mm in height
2	Monitoring vegetation fuel loads within the site against the requirements of the Shire of Collie's Firebreak & Fuel Hazard Reduction Notice (and/or existing maintenance regimes outlined in this BMP) and liaising with relevant stakeholders to maintain fuel loads at minimal/appropriate fuel levels.
3	Ensure the ongoing management of the water supply infrastructure by maintaining the connection to a reticulated water source and ensuring the minimum 50,000L tank for firefighting purposes remains operational and accessible. Regular inspections and maintenance should ensure the water supply systems remain within areas that achieve low threat in accordance with Section 2.2.3.2 of AS 3959.
Water Corporation	
No.	Management action
1	The Water Corporation is responsible for the ongoing maintenance and repair of water hydrants.

7 Applicant Declaration

7.1 Accreditation

This assessment has been prepared by Emerge Associates who have been providing bushfire risk management advice for more than 10 years, undertaking detailed bushfire assessments (and associated approvals) to support the land use development industry. Emerge Associates have a number of team members who have undertaken Bushfire Planning and Design (BPAD) Level 1 and Level 2 training and are Fire Protection Association of Australia (FPAA) accredited practitioners.

Anthony Rowe is a FPAA Level 3 BPAD accredited practitioner (BPAD No. 36690) in accordance with clause 9.10 of the Guidelines.

7.2 Declaration

I declare that the information provided is true and correct to the best of my knowledge.

Reviewer signature:



Name: Anthony Rowe

Company: Emerge Associates/Envision Bushfire Planning

Date: 014/05/2025

BPAD Accreditation: BPAD No. 36690

8 References

8.1 General references

The references listed below have been considered as part of preparing this document.

Department of Biodiversity, Conservation and Attractions (DBCA) 2017a, *Ramsar Sites (DBCA-010)*.

Department of Biodiversity Conservation and Attractions (DBCA) 2017b, *Wheatbelt Wetlands Stage 1 (DBCA-021)*, Perth, <https://public-services.slip.wa.gov.au/public/rest/services/SLIP_Public_Services/Environment/MapServer/19>.

Department of Biodiversity, Conservation and Attractions (DBCA) 2022, *Threatened Ecological Communities (DBCA-038)*, Perth, Western Australia <https://catalogue.data.wa.gov.au/dataset/threatened-ecological-communities>.

DPLH and WAPC 2024, *Bushfire Management Plan (BMP) Manual*, Planning.wa.gov.au.

Department of Water and Environmental Regulation (DWER) 2021, *Clearing Regulations - Environmentally Sensitive Areas (DWER-046)*, <https://catalogue.data.wa.gov.au/dataset/clearing-regulations-environmentally-sensitive-areas-dwer-046>.

Emerge Associates 2024, *Parron Wind Farm Development Support - Detailed Flora and Vegetation Assessment*, EP23-085(01)--006 MS, Version 1.

Emerge Associates 2025a, *Basic Fauna and Targeted Black Cockatoo Assessment Collie Palmer BESS and Solar PV Project*, EP24-016(03)--002 NAW, A.

Emerge Associates 2025b, *Reconnaissance Flora and Vegetation Assessment Collie BESS and Solar PV*, EP24-016(02)--009 SEB, 1.

Gould, J., McCaw, W., Cheney, N., Ellis, P. and Matthews, S. 2007, *Field Guide: Fuel Assessment and Fire Behaviour Prediction in Dry Eucalypt Forest*, CSIRO and Department of Environment and Conservation, Perth, Western Australia.

Office of Bushfire Risk Management (OBRM) 2024, *Map of Bush Fire Prone Areas*, Landgate, https://maps.slip.wa.gov.au/landgate/bushfireprone/.

Standards Australia 2018, *AS 3959:2018 Construction of buildings in bushfire-prone areas*, Sydney.

Western Australian Land Information Authority (WALIA) 2024, *Landgate Map Viewer Plus*, <https://map-viewer-plus.app.landgate.wa.gov.au/index.html>.

Western Australian Planning Commission (WAPC) 2024a, *Planning for Bushfire Guidelines*, Western Australia.

Western Australian Planning Commission (WAPC) 2024b, *State Planning Policy 3.7 Busfire*, Western Australia.

8.2 Online references

The online resources that have been utilised in the preparation of this report are referenced in **Section 8.1**, with access date information provided in **Table R-1**.

Table R 1 Access dates for online references

Reference	Date accessed	Website or dataset name
(OBRM 2024)	28 April 2025	Bush Fire Prone Areas
(WALIA 2024)	28 April 2025	Mapviewer Plus
(DBCA 2017b)	28 April 2025	Wheatbelt Wetlands Stage 1
(DBCA 2017a)	28 April 2025	Ramsar Sites
(DBCA 2022)	28 April 2025	Threatened ecological communities
(DWER 2021)	28 April 2025	Environmentally Sensitive Areas

Figures

Figure 1: Site Location and Topographic Contours

Figure 2: AS 3959 Vegetation Classification and Effective Slope - Current Conditions

Figure 3: AS 3959 Vegetation Classification and Effective Slope - Revegetation Conditions

Figure 4: Bushfire Attack Level Contour Plan - Revegetation Conditions

Figure 5: Broader Locality Plan

Figure 6: Spatial Representation of Bushfire Management Strategies

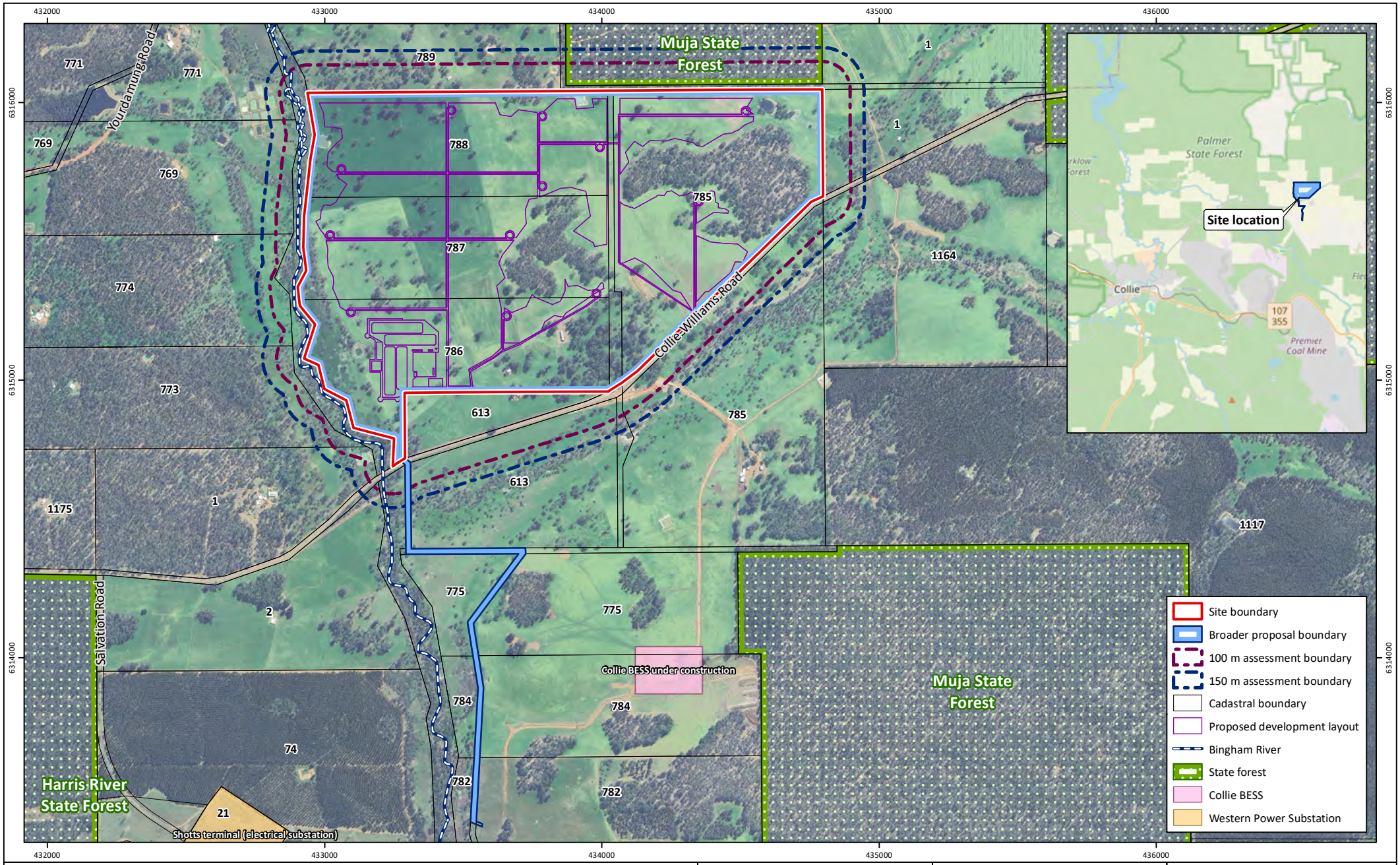


Figure 1: Site Location and Environmental Features

Project:	Bushfire Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(08)--F22

Drawn:	WJC
Date:	29/04/2025
Checked:	CPW
Approved:	KK
Date:	08/05/2025

N

0 230 460 690
Metres

Scale: 1:18,000@A4

GDA2020 MGA Zone 50

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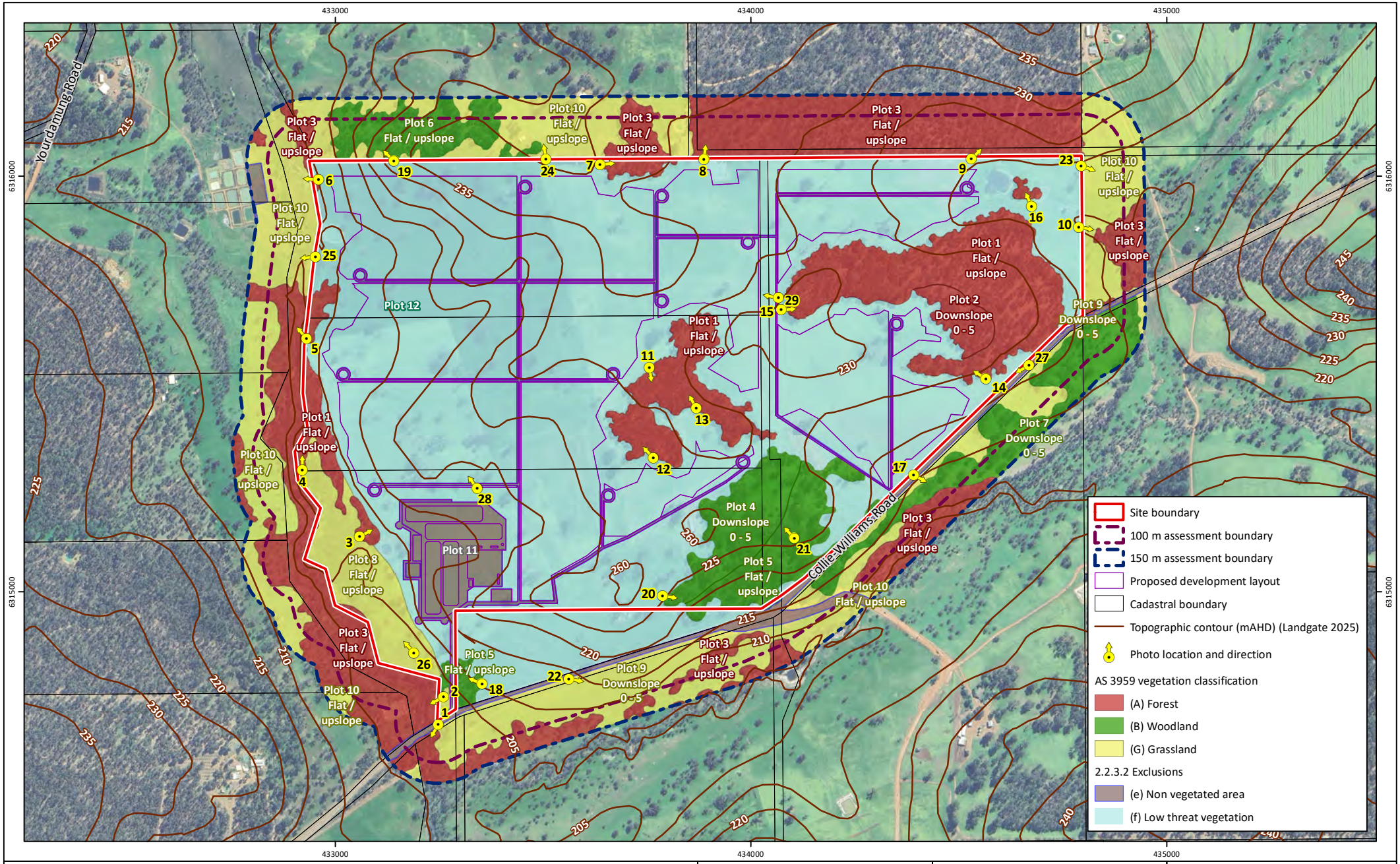


Figure 2: **AS 3959 Vegetation Classification and Effective Slope - Current Conditions**

Project:	Bushfire Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(08)--F23

Drawn:	WJC
Date:	29/04/2025
Checked:	CPW
Approved:	KK
Date:	08/05/2025

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Metres
Scale: 1:12,000@A4
GDA2020 MGA Zone 50

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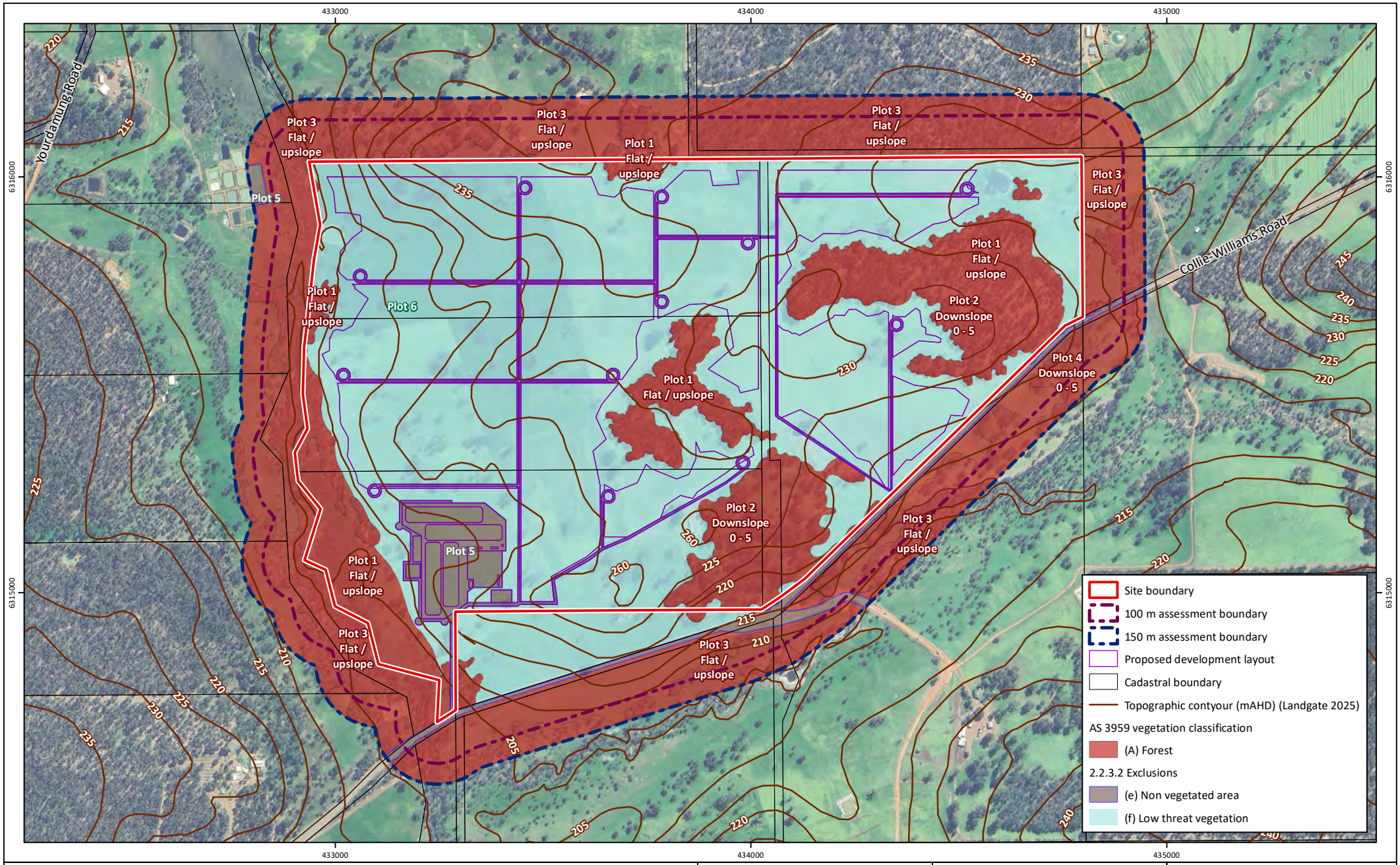


Figure 3: **AS 3959 Vegetation Classification and Effective Slope - Revegetation Conditions**

Project: Bushfire Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(08)--F24

Drawn:	WJC
Date:	29/04/2025
Checked:	CPW
Approved:	KK
Date:	08/05/2025

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Scale: 1:12,000@A4

GDA2020 MGA Zone 50

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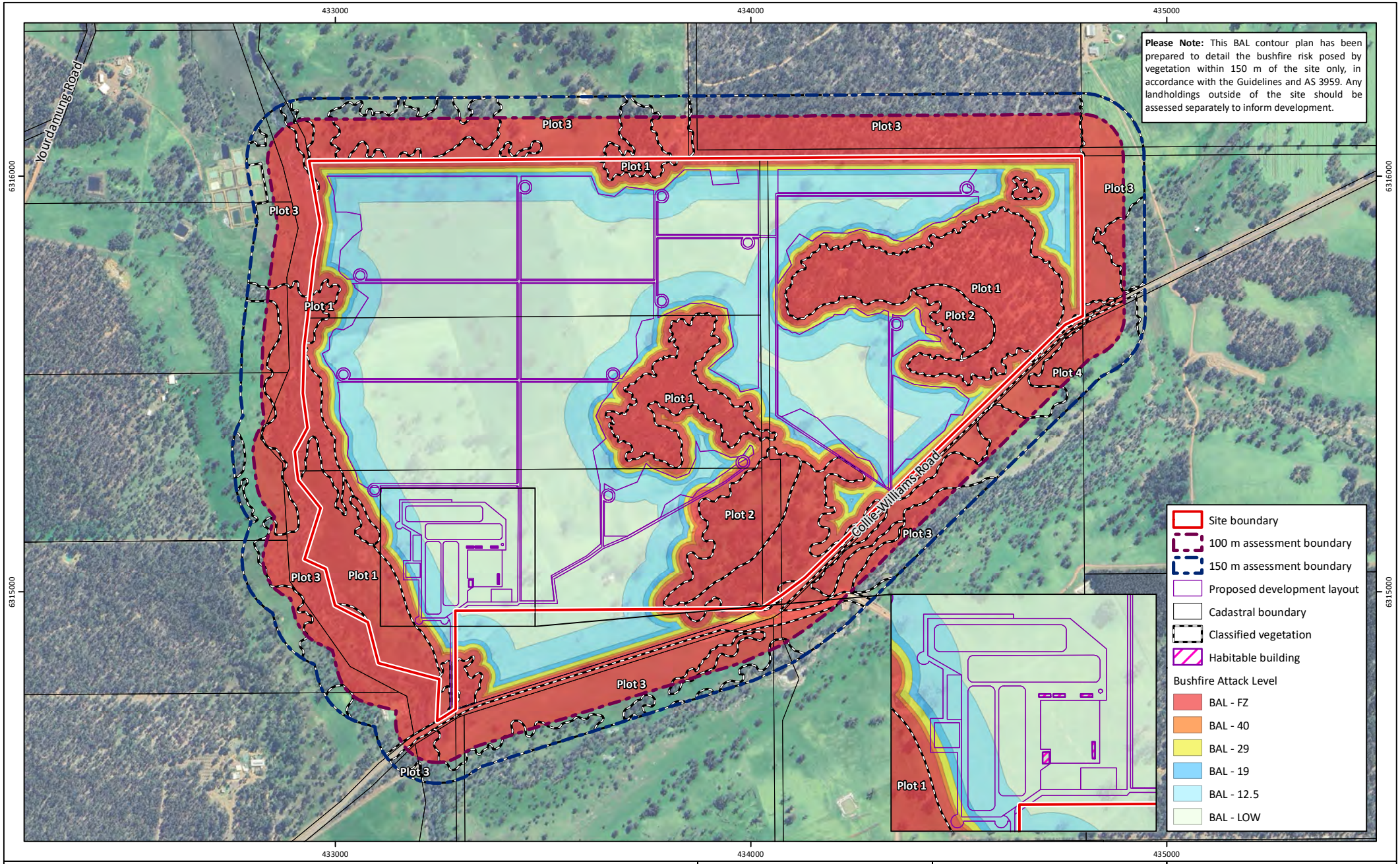


Figure 4: **Bushfire Attack Level Contour Plan - Revegetation Conditions**

Project: Bushfire Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(08)--F25

Drawn:	WJC
Date:	29/04/2025
Checked:	CPW
Approved:	KK
Date:	05/08/2025

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Metres

Scale: 1:12,000@A4

GDA2020 MGA Zone 50

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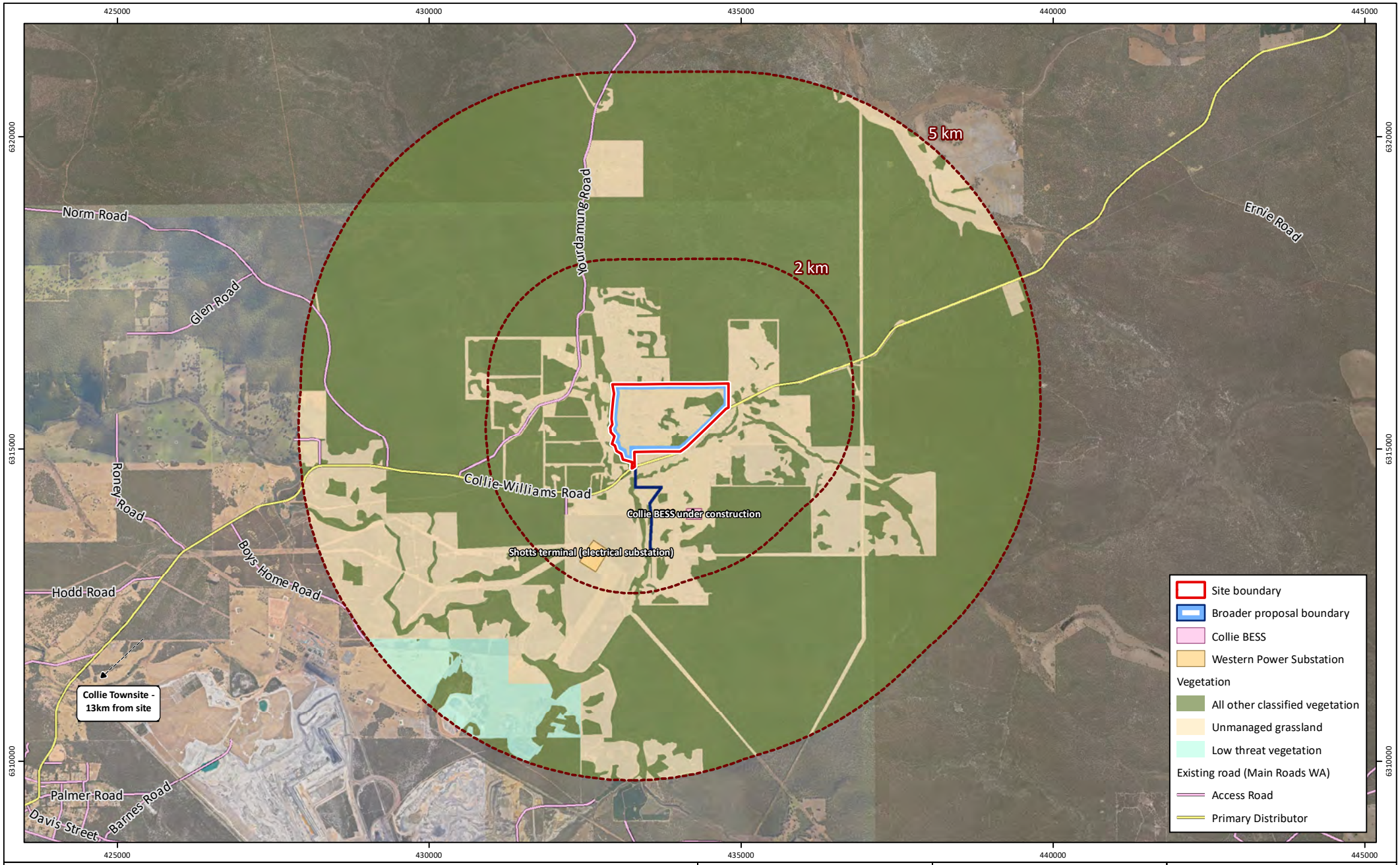


Figure 5: Broader Locality Plan

Project: Bushfire Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(08)--F26

Drawn:	WJC
Date:	29/04/2025
Checked:	CPW
Approved:	KK
Date:	08/05/2025

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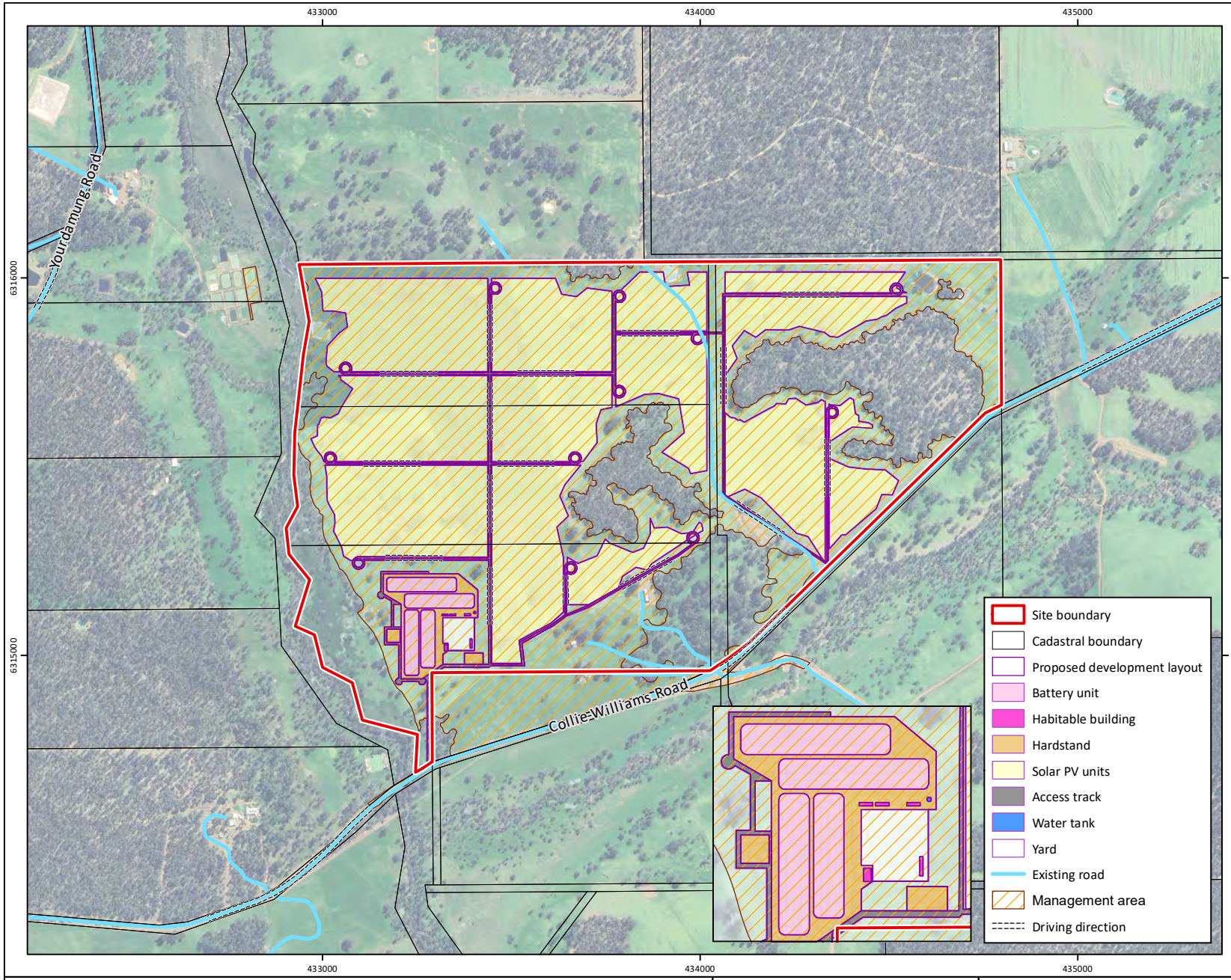
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GDA2020 MGA Zone 50

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Development location
All new habitable buildings and infrastructure (battery units) is to be located in an area that can achieve BAL-29 or less.

Building construction requirements
Where located within a designated bushfire prone area within the Map of Bush Fire Prone Areas, any new Class 1, 2, 3 or associated 10a structures will need to be constructed in compliance with BAL ratings determined in accordance with AS 3959.

Asset protection zone
A minimum 21 m wide APZ around habitable buildings and infrastructure (battery units), is to be managed to achieve low threat in accordance with Section 2.2.3.2 of AS 3959. Additionally areas under and surrounding the solar PV cells are to be managed to achieve low threat in accordance with Section 2.2.3.2 of AS 3959. This will be the responsibility of the owners/ occupiers.

Vehicle access
The site will connect to existing public roads, through the road access network within the site which will comply with the private driveway requirements in Appendix B.3 of the Guidelines. This includes a minimum horizontal clearance of 6 m and vertical clearance of 4.5 m high and suitable turn-around area for fire appliances at dead ends or within 30 m of habitable buildings and infrastructure (battery units).

Water supply
50,000 L will be available at all times for fire-fighting supply from a static water tank connected to a reticulated water supply.

Figure 6: Spatial Representation of Bushfire Management Strategies

Project:	Bushfire Management Plan Collie Palmer BESS and Solar PV
Client:	Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd

Plan Number:
EP24-016(08)--F27

Drawn:	WJC
Date:	30/04/2025
Checked:	CPW
Approved:	KK
Date:	08/05/2025

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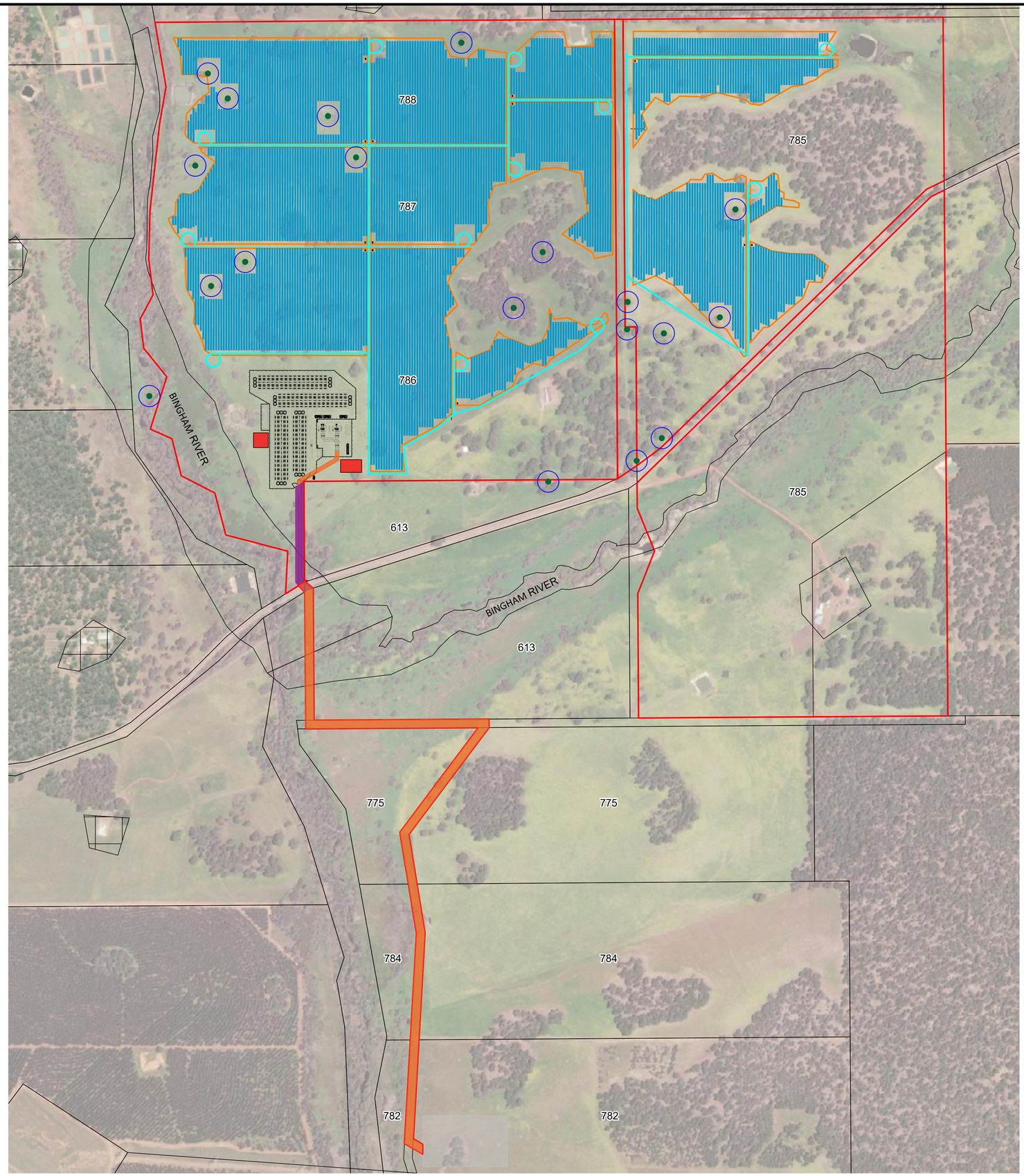
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Metres
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GDA 2020 MGA Zone 50

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Appendix A

Proposed Development Layout



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We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

Notes

Key to symbols

SUBSTATION & BESS

EXTENT OF PV CASE AREA

LAYDOWN AREA

PV SOLAR PANELS

PROJECT BOUNDARY

ACCESS ROAD & TRANSMISSION CABLE EASEMENT

330kV TRANSMISSION CABLE ROUTE

FENCE

GRAVEL ACCESS ROADS

WESTERN POWER PALMER SUBSTATION

POTENTIAL BLACK COCKATOO NESTING SITE

Reference drawings

100 0 100 200 300 Metres

SCALE 1 : 5000

Rev	Date	Drawn	Description	Ch'k'd	App'd
C	28.04.2025	MDP	Issued for Information	DB	AM
B	15.04.2025	MDP	Issued for Information	DB	AM
A	11.04.2025	MDP	Issued for Information	DB	AM

Status Stamp

MOTT MACDONALD

One Festival Tower, Station Road
Level 17
Adelaide, SA 5000
Australia

T +61 (0)8 7325 7325
W mottmac.com

Client

ENPOWERED

Level 3, 338 Barker Road
Subiaco, WA
Australia

Title

COLLIE
BESS & SOLAR FARM OVERALL PV, BESS & COLLECTOR SUBSTATION LAYOUT

Designed	DB	-	Eng. Check	AM	-
Drawn	MDP	-	Coordination		-
Dwg. Check	-	-	Approved	-	-

MMD Project Number -	Scale at A1 1:5000	Security STD
Suitability Description -		Suit. Code -
Drawing Number 703104876-DRG-001		Rev C

APPENDIX I – WATER MANAGEMENT PLAN

SW Office
Unit 6, 14 Fearn Avenue
PO Box 1129
Margaret River
Western Australia 6285

P +61 8 9758 8159
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN 57144772510 trading as Emerge Associates

Document Reference: EP24-016(06)—010C FMH

Emerge contact: David Coremans

20 May 2025

Attention: Enpowered Pty Ltd
PO Box782
Subiaco WA 6904

Delivered by email to: linh.le@enpowered.com.au

COLLIE BESS AND SOLAR PV – WATER MANAGEMENT PLAN

1 INTRODUCTION

Enpowered Pty Ltd (the proponent) are lodging a development approval (DA) application for the development of a photovoltaic (PV) solar and battery energy storage system (BESS) facility in Palmer within the Shire of Collie (SoC), Western Australia. The proposal is located across various freehold rural lots and road easements shown in **Table 1** and they are referred collectively as to 'the site'.

Table 1: Land holdings within the site

Lot	Plan	Vol	Folio	Street Address	Area (ha)	Proprietor
785	232871	2684	117	4997 Collie-Williams Road, Palmer	119.5225	Semlot Nominees Pty Ltd
786	232871	2684	117	4996 Collie-Williams Road, Palmer	39.6494	Semlot Nominees Pty Ltd
787	232871	2684	117	-	40.5117	Semlot Nominees Pty Ltd
788	232871	2102	12	-	40.6097	Semlot Nominees Pty Ltd
	Land ID 3539119			Unnamed unconstructed road	3.1543	State of WA
	Land ID 3539122			Unnamed unconstructed road	0.6191	State of WA
	Land ID 3539123			Unnamed unconstructed road	3.1728	State of WA

The site is bounded by Bingham River along the western boundary and generally surrounded by agricultural land and portions of the Muja State Forest to the north, east and south. The site is located approximately 13.5 km north-east from Collie town centre along both sides of the Collie-Williams Road. The proposed development will allow the creation of a PV Solar Farm with a capacity of up to 66 MW, a BESS facility with capacity of delivering 200 MW into the South West Interconnected System, a facility collector substation and a transmission cable to establish a connection between the facility collector substation and the Western Power Palmer Terminal station (currently under construction). The site is currently zoned as 'Rural' under the Shire of Collie Local Planning Scheme No.6. Location of the site is shown in **Figure 1** and the overall concept plan for the site is provided in Attachment A.

This Water Management Plan (WMP) is intended to support the DA and to demonstrate that site is capable of managing water in an appropriate manner. Water will be managed using an integrated water cycle management approach in which the first step in applying integrated water cycle management in catchments is to establish existing environmental values for receiving waters and/or ecosystems.

The overall objective for water management at the site is to consider the predevelopment characteristics and to maintain these as far as practicable. This document provides a WMP that supports the proposed development and provides a rationale for and demonstration of concept for water management at the site.

Given the proximity to the Bingham River and Pollard Brook, a flood modelling assessment has been undertaken to determine the spatial extent of inundation in response to a major (1% AEP) rainfall event. The integrated water cycle management approach responds to the environmental features of the site and considers:

- Potable water - Potable water would be required within the site during maintenance operations. The development will be serviced by the existing potable water network which runs along the Collie-William Road (DN750 referred to as the Great Southern Town Water Supply).
- Wastewater servicing – Limited onsite operation and maintenance uses will require wastewater servicing. Connection to reticulated sewage is not available, therefore the effluent will need to be managed onsite. The wastewater management approach will comply with the Government Sewerage Policy (GSP) (DPLH 2019b) and will be serviced by contemporary best-practice on-site wastewater treatment and disposal.
- Non-potable water – There will be some non-potable needs to meet bushfire servicing requirements. Non-potable water will be supplied by scheme water in addition to a surplus of harvested water collected from the operations buildings.
- Stormwater – Surface water will need to be managed for internal roads/access tracks and built portions of the site. A water sensitive design approach will be adopted which integrates water management into the landscape and mimics natural processes. This will include surface based runoff conveyance (roadside swales/v-drains) for localised treatment, erosion control and conveyance, and localised intervention/control (culverts) where appropriate to maintain catchment flows around infrastructure. Water quality treatment (i.e. sediment removal) will be undertaken within the site via sediment traps prior to discharge to the downstream environment.
- Groundwater – Groundwater management is not a significant consideration due to the lack of permanent groundwater. Management of groundwater will be passive and will avoid any interaction with permanent or perched groundwater.

This WMP demonstrates that the proposed use of the site and water management measures will provide an appropriate level of protection to the local environment and also meet the relevant requirements of the SoC.

2 EXISTING ENVIRONMENT

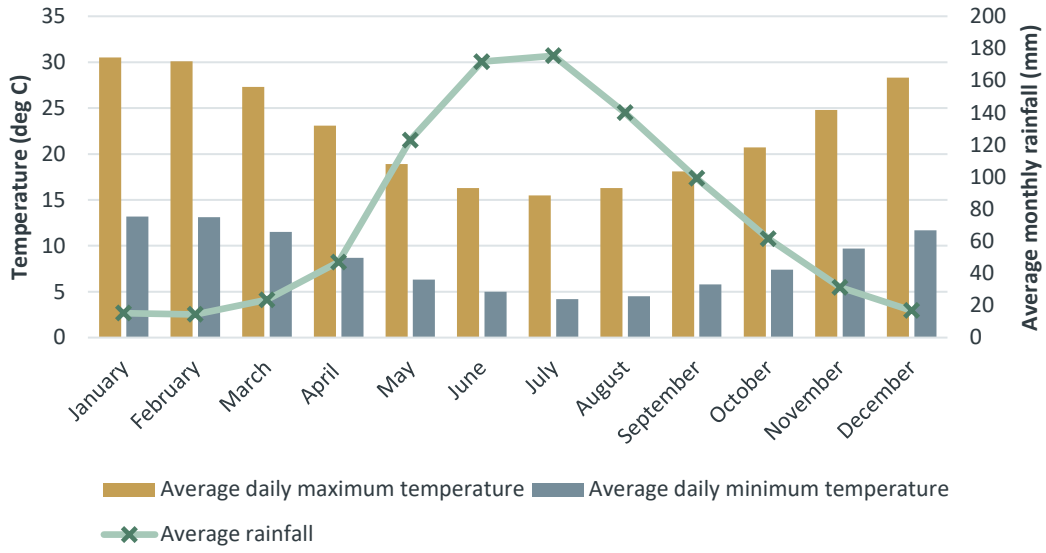
The environmental values identified within the site and that are relevant to water management are described in the following sections.

2.1 Climate and rainfall

2.1.1 Annual rainfall

Long term climatic averages from the nearest BOM station (Collie 009628 - located approximately 13.5 km northeast of the site) indicates that average maximum temperatures range from 15.5 °C in July through to 30.5 °C in January, whilst the average minimum temperatures range from 4.2 °C in July through to 13.2 °C in January (BoM 2025b). The average annual rainfall at the nearby station is 925.7 mm. The majority of the rainfall is received between May and September and the region experiences an annual average of 85 days of rain (>1 mm).

Chart 1: Average monthly temperatures and rainfall at Collie (BoM 2025b).



2.1.1 Intensity Frequency and Duration of storm events

The rainfall intensity, frequency and duration (IFD) of rainfall was obtained from the Design Rainfall Data System and is shown as total depth of rainfall for various storm events in **Table 2** (BoM 2016).

Table 2: IFD table for Collie

	Annual Exceedance Probability (%AEP)						
Duration (hrs)	***63.2***	***50***	***20***	***10***	***5***	***2***	***1***
5 min	5.12 mm	5.66 mm	7.47 mm	8.84 mm	10.3 mm	12.4 mm	14.2 mm
30 min	11.6 mm	12.8 mm	17 mm	20.2 mm	23.7 mm	28.8 mm	33.1 mm
1	15 mm	16.5 mm	21.7 mm	25.6 mm	29.8 mm	35.8 mm	40.7 mm
2	19.5 mm	21.4 mm	27.9 mm	32.7 mm	37.7 mm	45 mm	51 mm
3	22.7 mm	24.9 mm	32.3 mm	37.9 mm	43.8 mm	52.4 mm	59.5 mm
6	29.5 mm	32.3 mm	42 mm	49.5 mm	57.7 mm	69.8 mm	80.2 mm
9	34.3 mm	37.5 mm	49 mm	58.1 mm	68.2 mm	83.4 mm	96.7 mm
12	38.1 mm	41.6 mm	54.5 mm	64.9 mm	76.7 mm	94.5 mm	110 mm
18	44 mm	48 mm	63 mm	75.5 mm	90 mm	112 mm	132 mm
24	48.5 mm	52.9 mm	69.5 mm	83.5 mm	100 mm	125 mm	147 mm
36	55.5 mm	60.4 mm	79.2 mm	95.4 mm	115 mm	143 mm	168 mm
48	61 mm	66.4 mm	86.6 mm	104 mm	125 mm	154 mm	181 mm
72	70 mm	76 mm	98.3 mm	117 mm	139 mm	169 mm	196 mm

2.2 Topography

A topographical (LiDAR) dataset was obtained for the site from the Department of Water and Environmental Regulation (DWER) and Landgate to inform analysis of the existing topography of the site and for further hydrological assessment. Topographical contours were extracted from the LiDAR dataset with 1 m intervals.

Topography across the site generally slopes towards the Bingham River to the west and the Pollard Brook to the south and southeast. Topography ranges from 240 m Australian height datum (AHD) at a high point along the northern boundary to a low of 207 m AHD along the embankment of the Bingham River. Topographical contours derived from the DEM across the site and surrounding areas are shown in **Figure 2.**

2.3 Geology and soils

2.3.1 Regional geology

Regional soil mapping for the site provided on the 1:50,000 Environmental Geology Series for Collie (Gozzard J.R. and Jordan J.E. 1986) indicates that the surface geology expected at the site comprises:

- Gravel (G2) - identified across the majority of the site, described as 'yellow-brown to dark reddish brown, ferruginous or bauxite, pisolithic and irregular shape, poorly sorted, variable amounts of sand and silt in matrix'.
- Gravel (G3) - identified in the centre and northeastern boundary of the site, described as 'gravel (G2) but black, individual pisoliths exhibit coating, partial or total replacement by maghemite'.
- Sand (S5) – minor pockets observed along the western boundary of the site, described as 'yellow-brown, fine to medium, sub-angular quartz, no fines, moderately to well sorted, contains occasional well rounded pisolithic gravel'.
- Sand (S14) – observed along the northeastern boundary, described as 'white to pale grey, fine to medium, occasionally coarse, angular to sub-angular quartz, little fines, poorly to moderately sorted'.
- Clayey Silty Sand (Smc1) – minor pockets observed at the northern and southern boundaries, described as 'pale yellow-brown, mottled, fine to medium, angular quartz, well rounded pisolithic gravel at top, broken quartz veins common in places'.
- Laterite (LA1) – pockets observed at the southern and eastern portions of the site, described as 'massive, friable to strongly indurated, occasionally vesicular, iron rich, developed on granite'.

The regional geology expected beneath the site is shown in **Figure 3**.

2.3.2 Acid Sulfate Soils

A review of the Atlas of Australian Acid Sulfate Soils from CSRIO indicates that the site has an extremely low probability of Acid Sulfate Soils (ASS) of occurring. It is understood that major earthworks will not be required within the site, however in the event of any dewatering required, an ASS assessment should be undertaken to confirm and manage the risk.

2.4 Historical Land Use

Available historical imagery (WALIA 2025) indicates that the site has been cleared of native vegetation since 1996 and has been used for grazing purposes since this time.

2.5 Sewage Sensitive Areas

A review of the GSP dataset indicates that the site is not classified as a sewerage sensitive area. Notwithstanding, the site will not be connected to a regional reticulated sewage system, and therefore onsite treatment and effluent disposal will be required to manage wastewater within the site in a manner which complies with the GSP, including separation in excess of 100 m from watercourses and floodways.

2.6 Groundwater

A review of the water register (DWER 2025d) indicates that site is within the Upper Collie Water Management Area, which is underlain by the below fractured rock aquifers:

- Level 1 - Collie combined fractured rock west - Alluvium
- Level 2 - Collie combined fractured rock west - Calcrete
- Level 3 - Collie combined fractured rock west - Paleochannel
- Level 4 - Collie combined fractured rock west - Fractured rock.

The Collie area is within the proclaimed Collie Coal Basin which is made of the Premier and Cardiff sub-basins. Coal is mined from the Collie Coal Basin therefore needing dewatering for operations purposes. Surplus groundwater (mine dewater) is in high demand for cooling purposes of the local power industry (DWER 2025b).

Whilst groundwater sources beneath the site have not been classified in accordance with publicly available data, an assessment of estimated groundwater levels using the Australian Groundwater Explorer (BoM 2025a) and available literature on the formations suggest that if it were to be present the shallow groundwater within the superficial quaternary deposits would expected to be approximately 1 m below ground level (Mott MacDonald 2024). Due to the close proximity of the Bingham River and Pollard Brook, surficial groundwater could potentially be observed at the waterways level along the western and southern boundaries of the site.

2.7 Surface water

2.7.1 Wetlands

There are no mapped wetlands within the site (DBCA 2025).

2.7.2 Existing surface hydrology

The Bingham River and the Pollard Brook are the most prominent hydrological features within or in proximity to the site. The Bingham River and Pollard Brook are highly seasonal with the highest flows observed during the winter months when rainfall is the highest. During the summer months when the base flow is at its lowest, the system naturally ceases to flow forming a series of pools (DWER 2025a).The Bingham River flows southwards along the western boundary of the site before discharging into the Collie River approximately 3.2 km downstream of the site. The Pollard Brook is a tributary of the Bingham River and its waterway runs on a south westerly direction adjacently to the southern boundary of the site. Whilst the Bingham River and Pollard Brook waterways are observed along the western and southern boundaries, based on the surface runoff modelling undertaken for the site some minor portions of the site would be within major rainfall event (1% AEP) flood plain.

A flooding assessment was undertaken for the Bingham River and Pollard Brook using XPSWMM software to accurately define the hydrological and hydraulic regime for the broader catchment and identify the flooding extent for the major rainfall event for areas adjacent to the site. Based on the modelling objectives, the large catchment extent (shown in **Figure 4**) and expected runoff behaviour adjacent to the site, characterisation of the surface runoff is most appropriately represented by a combined 1D-2D hydraulic modelling approach. The flood modelling results which show the extent of inundation in a 1% AEP storm are shown in **Figure 5**.

Four minor manmade dams within the site are localised at the downstream end of the internal catchment. These intercept the localised flows along the main catchment streamline.

2.7.3 Surface water quality

The Collie River system, which includes the Bingham River, has experienced significant modification to its natural from due to agricultural activities (clearing of forest) and mining activities (prolonged mining dewatering). This has resulted in a dryland salinity, increased water salinity, increased peak volumes and reduced base flows across the upper catchment.

3 SURFACE WATER MANAGEMENT

The stormwater management approach for the site is to utilise water sensitive design (WSD) features that aim to maintain existing hydrological conditions. This will be achieved by intercepting surface runoff in localised roadside drains and directing runoff to sediment traps which provide temporary detention and remove mobilised sediments. These will be located at existing catchment low points prior to site discharge and will maintain catchment flows from and around impervious areas. The WSD features adopted for the site include:

- Roadside swales/v-drains
- Culvert crossings
- Sediment traps
- Erosion control measures

The stormwater management strategy/WSD features for the site are shown in **Figure 6**.

3.1.1 Roadside swales/v-drains

Swales/v-drains are proposed to intercept surface runoff generated from the internal road network (i.e. gravel roads and paved roads). These will provide inline detention as well as conveying surface runoff to the downstream treatment infrastructure. Management of surface runoff as close to the source as possible will assist protecting proposed infrastructure and the downstream environment. Swales are proposed to have a grade consistent with the natural topography in order to maintain the predevelopment catchment flows, to have a nominal depth of 300 mm and a maximum of 1:3 side slopes. Conveyance swales will be provided along the gravel roads within the Solar PV area and adjacently to the paved roads within the substations and BESS to assist managing scour/erosion and sediment immobilisation. Proposed location of roadside swales/v-drains are shown in **Figure 6**.

3.1.2 Culvert crossing

Culvert crossings will be strategically located either at the downstream end of a conveyance swales and at key road crossing so that they redirect runoff in a way that mimics the pre-development catchment areas as well as discharging into the treatment WSD features. The indicative location of the culvert crossings are shown in **Figure 6.**

3.1.3 Sediment traps

Sediment removal and treatment of the small (i.e. first 15 mm) rainfall event will be provided by the sediment traps located at the downstream end of the swales/v-drains. This will ensure that any sediment and contaminants transported by runoff are intercepted prior discharging into the downstream environments (i.e. Bingham River and Pollard Brook). Sediment traps may be vegetated however this will be varied to suit site constraints and requirements. If planted, vegetation within the treatment areas should be consistent with the local vegetation and drought tolerant species as these will be dry for extended periods of time.

Sediment traps will be designed to have a nominal depth of 300 mm, maximum side slopes of 1:3 and will be sized to cater the small rainfall event (i.e. first 15 mm of rainfall) from the road pavement/internal track areas. Excess runoff beyond the minor rainfall event will be allowed to discharge offsite into the downstream environment. Ultimate sizing and configuration should be determined as part of the detailed civil designs. Location of the treatment infrastructure is proposed to be outside the floodway/floodplain of the Bingham River as shown in **Figure 6**.

3.1.4 Erosion controls

Erosion control will be provided at the entry and exit to the sediment traps. This will take form of rock pitching or local materials shaped to slow down runoff and avoid erosion or scouring. Any erosion control infrastructure will be designed to be outside of the floodway/floodplain of the Bingham River.

3.2 Solar PV area drainage strategy

Whilst the majority of the development will occur around the Solar PV area, the hydrological regime is envisaged to remain unchanged as the portion of the rainfall falling over the solar panels will directly runoff onto the underlying undisturbed pasture. Solar panels will track the sun movement and even though this might change the direction of localised runoff depending on the solar panel position, runoff will still be discharged directly into the underlying soils and within the same catchment. On this basis, localised runoff dispersed across the Solar PV area (i.e. surface runoff will

not concentrate at a single location) will infiltrate or sheet flow over the land in the same direction as the existing hydrology. The Solar PV area would be designed to minimally disturb the underlying pasture and to maintain the existing topography that is shown in **Figure 2**. Given that the Solar PV area will mimic the existing hydrology no specific measures will be required to manage surface runoff from the Solar PV areas. Notwithstanding there are no catchment changes, any minor runoff and/or sediment that could be generated from these areas will be captured by the nearest downstream roadside v-drain and managed within the downstream sediment traps.

3.3 Substation and BESS drainage strategy

The substation and the BESS area will be designed to consider the existing topography of the site with some minor modifications for structural purposes, with the aim of maintaining the predevelopment hydrological regime. Additional runoff generated within the substation and BESS area as result of impervious areas would be intercepted via swales/v-drains around the boundary, conveyed and discharged into a downstream sediment trap where it will be treated prior to discharge to Bingham River. The proposed location of the swales/v-drains and sediment traps is shown in **Figure 6**.

4 WASTEWATER MANAGEMENT

4.1 Wastewater demand

During the construction stage, the site will be provided with temporary wastewater management facilities and any wastewater generated within the site will be taken offsite and disposed of at an appropriate wastewater facility. Once the site is under full operation, it is expected that daily operations can be undertaken remotely with minimal presence of personnel on site. Notwithstanding, it is anticipated that some level of wastewater will be generated during periodic maintenance. On this basis, some minor facilities which consist of a single toilet will be located within the maintenance shed. This is expected to generate less load than a typical single residential dwelling.

4.2 Onsite wastewater treatment plan and disposal

Whilst the wastewater generated within the site will be minimal, wastewater is still proposed to undergo secondary treatment in order to minimise any potential impact to the downstream environment. This will assist in the removal of biosolids and reducing the nutrient load of the effluent. To do so an alternative treatment unit (ATU) system (ATU approved by the Department of Health (DoH 2025)) will be located within/adjacent to the Maintenance Shed. Treated effluent is proposed to be disposed adjacent to the southern laydown area by the use of flatbed leach drains or similar. The proposed location is selected to provide appropriate separation to downstream hydrological features in accordance with the GSP (DPLH 2019b).

4.3 Site and Soil Evaluation

A review of the proposed effluent disposal area and treatment approach has been undertaken in accordance to the AS/NZS 1547 and the GSP (DPLH 2019a) to confirm that the risk to the receiving environment is appropriately mitigated. The analysis has been based on publicly available data (see **Section 2**) and is detailed in **Table 3**.

It is anticipated that at the detailed design stage, localised soil conditions (type and permeability) and clearance to localised groundwater at the proposed location will be assessed to corroborate the assumptions made in this report regarding on-site conditions.

Table 3: On-site wastewater disposal risk assessment

Site/system feature	*Less constrained*	*More constrained*	*Proposed approach*	*Risk category*	*Response to risk category*
Microbial quality of effluent	Effluent quality consistently producing ≤ 10 cfu/100 mL E. coli (secondary treated effluent with disinfection)	Effluent quality consistently producing ≥ 106 cfu/100 mL E. coli (e.g, primary treated effluent)	Secondary treatment will be adopted to ensure that the effluent quality achieves 10 cfu/100 mL of E. coli.	Low	No further actions will be required
Soil-terrain	Category 1 to 3 soils	Category 4 to 6 soils	The effluent disposal area is within the G2 soil which exhibits various contents of sand and silts. Based on the possibility of the fine material content and presence of sand and gravel, the shallow soils can be categorised as 'Sandy loam' (category 2). Based on a conservative permeability of 1 m/day, the soil can be classified as 'loam' (category 3).	Moderate	Soil permeability testing should be undertaken at the detailed design stage. The lowest recorded permeability should then be adopted for adequate sizing of the on-site effluent disposal area.
Slope	0 – 10% (subsurface effluent application)	> 10% (surface effluent application), > 30% subsurface effluent application	The proposed location for the effluent disposal area gently slopes towards the southwest with an approximate slope of 6%.	Low	No further action required.
Flood potential	Outside the maximum 10% AEP top water level	Located within low-lying or prone to flooding in a 10% AEP rainfall event	Effluent disposal area is proposed to be located approximately 135 m uphill from 1% AEP floodplain of the Bingham River.	Low	No further action required
Groundwater Separation within a sewage sensitive area	MGL is lower than 1.5 m below the natural surface level	MGL is within 1.5 m of the natural surface level	Based on the regional geology, it is expected that saturated soils within the G2 soil type may be present 1 m below the ground level. Given that a minimum clearance is not achieved, additional fill may need to be implemented within the effluent disposal area to achieve a minimum separation to the underlying low permeability soils of 1.5 m.	Moderate	As part of detailed design of the effluent disposal area, groundwater monitoring should be conducted to confirm seasonal peak levels. A minimum separation of 1.5 m should be provided which can be achieved via imported fill if required.
Application method	Subsurface application of effluent	Surface/above ground application of effluent.	Treated wastewater will be applied via subsurface application using flatbed leach drains or similar.	Low to moderate	Flatbed drains will provide sufficient clearance from groundwater when combined within minor imported fill if required.

The on-site wastewater disposal risk analysis detailed in **Table 3** confirms that there are no major constraints or physical characteristics that would prevent on-site sewage disposal being adopted. It is anticipated that soil type, permeability testing and groundwater monitoring will be undertaken to inform adequate sizing and design of the effluent disposal area. The location of the treated effluent disposal system is shown on **Figure 6**.

5 MANAGEMENT, MONITORING AND MAINTENANCE ACTIONS

The intent of the monitoring and maintenance program is to promote the long-term functioning of the water management features which include the roadside swales/v-drains, sediment traps, the ATU and effluent disposal area. The overall objectives will be achieved through the implementation

of number of management actions that will be carried out at regular intervals for the lifespan of the project. The key areas that will be addressed through the implementation of this management plan includes:

- Gross pollutants
- Sediments
- Erosion
- Nutrients (from the wastewater treatment system).

The actions and the manner in which they should be implemented are detailed in **Table 4**.

Table 4: Management actions

Actions	***Timing***	***Location***	***Responsibility***	***Contingency actions***
Inspect for gross pollutants	Minimum three-monthly	Entire development	Proponent/maintenance contractor	Remove and dispose at appropriate disposal facility
Inspect for sediments	Minimum three-monthly or after a significant rainfall event	Roadside swales and sediment traps	Proponent/maintenance contractor	Remove accumulated sediments at the base of the drainage features as required to enable correct functioning.
Inspect for erosion	Minimum three-monthly or after a significant rainfall event	Roadside swales, sediment traps and respective outlets	Proponent/maintenance contractor	If erosion is observed, maintenance should be undertaken to retrofit and repair erosion control measures (e.g. repair rock pitching)
Maintenance of ATUs	As recommended by manufactured	ATU within/adjacent the maintenance shed	Proponent/maintenance contractor	Undertake any maintenance requirements to enable adequate wastewater treatment
Maintenance of pumping systems and flatbed leach drains	Regular visual inspection during maintenance operation across the site and as recommended by manufacturer	ATU pumping system and effluent disposal areas	Proponent/maintenance contractor	Repair or replace as deemed necessary

6 SUMMARY AND CLOSING

This WMP has been developed to demonstrate how water will be managed across the site by adopting WSD principles which maintain the existing hydrological regime and avoid impact to the downstream environment. The overall water management approach plan for the site includes:

- Hydrological regime around the Solar PV area (largest part of the development) will remain unchanged as any rainfall falling over the solar panels will flow directly into the underlying soils therefore maintaining the existing hydrological regime.
- Additional stormwater generated as a result of the land change (i.e. access tracks, paved internal roads and impervious areas within the substation area) will be intercepted by WSD features that will follow the natural topography whilst maintaining the existing hydrological regime.
- The WSD features (i.e. roadside swales/v-drains and sediment traps) will be utilised to safely convey excess runoff as well as providing treatment prior to discharging into the downstream environment.
- Groundwater management across the site will be passive due to the lack of permanent groundwater.

- Wastewater generated within the site during maintenance operations will be treated using a secondary treatment ATU and infiltrated by the use of flatbed leach drains. The effluent disposal area has been selected to comply with the GSP and to ensure that the downstream environment is not impacted.

We trust the information provided in this WMP letter provides sufficient guidance as to how the development of the site will manage water resources whilst maintaining the site hydrology.

Yours sincerely
Emerge Associates



Dave Coremans
DIRECTOR, PRINCIPAL ENVIRONMENTAL CONSULTANT – HYDROLOGY

Encl: Figure 1 – Site Location Plan
Figure 2 – Topographical Contours
Figure 3 – Geological Mapping
Figure 4 – Hydrological Features and Upstream Catchment Areas
Figure 5 – Major Rainfall Event (1% AEP) Flooding Extent
Figure 6 – Water Management Plan

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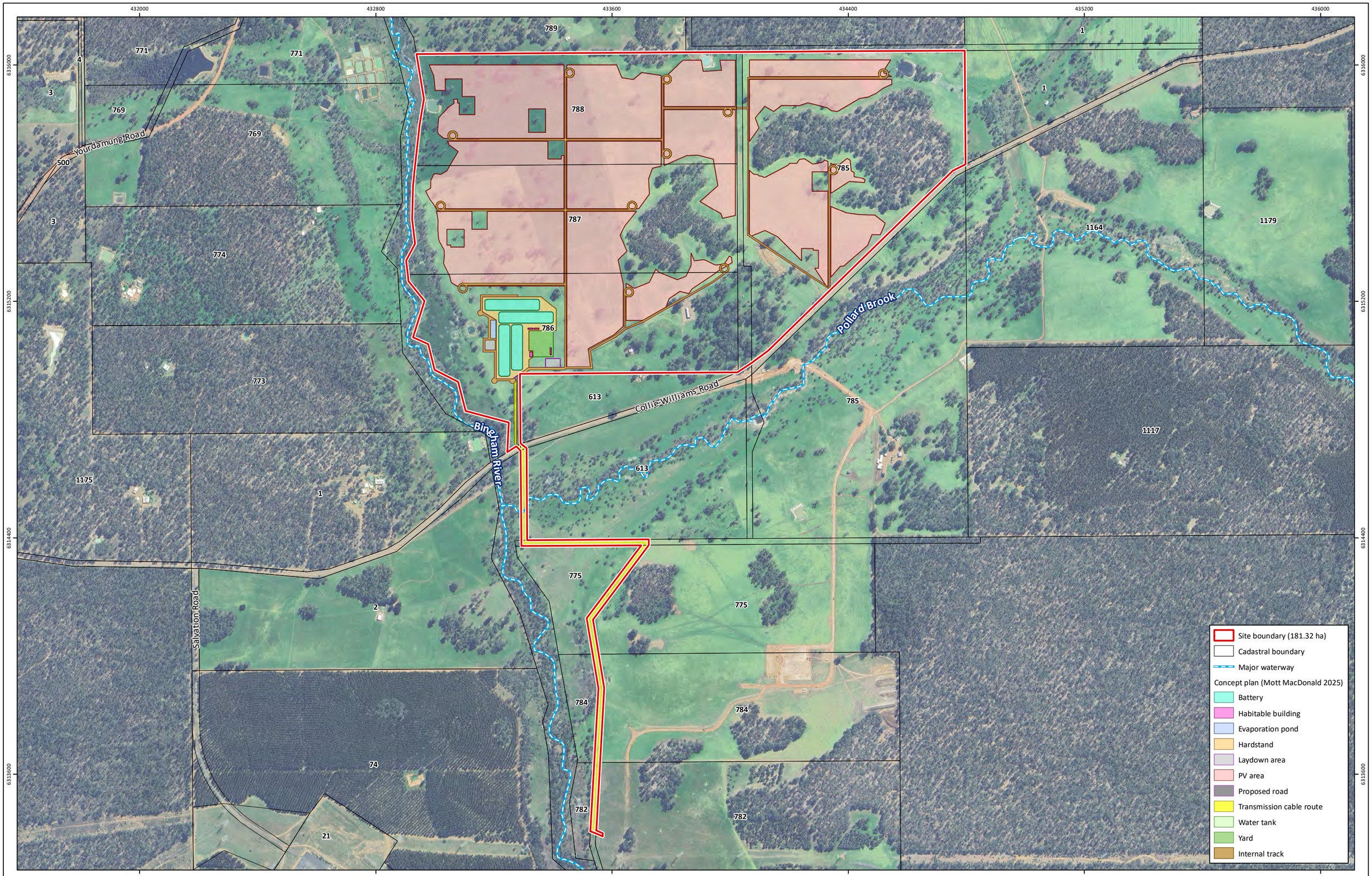


Figure 1: Site Location Plan

Project: Water Management Plan
Collie Palmer BESS and Solar PV

Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F54

Drawn:	CTH
Date:	07/05/2025
Checked:	FMH
Approved:	DPC
Date:	09/05/2025

N

0 200 400
Metres

Scale: 1:11,500@A3

GDA2020 MGA Zone 50

emerge ASSOCIATES

While Emerge Associates makes every attempt to ensure the accuracy and completeness of data, Emerge accepts no responsibility for externally sourced data used
©Landgate (2025).

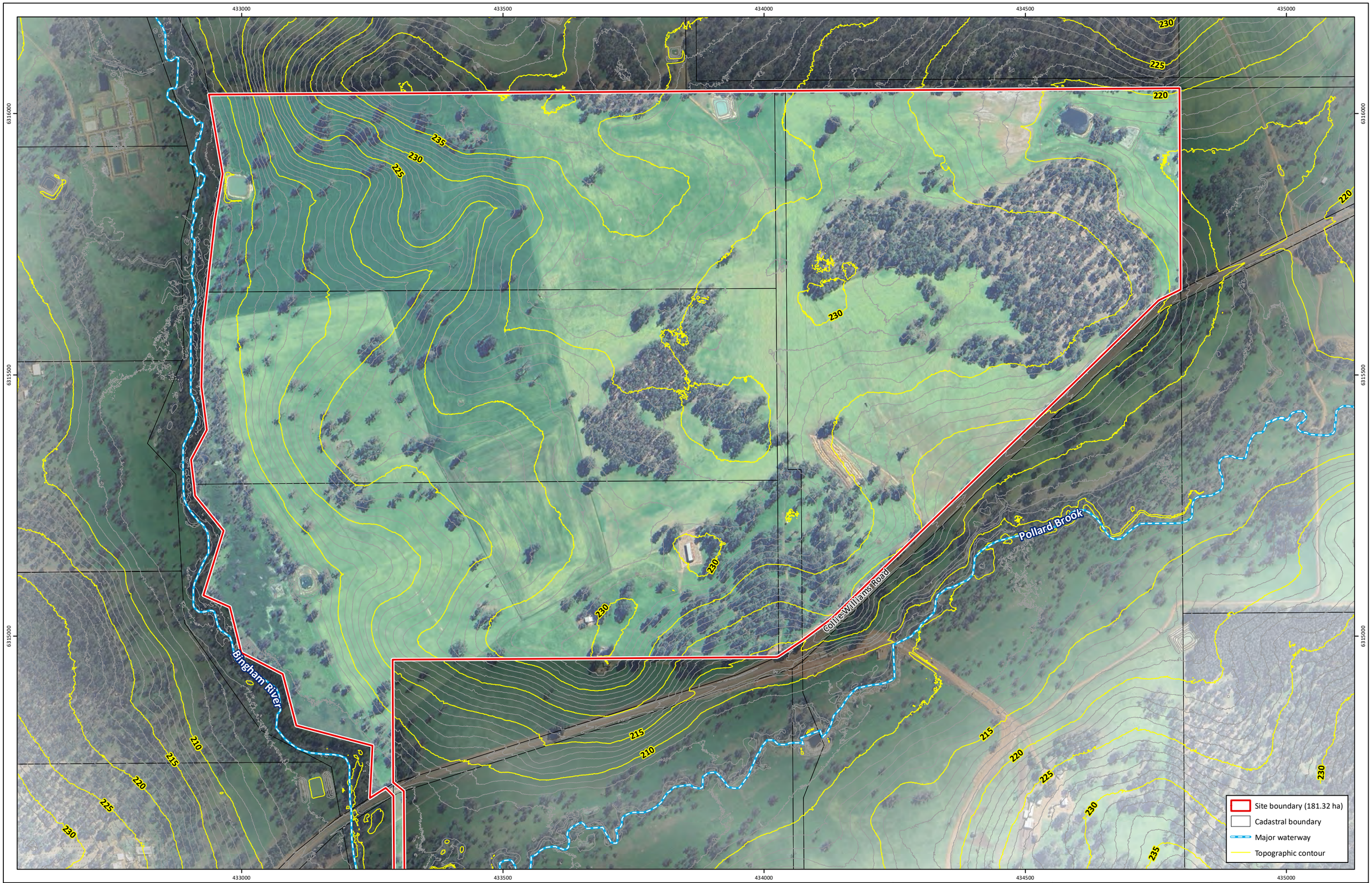


Figure 2: **Topographic Contours**

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F55
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

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Scale: 1:6,500@A3
GDA2020 MGA Zone 50

emerge ASSOCIATES

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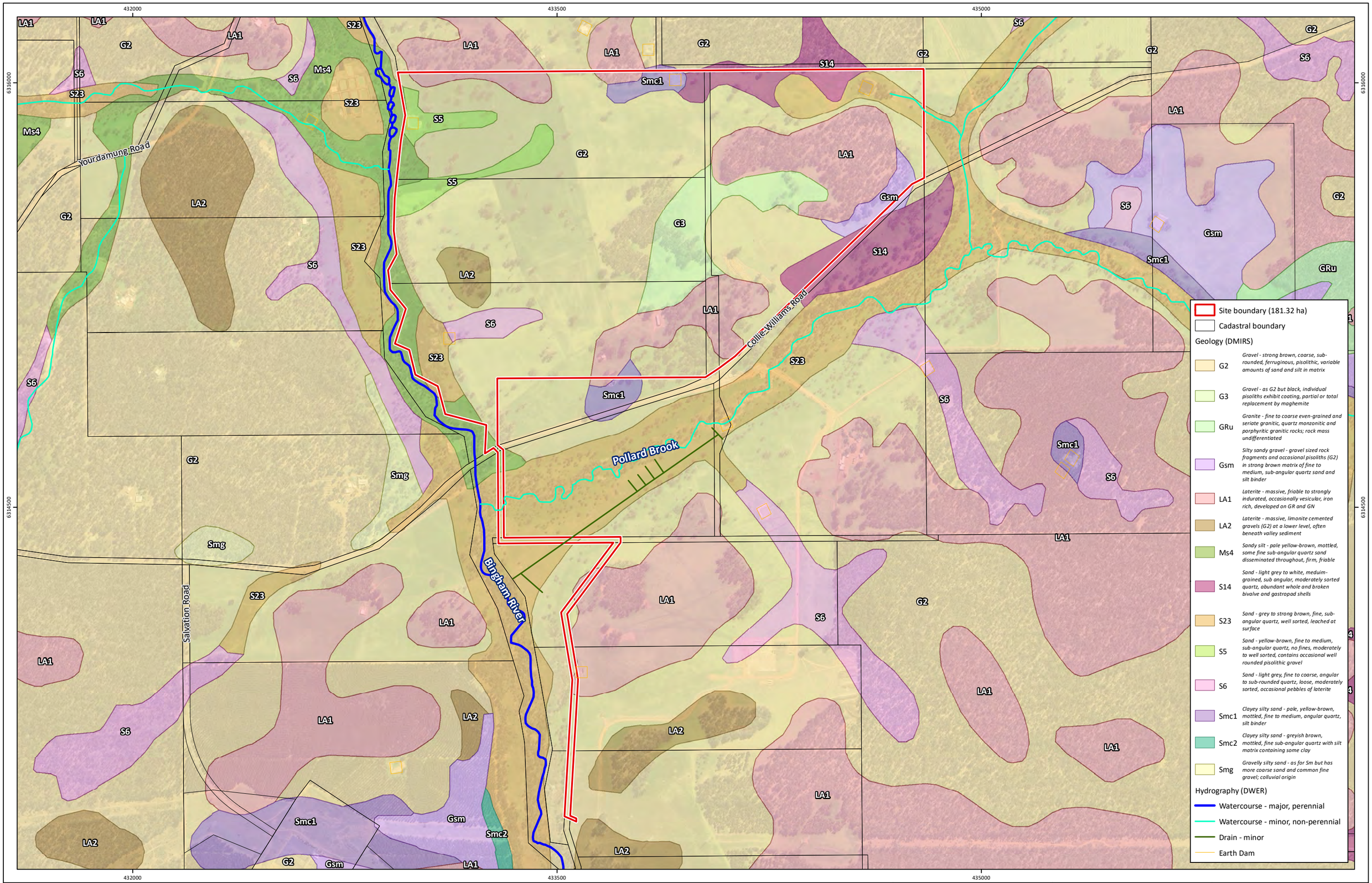


Figure 3: Geological Mapping

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F56

Drawn:	CTH
Date:	07/05/2025
Checked:	FMH
Approved:	DPC
Date:	09/05/2025

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Scale: 1:12,000@A3
GDA2020 MGA Zone 50

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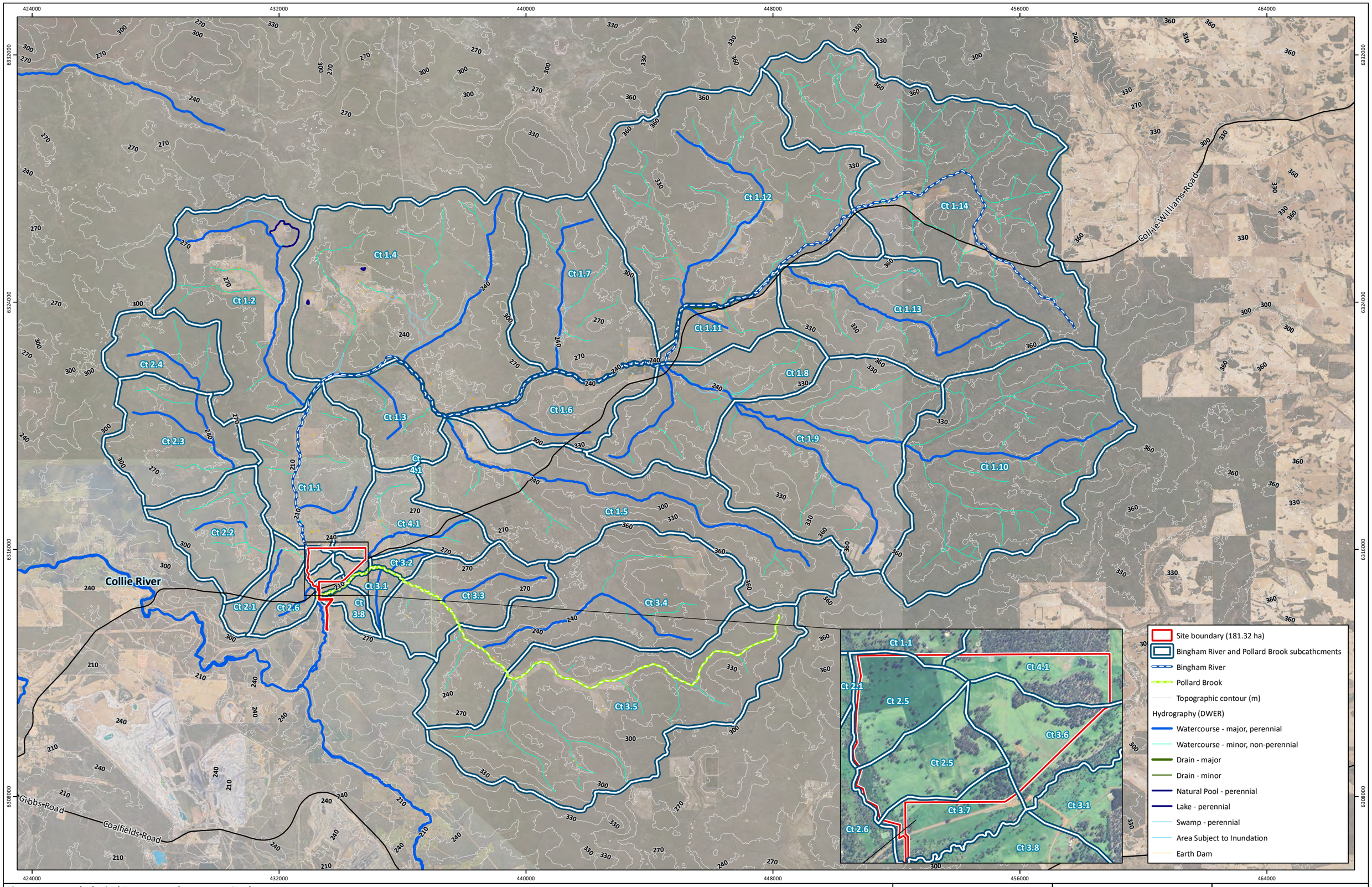


Figure 4: **Hydrological Features and Upstream Catchment Areas**

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F57
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

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GDA2020 MGA Zone 50

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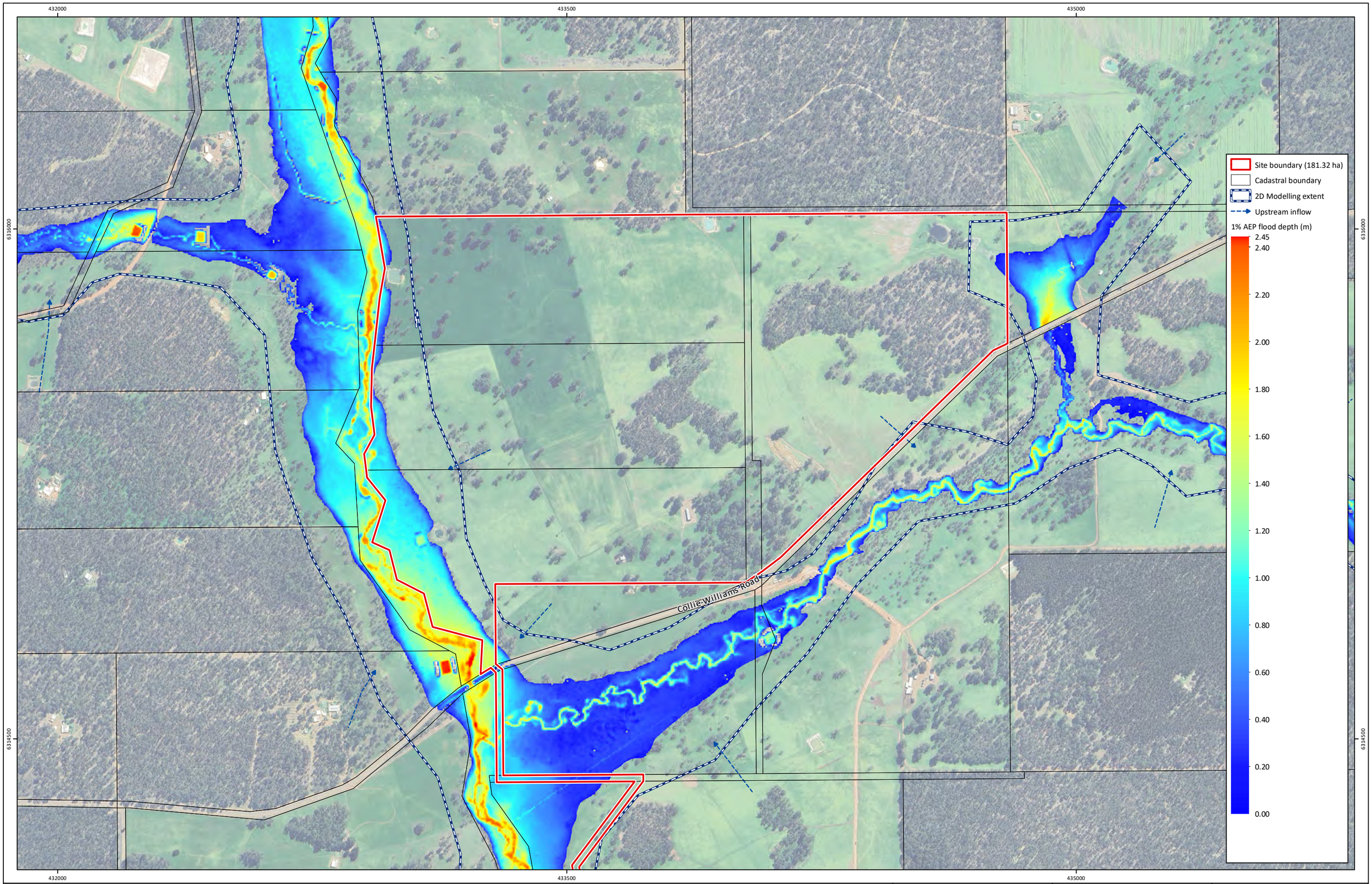


Figure 5: Major Rainfall Event (1% AEP) Flooding Extent

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F58
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

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Scale: 1:10,000@A3
GDA2020 MGA Zone 50

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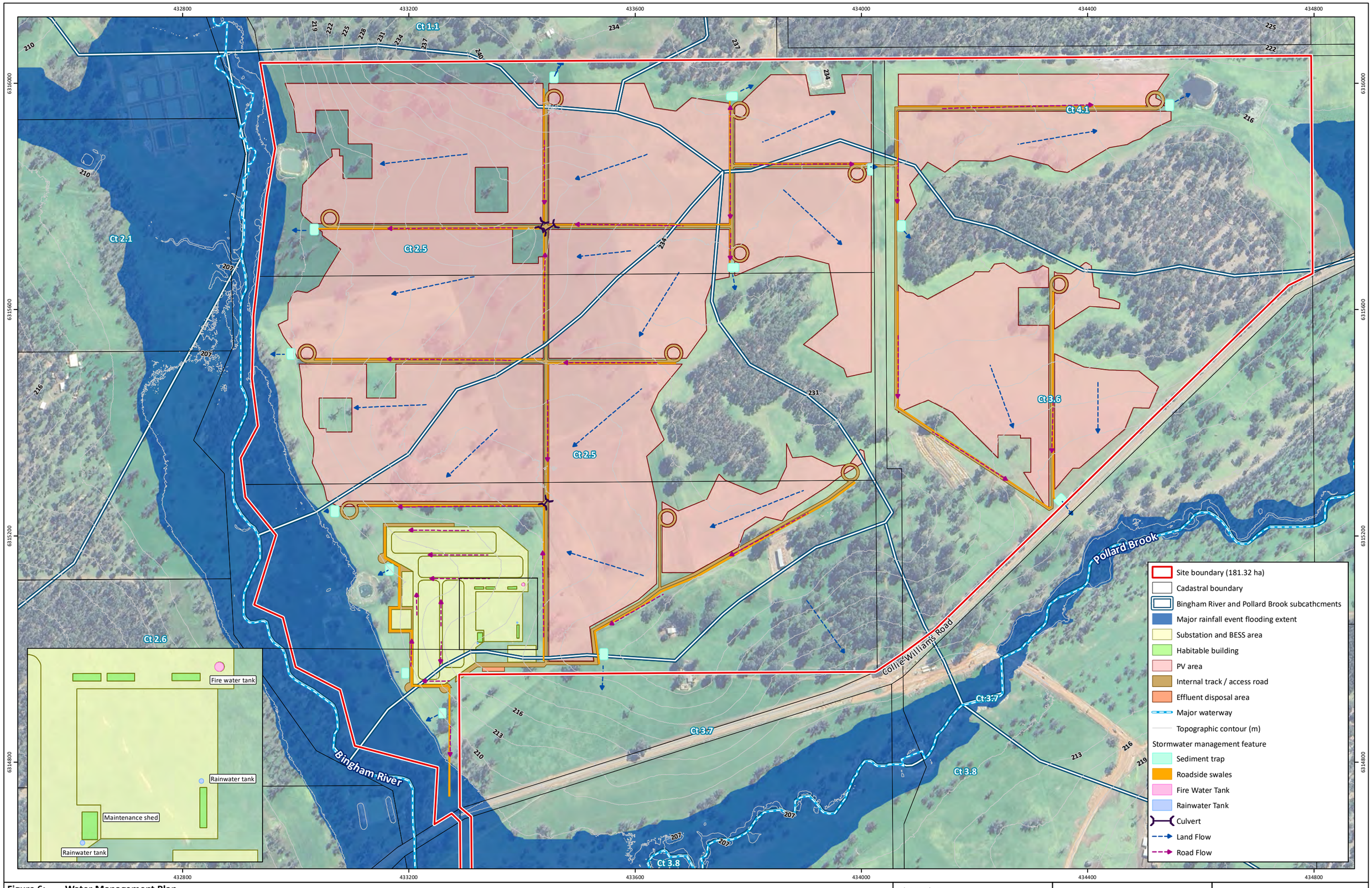


Figure 6: Water Management Plan

Project: Water Management Plan
Collie Palmer BESS and Solar PV
Client: Enpowered Pty Ltd, a subsidiary of Hesperia Pty Ltd

Plan Number:
EP24-016(06)--F59
Drawn: CTH
Date: 07/05/2025
Checked: FMH
Approved: DPC
Date: 09/05/2025

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Metres
Scale: 1:2,000@A3
GDA2020 MGA Zone 50

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APPENDIX J – ABORIGINAL HERITAGE DUE DILIGENCE



REPORT OF AN ABORIGINAL AND HERITAGE DUE DILIGENCE ASSESSMENT FOR THE COLLIE BESS AND SOLAR PV PROJECT, WESTERN AUSTRALIA

MAY 2025

For Enpowered

archae-aus

1/107 Stirling Highway North Fremantle Western Australia 6159 PO Box 742 Fremantle Western Australia 6959 ABN 92 074 791 156
Telephone +61 8 9433 1127 Email office@archae-aus.com.au www.archae-aus.com.au

DOCUMENT INFORMATION

19 May 2025

Version: Final 2.0

Prepared by Archae-aus Pty Ltd for Enpowered

Table 1. Archae-aus Document Control				
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Final 1.0	9 May 2025	Tessa Woods Phoebe Oliver	Lucy Sinclair	9 May 2025
Final 2.0	12 May 2025	Tessa Woods Phoebe Oliver	Lucy Sinclair Tessa Woods	12 May 2025
Final 3.0	19 May 2025	Tessa Woods Phoebe Oliver	Lucy Sinclair Tessa Woods	19 May 2025

Table 2. Distribution of Copies			
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Final 1.0	9 May 2025	PDF – Final	Farida Farrag – Urbis Elham Younus - Enpowered
Final 2.0	12 May 2025	PDF - Final	Farida Farrag – Urbis Elham Younus - Enpowered
Final 3.0	19 May 2025	PDF - Final	Farida Farrag – Urbis Elham Younus - Enpowered

Archae-aus Project Code: EP25CF1a

CITATION: Archae-aus (2025) Report of an Aboriginal Heritage Due Diligence Assessment for the Collie BESS and Solar PV Project, Western Australia. Prepared for Enpowered by Archae-aus Pty Ltd, North Fremantle, May 2025.

Archae-aus Pty Ltd

1/107 Stirling Highway
North Fremantle WA 6159
PO BOX 742
FREMANTLE WA 6959

T: 08 9433 1127
E: office@archae-aus.com.au

http://www.archae-aus.com.au

Project Manager: Lucy Sinclair
Email: lucys@archae-aus.com.au

Cover images:
Collie-Williams Rd, Palmer, WA, view south to Pollards Brook (source: Google Maps Street View)

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Warning

Please be aware that this report may contain images of deceased persons and the use of their names, which in some Aboriginal communities may cause sadness, distress, or offence.

Disclaimer

The authors are not accountable for omissions and inconsistencies that may result from information which may come to light in the future but was not forthcoming at the time of this research.

Acknowledgements

Archae-aus wish to pay respects to Elders past and present and extend those respects to all Aboriginal people, especially the Gnaala Karla Booja people who may view this report.

Report Format

The front end of the report includes the Executive Summary including a summary of the results, limitations and recommendations for the project.

Section One introduces the Project Background, Scope of Services, an overview of the Study Area and the due diligence methodology and an overview of the relevant legislation. Section Two provides the ethnographic and archaeological background of the Study Area and surrounding region. Section Three details the results of the due diligence assessment, and Section Four outlines the Advice and Recommendations with a discussion of the results. The Appendices includes further detailed relevant legislation, previous report reliability and relevance criteria, ACHIS register searches, land use risk categories, Aboriginal heritage risk matrix, and coordinates for the Study Area and Zones of ACH Potential.

Spatial Information

All spatial information contained in this report uses the Geocentric Datum of Australia (GDA94), Zone 50, unless otherwise specified. All information obtained from Enpowered is assumed to be accurate to two decimal places.

Authorship

This report was written by Tessa Woods [BA (Hons) Archaeology, *UWA*] and Phoebe Oliver [BA (Hons) Anthropology and Sociology, *UWA*], with editorial assistance from Lucy Sinclair [BA (Hons) Archaeology, *UWA*].

The GIS data and maps were drafted by Tessa Woods.

Terms & Abbreviations

Term / Abbreviation	Meaning / Interpretation
Aboriginal archaeological place or assemblage	A place (or group of physical sites) in which evidence of past activity by Aboriginal people is preserved (either prehistoric or historic or contemporary), and which has been, or may be, investigated using the discipline of archaeology and represents a part of the archaeological record.
Aboriginal Site	This term is used for Aboriginal heritage sites to which the AHA applies by the operation of Section 5. An Aboriginal site is defined by section 5 of the Act to mean: a) any place of importance where persons of Aboriginal descent have left any object, or have used, in connection with the traditional cultural life of the Aboriginal people, past or present; b) any sacred, ritual or ceremonial site, which is of importance and special significance to persons of Aboriginal descent; c) any place which is, or was, associated with Aboriginal people and which is of historical, anthropological, archaeological or ethnographical importance to the State; and d) any place where objects to which the Act applies are stored. How to report Aboriginal Cultural Heritage: https://www.wa.gov.au/government/document-collections/achknowledge-portal#how-to-report-potential-aboriginal-heritage
ACH	Aboriginal Cultural Heritage
ACHA	*The Aboriginal Cultural Heritage Act 2021*
ACHC	Aboriginal Cultural Heritage Council which previously superseded the ACMC, now superseded by the Aboriginal Cultural Heritage Committee (Committee)
ACMC	The former Aboriginal Cultural Material Committee (see ACHC)
ACHknowledge Portal	The portal is used to request advice, lodge and track applications and report information concerning Aboriginal cultural heritage.
Activity Area	Proposed work area / development envelope / Study Area
AHA	The *Aboriginal Heritage Act 1972*
ACHIS	The Aboriginal Cultural Heritage Inquiry System which holds information about: • Registered Aboriginal Sites (ACH Register Layer) • Lodged places (ACH Lodged Layer) • Historic records (ACH Historic Layer)
ACHMP	Aboriginal Cultural Heritage Management Plan (no longer required)
AHIS	The DPLH Aboriginal Heritage Inquiry System, an online and publicly accessible copy of the Register of Aboriginal sites, superseded by the ACHIS.
Archaeological site	Is a place (or group of physical sites) in which evidence of human past activity is preserved (either prehistoric or historic or contemporary), and which has been, or may be, investigated using the discipline of archaeology and represents a part of the archaeological record. This term is used to refer to a place regardless of whether it has been assessed under section 5 of the AHA.
Artefact	Any object (article, building, container, device, dwelling, ornament, pottery, tool, weapon, work of art etc.) made, affected, used, or modified in some way by humans.
Assessment	Professional opinion based on information that was forthcoming at the time of consideration
ATSIHP	*Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (the ATSIHP Act).
CHMP	Cultural Heritage Management Plan
Committee	Aboriginal Cultural Heritage Committee (see ACHC)
Cultural material / archaeological material	Any object (article, building, container, device, dwelling, ornament, pottery, tool, weapon, work of art etc.) made, affected, used, or modified in some way by humans.
DAA	Abbreviation for Department of Aboriginal Affairs, now the Department of Planning Lands and Heritage (the Department)

Term / Abbreviation	Meaning / Interpretation
The Department	See DPLH
DPLH	Department of Planning Lands and Heritage (the Department)
Ethnographic Site	A place that is significant to an Aboriginal group because of its stories and connections. These places have intangible heritage values and are linked to traditional custom and law.
FPIC	Free Prior and Informed Consent
GKB	Gnaala Karla Booja ILUA (WI2015/005) under the South West Native Title Settlement (Determination Reference: WCD2021/010).
GKBAC	Gnaala Karla Booja Aboriginal Corporation
Heritage survey	Survey and inspection undertaken in order to investigate and document the archaeological record of a particular area
HISF	Heritage Information Submission Form now superseded by the ACHknoweledge portal submission form and Aboriginal Heritage Enquiry Form
ICH	Indigenous Cultural Heritage
ILUA	Indigenous Land Use Agreement
Native Title	Recognition of the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people
NSHA	Noongar Standard Heritage Agreement https://www.wa.gov.au/government/document-collections/noongar-standard-heritage-agreement-south-west-native-title-settlement
NTA	*Native Title Act 1993*
Object	An artefact - any object made, affected, used, or modified in some way by humans. Objects may be protected under the AHA if they meet the section 5 criteria for an Aboriginal site.
Section 18 (s18)	The section of the *Aboriginal Heritage Act 1972* that details the process for permission to disturb the land on which a site is located.
Section 18 (s18) Approval	A letter from the Minister of Aboriginal Affairs providing consent for the disturbance of land on which a site is located.
Section 39(2) Assessment	Process of the ACMC (now the ACHC / Committee) assessing a reported site's significance and interest.
Study Area	Entire area subject to this constraints analysis, including the proposed Activity Area. Also known as the Investigation Area.
SWALSC	South West Aboriginal Land and Sea Council

Executive Summary

Enpowered Pty Ltd (Enpowered), a subsidiary of Hesperia, engaged Archae-aus to complete an Aboriginal heritage desktop review for the proposed Solar and BESS (Battery Energy Storage Site) (the Study Area) in Palmer near Collie, Western Australia. The Study Area lies within the Gnaala Karla Booja (GKB) Indigenous Land Use Area (WI2015/005), under the broader South West Native Title Settlement (Determination Reference: WCD2021/010).

Enpowered Study Area covers approximately 345 ha of land within 2 km of key infrastructure on the Western Power transmission network near Collie. The site is capable of hosting a 200MW battery plus up to 66MW solar. The site's proximity to a key node in the transmission network and its current ample capacity for new connections make the project highly valuable for renewable energy targets.

The Study Area comprises areas previously disturbed by agricultural land use, predominantly stock grazing, with the transmission line intersecting a smaller area previously used for forestry plantations. Despite the overall high level of past disturbances, some areas contain pockets of remnant native vegetation, water sources and tributaries of the Collie River system, which have been minimally disturbed.

This document provides a desktop review of the known Aboriginal cultural heritage within the Study Area (Map 4), including any places or objects that may have overlapping Aboriginal Cultural Heritage (ACH) value(s). This review also identifies potential heritage constraints within the Study Area, under the *Aboriginal Heritage Act 1972* (AHA).

The desktop review has produced a preliminary assessment of the known heritage and potential risks and constraints associated with the Project. Based on this initial review and understanding that the development is a major project involving moderate to major ground disturbance areas, Archae-aus advises and strongly recommends that archaeological and ethnographic surveys and engagement with the Gnaala Karla Booja Aboriginal Corporation (GKBAC) will be required, which typically follows the completion of a Due Diligence Assessment.

Archae-aus advises Enpowered to establish a relationship and dialogue with the appropriate GKBAC representatives early on in the project to identify any unrecorded Aboriginal Cultural Heritage (ACH) and any key social, economic, and environmental concerns and opportunities that might be relevant to the project. In addition, consulting with GKB Traditional Owners and consultants at the start of the project can facilitate a process that follows the principle of Free, Prior and Informed Consent (FPIC) (see Legislative Context – UN Declaration on the Rights of Indigenous People). It is also recommended that Enpowered sign a Gnaala Karla Booja Noongar Standard Heritage Agreement[1] early in the process, to formalise the relationship with GKBAC and to facilitate future heritage surveys.

[1] https://www.wa.gov.au/government/document-collections/noongar-standard-heritage-agreement-south-west-native-title-settlement

Desktop Review

Desktop research was undertaken for this due diligence assessment to identify:

- Any previous Aboriginal cultural heritage assessments within the Study Area and immediate surrounds.
- Any previously recorded Aboriginal cultural heritage places within and adjacent to the Study Area.
- Any potential impacts to known ACH, at a preliminary desktop level.
- Key next steps in the cultural heritage management process.
- The appropriate Aboriginal organisation(s) that should be consulted.

To inform this research, searches were carried out using the Department of Planning, Lands and Heritage's (DPLH) Aboriginal Cultural Heritage Inquiry System (ACHIS). A search of other sources of information was also conducted, including the Archae-aus library and reports.

The search of the ACHIS concentrated not only on the Study Area but also included a search of the broader surrounding area (within 5 km). While development within the Study Area is unlikely to directly affect these peripheral sites, the understanding of the types and relationships between Aboriginal cultural heritage places in the wider cultural landscape helps to inform the heritage risk assessment for unsurveyed areas within similar environments.

Results

The results of the desktop review of the Solar PV and BESS Study Area indicate that:

- One (1) known ACH Registered Site partially intersects the Study Area: *Collie River Waugal* (ID 16713).
- No Lodged or Historic ACH places intersect the Study Area.
- Based on the assessment of the Study Area landscape and the presence of Aboriginal registered site *Collie River Waugal* (ID 16713), there is high potential for Aboriginal Cultural Heritage within the Study Area (See Section Three – Due Diligence Assessment).
- In addition, due to the lack of previous heritage assessments and understanding of the wider historical, archaeological and ethnographic context of the region, there is a high potential for encountering ACH within the Study Area which needs to be mitigated through on the ground archaeological surveys and ethnographic consultation.
- The proposed land use activities could be categorised as significant and/or major disturbance according to the Aboriginal Heritage Due Diligence Guidelines (2013, Version 3.0). The potential for encountering Aboriginal cultural heritage material within the Study Area is assessed as low in areas of previous major disturbance, through to medium and high within minimally altered environments (i.e. remnant bushland areas) and due to the intersection of ACH Registered Site *Collie River Waugal* (ID 16713).
- Eight (8) previous Aboriginal cultural heritage surveys intersect the Study Area, which are mostly broad-scale ethnographic surveys that are not specific to the Study Area, with a single archaeological survey intersecting a small portion of the Study Area. Accordingly, these previous heritage assessments cannot be used for compliance purposes for this Project (See Section Two – Cultural Heritage Background).

- While agricultural land use activities have disturbed large areas of the Study Area, in the experience of Archae-aus archaeologists, Aboriginal Cultural Heritage (ACH) has occasionally been found in paddocks in similar disturbed contexts elsewhere in Western Australia and Australia.
- An archaeological and ethnographic heritage survey is required for all areas identified as having high and moderate ACH potential. In addition, it is recommended that some areas of low potential, both within and outside the proposed disturbance/infrastructure footprint, be sample surveyed at the discretion of the field archaeologist and GKB Traditional Owners.

Next Steps in the Heritage Process

The Aboriginal heritage desktop review is complete for the proposed Solar PV and BESS Study Area, as per the extent defined in Map 1. Figure 1 outlines the cultural heritage management process that is typically followed for projects in the South West region; however, noting that some steps may not be necessary, such as section 16 approval, cultural heritage management and/or interpretation plans will be dependent on the results of the survey and consultation with GKBAC and GKB Traditional Owners.

Figure 1. Cultural Heritage Management Process



Summary of Recommendations

Based on the results of the desktop assessment, Archae-aus recommend that:

Aboriginal cultural heritage

1. An archaeological and ethnographic heritage survey is required for all zones of high and moderate ACH potential within the Collie BESS and Solar PV Study Area proposed to be impacted by the proposed works.
2. The survey program should allow scope for an inspection of areas of low ACH potential, both within and adjacent to the proposed disturbance footprint, at the discretion of the archaeologist and as may be requested by GKB Traditional Owners present during the survey.
3. The survey design should follow archaeological and ethnographic best practice guidelines and be developed by the archaeologist and anthropologist before the survey and with additional input from the GKB Traditional Owners at the beginning of the survey.
4. Any culturally sensitive landforms not visible on the aerial imagery that may be identified during the survey within or adjacent to the disturbance footprint, such as rocky outcrops, ochre outcrops and water sources, should be examined regardless of whether or not they are located within areas of medium to high ACH potential.
5. If not done so already, Enpowered should sign a Gnaala Karla Booja Noongar Standard Heritage Agreement (NSHA)[2], currently enacted through the South West Land and Sea Council (SWALSC).
6. Following the signing of the NSHA, Enpowered should submit an Activity Notice[3] to Gnaala Karla Booja Aboriginal Corporation, so that the appropriate GKB Knowledge Holders and cultural heritage consultants can be nominated for the heritage surveys.
7. The heritage survey will identify the next steps required under the AHA process, based on an updated heritage risk assessment, including whether a Cultural Heritage Management Plan is required.

[2] https://www.noongar.org.au/noongar-standard-heritage-agreements
[3] https://www.noongar.org.au/nsha-activity-notices

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SECTION ONE – INTRODUCTION

Project Background

Enpowered engaged Archae-aus to carry out a desktop assessment for developing a large-scale solar farm in Palmer, approximately 15 km northeast of Collie. Enpowered's Study Area covers approximately 345 ha of land within 2 km of key infrastructure on the Western Power transmission network near Collie, capable of hosting a 200MW battery plus up to 66MW solar. The study area assessed in this due diligence covers a broader area to allow for design and infrastructure location change. The site's proximity to a key node in the transmission network and its current ample capacity for new connections make the project highly valuable for renewable energy targets. The land is mostly cleared and is currently being used for sheep farming, intending that sheep will continue to be run on the farm when the solar farm is operational. The Study Area lies within the Gnaala Karla Booja (GKB) Indigenous Land Use Area (WI2015/005), under the broader South West Native Title Settlement (Determination Reference: WCD2021/010).

This document provides a desktop review of the known Aboriginal heritage within the Study Area (Map 1), including any places or objects that may have overlapping Aboriginal Cultural Heritage (ACH) value(s) and/or historical heritage value(s). In doing so, this review also identifies potential heritage constraints within the Study Area, under the *Aboriginal Heritage Act 1972* (AHA) and the *Heritage Act 2018.*

Scope of Works

Empowered has engaged Archae-aus to carry out the following Scope of Services in relation to an Aboriginal and historical heritage desktop review:

1. To identify potential heritage values within and around the Study Area.
2. To outline the next steps regarding cultural heritage approvals for the Project and provision of preliminary management and risk mitigation measures, and recommendations for the design of the Project where significant risks or constraints are identified that could be avoided or minimised through the configuration of Project infrastructure.

To fulfil the above Scope, Archae-aus carried out the following.

- Desktop research and consideration of the results from the relevant registers and databases.
- Consideration of the coverage and reliability of previous surveys and associated reports.
- Identification and outline of engagement requirements and timeframes.
- Assessment of any potential impacts the proposed Activity will have on any Aboriginal Cultural Heritage that may be protected under the *Aboriginal Heritage Act 1972.*
- Identification of measures to avoid, mitigate, or manage impacts to Aboriginal Cultural Heritage in accordance with the *Aboriginal Heritage Act 1972* and best practice standards (see Legislation and Guiding Principles section).

Study Area

The Collie Solar and BESS Study Area is located in Palmer, approximately 13 km northeast of the town of Collie and immediately east of the Harris River State Forest. It covers an area of approximately 3.7 km² and comprises predominantly agricultural land with some parcels of native vegetation and tributaries of the Collie River system. The current project design covers only part of the assessed Study Area. A broader area has been assessed for the purpose of this DDA, which is to allow for design and infrastructure location change. In addition, this provides further ACH context for the assessment of the presence of and potential impact on ACH within the Study Area.

Limitations

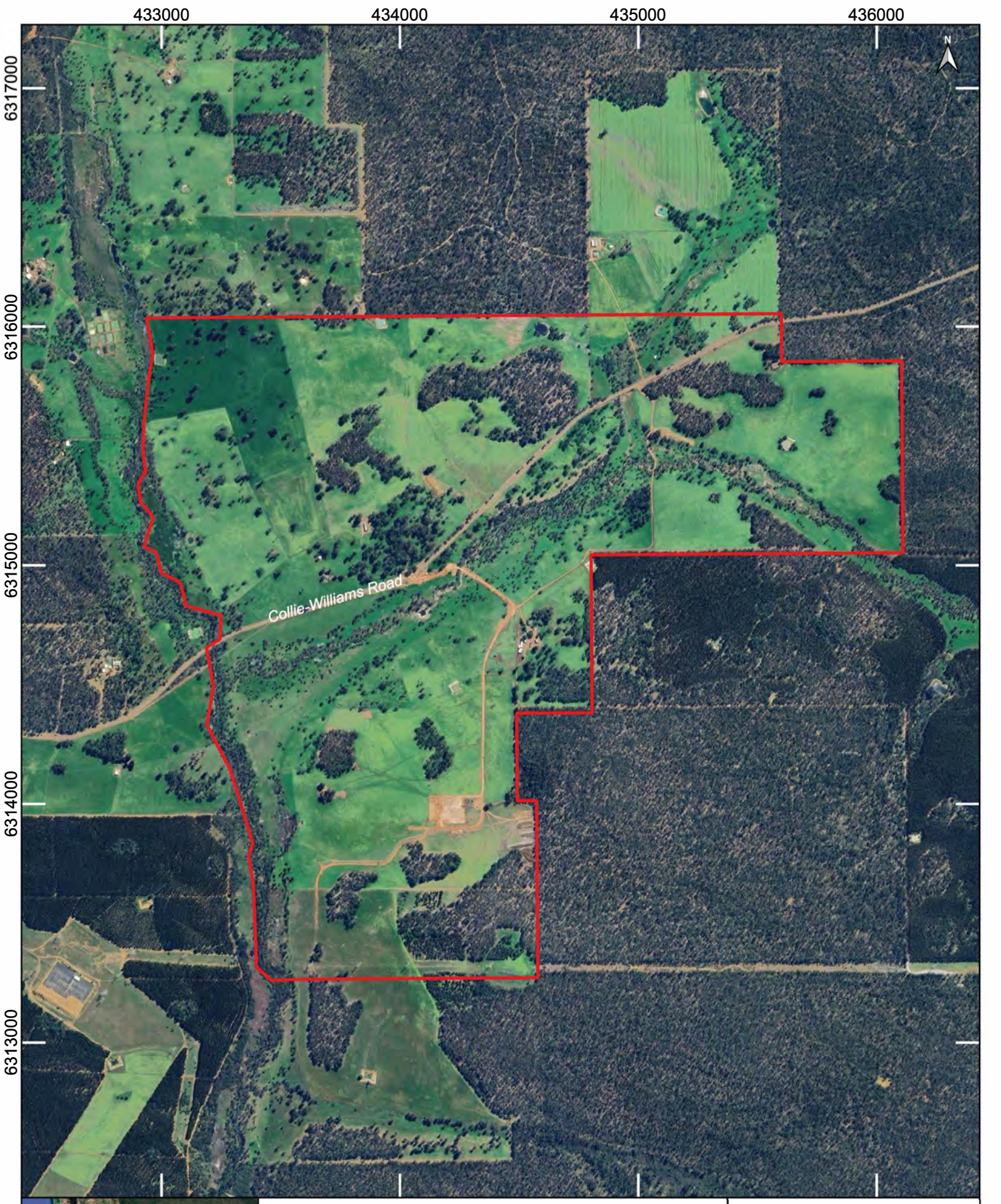
This is a desktop review only, providing preliminary advice on known Aboriginal heritage places and sites, and potential archaeological and ethnographic values within the Study Area and will inform the field assessment for the project. It is not to be solely relied on for the identification of all possible heritage that may be in the area.

Desktop Methods

The initial desktop assessment is proposed to assess the various site constraints and opportunities as they relate to the specificities of the project. The following methods were used to undertake the desktop review:

- Conduct desktop research into the Registered Aboriginal archaeological and ethnographic sites, Historic data and previous archaeological and ethnographic surveys within and surrounding the Study Area. This includes requesting site files from the Department of Planning, Lands and Heritage (DPLH).
- Conduct an internal data search and review of relevant Archae-aus reports and data.
- Prepare GIS maps that outline the Study Area including existing cultural heritage areas and areas of potential surface and subsurface archaeology.
- Identify known places and areas of historic cultural heritage significance potentially impacted by the Project, including any areas of significant archaeological or ethnographic interest.
- Assess the potential direct and indirect effects of the Project on places of historical cultural heritage significance.
- Conduct a revision of land use history.
- Provide the results of the desktop assessment in a due diligence report (this document).

Note: Subsurface archaeological potential cannot be confirmed at a desktop level of assessment, and so Archae-aus have provided a preliminary assessment of cultural heritage potential (Section Three) based on the known heritage associated with the Study Area and surrounding areas (Section Two).





Legend

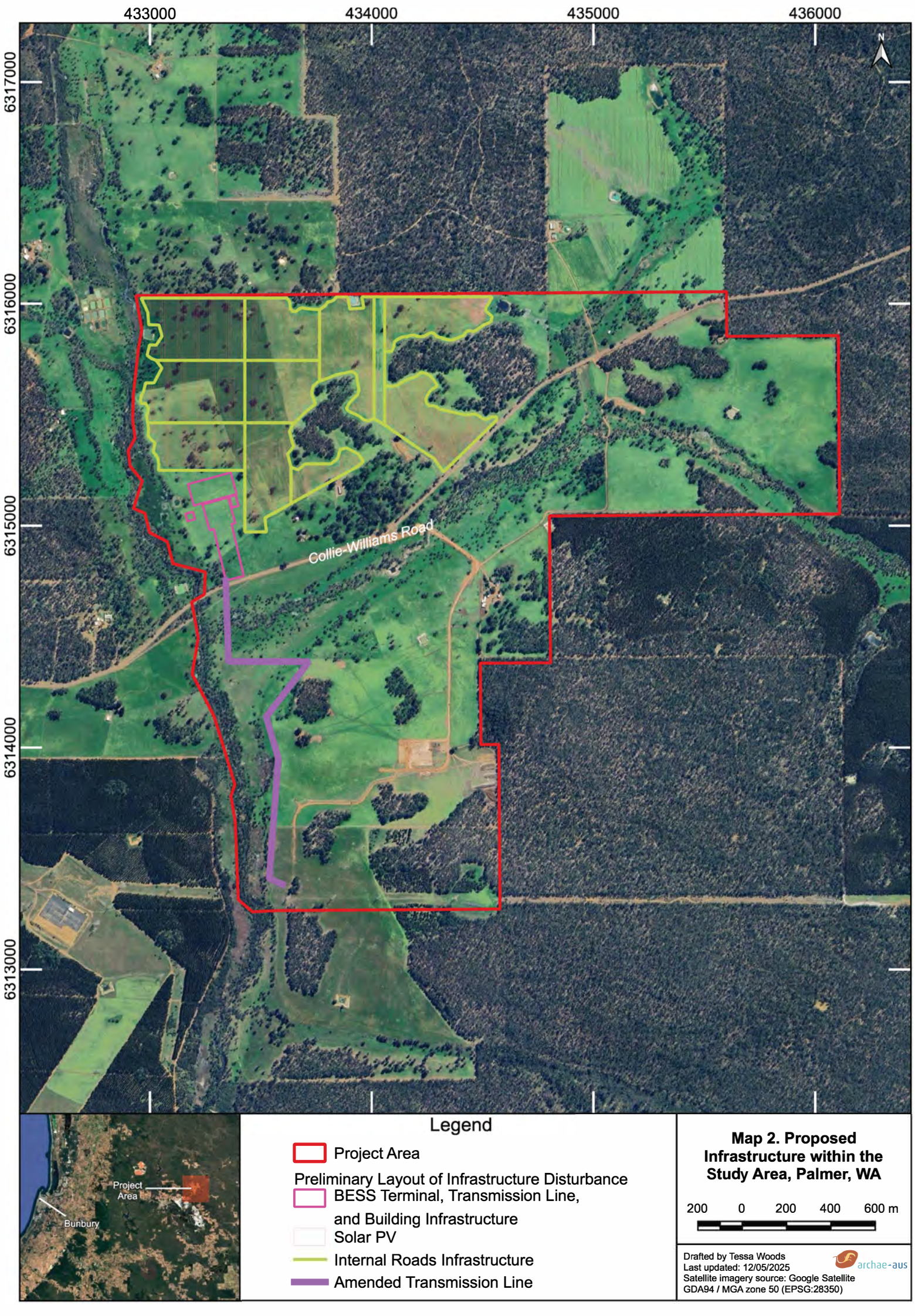
Study Area

Map 1. Overview of the Solar PV and BESS Study Area, Palmer, WA

200 0 200 400 600 m

Drafted by Tessa Woods
Last updated: 07/04/2025
Satellite imagery source: Google Satellite
GDA94 / MGA zone 50 (EPSG:28350)

archae-aus


433000
434000
435000
436000
6317000
6316000
6315000
6314000
6313000
N
Collie-Williams Road
Project Area
Bunbury
Legend
Project Area
Preliminary Layout of Infrastructure Disturbance
BESS Terminal, Transmission Line, and Building Infrastructure
Solar PV
Internal Roads Infrastructure
Amended Transmission Line
Map 2. Proposed Infrastructure within the Study Area, Palmer, WA
200 0 200 400 600 m
Drafted by Tessa Woods
Last updated: 12/05/2025
Satellite imagery source: Google Satellite
GDA94 / MGA zone 50 (EPSG:28350)
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Legislation

The following section summarises the relevant legislation and guiding principles that may relate to cultural heritage places within the Palmer Solar Farm and BESS Study Area. The legislation and guidelines, which are outlined in further detail in Appendix One, include:

- *Aboriginal Heritage Act 1972* (WA State)
- *Coroners Act 1996* (WA State)
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)*
- *Native Title Act 1993* (Commonwealth)
- *Heritage Act 2018* (WA State)
- *Planning and Development Act 2005* (WA State)
- *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth)
- Burra Charter 2013 (Australia ICOMOS Charter for Places of Cultural Significance - Guidelines)

Aboriginal Heritage Legislation

WA Legislation

Aboriginal cultural heritage in WA has been protected by the *Aboriginal Heritage Act 1972* (the AHA), administered most recently by the Department of Lands, Planning and Heritage. An Aboriginal place is defined in section 5 of the AHA as:

a) Any place of importance and significance where persons of Aboriginal descent have, or appear to have, left any object, natural or artificial, used for, or made or adapted for use for, any purpose connected with the traditional cultural life of the Aboriginal people, past or present.

b) Any sacred, ritual or ceremonial site which is of importance and special significance to persons of Aboriginal descent.

c) Any place which, in the opinion of the Committee [i.e. Aboriginal Cultural Material Committee, or ACMC], is or was associated with Aboriginal people and which is of historical, anthropological, archaeological or ethnographical interest and should be preserved because of its importance and significance to the cultural heritage of the State.

d) Any place where objects to which the AHA applies are traditionally stored, or to which, under the provisions of the AHA, such objects have been taken or removed.

Places considered to be of cultural heritage significance to Aboriginal people in Western Australia may be included on the Aboriginal Cultural Heritage Register. The final determination for inclusion of a place on the Aboriginal Cultural Heritage Register rests with the Aboriginal Cultural Heritage Committee, and the Minister of Aboriginal Affairs. The Committee is tasked with evaluating the importance of places and objects, under Section 39 of the Act. Under the AHA (s17) it remains an offence to alter an Aboriginal site in any way, including collecting artefacts; conceal a site or artefact; or excavate, destroy or damage in any way an Aboriginal site or artefact; without the authorisation of the Registrar of Aboriginal Sites under Section 16 or the Minister of Aboriginal Affairs under Section 18 of the AHA. In late-2023, the WA government proposed amendments in attempt to address the criticisms of the Section 18 approval process (see Appendix One):

Information about heritage places and their legal status has been available through the Department's Aboriginal Cultural Heritage Inquiry System (ACHIS). There are three categories by which the ACHIS now characterises heritage places:

- Registered Aboriginal Sites – Aboriginal Cultural Heritage (ACH) **Register layer**.
- Lodged places[4] – Aboriginal Cultural Heritage (ACH) **Lodged layer**.
- Historic records - Aboriginal Cultural Heritage (ACH) **Historic layer**.

Commonwealth Legislation

Aboriginal heritage sites are also protected under the *Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (the HPA). The HPA complements state / territory legislation and is intended to be used only as a 'last resort' where state / territory laws and processes prove ineffective. Aboriginal human remains are protected under the AHA and the HPA. In addition, the discovery of human remains requires that the following people are informed: the State Coroner or local Police under section 17 of the *Coroners Act 1996*; the State Registrar of Aboriginal Sites under section 15 of the AHA and the Federal Minister for Aboriginal Affairs under Section 20 of the HPA.

In terms of broader recognition of Aboriginal rights, the Commonwealth *Native Title Act 1993* (the *NTA*) recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people. Under the NTA, native title claimants can make an application to the Federal Court to have their native title recognised by Australian law. The NTA was extensively amended in 1998, with further amendments occurring in 2007, and again in 2009. Under the future act provisions of the *Native Title Act 1993*, native title holders and registered native title claimants are entitled to certain procedural rights, including a right to be notified of the proposed future act, or a right to object to the act, the opportunity to comment, the right to be consulted, the right to negotiate or the same rights as an ordinary title holder (freeholder).

Best Practice Guidelines

Organisations and institutions have a responsibility to not only uphold their legal and compliance obligations, but to act as responsible corporate citizens. To this end, a number of important studies and guidelines apply, which are summarised in Appendix One.

Burra Charter

The Burra Charter (Australian ICOMOS, 2013) is the foundational document for conserving Australia's cultural heritage (both Aboriginal and non-Aboriginal). The Charter encapsulates two important aspects in conserving heritage places. First, it establishes the best practice principles and processes for understanding and assessing a place's significance, as well as developing and implementing a conservation plan. Second, the Charter defines and explains the four primary cultural values that may be ascribed to any place: aesthetic, historic, social or spiritual, and scientific. These values are essential as they delineate the types and quality of information needed to accurately determine a heritage place's significance. Recent practice within DPLH with respect to site reporting and significance assessment under the AHA also referred to Burra Charter values.

[4] Information about these places is in the process of being verified by the Department and Committee.

SECTION TWO – CULTURAL HERITAGE BACKGROUND

This section provides a regional and local cultural background which includes the broad ethnographic and archaeological values of the Collie area. This provides cultural heritage context for the broader area and aids in the assessment of Aboriginal Cultural Heritage potential within the Study Area.

Ethnographic Background

> *"Where you see a Karlap (our homelands) there will always be a Karla (campfire burning)" (CANWA 2011)*

The Study Area today lies within the Gnaala Karla Booja (GKB) Indigenous Land Use Agreement Area, which is a sub-set of the broader South West Native Title Settlement Area (WC1998/058). Gnaala Karla Booja translates as 'our fire land', this term is inclusive of the Noongar people who have historical and cultural connection to GKB Booja (Country), '*Boodja* is the centre of our culture – our people feel safe on *Boodja*, it is home to family spirits, stories, histories and futures' (GKB Working Group, GKBAC). Today, GKB *Boodja* covers approximately 34,427 km² stretching broadly from the south of Perth to the coast near Busselton and incorporates three Noongar sub-groups: the Pinjarup (also known as Bindjareb), Wiilman and Kaniyang. The Study Area lies within the traditional lands of the Wiilman, whose land and waters are extensive, as described here by Tindale (Tindale, 1974a),

> *At Wagin and Narrogin; on Collie, Hotham, and Williams rivers west to Collie; Wuraming north to Gnowing, Dattening, and Pingelly; east to Wickepin, Duninin, and Lake Grace; South to Nyabing (Nampup), Katanning, Woodanilling, and Duranilling.* (Tindale, 1974:260)

The Collie region is home to an ancient, enduring and dynamic Aboriginal culture. Local Aboriginal people in Collie today identify as Noongar, sharing ties with the broader Noongar nation and occupying the entire southwest corner of the Australian continent. Many people in Collie also identify as *Bilyagul Moort* – River People. This identity reflects the strong connection of Aboriginal people in the Collie region to the three rivers of the Leschenault Catchment – the Collie, Brunswick and Preston Rivers. These three rivers are fundamental to the spiritual, social, and economic foundations of local Noongar culture now, and into the distant past. The rivers provided vital resources to Aboriginal groups in the area and continue to be a source of food and medicine for *Bilyagul Moort* today. The rivers bring together people who gather for social and recreational pursuits, as their ancestors have done for untold generations. The rivers form part of the integral kinship networks of *Bilyagul Moort*, who still rely on the waters for important social, cultural and economic practices.

Noongar culture attaches powerful spiritual associations to the rivers through *ngitting yarns* (creation and dreaming stories), in particular dreaming stories associated with the '*Waugal*', a spiritual snake who is responsible for carving out and creating many of the landscape features we see today,

particularly the rivers. The *Ngarngungudditj Walgu*, the hairy-faced serpent, is the Nyitting Being responsible for creating the three rivers. It is said that the giant serpent carved the rivers and the Leschenault Estuary into which they flow. This serpent was so big and powerful that his body movements created the waterways above and below ground and the huge dunes that flank the estuary were created when *Ngarngungudditch Walgu* turned around to travel back upstream. Its final resting place is Minninup Pool, a popular recreation place on the Collie River, close to the modern-day town of Collie. Here, the head of the great serpent is said to rest to this day and local Noongar and non-Noongar people pay their respects to the *Walgu* through the ritual action of throwing a handful of sand into the water accompanied by a simple greeting. Visitors are invited to offer their ritual greeting in this manner, which can be undertaken anywhere along the rivers, especially at Minninup Pool.

As water sources are connected to the *Nyitting* movements of the *Waugal* they are attributed a sacred status, which then in turn enshrines their protection into Noongar law and custom. Les Wallam, a GKB Elder shared story about passing on his cultural knowledge to younger generations,

> *"I took the boys down one time … and I said to my grandson, 'Come here'. He said, 'What?' I said, 'What can you here?' And he goes, 'I can't hear anything.' I said, 'Have a look at the top of the trees. What's happening there?' He said, 'They are all moving.' And I said, 'Yeah, but what can you hear?' He said, 'Wind.' And I said, 'You can hear that wind coming fast at us across the top of trees.' All of a sudden, his eyes opened up, and he said, 'Oh yeah! The top of the trees are moving.' I said, 'That's all our old people coming down, coming to see and say hello to us. You just sing out and tell them who you are.' The wind reached the river, and then it all stopped. His little eyes were 'ooooooo' (CANWA, 2011).*

During traditional times, the *Bilyagul Moort* relied on the rivers as travel routes between the coast and the hinterland, as part of intricate systems of seasonal movement that saw people gather in large numbers on the coast during summer months to make use of plentiful resources while undertaking social and ceremonial activities, before dispersing in smaller groups into the jarrah-marri forests of the inland region around Collie during the winter months, where food sources were readily available.

These seasonal migration patterns were a critical element in the complex systems of sustainable land management that enabled Noongar people to successfully occupy the southwest region for thousands of generations. Seasonal movement was based on a highly structured system that enabled people to harvest resources as they became seasonally available, without over-exploiting species or locations. The Noongar calendar is based on six seasons and the subtle changes between these seasons are closely aligned with the seasonal availability of particular plant and animal species. People knew when to move, not because of a day in the calendar, but based on the subtle but predictable signs in the plants and animals.

Australian Aboriginal people are one of the oldest living cultures on earth, and this is a testament to the sustainability inherent in their land-use systems. Archaeological evidence demonstrates that Aboriginal people have occupied the southwest region for at least 50,000 years, but for Noongar people, they have always been here.

Archaeological Background

Initial Occupation

The South West of Western Australia forms a distinct geographical region, bounded by the south and west coasts and, inland, by desert. The region has a Mediterranean climate, with cool, wet winters and warm dry summers and is characterised by very high levels of biodiversity (Gioia and Hopper, 2017). Noongar *boodja*, or country, corresponds roughly to this geographic region. Noongar people generally share a common language, with regional dialects, and similar culture and have lived in the south-west of Western Australia for at least 50,000 years (Dortch *et al.*, 2019). The Study Area is situated within the Jarrah Forest (JAF) region and Northern Jarrah Forest (JAF01) subregion.

Most archaeological investigations in the South West have focused on the Perth Metropolitan Area and the Swan Coastal Plain, where dated sequences have produced a well-established Pleistocene antiquity for human occupation in the South West. The oldest site in the Perth area is Upper Swan (DPLH ID 4299). This large, open artefact scatter site on a terrace of the Swan River has a date range from 39,733 cal BP to 44,348 cal BP. These dates are associated with numerous artefacts and charcoal patches, indicating a Pleistocene occupation of the area, where groups of people camped, prepared fires for cooking and warmth and used cores and hammer stones to manufacture a variety of stone tools.

Other early dated sites on the Swan Coastal Plain are located at the site of the Fiona Stanley Hospital dating to 33,000 BP (Dortch, Dortch and Cuthbert, 2009), on an old river terrace in the Helena Valley dated to 29,400 BP (Schwede, 1983, 1990) and a site at Minim Cove near the mouth of the Swan River which has been dated to 9,930 BP (Clark and Dortch, 1977). Yellabidde Cave on the northern fringe of the southwest has also been dated to 25,500 cal BP with occupation continuing through to the recent past (Monks *et al.*, 2016). Further south, Devils Lair on the Leeuwin – Naturaliste Ridge, was first visited by Aboriginal people approximately 48,000 cal. BP (Turney *et al.*, 2001) with nearby Tunnel Cave first occupied at 26,693 cal BP (Dortch, 1994, 1996). Near Albany, on the south coast, the Kalgan Hall site shows occupation from about 18,000 cal BP to recent times (Ferguson, 1985).

It has long been recognised that the southwest of Western Australia forms a distinct geographical and cultural region, bounded by the south and west coasts and, inland by desert. It has a Mediterranean climate and is characterised by high levels of biodiversity. Noongar *boodja*, or Country, corresponds roughly to this geographic region and the Noongar people today are descendants of several groups living in the region, with a similar culture and a common language.

There has been little archaeological investigation in the Study Area and immediate surrounds. There are several reasons for this. First, caves and rock shelters are rare in the region and thus there are few sites with possibilities for research excavation. Second, the primarily agricultural character of the region means that it lacks much of the development pressures of other parts of the state. Archaeological work associated with compliance has thus been mostly small-scale and commonly associated with such activities as road construction. Third, the long history of agriculture in the region leads to a perception that little of archaeological interest is likely to survive.

A range of site types has been documented in the area surrounding the Study Area, particularly to the west. Creation/ Dreaming Narrative and water sources are the most common site type and occur widely in the landscape, with scattered artefact scatters, lizard traps, camps, modified trees, and burials. While some of the actual location of these were not clearly noted, these types of sites in the wider region occur most commonly close to watercourses and valley bottoms. Other places include

quarries, camps, hunting places, mythological places, water sources, modified trees, man-made structures, natural features, burials/skeletal material, engravings, grinding patches/grooves, ochre, and food resource. This suggests that there is a diverse archaeological signature across this landscape indicating a wide range of activities were being carried out by Noongar people over a long period of time.

In her synthesis of the archaeological evidence from research conducted on the Swan Coastal Plain and the Darling Scarp, Anderson (1984) formulated a seasonal land use model of human movement between the Swan Coastal Plain, the Darling Scarp and the Darling Range. Her model is summarised as follows:

1. Groups essentially based on the Swan Coastal Plain, and the Darling Plateau were associated with specific core territories within those zones and had stronger cultural ties within four larger units such as Tindale (1974b) outlines.
2. In summer and autumn, the plains groups concentrated in larger numbers on the coast, estuaries and larger inland water bodies to collect fish, waterfowl and other water-based resources. The very large archaeological sites on the plain are the result of repeated visits to such venues, probably over long periods of time.
3. In winter and early spring, when the coastal resources were less abundant, some of the plain based people moved into the jarrah forest in the Darling Range to relieve the pressure on available food sources; the remainder of the people fragmenting and ranging more widely. The extent of penetration into the densest and most uniform stands of the forest zone was only about 30-35 km. The predominantly small sites throughout the jarrah forest are evidence of the mobility necessitated by less prolific resources and the pursuit of game.
4. In late spring there was a gradual movement of people back toward the coast.
5. The western plateau area of the scarp is seen as having a less distinctly seasonal pattern of movement. The groups would possibly have been more nomadic and moved over wide ranges, taking advantage of the large mammal population and plant foods in the open woodlands.
6. The eastern jarrah forest (i.e. that portion more than 30 km east of the escarpment and gradually grading into wandoo woodland) was exploited by plateau groups, some of whose ranges penetrated well into the jarrah zone. More extensive swamps in the eastern jarrah forest may have allowed use of the area for a greater part of the year, especially if below-ground water was tapped. The large sites near Boddington are consistent with this general interpretation.
7. There was also some less patterned movement, more direct and rapid, through the forest zone from plain to plateau and vice versa by individuals and groups of varying sizes, for specific trade, social and ritual purposes (Anderson, 1984, p. 37).

Anderson's (1984, p. 24) preliminary results suggested that site densities in the wandoo woodlands on the plateau seemed to be higher than those in the jarrah forests and lower than on the Swan Coastal Plain. Artefact sites were quartz-dominated, with dolerite the other main raw material. Sites were all close to rivers, creeks and lakes.

Archaeology of the Study Area

The Study Area covers mostly historical grazing land; however, it does include remnant bushland and creek lines which are potentially archaeologically and ethnographically sensitive landscapes. Due to the nature of the previously recorded Aboriginal cultural heritage sites and places, both intersecting the Study Area and in the wider area, there is potential for encountering additional artefact scatters, ethnographic places, burial sites, and water sources.

At a desktop level, it is difficult to predict all possible culturally sensitive landforms and surface archaeology using aerial imagery alone and should not be relied upon in lieu of on-ground archaeological and anthropological surveys.

Previous Research and Heritage Assessments

Previous Aboriginal Cultural Heritage Assessments

The following summary of previous research has been compiled from information that is available from the Department of Planning, Lands, and Heritage's (DPLH) Aboriginal Cultural Heritage Inquiry System (ACHIS). This may not be a comprehensive record of all heritage sites recorded, and surveys undertaken, with the possibility that some information may exist in the 'grey literature' held by private individuals and organisations which has not yet been provided to the DPLH for addition into the ACHIS.

Accordingly, caution should be exercised within unsurveyed sections of the proposed development area. Further, previous heritage surveys over only part of the land may not have identified all possible sites across the entire Study Area. The criteria for assessing the relevance and reliability of reports can be found in Appendix One (Table 9). A copy of the ACHIS search results and maps can be found in Appendix Two.

Table 3. Previous Heritage Assessments Intersecting the Study Area

Report ID	Report Title	Report Authors	Survey Type	Relevance & Reliability5
102073	Western Australia Regional Forest Agreement Aboriginal Consultation Project. Vol.2. Nov.1997	Centre for Social Research.	Ethnographic	Broad-scale study of the wider region – low relevance to the project
102074	Western Australia Regional Forest Agreement Aboriginal Consultation Project. Vol.1. Nov.1997	Centre for Social Research.	Ethnographic	Broad-scale study of the wider region – low relevance to the project
102172	Report on an Investigation into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region. Draft. June 1989.	O'Connor, R	Archaeological / Ethnographic	Broad-scale study of the wider region – low relevance to the project
104079	Bunbury-Wellington Regional Planning Study: Working Paper no.6, Aboriginal Heritage and Planning Survey. [Open] Released for Public Comment July 1992.	Dept of Planning and Urban Development.	Ethnographic	Broad-scale study of the wider region – low relevance to the project
104608	Bunbury-Wellington Regional Planning Study: Aboriginal Heritage & Planning Survey : working paper no. 6	McDonald, E	Ethnographic	Broad-scale study of the wider region – low relevance to the project
106512	Aboriginal Heritage Planning Survey.	McDonald, Hales and Associates	Ethnographic	Broad-scale study of the wider region – low relevance to the project
106537	A preliminary predictive model of Aboriginal archaeological site location in the Jarrah Forests of the Darling Range, south-western Australia.	Hook, F	Archaeological	Broad-scale study of the wider region and is a predictive model for targeting areas which are most likely to have Aboriginal heritage sites. The report is of low relevance to the project.
22588	Aboriginal Heritage study for Shotts Terminal to Wells Terminal 330kV	Mattner, J	Archaeological / Ethnographic	The survey area intersects a small portion of the southeast part of the broader Study Area and

[5] See Appendix One for criteria used to assess report relevance and reliability.

Report ID	Report Title	Report Authors	Survey Type	Relevance & Reliability5
	transmission line upgrade north of Collie.			does not intersect the proposed infrastructure or disturbance footprint. In addition, the surveyed area is a small, narrow transmission line which does not cover the Study Area, nor is an accurate indication of the presence or absence of ACH within the Study Area.

Previous Survey Reports

Report ID: 102073 & 102074

Centre for Social Research 1997. Western Australia Regional Forest Agreement Aboriginal Consultation Project Vol 1&2. November 1997.

These reports were commissioned and produced by Edith Cowan University's Centre for Social Research as an overarching study of the southwest region to put forward an Indigenous understanding of forest management and work towards a regional forest agreement in the southwest. The reports outline multiple consultations with Knowledge Holders about traditional forest management practices in the southwest. Knowledge Holders consulted for this project made clear that they needed to have unrestricted access to all areas of the forest, including areas designated for national parks and nature reserves. This access was of particular importance, the Knowledge Holders stated for the continuation of spiritual, cultural, recreational, and educational purposes.

Access to Country was the cornerstone of the findings outlined in this report, as it represented a method of continuing cultural practices that had been hindered or halted by colonisation. The Knowledge Holders consulted expressed their dismay at the diminishing of and limitations placed on cultural practices through becoming 'locked out' of traditional lands by colonial systems of governance. The Knowledge Holders stated that the concept of 'National Parks' was a western concept, and Noongar way of life does not adhere to this in their culture.

Report ID: 102172

O'Connor, R. 1989. Report on an Investigation into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region. Draft. June 1989.

This report details the results of a commission into the Aboriginal significance of wetlands and rivers in the Perth-Bunbury region of Western Australia in June 1989. The report was commissioned by the Water Authority of Western Australia in 1989 and was undertaken by Quartermaine Consultants. The report contains both an ethnographic and archaeological component. The study area extends from the Moore River to the Preston River.

<u>Archaeology</u>

A desktop survey of the Study Area identified 1,136 Aboriginal cultural heritage places. The places are primarily artefact scatters though quarries, burials, modified trees, structures, engravings, paintings, grinding patches, fish traps and repositories were also identified. Seventy-seven per cent of sites are surface scatters. The study also analysed patterns of density across ecological zones, finding coastal plains have higher density of ACH places than other zones. The scatters comprise predominantly

quartz, with some fossiliferous chert, dolerite, silcrete, mylonite, calcrete, granite, glass, and pottery. Quartermaine Consultants found a time depth of at least 40,000 years across the Study Area. The archaeologists also found evidence to suggest a correlation between seasonal land use and movement. The archaeologists recommended further surveys to be conducted in the Study Area.

Ethnography

The anthropologists consulted with several Aboriginal groups, seniors and families within the Study Area to provide a detailed collection of ethnographic results. Ethnographic sites have been categorised within the report based on their level of significance. Each site is given a location and dimension, level of significance and discussion based on the consultation. The anthropologists found patterns concerning the association of rivers and wetlands with Aboriginal areas of significance. A number of sites told the story of the Waugal Dreaming narrative, a spiritual ancestor and deity as well as the creator of the Murray and Serpentine River system. Discussion with the Aboriginal community also expressed the use of wetlands and river systems as historical resources and camps which were still used at the time of the reports creation.

Report ID: 104079

Dept of Planning and Urban Development. 1992. Bunbury-Wellington Regional Planning Study: Working Paper no.6, Aboriginal Heritage and Planning Survey. [Open] Released for Public Comment July 1992.

This report details the results of an Aboriginal Heritage and Planning Survey of the Bunbury-Wellington area part of the Department of Planning and Urban Development's (DPUD) research for the Bunbury-Wellington Region Plan. DPUD commissioned McDonald, Hales and Associates to undertake the Aboriginal Heritage and Planning survey component of the Bunbury-Wellington area. The plan aimed to guide future land use, development, and conservation throughout the region for the next 20 years and beyond. This study covers the Peel, Harvey, Collie, Greater Bunbury, Capel, Dardanup, Donnybrook, Leeuwin-Naturaliste, and Warren-Blackwood regions of Western Australia. Through developing long-term planning for the Bunbury-Wellington Region the study aims to: a) meets the needs of the community, b) provides for the best use of land, and c) manage its natural and human resources as well as the built environment. The heritage study involved a desktop study, ethnographic field study and a planning guidelines and heritage management plan. Mapping of ethnographic sites as well as a significance assessment was completed following the survey.

Report ID: 104608

McDonald, E. 1992. Bunbury-Wellington Regional Planning Study: Aboriginal Heritage & Planning Survey: working paper no.6.

This report details the results of an Aboriginal Heritage and Planning Survey of the Bunbury-Wellington area as part of the Department of Planning and Urban Development's (DPUD) research for the Bunbury-Wellington Region Plan. The plan aimed to guide future land use, development, and conservation throughout the region for the next 20 years and beyond. This study covers the Peel, Harvey, Collie, Greater Bunbury, Capel, Dardanup, Donnybrook, Leeuwin-Naturaliste, and Warren-Blackwood regions of Western Australia. Through developing long-term planning for the Bunbury-Wellington Region the study aims to: a) meets the needs of the community, b) provides for the best use of land, and c) manage its natural and human resources as well as the built environment.

Report ID: 106512

McDonald, Hales and Associates. 1992. Aboriginal Heritage Planning Survey.

This report details the results of an Aboriginal Heritage and Planning Survey of the Bunbury-Wellington area part of the Department of Planning and Urban Development's (DPUD) research for the Bunbury-Wellington Region Plan. DPUD commissioned McDonald, Hales and Associates to undertake the Aboriginal Heritage and Planning survey component of the Bunbury-Wellington area. The plan aimed to guide future land use, development, and conservation throughout the region for the next 20 years and beyond. This study covers the Peel, Harvey, Collie, Greater Bunbury, Capel, Dardanup, Donnybrook, Leeuwin-Naturaliste, and Warren-Blackwood regions of Western Australia. Through developing long-term planning for the Bunbury-Wellington Region the study aims to: a) meets the needs of the community, b) provides for the best use of land, and c) manage its natural and human resources as well as the built environment. The heritage study involved a desktop study, ethnographic field study and a planning guidelines and heritage management plan. Mapping of ethnographic sites as well as a significance assessment was completed following the survey.

Report ID: 106537

Hook, F. 2001 A preliminary predictive model of Aboriginal archaeological site location in the Jarrah Forests of the Darling Range, south-western Australia.

This report outlines the development of a predictive model for establishing the locations of Aboriginal Cultural Heritage sites within the Jarrah forests on the Darling Range, WA. The preparation of a predictive model was requested by Brian Doy of Alcoa of Australia (Alcoa) to guide future cultural heritage management work within Alcoa's mining leases. This predictive model is based on the results of years of archaeological surveys in the region including use of the Department of Indigenous Affairs (DIA – now the DPLH) site database.

Report ID: 22588

Mattner, J. 2007. Aboriginal Heritage study for Shotts Terminal to Wells Terminal 330kV transmission line upgrade north of Collie.

This report details the results of an Aboriginal Heritage study for the Shotts Terminal (northeast of Collie) to the Wells Terminal (northwest of Boddington) 330kV Transmission lines Upgrade. The report was prepared by Artefaxion Pty Ltd for Western power in March 2007. Artefaxion conducted an archaeological and ethnographic survey on the proposed route between the two terminals mentioned above. No new ethnographic or historic al sires were identified during the ethnographic survey. The archaeological survey also identified no new sites. Though it is noted that three artefact scatters do exist within 1 km from the corridor. Recommendations included the employment of Aboriginal monitors to watch over the works.

Discussion

A search of the Department of Planning, Lands and Heritage's ACHIS identified eight (8) heritage assessments intersecting the boundaries of the Study Area. These assessments are broad-scale ethnographic surveys of the wider region, with a single previous archaeological survey intersecting a very small portion of the current Study Area. The survey findings are non-specific to the Study Area.

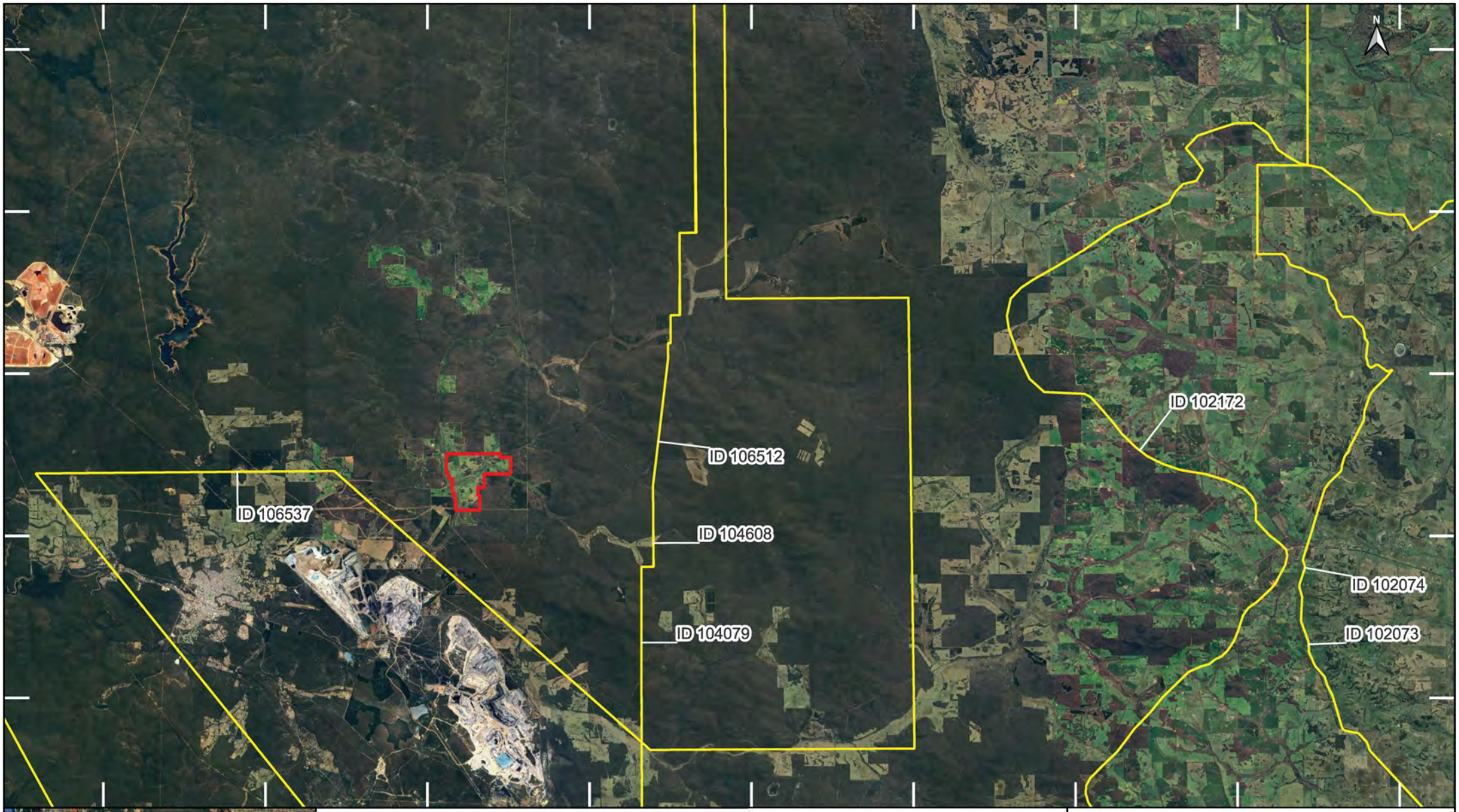
A review of these assessments revealed that the report findings reflect the broad nature of the surveys, namely, the outcomes reflect large-scale and broad issues facing the local Noongar community in the region. These include the health and protection of waterways, increased Noongar representation and employment in developments on Country, access to Country and the protection of heritage places. While the Centre for Social Research's 1997 study focuses more on forest protection and outcomes (Centre for Social Research, 1997) The Department of Planning and Urban

Development's assessment with Dr Eddie McDonald (1992) focuses on a Bunbury-Wellington Regional Plan aimed to guide the future land use, development and conservation throughout the region for 20 years.

Although not area-specific, these reports provide an in-depth perspective on the contemporary issues and concerns of the Noongar community in the Peel and Harvey regions of Western Australia. Unrestricted access and loss of agency through development was a primary theme throughout these assessments, and Traditional Owners consulted expressed a loss of cultural identity through a loss of access to the land (Centre for Social Research, 1997). Diminishing cultural practices through lack of access by colonist systems of governments, particularly through agricultural and mining activities (McDonald, 1992) and National Parks (Centre for Social Research, 1997:11) was flagged as a continued oppressive system that impacted Noongar way of life.

The Noongar Traditional Owners taking part in these surveys also requested employment, initiation of programs of cross-cultural training to increase awareness of Noongar identity and culture in the industry and the receipt of benefits and royalties from forest-based industries (Centre for Social Research, 1997).

The reports also demonstrate a pressing need for protection of known spiritual sites, landscape features and the broader environment throughout the region. The Traditional Owners expressed that the destruction of the natural landscape through mining and agricultural development continued to erode Noongar identity in the face of European colonisation, causing further fragmentation of local communities and cultural practice (McDonald, 1992). The Traditional Owners consulted in the assessments detailed above consistently state that they are not opposed to progress and development yet remain frustrated with the current systems of land management and wish to have more input in decisions made on their Country.





Legend

- Study Area
- Aboriginal Cultural Heritage Survey Areas (DPLH-080)

Map 3. Previous Surveys Intersecting the Study Area, Palmer, WA

3 0 3 6 9 12 km

Drafted by Tessa Woods
Last updated: 07/04/2025
Satellite imagery source: Google Satellite
GDA94 / MGA zone 50 (EPSG:28350)

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Known Aboriginal Cultural Heritage Sites Intersecting the Study Area

The Study Area intersects one Registered Aboriginal Cultural Heritage (ACH) Site (Table 4) and no ACH Lodged or ACH Historic places. The Registered Site *Collie River Waugal* (ID 16713) intersects the southern and eastern part of the Study Area. A further six (6) Registered ACH Sites are within a broader 5 km search area around the Study Area. There are also two (2) ACH Lodged and no ACH Historic places within the broader 5 km search area (Table 5).

While development within the Study Area is unlikely to directly affect these peripheral sites, understanding the types and relationships between cultural heritage places in the wider cultural landscape helps to inform the heritage risk assessment for unsurveyed areas within similar environments.

Table 4. Aboriginal Heritage Sites Intersecting the Study Area

DPLH ID	Site Name	Site Type	Status	Site Restricted	Legacy ID
16713	Collie River Waugal	Creation / Dreaming Narrative; Landscape / Seascape Feature; Water Source	Registered	No	-

Table 5. Aboriginal Heritage Sites within 5 km of the Study Area

DPLH ID	Site Name	Site Type	Status	Site Restricted	Legacy ID	Proximity
603	EWINGTON CAMP.	Camp; Water Source	Registered	No	S02908	4.3 km
4696	BOLTON POOLS	Creation / Dreaming Narrative	Registered	Yes	S02108	4.2 km
4793	SHOTTS 03	Artefacts / Scatter	Registered	No	S01930	4 km
4794	SHOTTS 04	Artefacts / Scatter	Registered	No	S01931	4.3 km
4797	SHOTTS 07	Artefacts / Scatter	Registered	No	S01934	4 km
15331	SHOTTS GRAVES	Burial; Modified Tree	Registered	Yes	S03057	3.7 km
4694	SPRING	Camp; Water Source	Lodged	No	-	2.9 km
4792	SHOTTS 02	Artefacts / Scatter	Lodged	No	-	2 km

Summaries of Previously Recorded Sites

A request for access to the above-mentioned sites was sent to the DPLH on 27 March 2025. At the time of finalisation of this report, access to all site files has not yet been granted.

Discussion

The *Collie River Waugal* (ID 16713) site *Ngarngungudditj Walgu* Dreaming, is an important mythological place, natural feature and water source to the landscape and the Noongar Traditional Owners. The Traditional Owners report the presence of the *Waugal* residing in the waters of the Collie River, making them sacred, stating that propitiatory rituals must be performed before entering the water for swimming or approaching the water for fishing. These rituals distinguish the local Noongar people from strangers to the *Waugal*. The river also represents an important water and food source, providing sustenance for Noongar people in the area both past and present.

Bolton Pools / 4696

This site is listed as a water source and camp place. The site was an Aboriginal camp in the 1920s on the eastern branch of the Collie River at the point where the old Williams-Collie Road crossed the river. The site file details a second occasional camp situated at a spring 2.8 km upstream from this location.

A report on the Anthropological Survey of the Proposed Power Station Site in Collie, prepared by R. O'Connor (1984), details that Bolton's Pools, located on the Bingham River had been previously identified as avoidance sites where the Waugal's manifestation radiated an evil influence. The report stated that local people believed that any person straying too near to this area would fall ill. It is unclear whether the Registered Site boundary refers to only the historical camp place, or includes the spring and avoidance site as well.

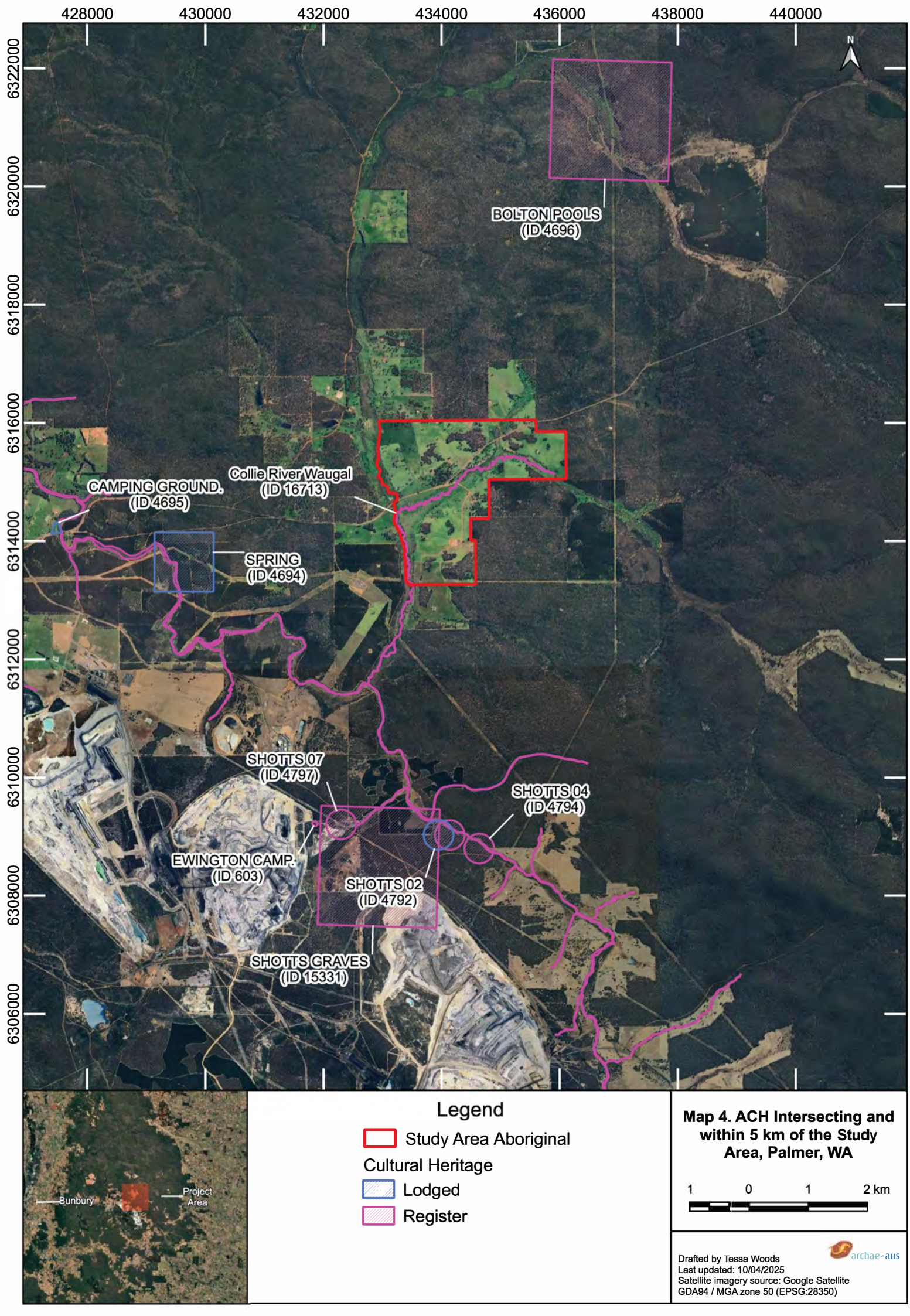
Previously Identified Historical (European) Heritage Places

In addition to ACHIS, inHerit was searched for any historic places with Aboriginal-related themes within the Collie area, to provide context to both pre and post-contact Aboriginal occupation of the wider area. Five historic heritage places in and around Collie were identified as having State heritage themes[6] relating to Aboriginal People, Aboriginal Occupation, and Aboriginal Workers. For an overview of the historic sites with Aboriginal associations within the Collie area near Palmer, see Table 6 below.

Table 6. Historic Places with Aboriginal Associations in and around Palmer, Collie, Western Australia

Site Name (ID)	Other Names	Construction	Historic Themes	Location
Forestry Cottages (P17509)		From 1950	Demographic Settlement & Mobility: Workers (Aboriginal, convict)	13.8 km southwest of the Study Area
Locomotive Shed, Collie (P25329)		N/A	Demographic Settlement & Mobility: Aboriginal Occupation	14.1 km southwest of the Study Area
Soldier's Park, Collie (P15695)	Collie War Memorial, Soldiers Pk & Honour Av	From 1921	People: Aboriginal People	12.7 km southwest of the Study Area
Group Home, Collie (P19008)	Kooloongarmia; Koolingar-Mia Kooloongaruna Group Home	From 1960 Used as a group home from 1978	Demographic Settlement & Mobility: Aboriginal Occupation People: Aboriginal People	10.6 km southwest of the Study Area
Coolangatta – Site (P06350)	Salvation Army Children's Home (fmr)	From 1900	People: Aboriginal People	4.8 km west of the Study Area

[6] Government of Western Australia, A Thematic History of Western Australia <https://www.wa.gov.au/government/publications/thematic-history-of-western-australia>


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BOLTON POOLS
(ID 4696)
Collie River Waugal
(ID 16713)
CAMPING GROUND.
(ID 4695)
SPRING
(ID 4694)
SHOTTS 07
(ID 4797)
SHOTTS 04
(ID 4794)
EWINGTON CAMP.
(ID 603)
SHOTTS 02
(ID 4792)
SHOTTS GRAVES
(ID 15331)
Bunbury
Project Area
Legend
Study Area Aboriginal
Cultural Heritage
Lodged
Register
Map 4. ACH Intersecting and within 5 km of the Study Area, Palmer, WA
1 0 1 2 km
Drafted by Tessa Woods
Last updated: 10/04/2025
Satellite imagery source: Google Satellite
GDA94 / MGA zone 50 (EPSG:28350)
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Predictive Statements

This section provides a preliminary assessment of the potential for Aboriginal cultural heritage within the Collie BESS and Solar PV Study Area, based on the background research presented above. The archaeological and ethnographic predictive statements are based on the results of the desktop review of known Aboriginal cultural heritage sites and places that have been previously recorded in this region.

Based on the predictive statements made in Table 7, there appears to be an overall high chance of encountering water sources, camps, ethnographic sites including creation / dreaming narrative, artefact scatters, and water sources; a moderate chance of encountering, burials, modified trees, historic Aboriginal heritage places, potential archaeological deposits (PADs), and plant resources; and a low chance of other types of sites, including grindstones / grinding patches, rock art, rockshelters, quarries, and human-made structures.

Despite the predictive statements outlined below, the archaeological characteristics and ethnographic values of the Study Area in their entirety are currently unknown, as no area-specific surveys have been conducted of the Study Area (Map 3).

Table 7. Predictive Statements for the Study Area

Site Type	Site Description	Landform/Environment	Predictive Statement
Artefact Scatters / Isolated Artefacts	Stone flakes, cores, and debris from stone artefact manufacture. Some flakes may show signs of having been used. Tools that have been deliberately shaped (formal tools) may include scrapers, backed blades and adzes.	Found in both surface and subsurface contexts across many different landforms, including around creek lines, gravel flats, plains and rock shelters. There is a demonstrated association between water sources and artefact scatters on the Darling Scarp.	Artefact scatters are a common site type that preserves well over a long period of time in both surface and subsurface contexts. There is consequently a high chance that artefact scatters and isolated artefacts within the Study Area. There are four artefact scatters listed on the Register within 5 km of the Study Area (*Shotts 03* P04793, *Shotts 04* P04794, *Shotts 07* P04797, *Shotts 02* P04792).
Scar Trees	Modified trees in this region may relate to Aboriginal use of trees. Aboriginal people removed bark from the main trunk of a tree to manufacture dishes or shields. In other cases, scarring may be caused during the extraction of honey.	These types of sites will occur in locations where there are trees that are more than 150 years old.	There appear to be some areas of remnant bushland within the Study Area. There are also large, mature trees within the Study Area which may be modified trees. There are no known examples of this type of site in the vicinity of the Study Area; however, there is one modified tree listed on the ACHIS Register within 4 km of the Study Area (*Shotts Grave ID 15331*). Therefore, there is a moderate chance of encountering scar trees in the Study Area.
Grind Stones / Grinding Patches	Grinding stones are stones that have been used for grinding seeds or sharpening stones, resulting in a distinctive abraded surface. Grinding patches are similarly utilised patches of bedrock.	Grinding patches occur on suitably flat areas of bedrock, whereas Grindstones can be found throughout the landscape, but are often closely associated with water sources.	Due to their often-distinctive nature, grindstones were sometimes collected by farmers and pastoralists in the historical period. Although, there is a tributary of the Collie River (Pollard Brook) which runs through the Study Area, there are no visible patches of bedrock

Site Type	Site Description	Landform/Environment	Predictive Statement
			on aerial imagery. Accordingly, there is a low chance of encountering grindstones in the Study Area.
Potential Archaeological Deposits (PAD)	Potential archaeological deposits may contain cultural material and could possibly be dated if charcoal or other dateable organics are present. Preservation of any organic material may vary depending on the soil type.	These types of sites are generally found in rock shelters where sediment builds up overtime. Outside of rock shelters, in open air artefact scatters, sites are usually contained to the surface where the artefacts build up in a single palimpsestic deposit which rarely extends below the surface.	Aerial imagery of the Study Area demonstrates multiple corridors of bushland that may have experienced little to no historical ground disturbance. Accordingly, there is a moderate chance of encountering a PAD; However, this will also depend on local soil profiles, which can be assessed during an archaeological survey
Rock Art	Rock art may be in the form of engravings or paintings. There are many different styles of engravings, including incised, pecked, grooved and abrasion.	This site type is found on bedrock outcrops of different sizes and formations. The surface is mainly flat. Paintings are mostly found in sheltered contexts such as rock shelters or overhangs providing good conditions for the preservation of the pigment used in the art. Engravings can be found in both open and closed contexts.	No large outcrops or suitable rock formations were identified within the Study Area at a desktop level from aerial imagery. Therefore, there is a low chance of encountering engravings and rock paintings in the Study Area.
Quarries	These types of sites consist of stone sources, either in the form of bedrock or large nodules that are in their primary context. Quarries may be classed as stone procurement sites that usually have an associated artefact scatter containing stone reduction/knapping areas.	Located in areas where there are suitable outcrops of stone.	There is a low chance that this site type would be found in the Study Area, as no large outcrops or rock formations were identified based on the aerial imagery alone. Smaller-scale quarry activity may have taken place using small seams or nodules of high-quality stones such as quartz. This can only be assessed during an archaeological survey.
Burials	Burials may include an isolated bone fragment or could involve complete individuals or multiple burials.	Skeletal material generally occur in areas where the ground is softer such as along creek banks or in dunes.	There is one Registered Site listed as 'burial' (*Shotts Grave ID 15331*) within 4 km of the Study Area. In addition, there is soft, sandy soil profile along the creek margins within the Study Area. Therefore, there is a moderate chance of encountering burials or burial markers within the Study Area.
Rock Shelters	Rock shelters were used for shelter and other purposes by Aboriginal people. They may have conducted certain activities while in a shelter, such as making stone tools or caching items.	These occur where there is suitable bedrock present and may include overhang and cave formations.	There does not appear to be any large rock formations within the Study Area that would create this type of site. There is a low chance that this type of site would be encountered in the Study Area.
Human-Made Structures	Human-made structures include remnant structures used for housing, stone arrangements or other. House structures possibly constructed from branches, stone, corrugated iron, mud or	The preservation of remnant structures, particularly those used for housing, may depend on the materials used, exposure to the elements and land use activities. Stone arrangements are present in areas where suitable rock is	Background research has determined that there are no examples of this type of site in the vicinity of the Study Area, there also appears to be no areas of granite or rock outcrop where these sites often occur within the Study Area.

Site Type	Site Description	Landform/Environment	Predictive Statement
	other materials most likely in the historic period. Stone arrangements may include semi-circular rings of stacked stone, lizard traps, cairns, hunting hides, and standing stones.	present; however, these types of sites are not very common overall.	There is a low chance of encountering this type of site within the Study Area.
Ethnographic sites, including Mythological / Aboriginal Ceremony and Songlines	These types of sites are places of significance to Aboriginal people and may be connected to ceremonial activities and/or spiritual stories. In addition, there may be ethnographic information related to the historic use of the area by Aboriginal people.	These may be present across a range of different landscapes. Certain natural features may be considered a part of these types of sites, including specific landforms, rock formations, water sources, and plant or animal concentrations.	The Study Area intersects Registered ACH Site *Collie River Waugal* (ID 15331). This place is known as an important creation and Dreaming narrative for local Noongar people. There may be other areas of ethnographic value that could potentially be identified during a survey. This may include but is not limited to the tributaries associated with the Collie River and which are not currently mapped as part of the DPLH boundary of *Collie River Waugal* (ID 15331). There may be other natural features of interest in other parts of the Study Area that would only be able to be identified during a survey and through consultation. The presence of historic camps (*Ewington Camp* P0603, *Spring* P04694) demonstrates a continued Aboriginal connection to this area during the historic period, including evidence for ceremonial and ritual activity in the region.
Water Sources	These types of places include rock holes, natural springs, creeks, pools and soaks that were an important source of water for Aboriginal people and later on the early settlers.	These are mostly located in low-lying areas where water collects along creeks and in soaks, or they may be associated with rock formations.	There is a high chance of encountering this type of site within the Study Area, due to the presence of tributaries of the Collie River. A number of water sources are located within 5 km of the Study Area (*Ewington Camp* P0603, *Spring* P4694). Spiritual and creation narratives are often associated with fresh water sources.
Plant Resources	These include plants of cultural significance including but not limited to food, fibre, toolmaking and shelter resources.	These may be located anywhere across the landscape, but especially in areas associated with wetlands and where remnant vegetation remains.	There is a moderate chance for encountering this site type based on the native vegetation in the Study Area.
Historic Sites	For the purpose of this due diligence assessment, historic sites are solely sites with historic themes associated with Aboriginal People.	These may be located anywhere across the landscape but especially in and around previously recorded historical Aboriginal sites (such as reserves or farm camps) that have a known historic component.	There are five historic sites with Aboriginal themes within 14 km of the Study Area. The area has been farmed and mined for over 150 years and the ethnographic background suggests that Aboriginal people camped throughout the region while working on local farms. While no historical heritage places have been previously identified within the Study Area, there is a

Site Type	Site Description	Landform/Environment	Predictive Statement
			moderate chance of encountering this type of place, possibly in the form of out camp remnants, agricultural structures and/or other historical objects and features..

SECTION THREE – RISK ASSESSMENT

This section presents a preliminary desktop assessment of the potential risk of encountering Aboriginal Cultural Heritage within the Study Area, prior to any mitigation measures and controls being put in place.

Potential Heritage Impacts

Aboriginal Cultural Heritage

The Aboriginal Heritage Due Diligence Guidelines (Department of Aboriginal Affairs and Department of the Premier and Cabinet, 2013) provide a framework for assessing the risk of impacting ACH, and consists of:

a) An assessment of the cultural landscape where an activity is to take place.
b) An assessment of the proposed land use activity and the consequent potential impact on the landscape.

Utilising the Aboriginal Heritage Risk Matrix in Appendix Five (Table 11) and with knowledge of the due diligence guidelines, the level of risk can be categorised as low, medium, or high, with the corresponding level of action required.

All of the 'previous land use' categories exist within the Study Area, with works predominately expected to take place in areas that would be classified as Significantly Altered to Minimally Altered Environments. The proposed impacts will likely fall between significant (includes new roads or tracks, land clearing, intensive soil or core sampling) and major disturbance (includes soil excavation, major construction works, mechanical earthmoving and trenching). For a breakdown of the levels of land-use activities, see Appendix Four. Based on the previous land use categories and proposed disturbance, Archae-aus have assessed the risk of encountering Aboriginal cultural heritage within sections of the Study Area as low, moderate, and high (Map 5 and Map 6). However, Aboriginal cultural heritage may be located across other parts of the Study Area, and the presence or absence of cultural heritage can only be determined through archaeological and ethnographic surveys of the Study Area.

As per the risk matrix in Appendix Six (Table 11), a high-risk activity may cause permanent damage to Aboriginal cultural heritage. Accordingly, the following initial mitigation measures are proposed:

- Initial engagement and consultation with Gnaala Karla Booja Aboriginal Corporation, such as through the Noongar Standard Heritage Agreement and/or Activity Notice processes.
- An archaeological and ethnographic heritage field assessment of areas of high, medium, and low Aboriginal cultural heritage potential within the Disturbance Footprint; and a sample survey of areas of low potential for ACH within the broader Study Area, including consultation with nominated Gnaala Karla Booja Noongar Traditional Owners.
- An update and refinement of the risk assessment following the field assessments.

Based on the results of the archaeological and ethnographic field assessments, if ACH places are found to be within the proposed development areas, then the project should be redesigned to **avoid disturbance to these places**. If the development cannot be redesigned to avoid these places and the impact is **unavoidable**, then the proponent should seek section 18 approval under the AHA and

develop a co-designed Cultural Heritage Management Plan (if required by the GKB Aboriginal Corporation).

Aboriginal Cultural Heritage Potential

Based on the results of the desktop assessment, and prior to any mitigation measures being put in place, there is an assessed high and medium risk of the proposed works impacting ACH within certain parts of the Study Area (see Map 6). Therefore, it is highly recommended that heritage surveys occur to refine these areas of ACH potential to better manage the risk. This ACH includes surface Aboriginal archaeological finds and features, areas of subsurface archaeological potential, and areas of ethnographic interest and significance.

Tangible heritage refers to physical cultural material that may remain at a place with past Aboriginal usage. To identify potential tangible heritage, the archaeological field assessment should inspect all areas of high, moderate, and low potential for ACH within the proposed development footprint. In addition, it is recommended that for areas outside of the proposed development footprint, all areas of high and moderate potential for ACH be surveyed. In addition, this will aid in mitigating any risk of impacting adjacent or nearby Aboriginal Cultural Heritage.

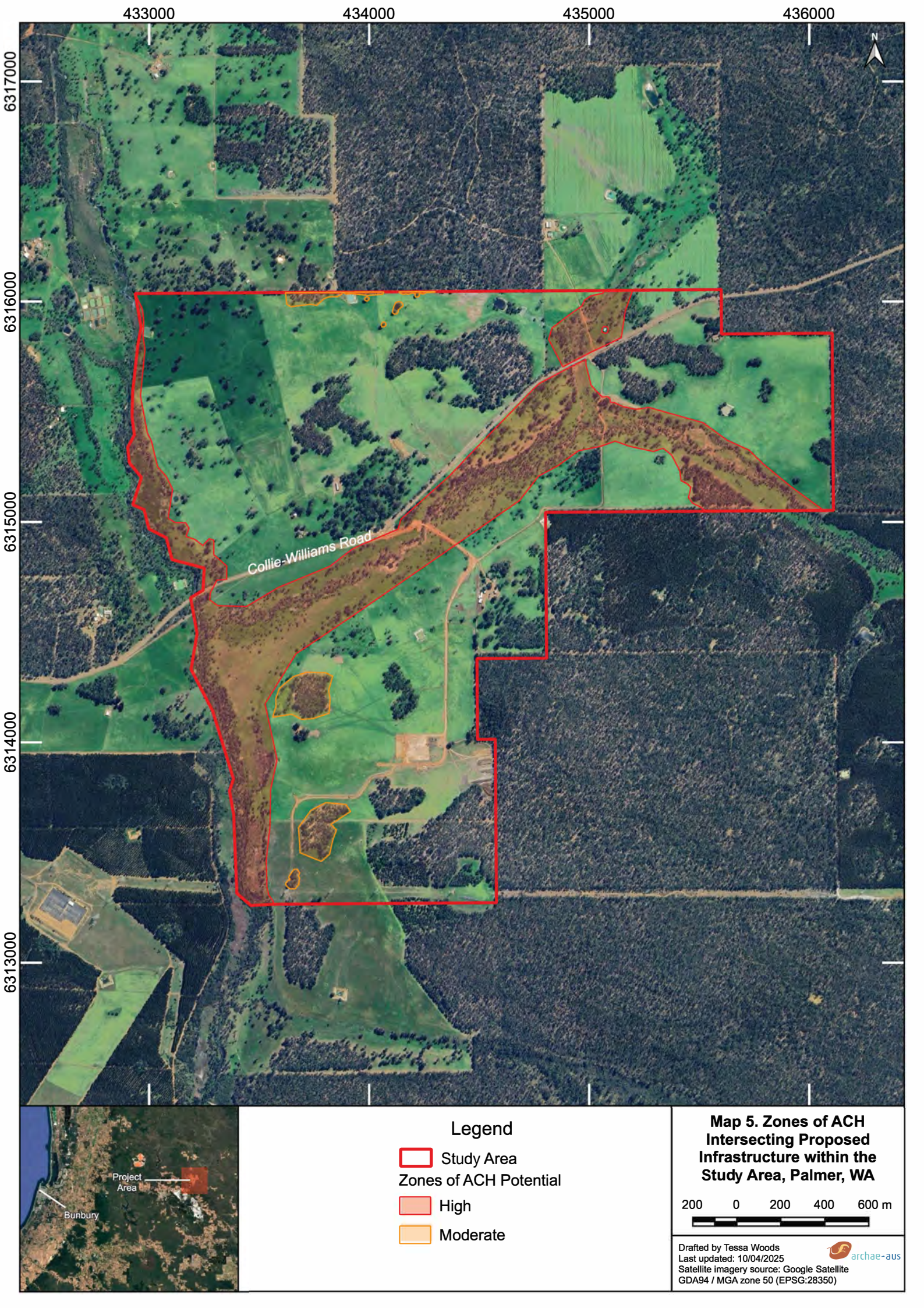
Intangible heritage, identified through ethnographic field assessments, refers to traditions, rituals, knowledge and skills that communities recognise as part of cultural identity. This type of heritage can be linked to physical sites and landscape features and can be rooted in cultural practices and communities, connected to landscape usage. Stories can be tied to specific places, such as waterways, rock features or camp places, which can still exist within a community's shared consciousness even after a place has been disturbed by modern development or agriculture. For this reason, an ethnographic field assessment may not be targeted only to places of proposed ground disturbance or areas of untouched vegetation but may include discussion of the wider landscape and places outside the immediate survey area. Ethnographic assessments should be conducted on Country, directed by Noongar Traditional Owners and Knowledge Holders who have knowledge of the intangible heritage of the place and the wider landscape features that may inform the intangible heritage management for the survey area.

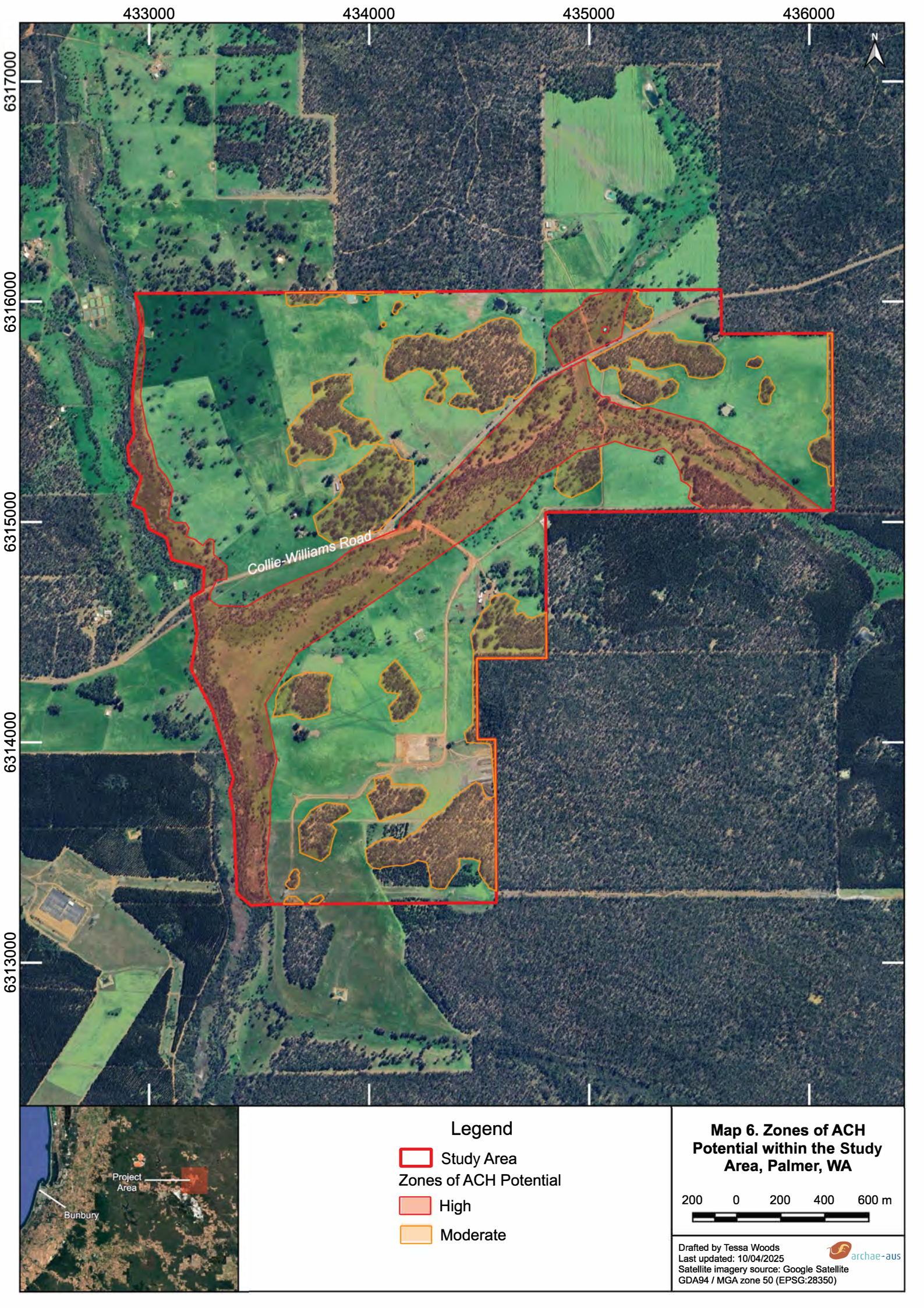
Areas of Archaeological and Cultural Heritage Risk

There are three levels of assessed risk for encountering Aboriginal cultural heritage within the Study Area: High Risk, Moderate Risk and Low Risk (Map 5 and Map 6). Detailed descriptions of each level of risk are provided below. It is highly recommended that archaeological and ethnographic surveys occur to refine the areas of Aboriginal cultural heritage risk.

Table 8. Areas of Aboriginal Cultural Heritage Risk within the Study Area

Risk Categories	Criteria	Location within the Study Area
High Risk	**Aboriginal Cultural Heritage** • Landforms where cultural heritage sites are typically found in this region. • Areas with minimal disturbance or impacts to sub-surface soils. • More likely to occur where there is undisturbed bedrock and rock formations, along undisturbed watercourses and where there is remnant vegetation.	• Areas of dense native or remnant bushland • Registered ACH Site *Collie River Waugal* (ID 16713) and areas adjacent to waterways including • Any wetland areas
Moderate Risk	**Aboriginal Cultural Heritage** • Landforms that Aboriginal people were likely to have used occasionally or alternatively, may include landforms that would have been intensively used but have since been impacted by agricultural practices. • Artefacts have been found in cleared paddocks elsewhere in the region and so land clearing is not necessarily an indicator that an area has been heavily impacted.	• Sparse copse of trees in paddocks • Moderately disturbed agricultural areas such as livestock paddocks
Low Risk	**Aboriginal Cultural Heritage** • Areas where there is a low likelihood of encountering Aboriginal cultural heritage sites and where modern impacts are high to both the surface and sub-surface soils. • Graded tracks, sealed roads, dams and modern buildings.	• Heavily disturbed or developed areas including houses, barns and other farming infrastructure • Collie-Williams Road and road reserve


433000
434000
435000
436000
6317000
6316000
6315000
6314000
6313000
N
Collie-Williams Road
Project Area
Bunbury
Legend
Study Area
Zones of ACH Potential
High
Moderate
Map 5. Zones of ACH Intersecting Proposed Infrastructure within the Study Area, Palmer, WA
200 0 200 400 600 m
Drafted by Tessa Woods
Last updated: 10/04/2025
Satellite imagery source: Google Satellite
GDA94 / MGA zone 50 (EPSG:28350)
archae-aus


433000
434000
435000
436000
6317000
6316000
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6314000
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N
Collie-Williams Road
Project Area
Bunbury
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Map 6. Zones of ACH Potential within the Study Area, Palmer, WA
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Last updated: 10/04/2025
Satellite imagery source: Google Satellite
GDA94 / MGA zone 50 (EPSG:28350)
archae-aus

Mitigation and Management Measures

Based on the predictive statements made in Table 7 there appears to be an overall:

- **High** chance of encountering water sources, camps, ethnographic sites including creation / dreaming narrative, artefact scatters, and water sources.
- **Moderate** chance of encountering, burials, modified trees, historic Aboriginal heritage sites, potential archaeological deposits (PADs), and plant resources.
- **Low** chance of other types of sites, including grindstones / grinding patches, rock art, rockshelters, quarries, and human-made structures.

However, the archaeological characteristics of the entire Study Area and proposed development footprint are currently unknown.

Following the completion of the DDA, a heritage field assessment and survey of the disturbance footprint will be required. The results of field assessments will be able to refine the levels of archaeological and cultural heritage potential for the Study Area and provide a better understanding of the zones of potential associated with the proposed development. Further details about the proposed land use activities and levels of disturbance associated with the proposal) will be required to identify cultural heritage risk for the project (see Appendix Five).

These surveys will require the participation of the appropriate Aboriginal knowledge holders and consultants who have been nominated by the Gnaala Karla Booja Aboriginal Corporation. Accordingly, in order to facilitate future archaeological and ethnographic surveys, it would be best advised that the proponent an agreement with the GKB Aboriginal Corporation for the GKB Indigenous Land Use Agreement (ILUA) area (if not already done so).

The proponent can contact DPLH and/or SWALSC to start the NSHA process as soon as possible as this will provide a level of certainty for engaging the appropriate knowledge holders and within a reasonable timeframe. According to SWALSC[7]:

> *The Noongar Standard Heritage Agreement (NSHA) provides a uniform process for proponents to engage with Noongar traditional knowledge holders and conduct Aboriginal Heritage Surveys. The NSHA also allows for compliance with the Aboriginal Heritage Act 1972, and the Aboriginal Heritage Due Diligence Guidelines[8].*
>
> *If your organisation is undertaking ground disturbing activities within any of the settlement agreement areas, which may affect Aboriginal cultural heritage it would be prudent to have your activities covered by an NSHA.*

Please note, Archae-aus is not permitted to carry out the NSHA or Activity Notice processes on behalf of the proponent. The SWALSC legal team prefers to prepare the agreements.

[7] https://www.noongar.org.au/noongar-standard-heritage-agreements
[8] And presumably under the new ACHA and ACH Guidelines.

Contact Details

Gnaala Karla Booja Aboriginal Corporation

contact@gkb.org.au

(08) 6717 0010

South West Aboriginal Land and Sea Council

legal.team@noongar.org.au

(08) 9358 7400

Department of Planning Lands and Heritage (South West Native Title Settlement Heritage)

swsheritage@dplh.wa.gov.au

(08) 6551 7985

SECTION FOUR – DISCUSSION AND RECOMMENDATIONS

Advice

This desktop and constraints analysis reveals that the Study Area intersects one Registered Aboriginal Cultural Heritage (ACH) Site, *Collie River Waugal* (ID 16731), and also borders a tributary (Pollard Brook) which forms part of the larger Collie River system. The *Collie River Waugal* (ID 16731) is listed as a Creation and Dreaming narrative. There are no other ACH Lodged or ACH Historic sites intersecting the Study Area. This is likely due to the paucity of reliable heritage surveys conducted in this area; the eight heritage assessments that do intersect the Study Area include seven large-scale and broad ethnographic assessments, and one small archaeological assessment. Accordingly, this suggests that the DPLH ACHIS is unable to provide an accurate reflection of Aboriginal cultural heritage in this specific area, particularly for tangible archaeological material which requires a pedestrian survey.

The existence of a waterway through the Study Area also increases the potential for remnant wetland areas, which have a higher potential for the presence of sub-surface archaeological material associated with Aboriginal people camping and possibly burials. This may increase the potential for high heritage risk in areas near the waterway, even areas disturbed for agricultural purposes.

This Desktop and constraints analysis has assessed the potential for site types in the Study Area based on a search of heritage registers and an assessment of the environmental, ethnographic, and archaeological context of the greater Collie area. As a result, the desktop assessment has determined high, moderate and low potential for encountering Aboriginal Cultural Heritage within the Study Area, as outlined in Table 7 and Table 8.

Recommendations

The desktop due diligence assessment is complete for the proposed Palmer BESS and Solar PV Study Area, as per the extent defined in Map 1. Based on the results of the assessment, Archae-aus recommends the following:

1. An archaeological and ethnographic heritage survey is required for all zones of high and moderate ACH potential within the Hesperia Palmer BESS and Solar PV Study Area.
2. The survey program should allow scope for an inspection of areas of low ACH potential, both within and adjacent to the proposed disturbance footprint, at the discretion of the archaeologist and as may be requested by GKB Traditional Owners present during the survey.
3. The survey design should follow archaeological and ethnographic best practice guidelines and be developed by the archaeologist and anthropologist before the survey and with additional input from the GKB Traditional Owners at the beginning of the survey.
4. Any culturally sensitive landforms not visible on the aerial imagery that may be identified during the survey within or adjacent to the disturbance footprint, such as rocky outcrops, ochre outcrops and water sources, should be examined regardless of whether or not they are located within areas of medium to high ACH potential.

5. If not done so already, Enpowered should sign a Gnaala Karla Booja Noongar Standard Heritage Agreement (NSHA)9, currently enacted through the South West Land and Sea Council (SWALSC).
6. Following the signing of the NSHA, Enpowered should submit an Activity Notice10 to Gnaala Karla Booja Aboriginal Corporation, so that the appropriate GKB Knowledge Holders and cultural heritage consultants can be nominated for the heritage surveys.
7. The heritage survey will identify the next steps required under the AHA process, based on an updated heritage risk assessment, including whether a Cultural Heritage Management Plan is required.

[9] https://www.noongar.org.au/noongar-standard-heritage-agreements
[10] https://www.noongar.org.au/nsha-activity-notices

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APPENDIX ONE – LEGISLATION AND BEST PRACTICE GUIDELINES

This section provides background and context from the perspective of legislation and best practice standards that may relate to cultural heritage places within the Solar PV and BESS Palmer Study Area. It details WA State and Commonwealth legislation and processes in relation to Aboriginal and historical cultural heritage as well as internationally recognised cultural heritage standards, and national and international best practice processes.

Aboriginal Heritage Legislation

WA Legislation

Aboriginal cultural heritage in WA is protected by the *Aboriginal Heritage Act 1972* (the AHA), currently administered by the Department of Lands, Planning and Heritage (DPLH). In the 1970s, the AHA was a progressive piece of legislation. However, it has come under increasing criticism in recent years and is widely recognised as not meeting 21st century best practice standards of heritage legislation. Consultation on the development of new Aboriginal heritage legislation began in 2017 following the election of a new ALP state government.

The destruction of Juukan Gorge by Rio Tinto in 2020 brought problems with the AHA into sharp focus, particularly the section 18 process for approving the destruction of Aboriginal Sites. The Parliamentary Inquiry into the destruction of Juukan Gorge strongly criticised the section 18 process in its final report (Parliament of the Commonwealth of Australia, 2021). The committee concluded that the original good intentions of AHA had failed and it had become in practice 'a mechanism through which the disturbance, damage and destruction of both physical and intangible Aboriginal cultural heritage has repeatedly taken place' (para 4.125).

In summary, the 'AHA has failed to strike a balance between the needs and aspirations of the various parties and has excessively favoured the interests of proponents' (para 4.126).

Other problems identified include the formal role of Aboriginal people in the protection of their heritage, including the absence of legislated representation on the ACMC, definitions of Aboriginal cultural heritage and the lack of integration with Native Title legislation.

The committee encouraged the WA government to continue its consultation with regard to its draft Aboriginal Cultural Heritage Bill, recommending that it address the concerns already expressed in submissions by Aboriginal people and that it accommodates 'the principles of free, prior and informed consent', conducting consultation 'in a way that accords with Aboriginal traditions of dialogue' (para 4.135).

After extensive consultation, the WA government passed the *Aboriginal Cultural Heritage Act 2021* (ACH Act) in December 2021, and it came into effect in July 2023. The objectives of this legislation were:

- To recognise the importance of Aboriginal cultural heritage and Aboriginal custodianship.
- To recognise, protect and preserve Aboriginal cultural heritage.
- To manage activities that may harm Aboriginal cultural heritage.
- To promote an appreciation of Aboriginal cultural heritage.

However, following extensive criticism of the new legislation, the WA Government has now repealed the ACHA and instead introduced amendments to the AHA, which was proclaimed on the 15 November 2023. The amendments to the AHA attempt to address the criticisms of the Section 18 process by:

- Formal recognition of Native Title holders and rights of appeal in respect of s18 decisions by the Minister.
- Replacement of the ACMC with an Aboriginal Cultural Heritage Committee (ACHC), based on the composition of the Aboriginal Heritage Council established under the ACHA, with male and female Aboriginal co-chairs, and preferably a majority of members of Aboriginal descent.
- Requirement to bring any new information to the attention of the Minister through DPLH with respect to a s18 approval.

Currently, DPLH have published the following information documents in relation to the amended AHA:

- **Consultation Policy** – outlining 'the Government's expectations of proponents to undertake consultation with Aboriginal people prior to submitting a section 18 notice'. https://www.wa.gov.au/government/document-collections/aboriginal-heritage-approvals#policy-and-guidelines
- **Aboriginal Heritage Act 1972 Guidelines** – providing practical guidance for landowners where section 18 consent is required to impact Aboriginal cultural heritage (sites and objects). https://www.wa.gov.au/system/files/2023-11/aboriginal_heritage_act_1972_guidelines.pdf

Under the AHA (s17) it remains an offence to alter an Aboriginal site in any way, including collecting artefacts; conceal a site or artefact; or excavate, destroy or damage in any way an Aboriginal site or artefact; without the authorisation of the Registrar of Aboriginal Sites under Section 16 or the Minister of Aboriginal Affairs under Section 18 of the AHA.

An Aboriginal site is defined in Section 5 of the AHA as:

e) Any place of importance and significance where persons of Aboriginal descent have, or appear to have, left any object, natural or artificial, used for, or made or adapted for use for, any purpose connected with the traditional cultural life of the Aboriginal people, past or present.
f) Any sacred, ritual or ceremonial site which is of importance and special significance to persons of Aboriginal descent.
g) Any place which, in the opinion of the Committee [i.e. Aboriginal Cultural Heritage Committee, or ACHC], is or was associated with Aboriginal people and which is of historical, anthropological, archaeological or ethnographical interest and should be preserved because of its importance and significance to the cultural heritage of the State.
h) Any place where objects to which this Act applies are traditionally stored, or to which, under the provisions of this Act, such objects have been taken or removed.

Section 39 (2) states that:

> In evaluating the importance of places and objects the Committee [i.e. the ACHC] shall have regard to —
> a) any existing use or significance attributed under relevant Aboriginal custom;
> b) any former or reputed use or significance which may be attributed upon the basis of tradition, historical association, or Aboriginal sentiment;
> c) any potential anthropological, archaeological or ethnographical interest; and

d) aesthetic values.

Section 39 (3) states that:

> Associated sacred beliefs, and ritual or ceremonial usage, in so far as such matters can be ascertained, shall be regarded as the primary considerations to be taken into account in the evaluation of any place or object for the purposes of this Act.

Information about known heritage places and their legal status is available through the DPLH Aboriginal Cultural Heritage Inquiry System (ACHIS). There are currently three categories by which the ACHIS characterises heritage places:

- Registered Aboriginal Sites – Aboriginal Cultural Heritage (ACH) **Register layer**. These places have been formally assessed by the ACMC or ACHC and have been determined to be sites under s5 of the AHA.
- Lodged places – Aboriginal Cultural Heritage (ACH) **Lodged layer**. Information about these places is in the process of being verified.
- Historic records - Aboriginal Cultural Heritage (ACH) **Historic layer**. These places have been determined not to meet the criteria under s5 of the AHA for a range of reasons, which may include insufficient information. The submission of new information about these places may result in reassessment of their status.

It should be noted that all Aboriginal heritage places are protected under the AHA whether they are recorded or not. ACHIS does not provide a comprehensive or definitive record of Aboriginal Cultural Heritage Places in Western Australia. The absence of records on ACHIS cannot be interpreted as absence of sites.

Fees

The WA Government has introduced new fees associated with section 16 and section 18 applications. Commercial and Government proponents are expected to pay the following fees for new applications:

- A $250 application fee.
- $5,096 multiplied by the number of ***proposed investigation sites*** for section 16 applications and ***identified sites or places*** for section 18 applications.

> *'The Director General has the ability to waive, reduce or refund fees; and extend the time within which to pay fees. Any such matter will be considered on a case-by-case basis[11]'.*

Commonwealth Legislation

Aboriginal heritage sites are also protected under the *Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (the HPA). The HPA complements state/territory legislation and is intended to be used only as a 'last resort' where state/territory laws and processes prove ineffective. Under the HPA the responsible Minister can make temporary or long-term declarations to protect areas and objects of significance under threat of injury or desecration. The HPA also encourages heritage protection through mediated negotiation and agreement between land users, developers and Aboriginal people. Commonwealth heritage legislation is currently under review, as recommended by the Juukan Inquiry.

[11] https://www.wa.gov.au/government/document-collections/aboriginal-heritage-approvals

Aboriginal human remains are protected under the AHA and the HPA. In addition, the discovery of human remains requires that the following people are informed: the State Coroner or local Police under section 17 of the *Coroners Act 1996*; the State Registrar of Aboriginal Sites under section 15 of the AHA and the Federal Minister for Aboriginal Affairs under Section 20 of the HPA.

In terms of broader recognition of Aboriginal rights, the Commonwealth *Native Title Act 1993* (the *NTA*) recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people. Under the NTA, native title claimants can make an application to the Federal Court to have their native title recognised by Australian law. The NTA was extensively amended in 1998, with further amendments occurring in 2007, and again in 2009. Under the future act provisions of the *Native Title Act 1993*, native title holders and registered native title claimants are entitled to certain procedural rights, including a right to be notified of the proposed future act, or a right to object to the act, the opportunity to comment, the right to be consulted, the right to negotiate or the same rights as an ordinary title holder (freeholder).

Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act* 1999 (the EPBC Act) is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places — defined in the EPBC Act as matters of national environmental significance.

The EPBC Act enhances the management and protection of Australia's heritage places, including World Heritage properties. It provides for the listing of natural, historic or Indigenous places that are of outstanding national heritage value to the Australian nation as well as heritage places on Commonwealth lands and waters or under Australian Government control.

The National Heritage List includes natural, historic and Indigenous places of outstanding heritage value. The Commonwealth Heritage List comprises natural, Indigenous and historic heritage places on Commonwealth lands and waters or under Australian Government control.

Once a heritage place is listed under the EPBC Act, special requirements come into force to ensure that the values of the place will be protected and conserved for future generations. The EPBC Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

World heritage properties and national heritage places are recognised as a matter of national environmental significance under the EPBC Act. Consequently, any action that is likely to have a significant impact on heritage properties and places must be referred to the Minister and undergo an environmental assessment and approval process.

Nominated places are places that the Minister's delegate has received a nomination on the approved form and carried out an initial assessment on data adequacy. The nomination either will be or has been referred to the Council for assessment. The data will generally be that provided by the nominator but may be updated during assessment. The significance or values attributed to the place are the views of the nominator and not necessarily those of either the Council or the Minister. While waiting assessment these places with this status do not have any statutory protection.

Under the EPBC Act, the Australian Heritage Council (AHC) can only assess places for the National Heritage List if the places are on the AHC's assessment work plan (known as the "priority assessment list"). The Minister sets this work plan each financial year. A nomination becomes ineligible (given the status "nomination now ineligible for PPAL") if it has been considered for two consecutive work plans

but not included. However, it should be noted that a nominated place ruled ineligible in this way can be re-nominated, thereupon becoming eligible again for consideration. Places with this status do not have any statutory protection.

If at some stage during the assessment process for the Commonwealth Heritage List, but prior to listing, a place ceases to be in a Commonwealth area, or, if outside the Australian jurisdiction, is no longer owned or leased by the Commonwealth, then the place becomes "ineligible". Places with this status do not have any statutory protection.

Best Practice Guidelines

Australia

The Burra Charter

The Burra Charter (Australian ICOMOS, 2013) is the foundational document for conserving Australia's cultural heritage. The Charter encapsulates two important aspects in conserving heritage places. First, it establishes the best practice principles and processes for understanding and assessing a place's significance, as well as developing and implementing a conservation plan. Second, the Charter defines and explains the four primary cultural values that may be ascribed to any place: aesthetic, historic, social or spiritual, and scientific. These values are essential as they delineate the types and quality of information needed to accurately determine a heritage place's significance. More recent practice within DPLH with respect to site reporting and significance assessment under the AHA and HA also refer to Burra Charter values.

Archaeological Sites

A Practice Note supplementing the Burra Charter entitled 'The Burra Charter and Archaeological Practice' states that the fundamental principles contained in the Burra Charter apply to archaeological sites. Article 13 of the Burra Charter states: 'Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where there is conflict.' This will be relevant where:

> (a) archaeological features from the earliest phases of a site underlie more recent archaeological features of national, state or local significance, and
>
> (b) where they overlie Aboriginal archaeological remains.

Cultural Landscapes

A Practice Note supplementing the Burra Charter titled 'Practice Note: Cultural Landscapes' states:

> *In Australian cultural landscape management, it can be useful to think about the way certain categories (derived from UNESCO World Heritage meanings) can be used to frame the different attributes, character, and values of cultural landscape. The categories that are most useful are 'designed landscape', 'continuing or living landscape' and 'associative landscape'.*

The Practice Note discusses cultural landscape in terms of cultural landscape as place, practice, process, and management. Section 5 of the Practice Note outlines the principles of cultural landscape in these terms. UNESCO (2021, paragraph 47) defines Associative Cultural Landscape as:

'A landscape with 'powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be significant or even absent.'

The 'Darwin Statement' – Implementing Best Practice Cultural Heritage Principles

In 2018, the Heritage Chairs and Officials of Australia and New Zealand (HCOANZ) agreed to implement best practice cultural heritage principles under what they termed the 'Darwin Statement'. The Heritage Chairs were joined by representatives of Aboriginal and Torres Strait Islander heritage organisations from the Commonwealth, states and territories in an approach aimed at working together to advance 'a shared approach to Australia's cultural heritage' (Heritage Chairs of Australia and New Zealand, 2020: 33). The HCOANZ group emphasised the principles of:

- Sharing the comprehensive Australian heritage story (including the 'critical importance' of recording and sharing the stories of Aboriginal and Torres Strait Islander cultural heritage).
- Inclusion and engagement with Aboriginal and Torres Strait Islander people.
- Cooperation and collaboration.

Their objective was to facilitate Indigenous Cultural Heritage (ICH) legislation and policy across the country that is consistently of the highest standards.

The HCOANZ group made their recommendations at a time of statutory reviews of Commonwealth Acts, including the *Environment Protection and Biodiversity Act 1999* (Cth) (EPBC Act) and the Australian Heritage Strategy, the Commonwealth's key heritage policy document. Their vision, captured in a document entitled *'Dhawura Ngilan'/Remembering Country*, reminds us that, as a foundational principle, Australia's Indigenous Peoples are entitled to expect that Indigenous Cultural Heritage legislation will uphold the international legal norms contained within the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), and that the key to UNDRIP is the principle of self-determination. The four primary visions of *'Dhawura Ngilan'/Remembering Country* are:

1. Aboriginal and Torres Strait Islander people are the Custodians of their heritage. It is protected and celebrated for its intrinsic worth, cultural benefits and the well-being of current and future generations of Australians.
2. Aboriginal and Torres Strait Islander heritage is acknowledged and valued as central to Australia's national heritage.
3. Aboriginal and Torres Strait Islander heritage is managed consistently across jurisdictions according to community ownership in a way that unites, connects, and aligns practice.
4. Aboriginal and Torres Strait Islander heritage is recognised for its global significance.

This is the climate under which the *Aboriginal Cultural Heritage Act 2021* evolved and was enacted. Subsequent amendments to the AHA also reflect more of a rights-based approach, including the replacement of the ACMC with an Aboriginal Cultural Heritage Committee, with Aboriginal male and female chairs and majority Aboriginal membership, and the recognition of Native Title holders.

Corporate Social Responsibility – Aboriginal Community Engagement

In the *A Way Forward* report (Parliament of the Commonwealth of Australia, 2021) the Centre for Social Responsibility in Mining submitted that mining companies do not have the capacity to avoid incidents such as the destruction of Juukan Gorge. The Centre suggested mining companies are not performing in their social responsibility to prevent activities that would be detrimental to the community:

> *The field of mining and social performance is in decline. This has weakened the ability of community relations and social performance professionals to challenge production priorities in circumstances where risks to community exceed reasonable thresholds. Our research highlights shortcomings across organisational structures, internal lines of reporting, management systems, incentives, and talent management.*

Furthermore, Hon Warren Entsch MP (Chair) stated in the Foreword of the 2020 *Never Again Interim Report*, following the Juukan disaster, that corporate Australia 'can no longer ignore the link between its social licence to operate and responsible engagement with Indigenous Australia' (Joint Standing Committee on Northern Australia, 2020). One of the key lessons learnt by Rio Tinto has been the recognition that they put their social licence to operate in jeopardy by focussing on commercial gain ahead of 'meaningful engagement with Traditional Owners' (*ibid.*: 7). According to Recommendation 6.91 of the later *A Way Forward* Report:

> *…. These actions remind corporations that their social licence to operate and corporate ethical positions will affect how they are able to do business in the future – it will affect their investment prospects and return on investment. The same principles apply to other industries, particularly in the context of a transition to renewables, opening the way for them to learn from the mistakes of the mining boom and pay respect to the living heritage of Aboriginal and Torres Islander peoples.*

The idea of 'meaningful engagement' is encapsulated by the UNDRIP (United Nations, 2008) and is underpinned by inter-related principles that include:

- Acknowledging and understanding of the individual aspirations and unique circumstances of different people and groups.
- Building trust.
- Maintaining a respectful manner, that acknowledges the need for reciprocity.
- Effective communication.
- Ensuring informed consent.
- Sustaining the relationship.

International

United Nations Declaration on the Rights of Indigenous People (UNDRIP)

The UN Declaration on the Rights of Indigenous People (UNDRIP) sets out the rights of Indigenous people around the world to set and pursue their own priorities for development, and to maintain and control their cultural heritage (United Nations, 2008). The key provisions relevant to mineral development in the Australian context include Indigenous people having the right to:

- Practice and revitalise their cultural traditions and customs, and states shall provide redress for cultural property taken without free, prior and informed consent (Article 11).

- Practice their spiritual and religious traditions, customs and ceremonies, maintain sites, control ceremonial objects and repatriate human remains, and states shall seek to enable the access and/or repatriation of ceremonial objects and human remains (Article 12).
- Maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions and intellectual property over such heritage, knowledge and culture, and states shall, in conjunction with Indigenous peoples, take effective measures to recognize and protect the exercise of these rights (Article 31).
- Determine and develop priorities and strategies for the development or use of their lands or territories and other resources, and states shall consult and cooperate with Indigenous peoples in order to obtain their free and informed consent before the approval of any project affecting their lands, territories and resources, provide effective mechanisms for redress for any adverse impact from such activities (Article 32).

A core principle of UNDRIP is the right of Indigenous people to make decisions about development proposals that have the potential to impact their land and culture from an informed position that is free from coercion, intimidation, or manipulation. In order to uphold these principles, Free and Prior Informed Consent (FPIC) has been recognised as the best practice approach for engaging with Indigenous people when seeking consent for projects or activities that affect Indigenous people's culture or country (Kemp and Owen, 2014).

While the UNDRIP has not been formally adopted into Australian law, there has been an increasing recognition within industry and through new cultural heritage legislation of the importance of FPIC in building meaningful relationships with Traditional Owners and maintaining a social licence to operate.

Free, Prior and Informed Consent (FPIC)

In relation to cultural heritage and development, the UNDRIP means that Indigenous communities have a right to know, and make decisions about, projects that affect them and their heritage. The principles of Free, Prior and Informed Consent (FPIC) for Indigenous persons or communities, in relation to development projects, are a best practice standard that should be applied. They protect and promote Indigenous Rights within the development process. The processes of FPIC should be ongoing throughout the life of the project. To break this down:

- ***Free*** **-** the process to be free of manipulation or coercion (including financial).
- ***Prior*** **-** the process occurring in advance of any activity associated with the decision being made and allowing time for traditional decision-making processes.
- ***Informed*** **-** objective, accurate, current and easily understandable information.
- ***Consent*** **-** right to approve or reject a project (Hill, Lillywhite and Salmon, 2010).

According to the International Council on Mining and Metals' Good Practice Guide (ICMM, 2015), FPIC is of notable importance in the context of Indigenous Peoples involved with mining, for the following reasons:

- Historically, Indigenous Peoples have commonly been excluded from decision-making processes, and the result has often been detrimental to their well-being.
- FPIC has been mandated or recommended in a number of international and national legal and policy documents.

- Calls for the right to FPIC are closely linked to Indigenous Peoples' pursuit of the right to self-determination and the rights to lands and territories.
- The issue of FPIC is linked to the broader debate around ensuring a fair distribution of the costs, benefits, risks and responsibilities associated with mining activities.
- FPIC is also linked to an ethical principle that those who could be exposed to harm or risk of harm should be properly informed about these risks and have an opportunity to express a willingness to accept such risks or not. (ICMM 2015).

International Council on Mining and Metals – Good Practice Guide: Indigenous Peoples and Mining

In realising the need for more meaningful involvement of Aboriginal peoples in decision making processes affecting their heritage, the International Council on Mining and Metals (ICMM, 2015: 19) has outlined 'meaningful involvement in project decision-making', as follows:

- Develop a shared understanding of affected indigenous groups in terms of their culture, spirituality, organizational and decision-making structures, claims and rights to lands, values, concerns and history, including previous experiences with state-led decision-making processes and with mining or other development projects.
- Collaboratively develop an effective means to ensure that Indigenous Peoples are informed about and understand the full range (short, medium and long term) of potential environmental, social and health impacts from a mining project on their community, and any benefits it may offer across the full project cycle. Companies should also seek to communicate the perspectives of relevant stakeholders on proceeding with the project (both positive and negative). It is good practice for local stakeholders to hear the views of other people about the project (e.g. from non-governmental organizations (NGOs), government bodies, academics, industry experts and other communities that have dealt with the company) where they may be able to usefully contribute additional information or perspectives. If requested and appropriate, companies should also consider providing Indigenous Peoples with the means to engage independent information-gathering experts of their own choice.
- Agree on appropriate decision-making processes for the ongoing involvement of Indigenous Peoples, which are based on a respect for customary decision-making processes and structures. … Companies will need to spend time in gaining an understanding of the complexities and dynamics of such local processes and structures, as well as any differences or divisions that may exist within communities, in order to achieve the most representative outcomes.
- Ensure that the involvement of Indigenous Peoples is inclusive and captures the diversity of views within and between communities (rather than only community leaders' views) and constructively engages with affected Indigenous Peoples to address any concerns they may have that the principle of inclusivity might undermine customary decision-making processes. Companies should also ensure that their engagement is characterized by openness and honesty, and could not be construed as involving coercion, intimidation or manipulation.
- Agree acceptable timeframes to make decisions throughout the lifetime of the project, taking into consideration logistics, local customs, commercial requirements and time needed to build trusting relationships. Ensure that it is clear how the timetable for involvement links into when project decisions are made. Potentially impacted Indigenous Peoples' initial involvement should be

sought well in advance of commencement or authorization of activities, taking into account Indigenous Peoples' own decision-making processes and structures.

- Agree on the terms and conditions for the provision of any ongoing community support with affected indigenous stakeholders and any associated reciprocal obligations.
- Record the process and decisions reached where Indigenous Peoples are involved, including the results of any monitoring or reviews, to provide a record for current or future generations who may be affected by the decisions, and to ensure transparency in the decision-making process.
- Support indigenous communities' capacity to engage in decision making, for example by providing access to independent expert advice where appropriate, capacity building, facilitation and mediation, or involving external observers. Capacity-building efforts can be included as an element of an Indigenous Peoples' development plan, which aims to enhance benefits and minimize the adverse effects of a project on significantly impacted Indigenous Peoples.

Such principles should inform the co-development of Cultural Heritage Management Plans with Aboriginal individuals and communities in the contemporary context.

International Finance Corporation – Performance Standards on Environmental and Social Sustainability

Within an international framework, the International Finance Corporation (IFC), the World Bank Group, has established Performance Standards on Environmental and Social Sustainability (IFC, 2012). The standards are:

> *directed towards its clients, providing guidance on how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way … In the case of its direct investments (including project and corporate finance provided through financial institutions), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced (IFC, 2012).*

The Performance Standards (PS) were developed and are a requirement by the World Bank for projects in developing countries. The Standards do, however, provide an International Benchmark that resource companies worldwide can use in their projects. Performance Standards 7 and 8 are most relevant to Aboriginal cultural heritage.

IFC Performance Standard 7

Includes guidance where restoration *in situ* is not possible, including: minimising adverse impacts and implementing restoration measures in a different location that ensure maintenance of the value and functionality of the cultural heritage, including maintaining or restoring any ecosystem processes needed to support it; ensuring the permanent removal of historical archaeological artefacts and structure is carried out in a manner that complies with applicable law for the protection of cultural heritage and/or the developer engages competent professionals to assist with the identification and protection of cultural heritage; and/or compensation is provided to the Affected Indigenous Communities in instances where:

- it is demonstrably not feasible to minimise adverse impacts and ensure the maintenance of the value and functionality of the cultural heritage; or
- the Affected Communities are using tangible cultural heritage for long-standing cultural purposes.

IFC Performance Standard 8

Performance Standard 8 concerns the importance of cultural heritage for present and future generations and seeks to ensure that developers protect cultural heritage in the course of their activities. The equitable sharing of the benefits for the use of cultural heritage is another objective (IFC, 2012). The scope of the standard relates to the implementation of actions within the framework of the developer's Environmental and Social Management System. Cultural heritage refers to:

- Tangible forms of cultural heritage (moveable and immoveable objects, sites and structures having a range of values – archaeological, historic, cultural and religious).
- Unique natural features and tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls. (IFC, 2012).

There are three specific requirements for tangible forms of cultural heritage during the Project Design and Execution Phase:

- Compliance with the applicable laws regarding cultural heritage.
- Identification and protection of cultural heritage through the employment of internationally recognised practices for the protection, field-based study and documentation of cultural heritage.
- Where the likelihood of risk or direct impact are determined, competent professionals are retained to assist with the identification and protection of cultural heritage (IFC, 2012).

When the development area contains cultural heritage or prevents access to previously accessible cultural heritage sites used by the community, the developer will allow access and, if necessary, provide an alternative way to the cultural site, subject to overriding health, safety, and security considerations (IFC, 2012).

For replicable cultural heritage, avoidance is the preferred cultural heritage management technique. Where this is not possible, restoration measures may be used; however, this is not a common practice in Australian contexts. The permanent removal of replicable cultural heritage (i.e. through salvage) is acceptable if carried out by a competent heritage professional.

Non-replicable cultural heritage is best protected by preservation *in situ*, since removal is likely to result in irreparable damage or destruction of the cultural heritage. The removal of any non-replicable cultural heritage will be acceptable if the following conditions are met:

- There are no technically or financially feasible alternatives to removal.
- The overall benefits of the project conclusively outweigh the anticipated cultural heritage loss from removal.
- Any removal of cultural heritage is conducted using the best available technique (IFC, 2012).

In exceptional circumstances when impacts on critical cultural heritage are unavoidable:

The *developer will use a process of Informed Consultation and Participation (ICP) of the Affected Communities which uses a good faith negotiation process that*

results in a documented outcome. The client will retain external experts to assist in the assessment and protection of critical cultural heritage (IFC, 2012).

UNESCO Convention for the Safeguarding of Intangible Cultural Heritage

As noted in the *'Dhawura Ngilan'/Remembering Country* visionary document (Heritage Chairs of Australia and New Zealand, 2020: 38–39), intangible cultural heritage can exist independently of the association with a particular place. Thus, 'the management, protection and promotion of this form of cultural heritage can provide particular challenges in a legislative context'. Whilst this is understood, the HCOANZ group point to the importance of this manifestation of ACH as indicated by the number of international instruments, in addition to the UNDRIP, that address this topic. The 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (UNESCO, 2003) remains the key instrument in the recognition and protection of such cultural heritage; however, Australia has not yet ratified it. Acknowledging the constitutional arrangements in Australia, the HCOANZ group support the development of national legislation for the recognition and protection of intangible ICH/ACH.

For the purposes of this Convention (UNESCO 2003: Appendix 2) 'intangible cultural heritage':

- means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.
- is manifested inter alia in the following domains:
  (a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage
  (b) performing arts
  (c) social practices, rituals and festive events
  (d) knowledge and practices concerning nature and the universe
  (e) traditional craftsmanship.

The AHA (Section 5 and Section 39 (2) and (3)) does include consideration of intangible cultural heritage values that are considered important to the Aboriginal people of the State, and are recognised through social, spiritual, historical, scientific or aesthetic values, as part of Aboriginal tradition. However, most forms of intangible cultural heritage, including oral traditions and rituals, are excluded unless they are associated with place.

APPENDIX TWO – PREVIOUS REPORT RELIABILITY AND RELEVANCE CRITERIA

This guideline provides a framework for assessing the reliability and relevance of Aboriginal cultural heritage survey reports; specifically in the context of satisfying the requirements for desktop or due diligence assessments. Table 9 outlines the criteria for determining the validity of survey reports and has been adapted by Archae-aus with reference to the former guidelines developed by the Department of Planning, Lands and Heritage (2023).[12]

Table 9. Criteria used to assess the reliability and relevance of previous reports

Criteria	
1. The report has the involvement, agreement or endorsement of the relevant Aboriginal party	A report can be relied upon for the purposes of a desktop or due diligence assessment where: The report is no longer than 10 years old, and the persons who participated in informing the Report were nominated by the relevant Aboriginal party and/or; (a) it can be demonstrated that the report has been subsequently endorsed or agreed to by the Aboriginal party and/or; (b) the report is no longer than 10 years old and has been informed, agreed to or endorsed, whether within the report or separately by the Aboriginal party.
2. The report must relate to tangible (archaeological) and/or intangible (anthropological) elements of Aboriginal cultural heritage	The report must relate to the tangible (archaeological) and/or intangible (anthropological) elements of Aboriginal cultural heritage. This may have been reported though an archaeological and/or anthropological surveys. A single report or multiple reports may address both of these elements. Where only one element (tangible or intangible) has been addressed, for the Report to be relied on for the purposes of a desktop or due diligence assessment, it must be able to be demonstrated that the Aboriginal party has been party to, directed, or otherwise endorsed this decision or survey procedure. The endorsement must be sufficiently clear to demonstrate this.
3. The report must include a clear statement as to the presence of Aboriginal cultural heritage	The report must contain a clear statement as to: (a) whether or not Aboriginal cultural heritage is located in the proposed activity area; or (b) whether areas have been cleared or approved for activities to be undertaken.
4. The area covered by the report(s) must completely cover the proposed activity area	The report must clearly identify the specific geographical area that is the subject of the report. This may include maps, GPS coordinates, detailed description and/or land parcel or tenement identification: The proposed activity area must be covered by an Aboriginal cultural heritage report(s). Multiple reports (collectively) can cover the activity area. Further, where a report completely covers the proposed activity area but is regional in scope and does not specifically relate to the proposed activity area or proposed activity, the report cannot be relied upon.
5. The scope of activities for which the report was completed must correspond to the proposed activity	Reports which specify a proposed activity can only be relied upon where the activity being undertaken results in land use or development that is no greater in surface area, depth or height than the specified activity. The above does not apply if the report contains a clear statement that Aboriginal cultural heritage is not located in the proposed activity area.

[12] DPLH developed comprehensive in 2023 for determining the reliability of archaeological and/or anthropological survey reports for Aboriginal cultural heritage due diligence assessments. The guidelines have since been removed from the DPLH website; however, they provided a sound basis for establishing the validity of reports within or adjacent a Study Area.

APPENDIX THREE – HERITAGE REGISTER SEARCH RESULTS

Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Register

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Search Criteria

7 Aboriginal Cultural Heritage (ACH) Register in Shapefile - DPLH ACHIS Search Area_5 km buffer on Project Area

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via https://achknowledge.dplh.wa.gov.au/ach-enquiry-form and we will make every effort to rectify it as soon as possible.

South West Settlement ILUA Disclaimer

Your heritage enquiry is on land **within or adjacent to** the following Indigenous Land Use Agreement(s): Gnaala Karla Booja Indigenous Land Use Agreement.

On 8 June 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the South West by the Western Australian Government and, respectively, the Yued, Whadjuk People, Gnaala Karla Booja, Ballardong People, South West Boojarah #2 and Wagyl Kaip & Southern Noongar groups, and the South West Aboriginal Land and Sea Council (SWALSC).

The ILUAs bind the parties (including 'the State', which encompasses all State Government Departments and certain State Government agencies) to enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and instrumentalities enter into the NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas. It is recommended a NSHA is entered into, and an 'Activity Notice' issued under the NSHA, if there is a risk that an activity will ‘impact’ (i.e. by excavating, damaging, destroying or altering in any way) an Aboriginal heritage site. The Aboriginal Heritage Due Diligence Guidelines, which are referenced by the NSHA, provide guidance on how to assess the potential risk to Aboriginal heritage.

Likewise, from 8 June 2015 the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) in granting Mineral, Petroleum and related Access Authority tenures within the South West Settlement ILUA areas, will place a condition on these tenures requiring a heritage agreement or a NSHA before any rights can be exercised.

If you are a State Government Department, Agency or Instrumentality, or have a heritage condition placed on your mineral or petroleum title by DEMIRS, you should seek advice as to the requirement to use the NSHA for your proposed activity. The full ILUA documents, maps of the ILUA areas and the NSHA template can be found at https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/south-west-native-title-settlement.

Further advice can also be sought from the Department of Planning, Lands and Heritage via https://achknowledge.dplh.wa.gov.au/ach-enquiry-form.

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Terminology

ID: ACH on the Register is assigned a unique ID by the Department of Planning, Lands and Heritage using the format: ACH-00000001. For ACH on the former Register the ID numbers remain unchanged and use the new format. For example the ACH ID of the place Swan River was previously '3536' and is now 'ACH-00003536'.

Access and Restrictions:

- **Boundary Reliable (Yes/No):** Indicates whether to the best knowledge of the Department, the location and extent of the ACH boundary is considered reliable.
- **Boundary Restricted = No:** Represents the actual location of the ACH as understood by the Department..
- **Boundary Restricted = Yes:** To preserve confidentiality the exact location and extent of the place is not displayed on the map. However, the shaded region (generally with an area of at least 4km²) provides a general indication of where the ACH is located. If you are a landowner and wish to find out more about the exact location of the place, please contact the Department of Planning, Lands and Heritage.
- **Culturally Sensitive = No:** Availability of information that the Department of Planning, Lands and Heritage holds in relation to the ACH is not restricted in any way.
- **Culturally Sensitive = Yes:** Some of the information that the Department of Planning, Lands and Heritage holds in relation to the ACH is restricted if it is considered culturally sensitive information. This information will only be made available if the Department of Planning, Lands and Heritage receives written approval from the people who provided the information. To request access please contact via https://achknowledge.dplh.wa.gov.au/ach-enquiry-form.
- **Culturally Sensitive Nature:**
  - **No Gender / Initiation Restrictions:** *Anyone* can view the information.
  - **Men only:** Only *males* can view restricted information.
  - **Women only:** Only *females* can view restricted information.

Status:

- **Register:** Aboriginal cultural heritage places that are assessed as meeting Section 5 of the *Aboriginal Heritage Act 1972*.
- **Lodged:** Information which has been received in relation to an Aboriginal cultural heritage place, but is yet to be assessed under Section 5 of the *Aboriginal Heritage Act 1972.*
- **Historic:** Aboriginal heritage places assessed as not meeting the criteria of Section 5 of the *Aboriginal Heritage Act 1972*. Includes places that no longer exist as a result of land use activities with existing approvals.

Place Type: The type of Aboriginal cultural heritage place. For example an artefact scatter place or engravings place.
Legacy ID: This is the former unique number that the former Department of Aboriginal Sites assigned to the place.

Coordinates

Map coordinates are based on the GDA 2020 Datum.

Basemap Copyright

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Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Register

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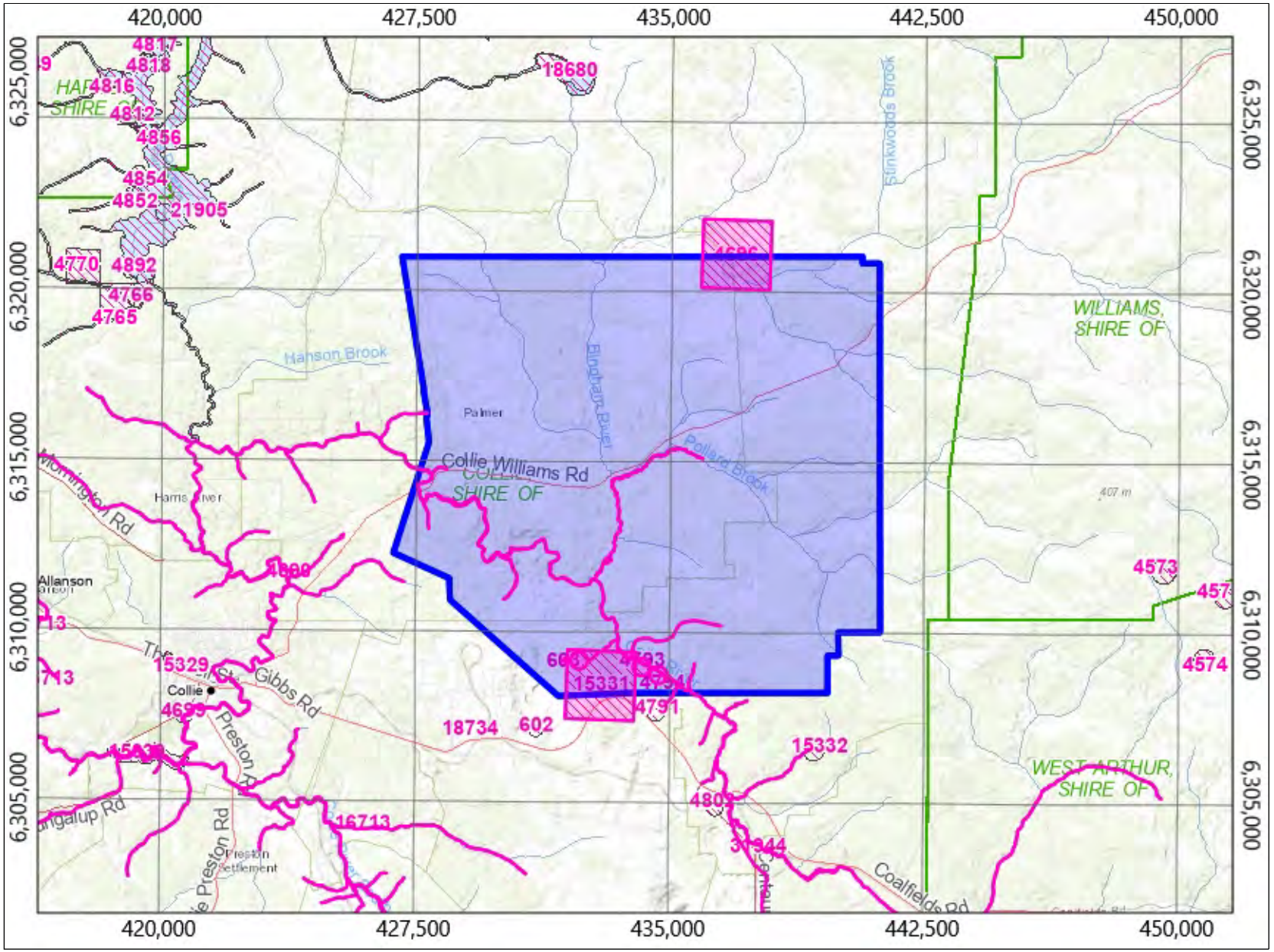
ID	Name	Boundary Restricted	Boundary Reliable	Culturally Sensitive	Culturally Sensitive Nature	Status	Place Type	Knowledge Holders	Legacy ID
603	EWINGTON CAMP.	No	Yes	No	No Gender / Initiation Restrictions	Register	Camp; Water Source	*Registered Knowledge Holder names available from DPLH	S02908
4696	BOLTON POOLS	Yes	Yes	Yes	No Gender / Initiation Restrictions	Register	Creation / Dreaming Narrative	*Registered Knowledge Holder names available from DPLH	S02108
4793	SHOTTS 03	No	Yes	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter	*Registered Knowledge Holder names available from DPLH	S01930
4794	SHOTTS 04	No	Yes	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter	*Registered Knowledge Holder names available from DPLH	S01931
4797	SHOTTS 07	No	Yes	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter	*Registered Knowledge Holder names available from DPLH	S01934
15331	SHOTTS GRAVES	Yes	Yes	Yes	No Gender / Initiation Restrictions	Register	Burial; Modified Tree	*Registered Knowledge Holder names available from DPLH	S03057
16713	Collie River Waugal	No	Yes	No	No Gender / Initiation Restrictions	Register	Creation / Dreaming Narrative; Landscape / Seascape Feature; Water Source	*Registered Knowledge Holder names available from DPLH	

Department of Planning, Lands and Heritage

Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Register

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Legend

- Aboriginal Cultural Heritage (ACH) Register
- Search Area
- Aboriginal Community
  - *Permanent*
  - *Seasonal*
  - *Town Based*
- Town
- Road
- River
- Local Government Authority

6.73 kilometres

Map Scale 1 : 204,000

MGA Zone 50 (GDA2020)

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Identifier: 986829

Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Lodged

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Search Criteria

3 Aboriginal Cultural Heritage (ACH) Lodged in Shapefile - DPLH ACHIS Search Area_5 km buffer on Project Area

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Terminology

ID: ACH on the Register is assigned a unique ID by the Department of Planning, Lands and Heritage using the format: ACH-00000001. For ACH on the former Register the ID numbers remain unchanged and use the new format. For example the ACH ID of the place Swan River was previously '3536' and is now 'ACH-00003536'.

Access and Restrictions:

- Boundary Reliable (Yes/No): Indicates whether to the best knowledge of the Department, the location and extent of the ACH boundary is considered reliable.
- Boundary Restricted = No: Represents the actual location of the ACH as understood by the Department..
- Boundary Restricted = Yes: To preserve confidentiality the exact location and extent of the place is not displayed on the map. However, the shaded region (generally with an area of at least 4km²) provides a general indication of where the ACH is located. If you are a landowner and wish to find out more about the exact location of the place, please contact the Department of Planning, Lands and Heritage.
- Culturally Sensitive = No: Availability of information that the Department of Planning, Lands and Heritage holds in relation to the ACH is not restricted in any way.
- Culturally Sensitive = Yes: Some of the information that the Department of Planning, Lands and Heritage holds in relation to the ACH is restricted if it is considered culturally sensitive information. This information will only be made available if the Department of Planning, Lands and Heritage receives written approval from the people who provided the information. To request access please contact via https://achknowledge.dplh.wa.gov.au/ach-enquiry-form.
- Culturally Sensitive Nature:
  - No Gender / Initiation Restrictions: Anyone can view the information.
  - Men only: Only males can view restricted information.
  - Women only: Only females can view restricted information.

Status:

- Register: Aboriginal cultural heritage places that are assessed as meeting Section 5 of the Aboriginal Heritage Act 1972.
- Lodged: Information which has been received in relation to an Aboriginal cultural heritage place, but is yet to be assessed under Section 5 of the Aboriginal Heritage Act 1972.
- Historic: Aboriginal heritage places assessed as not meeting the criteria of Section 5 of the Aboriginal Heritage Act 1972. Includes places that no longer exist as a result of land use activities with existing approvals.

Place Type: The type of Aboriginal cultural heritage place. For example an artefact scatter place or engravings place.

Legacy ID: This is the former unique number that the former Department of Aboriginal Sites assigned to the place.

Coordinates

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Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Lodged

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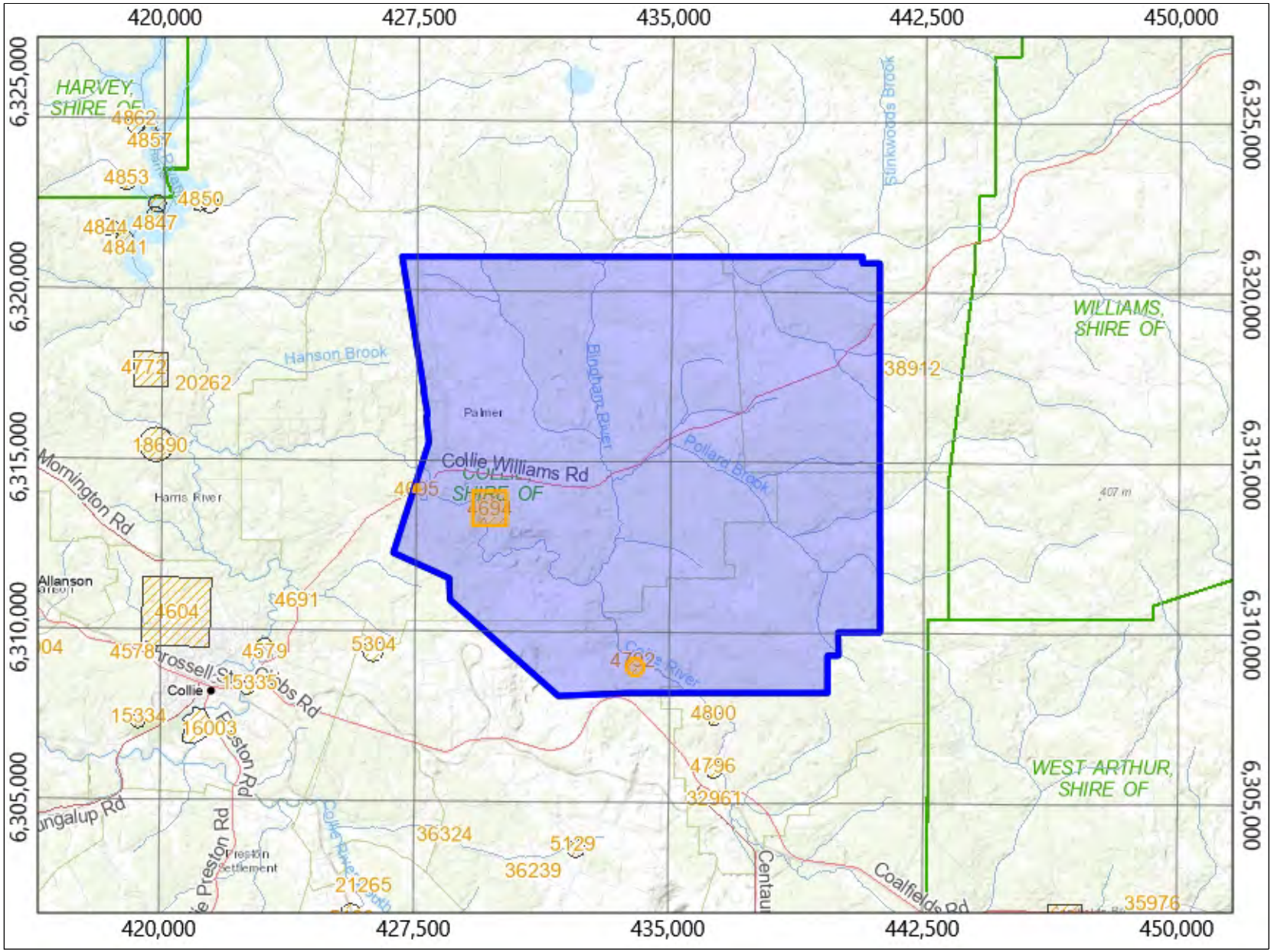
ID	Name	Boundary Restricted	Boundary Reliable	Culturally Sensitive	Culturally Sensitive Nature	Status	Place Type	Knowledge Holders	Legacy ID
4694	SPRING	No	No	No	No Gender / Initiation Restrictions	Lodged	Camp; Water Source	*Registered Knowledge Holder names available from DPLH	
4695	CAMPING GROUND.	No	Yes	No	No Gender / Initiation Restrictions	Lodged	Camp	*Registered Knowledge Holder names available from DPLH	
4792	SHOTTS 02	No	Yes	No	No Gender / Initiation Restrictions	Lodged	Artefacts / Scatter	*Registered Knowledge Holder names available from DPLH	

Department of Planning, Lands and Heritage

Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Lodged

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- Road
- River
- Local Government Authority

6.73 kilometres

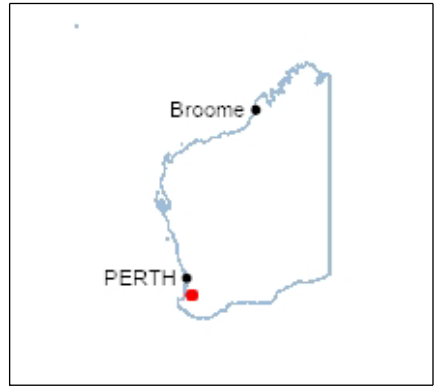
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Identifier: 986830

Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Historic

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Search Criteria

No Aboriginal Cultural Heritage (ACH) Historic in Shapefile - DPLH ACHIS Search Area_5 km buffer on Project Area

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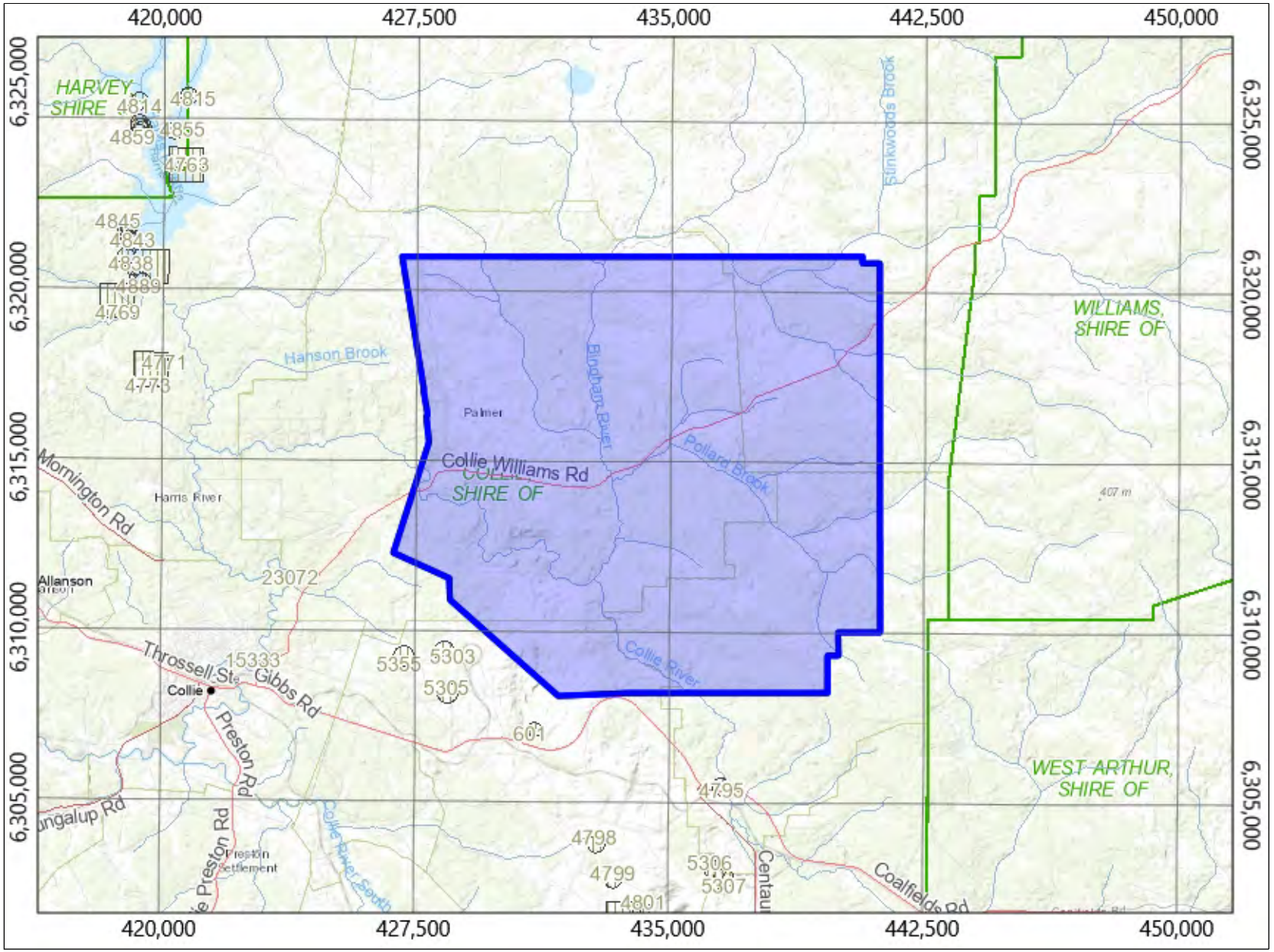
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Department of Planning, Lands and Heritage

Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Historic

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Legend

- Aboriginal Cultural Heritage (ACH) Historic
- Search Area
- Aboriginal Community
  - *Permanent*
  - *Seasonal*
  - *Town Based*
- Town
- Road
- River
- Local Government Authority

6.73 kilometres

Map Scale 1 : 204,000

MGA Zone 50 (GDA2020)

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Aboriginal Cultural Heritage Inquiry System

List of Heritage Surveys

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Search Criteria

5 Heritage Surveys containing 5 Survey Areas in Shapefile - Study Area_created using cadastral boundaries

Disclaimer

Heritage Surveys have been mapped using information from the reports and / or other relevant data sources. Heritage Surveys consisting of small discrete areas may not be visible except at large scales. Reports shown may not be held at the Department of Planning, Lands and Heritage (DPLH). Please consult report holder for more information. Refer to https://www.wa.gov.au/organisation/department-of-planning-lands-and-heritage/aboriginal-heritage for information on requesting reports held by DPLH.

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Access

Some reports are restricted.

Spatial Accuracy

The following legend strictly applies to the spatial accuracy of heritage survey boundaries as captured by DPLH.

Very Good	Boundaries captured from surveyed titles, GPS (2001 onwards) submitted maps georeferenced to within 20m accuracy.
Good / Moderate	Boundaries captured from GPS (pre 2001) submitted maps georeferenced to within 250m accuracy.
Unreliable	Boundaries captured from submitted maps georeferenced to an accuracy exceeding 250m.
Indeterminate	Surveys submitted with insufficient information to allow boundary capture.

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Aboriginal Cultural Heritage Inquiry System

List of Heritage Surveys

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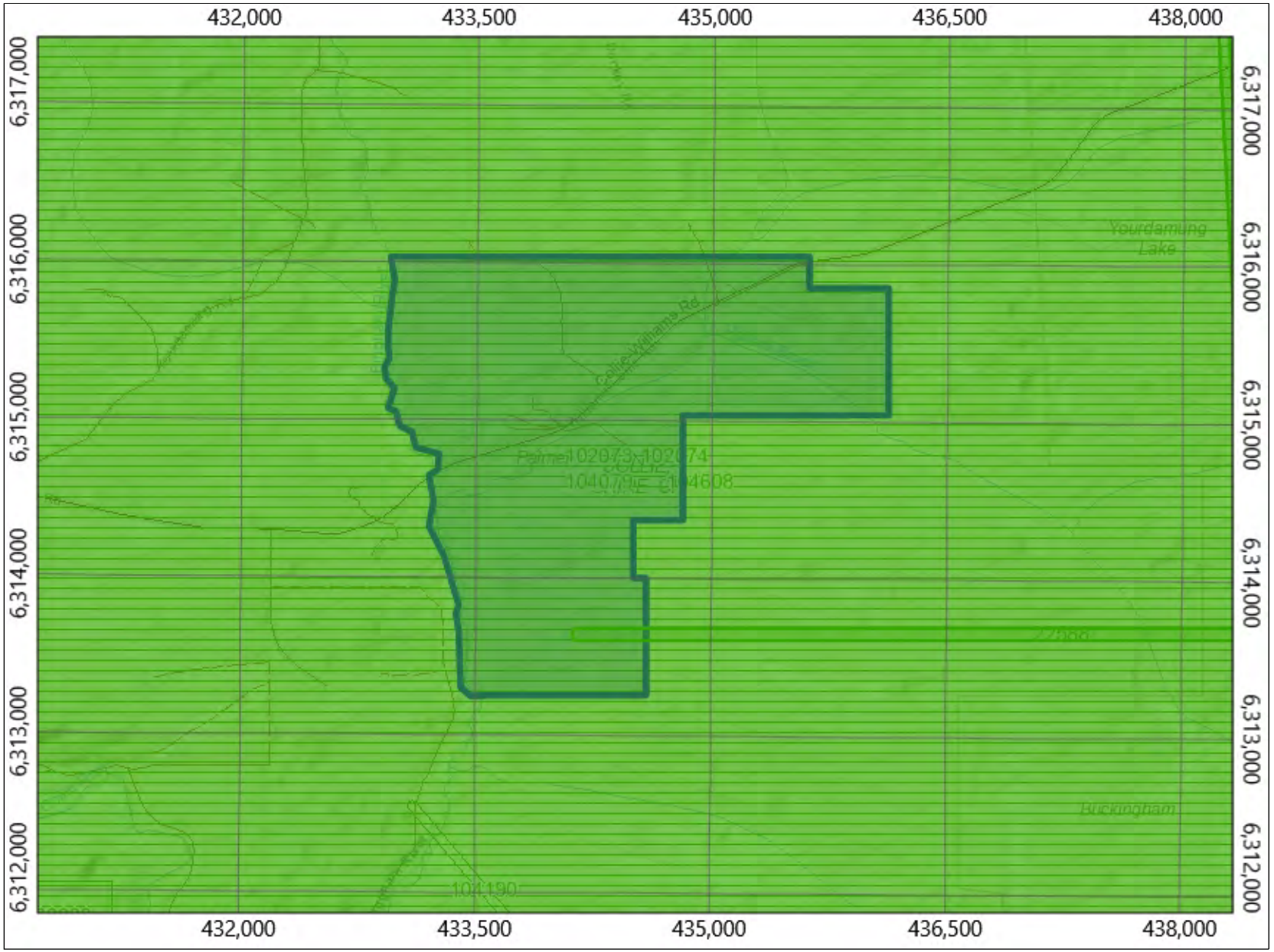
Survey Report ID	Survey Area ID	Report Title	Report Authors	Survey Program	Survey Type	Area Description	Spatial Accuracy	Field / Desktop
22588	16761	Aboriginal Heritage study for Shotts Terminal to Wells Terminal 330kV transmission line upgrade north of Collie	Mattner, Joe		Archaeological/ Ethnographic	The project area is situated between Collie and Boddington, south of Perth. The large Shotts Terminal is situated approximately 12 km northeast of Collie, roughly 2km north of the junction of Collie and Bingham Rivers and south of the Collie-Williams Raod	Unreliable	Field and Desktop
102073	14371	Western Australia Regional Forest Agreement Aboriginal Consultation Project. Vol.2. Nov.1997.	Centre for Social Research.		Ethnographic	Regional Forest Agreement Aboriginal Consultation Project as shown in Figure 1.	Unreliable	Field only
102074	14226	Western Australia Regional Forest Agreement Aboriginal Consultation Project. Vol.1. Nov.1997.	Centre for Social Research.		Ethnographic	Regional Forest Agreement Aboriginal Consultation Project as shown in Figure 1.	Unreliable	Field only
104079	13397	Bunbury-Wellington Regional Planning Study: Working Paper no.6, Aboriginal Heritage and Planning Survey. [Open] Released for Public Comment July 1992.	Dept of Planning and Urban Development.		Ethnographic	The survey area consists of the Bunbury-Wellington Region, as shown in Figure 1. Please Note - This study did not constitute a comprehensive 'site identification', 'site avoidance' or 'work area/programme clearance' survey of the area shown in figure 1, a	Very Good	Field and Desktop
104608	13272	Bunbury-Wellington Regional Planning Study: Aboriginal Heritage & Planning Survey : working paper no. 6	McDonald, E		Ethnographic	The survey area consists of the Bunbury-Wellington Region, as shown in Figure 1. Please Note - This study did not constitute a comprehensive 'site identification', 'site avoidance' or 'work area/programme clearance' survey of the area shown in figure 1, a	Very Good	Field and Desktop

Department of Planning, Lands and Heritage

Aboriginal Cultural Heritage Inquiry System

Map of Heritage Survey Areas

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Legend

- Heritage Survey Area
- Search Area
- Aboriginal Community
  - *Permanent*
  - *Seasonal*
  - *Town Based*
- Town
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- River
- Local Government Authority

1.45 kilometres

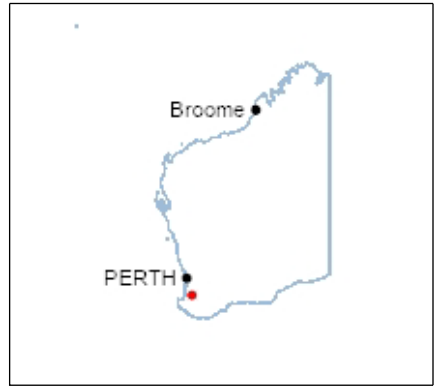
Map Scale 1 : 44,100

MGA Zone 50 (GDA2020)

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Identifier: 986839

APPENDIX FOUR – LAND USE RISK CATEGORIES

Table 10. Land use risk categories and consequence of impact to Aboriginal and historical heritage

Risk Category	Relevant Activities	Consequence of Impact to Aboriginal and Historical Heritage
Negligible	Non-invasive recreational activities, including low impact exercising Walking over the site Photographing or filming the site Magnetic surveys Use of existing tracks, carparks, stairs and other public infrastructure and facilities Environmental monitoring (provided that it doesn't involve test pitting) Water and soil sampling using hand-held instruments Spatial measurements Scientific research using non-invasive handheld tools	No impact to potential Aboriginal heritage. These types of activities should be discouraged where there are known Aboriginal heritage sites in the area. No impact to potential historical heritage, although walking over /through artefact scatters, dump sites or buildings in poor condition should be avoided.
Minimal	Fossicking Maintenance of existing paths, walls, roads and tracks. Maintenance of public infrastructure such as water, sewerage and electricity Maintenance of community utilities within existing disturbance footprints Feral animal eradication, weed, vermin and pest control Vegetation control Fire control Light vehicle access Camping	Isolated damage to potential Aboriginal and Historical Heritage that might be able to be rectified. These activities should be avoided within known Aboriginal heritage sites, if possible, unless it is an emergency (such as fire control) or in some cases, a Regulation 10 permit has been granted.
Moderate	Maintenance of infrastructure that may disturb the banks of a water course New fire breaks Road or car park widening within existing corridor Re-vegetation Temporary power lines, material stockpiles and camps Construction that does not involve ground disturbance[13] The excavation of soil for footings	Damage to potential Aboriginal Heritage that may or may not alter its heritage significance; however, should be strictly avoided in known Aboriginal Heritage sites without a Regulation 10 permit or section 18 approval. These activities should also be avoided in areas that have not been heritage cleared (i.e. through a due diligence assessment or survey – where applicable)

[13] Excavation for footings or levelling the ground for concrete pads, for example.

Risk Category	Relevant Activities	Consequence of Impact to Aboriginal and Historical Heritage
	Surface vegetation clearing	Damage to potential Historical Heritage that may alter its significance, depending on the condition of a place, and any heritage listing. These activities should be avoided in areas that have not been heritage cleared (i.e. through a desktop assessment or survey – where applicable). Consultation with relevant local government and/or DPLH is required.
Significant	Creation of new roads, borrow pits or tracks New public access ways, bridges, constructions with sub-surface footings and erosion levies Intensive soil/core sampling New pipelines and service trenches Significant land reclamation works Major landscaping and contouring which involve earthworks Major activities that involve subsurface impacts (>100 mm), salvage of heritage materials and features, and/or alterations to any existing heritage features Removal of asphalt using machinery and/or heavy equipment, and which is likely to damage the underlying soil	Permanent damage to potential Aboriginal Heritage that would alter its heritage significance. To be strictly avoided in known Aboriginal Heritage sites without a Regulation 10 permit or section 18 approval. These activities should also be strictly avoided in areas that have not been heritage cleared (i.e. through a due diligence assessment or survey – where applicable). Any sites that are to be impacted should be carefully mitigated. Permanent damage to potential Historical Heritage that would alter its heritage significance. To be strictly avoided in known historical heritage places. Consultation with relevant local government and/or DPLH is required. Any sites that are to be impacted should be carefully mitigated.
Major*	Large-scale land clearing Material extraction Mechanical earthmoving and blasting Major construction works that involve extensive land clearing and subterranean earthworks Large scale changes to waterways	Permanent damage to potential and known Aboriginal and Historical Heritage and loss of significance. These activities should be strictly avoided without following the correct approval process, including heritage surveys and careful mitigation of any sites to be impacted.

APPENDIX FIVE – ABORIGINAL HERITAGE RISK MATRIX

Table 11. Aboriginal Heritage Risk Matrix

Aboriginal Cultural Heritage Risk Matrix						
Previous Land Use	Land Activities – Environment Type and Proposed Level of Ground Disturbance					
		1. Negligible disturbance	2. Minimal disturbance	3. Moderate disturbance	4. Significant disturbance	5. Major disturbance
	Built Environment Urban environment, towns, metropolitan areas	Low	Low	Low	Low	Medium
	Significantly Altered Environment Cultivated and cleared land	Low	Low	Low	Medium	High
	Moderately Altered Environment Partially cleared lands, re-vegetated landscape	Low	Low	Medium	Medium	High
	Minimally Altered Environment Urban bushland, regrowth area	Low	Medium	Medium	High	High
	Unaltered Environment Protected areas or pristine environment	Medium	Medium	High	High	High

Risk Assessment	Actions
Low Risk	Review the landscape and proposed activity. Refer to the ACHIS.
Medium Risk	Review the landscape and proposed activity. Refer to the ACHIS and contact DPLH. A range of actions may be recommended including, no action, consultation with the relevant Aboriginal people, an Aboriginal heritage survey, or modification of the proposed activity to avoid or minimise site impact.
High Risk	Refer to the ACHIS. Consult with DPLH and relevant Aboriginal people. Dependent on consultation outcomes the following may be required: an Aboriginal heritage survey, modification of the proposed activity to avoid or minimise impact to the site and/or other heritage management strategies. The land user may also need to apply for approval or consent to the activity.
For major development projects	NASHA, DPLH, approvals etc.

The above Aboriginal Heritage Risk Matrix has been adapted from the Aboriginal Heritage Due Diligence Guidelines (Department of Aboriginal Affairs and Department of the Premier and Cabinet, 2013).

APPENDIX SIX – COORDINATES

All coordinates are in GDA94 MGA Zone 50.

Table 12. Study Area Coordinates

Node	Easting	Northing	Node	Easting	Northing
1	433217.844	6314494.394	33	435853.230	6315855.498
2	433192.578	6314633.571	34	436104.733	6315857.269
3	433188.701	6314654.844	35	436107.539	6315454.937
4	433245.195	6314690.197	36	436110.345	6315052.603
5	433250.303	6314790.494	37	435858.797	6315050.851
6	433104.161	6314828.819	38	435607.251	6315049.099
7	433078.358	6314927.640	39	435204.685	6315046.329
8	432999.311	6314968.363	40	434802.117	6315043.561
9	432977.277	6315055.494	41	434804.336	6314723.046
10	432926.231	6315078.186	42	434806.555	6314402.532
11	432965.148	6315201.456	43	434807.049	6314381.627
12	432910.676	6315268.704	44	434758.986	6314381.604
13	432908.032	6315291.070	45	434490.160	6314380.243
14	432902.509	6315337.798	46	434492.689	6314012.924
15	432932.825	6315394.620	47	434573.726	6314013.489
16	432922.500	6315478.076	48	434576.228	6313646.229
17	432925.368	6315591.140	49	434578.784	6313271.138
18	432932.820	6315658.613	50	434243.769	6313268.851
19	432948.197	6315797.863	51	433908.755	6313266.565
20	432963.292	6315884.770	52	433573.740	6313264.280
21	432937.159	6316036.548	53	433552.995	6313263.267
22	433393.881	6316039.581	54	433461.945	6313258.820
23	433850.604	6316042.614	55	433436.947	6313280.595
24	434020.595	6316043.763	56	433398.582	6313314.015
25	434040.703	6316043.899	57	433395.832	6313383.840
26	434417.995	6316046.388	58	433384.637	6313668.214
27	434795.287	6316048.878	59	433365.480	6313779.546
28	435197.820	6316051.568	60	433383.295	6313833.444
29	435600.352	6316054.258	61	433345.351	6313957.627
30	435600.504	6316032.079	62	433289.094	6314141.745
31	435600.643	6316011.830	63	433190.722	6314330.815
32	435601.726	6315853.727	64	433217.844	6314494.394

Table 13. Zones of High Archaeological Potential - Coordinates

Polygon	Node	Easting	Northing	Node	Easting	Northing
A	1	435011.500	6315772.474	13	435145.982	6315836.739
	2	434880.366	6315704.400	14	435062.631	6315796.114
	3	434815.821	6315829.071	15	435011.500	6315772.474
	4	434830.807	6315880.607	16	435064.013	6315886.155
	5	434899.932	6315933.366	17	435059.110	6315876.699
	6	434966.409	6315979.293	18	435057.884	6315862.865
	7	434978.837	6316006.341	19	435075.395	6315856.211
	8	435008.808	6316026.443	20	435083.450	6315861.640
	9	435060.861	6316037.272	21	435086.777	6315875.823
	10	435070.778	6316050.719	22	435082.750	6315885.804
	11	435197.820	6316051.568	23	435070.667	6315887.380
	12	435164.262	6315957.161	24	435064.013	6315886.155
B	1	434887.524	6315689.298	65	433190.722	6314330.815
	2	434984.709	6315738.329	66	433194.887	6314355.938
	3	434985.234	6315724.495	67	433217.844	6314494.394
	4	434986.353	6315711.310	68	433212.182	6314525.581
	5	435008.767	6315621.655	69	433201.296	6314585.548
	6	435028.379	6315599.241	70	433192.578	6314633.571
	7	435059.766	6315567.508	71	433188.701	6314654.844
	8	435083.554	6315569.563	72	433245.195	6314690.197
	9	435094.702	6315559.511	73	433250.303	6314790.494
	10	435096.895	6315543.429	74	433104.161	6314828.819
	11	435113.342	6315542.698	75	433078.358	6314927.640
	12	435153.970	6315524.029	76	432999.311	6314968.363
	13	435212.942	6315511.447	77	432977.277	6315055.494
	14	435271.423	6315520.219	78	432926.231	6315078.186
	15	435517.773	6315450.774	79	432965.148	6315201.456
	16	435627.424	6315371.094	80	432910.676	6315268.704
	17	435727.573	6315325.771	81	432902.509	6315337.798
	18	435788.247	6315265.828	82	432932.825	6315394.620
	19	435913.980	6315162.756	83	432922.500	6315478.076
	20	436065.824	6315052.294	84	432925.368	6315591.140
	21	435530.471	6315048.572	85	432932.820	6315658.613
	22	435503.153	6315069.004	86	432948.197	6315797.863
	23	435469.526	6315085.086	87	432963.292	6315884.770
	24	435451.251	6315110.672	88	432937.159	6316036.548
	25	435462.216	6315157.456	89	432970.297	6315964.673
	26	435444.672	6315173.538	90	432976.145	6315911.309

Polygon	Node	Easting	Northing	Node	Easting	Northing
	27	435417.625	6315187.427	91	432972.490	6315846.981
	28	435411.777	6315232.750	92	432981.262	6315782.652
	29	435374.495	6315303.841	93	432960.794	6315572.121
	30	435336.483	6315334.543	94	432992.546	6315402.895
	31	435292.622	6315319.923	95	433010.960	6315368.345
	32	435185.895	6315342.767	96	433030.431	6315284.265
	33	435118.642	6315366.707	97	433039.253	6315249.999
	34	435049.927	6315342.767	98	433077.339	6315208.151
	35	434951.241	6315323.030	99	433106.996	6315148.136
	36	434859.279	6315255.909	100	433086.528	6315016.554
	37	434769.906	6315207.599	101	433118.936	6314997.509
	38	434682.948	6315096.486	102	433165.844	6314996.624
	39	434342.503	6314860.866	103	433181.774	6314970.958
	40	433927.849	6314575.091	104	433167.614	6314933.786
	41	433667.289	6314401.384	105	433210.096	6314919.625
	42	433527.203	6314174.445	106	433243.728	6314893.073
	43	433581.836	6313922.291	107	433273.820	6314924.050
	44	433552.418	6313785.007	108	433294.176	6314916.970
	45	433549.617	6313616.904	109	433294.176	6314851.476
	46	433532.806	6313466.311	110	433352.615	6314800.175
	47	433535.585	6313342.833	111	433352.615	6314738.771
	48	433544.505	6313304.896	112	433308.755	6314735.847
	49	433557.115	6313288.448	113	433278.466	6314678.117
	50	433565.887	6313272.823	114	433275.811	6314646.255
	51	433563.329	6313264.873	115	433312.592	6314619.616
	52	433552.995	6313263.267	116	433443.086	6314616.163
	53	433461.945	6313258.820	117	433587.452	6314702.220
	54	433439.344	6313278.508	118	433822.106	6314798.713
	55	433398.582	6313314.015	119	433921.889	6314875.469
	56	433393.071	6313463.608	120	433968.399	6314898.313
	57	433384.637	6313668.214	121	434130.770	6314966.643
	58	433365.480	6313779.546	122	434144.931	6315012.666
	59	433371.233	6313796.952	123	434364.972	6315208.992
	60	433383.295	6313833.444	124	434451.231	6315299.637
	61	433345.351	6313957.627	125	434755.330	6315612.509
	62	433289.094	6314141.745	126	434774.405	6315629.587
	63	433279.773	6314159.661	127	434887.524	6315689.298
	64	433227.882	6314259.395			

Table 14. Zones of Moderate Archaeological Potential – Coordinates

Polygon	Node	Easting	Northing	Node	Easting	Northing
A	1	433985.669	6316020.504	5	433991.517	6316002.229
	2	433993.527	6316021.235	6	433981.283	6316005.153
	3	433999.924	6316016.118	7	433979.456	6316013.559
	4	433999.924	6316009.721	8	433985.669	6316020.504
B	1	434061.968	6315906.375	6	434058.313	6315885.176
	2	434070.009	6315908.934	7	434055.024	6315893.217
	3	434077.137	6315901.075	8	434056.486	6315901.258
	4	434076.040	6315892.303	9	434061.968	6315906.375
	5	434067.999	6315886.090			
C	1	434113.139	6315980.938	8	434132.876	6315955.718
	2	434120.449	6315995.558	9	434128.490	6315945.484
	3	434132.145	6315999.944	10	434116.794	6315942.195
	4	434144.207	6315998.848	11	434106.194	6315949.139
	5	434152.613	6315991.538	12	434106.925	6315959.739
	6	434154.075	6315979.841	13	434113.139	6315980.938
	7	434132.876	6315962.663			
D	1	433658.817	6313423.137	9	433640.541	6313333.588
	2	433673.437	6313423.868	10	433627.749	6313343.822
	3	433684.767	6313406.324	11	433619.342	6313355.518
	4	433679.285	6313393.531	12	433627.749	6313369.773
	5	433684.402	6313382.566	13	433640.907	6313376.352
	6	433681.112	6313365.752	14	433633.962	6313388.779
	7	433681.478	6313354.787	15	433658.817	6313423.137
	8	433664.299	6313334.319			
E	1	434460.186	6314489.040	37	434282.916	6313343.639
	2	434495.274	6314544.596	38	434274.144	6313400.658
	3	434515.011	6314589.188	39	434261.985	6313453.760
	4	434548.638	6314622.814	40	434219.318	6313464.439
	5	434551.562	6314646.938	41	434205.612	6313453.291
	6	434571.299	6314663.751	42	434155.172	6313438.853
	7	434618.815	6314676.178	43	434123.739	6313440.315
	8	434681.681	6314639.627	44	434064.527	6313432.640
	9	434660.482	6314605.270	45	434051.003	6313423.868
	10	434669.985	6314581.147	46	434016.216	6313428.335
	11	434701.419	6314589.188	47	433990.695	6313453.839
	12	434716.770	6314570.913	48	433983.750	6313512.320
	13	434743.817	6314563.602	49	434033.459	6313548.139
	14	434805.953	6314589.919	50	434064.892	6313557.277

Polygon	Node	Easting	Northing	Node	Easting	Northing
	15	434805.681	6314528.843	51	434102.539	6313564.221
	16	434806.320	6314436.443	52	434123.008	6313557.642
	17	434806.528	6314416.379	53	434146.400	6313551.429
	18	434807.049	6314381.627	54	434185.509	6313583.228
	19	434490.160	6314380.243	55	434209.267	6313590.172
	20	434492.689	6314012.924	56	434277.433	6313661.263
	21	434573.726	6314013.489	57	434337.376	6313694.889
	22	434575.019	6313823.755	58	434380.506	6313747.522
	23	434576.228	6313646.229	59	434452.875	6313799.424
	24	434578.423	6313324.158	60	434485.040	6313819.892
	25	434546.810	6313335.964	61	434511.356	6313806.734
	26	434534.383	6313355.701	62	434524.514	6313764.335
	27	434510.260	6313387.135	63	434537.416	6313741.902
	28	434496.370	6313416.375	64	434571.315	6313754.615
	29	434505.143	6313459.504	65	434554.851	6313976.419
	30	434468.592	6313470.835	66	434546.445	6313994.329
	31	434411.573	6313471.932	67	434443.372	6313998.350
	32	434411.573	6313439.036	68	434431.676	6314043.307
	33	434397.582	6313411.386	69	434470.420	6314081.319
	34	434372.099	6313377.631	70	434473.027	6314418.153
	35	434346.733	6313335.112	71	434460.186	6314489.040
	36	434311.425	6313333.405			
F	1	435716.608	6315722.343	7	435777.281	6315704.799
	2	435732.324	6315740.253	8	435762.296	6315698.220
	3	435749.869	6315740.619	9	435741.096	6315699.682
	4	435765.585	6315751.949	10	435724.649	6315705.896
	5	435782.764	6315745.736	11	435715.146	6315706.992
	6	435791.171	6315727.095	12	435716.608	6315722.343
G	1	435803.598	6315659.842	8	435815.294	6315534.474
	2	435819.314	6315658.746	9	435784.957	6315537.033
	3	435834.666	6315624.754	10	435769.971	6315561.521
	4	435843.803	6315615.251	11	435776.916	6315591.858
	5	435844.900	6315603.554	12	435777.281	6315620.368
	6	435825.528	6315574.680	13	435785.322	6315640.105
	7	435824.431	6315547.632	14	435803.598	6315659.842
H	1	434650.979	6315920.447	30	434339.934	6315603.920
	2	434687.164	6315883.166	31	434344.321	6315564.080
	3	434695.205	6315826.878	32	434325.680	6315535.936
	4	434753.686	6315772.783	33	434303.750	6315537.398

Polygon	Node	Easting	Northing	Node	Easting	Northing
	5	434757.341	6315678.117	34	434279.626	6315550.556
	6	434728.537	6315618.323	35	434252.022	6315557.857
	7	434694.948	6315578.943	36	434264.641	6315595.879
	8	434664.503	6315557.501	37	434302.653	6315624.388
	9	434649.517	6315569.563	38	434293.881	6315650.705
	10	434626.612	6315566.202	39	434269.027	6315677.021
	11	434610.042	6315524.971	40	434228.090	6315696.027
	12	434578.243	6315508.889	41	434170.056	6315675.573
	13	434540.962	6315500.117	42	434118.439	6315641.932
	14	434507.701	6315489.152	43	434086.274	6315636.815
	15	434491.619	6315509.620	44	434065.075	6315652.898
	16	434453.241	6315513.640	45	434067.268	6315700.413
	17	434414.863	6315512.909	46	434079.695	6315753.777
	18	434362.961	6315533.743	47	434105.988	6315790.625
	19	434367.347	6315547.998	48	434110.398	6315827.609
	20	434399.877	6315583.086	49	434165.287	6315846.383
	21	434472.978	6315580.893	50	434230.338	6315841.515
	22	434467.130	6315597.706	51	434263.910	6315857.580
	23	434450.682	6315621.099	52	434369.906	6315826.878
	24	434426.194	6315652.167	53	434425.934	6315856.119
	25	434422.904	6315679.945	54	434436.555	6315865.854
	26	434402.070	6315698.220	55	434468.958	6315868.545
	27	434358.941	6315693.103	56	434544.617	6315913.502
	28	434335.548	6315669.711	57	434603.829	6315929.219
	29	434360.403	6315628.043	58	434650.979	6315920.447
I	1	433919.056	6315670.259	16	433836.681	6315305.156
	2	433926.639	6315585.615	17	433799.170	6315284.286
	3	433883.967	6315553.298	18	433700.947	6315278.396
	4	433873.733	6315524.057	19	433667.675	6315251.439
	5	433942.093	6315473.543	20	433636.202	6315263.569
	6	434003.853	6315464.114	21	433621.364	6315323.313
	7	434063.796	6315377.855	22	433647.760	6315355.760
	8	434019.935	6315351.539	23	433629.355	6315423.266
	9	433973.151	6315354.463	24	433661.741	6315455.342
	10	433939.524	6315328.147	25	433698.291	6315510.899
	11	433914.670	6315347.153	26	433747.409	6315549.889
	12	433904.436	6315391.014	27	433736.550	6315628.646
	13	433863.499	6315412.944	28	433840.107	6315667.335
	14	433825.487	6315404.172	29	433919.056	6315670.259

Polygon	Node	Easting	Northing	Node	Easting	Northing
	15	433850.341	6315370.545			
J	1	434112.042	6315342.767	10	433769.930	6314942.174
	2	434145.669	6315285.748	11	433746.538	6315024.047
	3	434201.225	6315275.514	12	433862.037	6315114.692
	4	434204.150	6315133.698	13	433882.505	6315158.553
	5	434154.051	6315071.634	14	433865.033	6315211.691
	6	434075.492	6314994.076	15	433908.822	6315238.964
	7	434046.252	6314961.911	16	433945.372	6315260.894
	8	433971.689	6314939.250	17	434040.403	6315354.463
	9	433834.259	6314901.237	18	434112.042	6315342.767
K	1	433716.749	6314318.349	9	433647.852	6314127.281
	2	433804.470	6314315.425	10	433561.592	6314113.392
	3	433834.442	6314300.074	11	433576.213	6314163.101
	4	433816.166	6314234.283	12	433575.482	6314197.458
	5	433823.294	6314197.458	13	433590.833	6314242.781
	6	433818.177	6314131.667	14	433615.687	6314266.173
	7	433743.431	6314107.087	15	433656.075	6314298.612
	8	433691.895	6314103.798	16	433716.749	6314318.349
L	1	433803.739	6313726.323	8	433782.540	6313458.773
	2	433895.115	6313717.551	9	433758.417	6313468.277
	3	433916.056	6313685.906	10	433686.047	6313498.248
	4	433826.401	6313626.906	11	433682.392	6313564.039
	5	433851.986	6313602.051	12	433678.737	6313612.285
	6	433835.173	6313556.729	13	433735.024	6313690.503
	7	433820.552	6313491.669	14	433803.739	6313726.323
M	1	434023.773	6313834.512	7	434156.086	6313672.228
	2	434088.833	6313849.132	8	434045.703	6313639.333
	3	434110.032	6313810.389	9	433988.685	6313760.680
	4	434238.690	6313807.465	10	434029.621	6313791.383
	5	434272.316	6313763.604	11	434023.773	6313834.512
	6	434240.883	6313708.779			
N	1	434120.266	6314375.368	8	434129.769	6314200.656
	2	434194.829	6314282.529	9	434131.962	6314221.125
	3	434236.497	6314209.429	10	434078.599	6314226.242
	4	434214.566	6314141.445	11	434046.434	6314262.792
	5	434159.741	6314096.853	12	434055.206	6314309.577
	6	434104.184	6314095.391	13	434088.833	6314343.934
	7	434088.102	6314160.451	14	434120.266	6314375.368
O	1	433735.312	6313265.383	9	433611.667	6313264.508

Polygon	Node	Easting	Northing	Node	Easting	Northing
	2	433724.242	6313270.721	10	433614.591	6313278.031
	3	433755.310	6313296.307	11	433631.038	6313299.962
	4	433783.454	6313308.003	12	433665.761	6313299.962
	5	433795.881	6313291.190	13	433699.098	6313273.156
	6	433767.889	6313265.605	14	433702.297	6313265.158
	7	433735.312	6313265.383	15	433670.440	6313264.940
	8	433670.440	6313264.940			
P	1	435102.743	6315702.241	23	435209.835	6315739.888
	2	435050.841	6315681.772	24	435195.215	6315740.619
	3	435001.132	6315737.695	25	435188.636	6315735.867
	4	435265.027	6315874.393	26	435192.291	6315708.454
	5	435281.840	6315857.580	27	435176.940	6315693.834
	6	435373.947	6315859.773	28	435224.821	6315686.890
	7	435390.760	6315848.077	29	435310.349	6315650.339
	8	435400.994	6315826.878	30	435326.431	6315632.064
	9	435520.149	6315813.720	31	435378.333	6315651.801
	10	435556.699	6315804.217	32	435407.573	6315626.947
	11	435617.739	6315744.274	33	435398.070	6315587.472
	12	435618.104	6315720.150	34	435349.824	6315559.694
	13	435604.946	6315683.234	35	435325.700	6315562.618
	14	435567.664	6315658.380	36	435294.998	6315537.033
	15	435511.377	6315649.608	37	435243.096	6315528.261
	16	435452.165	6315660.573	38	435144.410	6315581.624
	17	435435.352	6315703.703	39	435145.141	6315608.672
	18	435405.380	6315716.130	40	435133.139	6315649.115
	19	435304.867	6315693.469	41	435128.893	6315678.842
	20	435263.565	6315696.027	42	435140.024	6315689.814
	21	435251.503	6315706.627	43	435102.743	6315702.241
	22	435245.289	6315723.074			
Q	1	433855.223	6316042.645	23	434066.446	6316043.896
	2	433879.590	6316042.810	24	434062.060	6316032.931
	3	433874.757	6316033.143	25	434262.356	6316041.429
	4	433856.364	6316022.107	26	434248.376	6316034.028
	5	433819.365	6316021.235	27	434238.233	6316034.576
	6	433795.972	6316013.559	28	434229.643	6316038.779
	7	433761.980	6315982.491	29	434229.095	6316032.748
	8	433733.288	6315987.426	30	434227.816	6316025.347
	9	433644.471	6315976.461	31	434219.044	6316019.681
	10	433625.464	6315988.157	32	434210.637	6316020.961

Polygon	Node	Easting	Northing	Node	Easting	Northing
	11	433619.799	6316040.972	33	434208.170	6316029.733
	12	433667.745	6316041.402	34	434210.089	6316036.677
	13	433774.745	6316042.112	35	434193.459	6316037.865
	14	433855.223	6316042.645	36	434180.849	6316033.114
	15	434062.060	6316032.931	37	434166.836	6316034.014
	16	433991.700	6316027.448	38	434154.777	6316032.686
	17	433975.070	6316030.372	39	434144.298	6316036.312
	18	433946.926	6316032.566	40	434136.440	6316041.520
	19	433920.244	6316035.490	41	434136.217	6316044.531
	20	433893.927	6316034.028	42	434299.834	6316045.610
	21	433879.590	6316042.810	43	434299.820	6316042.617
	22	434020.595	6316043.763	44	434262.356	6316041.429
R	1	435056.506	6315190.717	6	434859.279	6315255.909
	2	435008.260	6315149.049	7	434951.241	6315323.030
	3	434919.077	6315109.575	8	435049.927	6315342.767
	4	434877.409	6315124.926	9	435056.506	6315236.771
	5	434842.321	6315160.746	10	435056.506	6315190.717
S	1	435291.343	6315946.763	7	435197.820	6316051.568
	2	435276.723	6315910.944	8	435224.821	6316043.257
	3	435235.961	6315881.858	9	435219.056	6316016.814
	4	435195.581	6315870.738	10	435255.584	6315977.516
	5	435157.540	6315909.233	11	435287.688	6315970.887
	6	435164.262	6315957.161	12	435291.343	6315946.763
T	1	436104.733	6315857.269	8	436004.808	6315362.139
	2	436107.539	6315454.937	9	436081.564	6315397.227
	3	436109.576	6315162.866	10	436086.498	6315469.049
	4	436091.798	6315164.766	11	436060.182	6315503.406
	5	436079.371	6315246.639	12	436081.381	6315557.501
	6	436017.235	6315276.611	13	436083.786	6315857.122
	7	435996.036	6315329.243	14	436104.733	6315857.269

Archae-aus Pty Ltd

1/107 Stirling Highway
North Fremantle, WA, 6159
www.archae-aus.com.au
t. 08 9433 1127


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URBIS.COM.AU

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 13.1.C

DAP Application - Battery Energy Storage System (BESS), No.4997 Collie-Williams Road, Collie

Applicant Response to Public Submissions (inc. late submission)

URBIS

LEVEL 8
1 WILLIAM STREET
PERTH WA 6000

URBIS.COM.AU
Urbis Ltd
ABN 50 105 256 228

24 July 2025

Alan Longbon
Shire of Collie
87 Throssell Street
Collie WA 6225

Dear Alan,

RESPONSE TO PUBLIC SUBMISSIONS – COLLIE BESS AND SOLAR PV DEVELOPMENT APPLICATION (P041/25)

Urbis, on behalf of our client, Enpowered Pty Ltd, provide the following information in response to public submissions received on 13 June 2025. In support of our response, we provide the following details for the Shire's consideration.

Table 1 Response to Public Submission

Public Submission	Applicant Response
1. Public Submission (1) – Lot 789 Collie Williams Road, Palmer	
A. Overdevelopment and Incompatibility with Rural Amenity i) The development represents an overdevelopment of the site and is inconsistent with the prevailing rural land use and character. The proposed bulk, scale and density of the infrastructure is disproportionate and unsuitable for the locality.	**A. Overdevelopment and Incompatibility with Rural Amenity** i) The proposed development reflects the changing landscape of the broader Collie region and is consistent with the emerging rural character of the locality. The proposed development has been carefully designed to balance the region's transition to renewable energy sources whilst integrating with and preserving the rural landscape and associated land uses (including the retention of sheep grazing around the solar PVs). ii) The proposed development seeks to provide long term benefits to the Collie economy without compromising its existing rural amenity. A summary of the proposal's technical considerations is outlined in response 1D below. iii) The proposed development is consistent with the intentions of the Shire of Collie local planning framework as a 'A' use in a rural zone. The discretion to approve a renewable energy facility land use within

	the scheme indicates that the use has been contemplated in the consideration of rural amenity within the Shire of Collie. iv) Further, an objective of the 'Rural' zone is "*to provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses*." The proposed development is consistent with this local planning scheme objective and will not adversely impact surrounding rural pursuits.
B. Visual Amenity and Views i) The proposed structures will be visually prominent due to their scale and elevation above natural ground level. ii) The development will interrupt existing sightlines, adversely affecting our client and other nearby residents who enjoy uninterrupted rural views. iii) The absence of landscaping or screening measures exacerbates the visual impact.	**B. Visual Amenity and Views** i) It is noted that there are currently no sensitive receptors (rural dwelling) on Lot 789. The Supplementary Visual Impact Assessment (Emerge 2025) for Lot 789 identifies significant portions of the lot where a dwelling could be constructed without views to the development, thus preserving a significant degree of the current rural amenity. ii) There are scattered remnant trees within Lot 789 which can be suitably retained with any future development which serve to screen 'portions of' the development. iii) The proponent has committed to preparing a Landscaping Plan as a condition of approval that will seek to ameliorate potential visual impact on sensitive receptors as identified in the Supplementary Visual Impact Assessment (Emerge 2025).
C. Rural Landscape Character i) The proposal conflicts with the low density, open landscape of the area, typified by paddocks, vegetation and rural land uses. ii) The intensity and built form are more consistent with urban or semi-industrial development. iii) The proposal risks setting an undesirable precedent	**C. Rural Landscape Character** i) The proposed BESS and Solar PV has been demonstrated to be a compatible and complementary use to the existing function of the site and surrounding rural land uses. The proposed development maintains adequate distances from vegetation and water bodies to ensure they are protected and are not adversely impacted by the proposal. ii) The proposed development is entirely consistent with the provisions of the local planning framework being appropriately setback from adjacent lots, the Bingham River and Collie Williams Road. All setbacks proposed are in excess of the development requirements under the Shire of Collie Local Planning Scheme No. 6, consistent with the built form requirements and intensity stipulated for development in the Rural zone.

for further non-rural intrusions.	iii) The arrangement of the proposed BESS & Solar Farm ensures agricultural activities such as sheep grazing are protected and can continue in the vicinity of the solar panels, promoting the continued operation of rural activities within the 'Rural' zone. iv) The establishment of renewable energy facilities within rural zones is common practice due to the size of the footprints (which are not practical in industrial areas), access to solar light and ability to mitigate any impacts such as noise. These uses have been anticipated within the rural landscape by the Shire of Collie through provision within the local planning framework. The previously approved BESS & Solar Farm projects within the 'Rural' zone in the Shire of Collie demonstrate the ability for such a use to be appropriately established in the 'Rural' zone and for rural activities to continue on surrounding properties. v) The further establishment of uses within the 'Rural' zone will be limited to those which are deemed appropriate by the land use permissibilities of the local planning scheme. The establishment of a use permitted as an 'A' use requires a discretionary approval following consultation and does not provide precedence for non-permitted uses within the zone.
D. General Amenity i) There is a likely reduction in the amenity of surrounding properties dues to increased traffic, activity, potential noise and lighting. ii) The proximity of the development to lot boundaries, coupled with minimal setbacks, intensifies its negative impact. iii) The proposal will detract from the rural lifestyle and peaceful enjoyment of nearby properties, resulting a cumulative erosion of amenity.	**D. General Amenity** i) The development proposal has been supported by a series of technical reports to ensure it does not result in adverse impacts to the amenity of neighbouring properties and the surrounding environment. **Traffic Impact:** During the long-term operational phase of the development, the proposed development will generate less than 10 vehicle trips during any peak hour and is considered a low impact development. **Noise Impact:** The submitted Environmental Noise Assessment confirms the operating levels of the BESS and Solar Farm infrastructure to ensure compliance with the applicable noise levels. These operating levels can be implemented through conditions of development approval. **Light Impact:** Night lighting for the BESS facility will be as required for operational and security purposes. It will be designed to ensure that there is negligible impact on surrounding receivers, consistent with lighting standards (AS/NZS 4282:2023).

	Further, the DA includes technical reports which demonstrate that other potential amenity impacts can be appropriately mitigated on site. ii) As previously outlined, the proposed development exceeds the minimum boundary setbacks from lot boundaries as stipulated in the Shire's LPS, further mitigating any potential adverse amenity impacts to neighbouring properties.
2. Public Submission (2) – Lot 774 'Fisher Farm'	
A. Visual Impact **B. Land Values** **C. Environmental Impact and Contamination Risk** **D. Bushfire Risk** **E. Security and Access** **F. Health Impacts**	**A. Visual Impact** Emerge has undertaken a Supplementary Visual Impact Assessment (2025) that confirms that by virtue of the existing dense vegetation on the site and the setback distance of the sensitive receptor (dwelling) on Lot 774, that the project infrastructure will not be visible from the sensitive receptor. **B. Land Values** While potential impacts on property values are not typically considered a valid planning consideration, we acknowledge the importance of this issue to residents. The proposed development will play a significant role in the Shire of Collie's economy and Western Australia's renewable energy future by providing a reliable source of renewable energy to households and local industry. Importantly, the proposed development does not seek to modify the zoning of the subject site or surrounding properties, ensuring that there will be no impact on the land use permissibility. The benefits of the proposed BESS & Solar Farm, including job creation and contributions to a sustainable energy future, will positively influence the community as a whole. **C. Environmental Impact and Contamination Risk** The proposal water management approach will adopt surface based drainage measures (roadside swales) to direct any runoff towards a water quality treatment structure. The main likely pollutant will be sediments generated when runoff passes over disturbed land (substation) or from the internal access tracks. Therefore, a sediment trap is proposed at all low points prior to any discharge offsite, so that all runoff is treated. Sediment traps will be provided with erosion control measures at the downstream end (outlet) to ensure erosion risk to the waterway is mitigated. Erosion control measure will be located outside of the floodway/floodplain of the Bingham River. Further risks to the environment are well understood and can be effectively mitigated through proper design, modern safety standards,

	and coordinated emergency response procedures. Industry-wide experience has demonstrated that with these controls in place, environmental impacts can be minimised and contained to the project site. Note that a condition of approval can be applied to the proposal to ensure that the Environmental Management Plan and Bushfire Management Plan are implemented accordingly. **D. Bushfire Risk** A comprehensive BMP (Bushfire Management Plan Collie BESS and Solar PV (EP24-016(08)--011b CPW) - Emerge Associates 2025) has been developed to specifically assess and mitigate fire risks for the Collie BESS and Solar Farm project, with safety for existing surrounding land uses as a key consideration. The BMP fully acknowledges existing fire hazards such as the surrounding forests and pastures, informing the project's design. The plan uses several strategies to manage risks from both external bushfires and potential internal ignition; these include: • **Strategic Siting:** To protect from external bushfires, habitable buildings like the control room will be in BAL-LOW areas. The Battery Storage Units will be sited to achieve a BAL-12.5 rating or below, and Solar PV units will be in areas rated BAL-29 or below. • **Fuel Load Management**: The majority of the site will be actively managed as a "low-threat" area through ongoing grazing and mowing to reduce fuel loads. This high standard of site management includes the proponent's responsibility to comply with the annual Shire of Collie Firebreak & Fuel Hazard Reduction Notice. The BMP also notes that surrounding private landholdings are expected to be managed by their respective landowners in accordance with the Shire's firebreak requirements, with the Shire of Collie responsible for monitoring this compliance. • **Internal Containment:** The facility is designed to prevent fire from leaving the BESS facility. The battery units are located on a non-combustible hardstand area and are surrounded by 10-metre-wide perimeter roads to ensure separation from flammable materials. In the event of a battery fire, the units are designed to burn out in a controlled manner, while a dedicated water supply will be available to

	prevent the fire from spreading to the surrounding vegetation. • **Dedicated Water Supply:** A minimum 50,000-litre water tank, complemented by a reticulated water supply, will be installed for firefighting. • **Emergency Access:** The internal road network is designed with a 6-metre wide surface for two-way fire truck access and includes suitable turnaround areas. In summary, the Bushfire Management Plan demonstrates that the project has been planned to address bushfire risk through a multi-layered strategy. By proactively assessing existing hazards and designing for worst-case scenarios, the project integrates key safety elements including strategic siting of infrastructure, comprehensive on-site fuel management, internal fire containment measures, and dedicated emergency resources. This detailed approach, which aligns with State Planning Policies and Australian Standards, ensures the development can be safely managed and does not negatively impact the safety of the surrounding community and properties. **E. Security and Access** A Construction Management Plan will be prepared to the satisfaction and approval of the Shire of Collie. This plan will detail the hours during which construction activities will be undertaken, the location of the temporary construction areas, and site traffic management. Importantly, the site will not be accessible to the public, ensuring that construction activities are closely managed and monitored. These steps will ensure that the construction and operation of the BESS & Solar Farm are conducted safely and securely. **F. Health Impacts** There is no evidence that Solar and/or BESS installations cause harm to people, animals, or nearby electronic equipment. Extensive scientific research over the past two decades has found that utility-scale solar farms and battery installations generate only low levels of non-ionising electromagnetic fields, which don't contain enough energy to remove electronics from an atom, molecule or to damage DNA. This is similar to the levels produced by common household appliances such as refrigerators or microwaves. These electromagnetic fields are localised to the equipment itself and drop off very quickly with distance. Within 50 meters of the equipment, levels are typically no higher than everyday background levels.

3. Public Submission (3) – 771 Yourdamung Road, Burekup	
A. Bushfire Risk **B. Visual Impact and Glare** **C. Environmental Impact** **D. Climate Impact** **E. Land Values** **F. Rural Zoning**	**A. Bushfire Risk** Please refer to 'Bushfire Risk' response for **Public Submission No. 2**. **B. Visual Impact and Glare** Emerge has undertaken a Supplementary Visual Impact Assessment (2025) that identifies that the Solar PV panels may be glimpsed through the existing vegetation from the existing residence on Lot 771, but is not expected to be visible on mass, or change the viewing experience significantly at the distance of the residence to the proposal. The Solar PVs will be blended, with only glimpses of the PVs likely in the distance (more than 600m away). The black colour of the panels will change the views, but this colour will blend with the vegetation at distance. PV solar panels are specifically engineered to absorb sunlight rather than reflect it, as reflection represents lost energy. As such, the reflectivity (albedo) of modern PV panels is deliberately minimised using textured glass surfaces and anti-reflective (AR) coatings. The result is that most utility-scale solar panels reflect only 2–5% of incident sunlight, which is significantly lower than many common surfaces. **C. Environmental Impact** Please refer to 'Environmental Impact' response for **Public Submission No. 2**. **D. Climate Impact** It is possible that a change in albedo (reflected light/heat) from a solar panel versus a paddock may have a slight effect on the amount of light energy reflected from the proposal, noting that the area of the solar panels is significantly smaller than the rainfall catchment and minor in size compared to the overpassing weather systems. Current scientific research shows that solar panels do not affect rainfall at the local or regional scale in typical solar farm developments. Hypothetical large-scale climate modelling studies have explored large solar installations covering 20- 50% of the Sahara Desert could increase local rainfall, but this is not comparable to the scale of solar farm being developed. **E. Land Values** While potential impacts on property values are not typically considered a valid planning consideration, we acknowledge the

	importance of this issue to residents. The proposed development will play a significant role in the Shire of Collie's economy and Western Australia's renewable energy future by providing a reliable source of renewable energy to households and local industry.. Importantly, the proposed development does not seek to modify the zoning of the subject site or surrounding properties, ensuring that there will be no impact on the land use permissibility. The benefits of the proposed BESS & Solar Farm, including job creation and contributions to a sustainable energy future, will positively influence the community as a whole. **F. Rural Zoning** The proposed BESS & Solar Farm has been demonstrated to be a compatible and complementary use to the existing function of the site and surrounding rural land uses. As previously outlined, the establishment of renewable energy facilities within rural zones is common practise due to the size of the footprints (which are not practical in industrial areas), access to solar light and ability to mitigate any impacts such as noise. These uses have been anticipated within the rural landscape by the Shire of Collie through provision within the local planning framework. The previously approved BESS & Solar Farm projects within the 'Rural' zone in the Shire of Collie demonstrate the ability for such a use to be appropriately established in the 'Rural' zone. The further establishment of uses within the 'Rural' zone will be limited to those which are deemed appropriate by the land use permissibilities of the local planning scheme. The establishment of a use permitted as an 'A' use requires a discretionary approval following consultation and does not provide precedence for non-permitted uses within the zone.

Kind regards,

Farida Farrag

Farida Farrag
Senior Consultant
+61 8 9346 0518
ffarrag@urbis.com.au

URBIS

LEVEL 8
1 WILLIAM STREET
PERTH WA 6000

URBIS.COM.AU
Urbis Ltd
ABN 50 105 256 228

6 August 2025

Alan Longbon
Shire of Collie
87 Throssell Street
Collie WA 6225

Dear Alan,

RESPONSE TO FURTHER PUBLIC SUBMISSIONS – COLLIE BESS AND SOLAR PV DEVELOPMENT APPLICATION (P041/25)

Urbis, on behalf of our client, Enpowered Pty Ltd, provide the following information in response to the further public submission received on 5 August 2025. In support of our response, we provide the following details for the Shire's consideration.

Table 1 Response to Public Submission

Public Submission	Applicant Response
1. Public Submission (1) – Lot 789 Collie Williams Road, Palmer	
A. Visual Impacts and Amenity i) Visibility from Access Roads ii) Visibility from Lot 789 Future Dwelling	**A. Visual Impacts and Amenity** i) Visibility from Access Roads: It is confirmed that unnamed road, Land ID 3539120 was not included in the development application as it sits outside the proposed development area as illustrated in the submitted site plan and site description. The road is unconstructed, and it is understood that a portion of the road reserve is currently utilised for access to Lot 789 only. The road is only accessible to 3 rural lots (2 of which are in a single ownership and currently utilise an alternative access) and as such, a small number of users would use this road to access rural lots on an intermittent basis. Therefore, while the views would change, these changes are considered localised. This access road is not considered to have the same level of significance as Collie Williams Road, therefore the development is not considered to have the same degree of visual impact or require mitigation in the form proposed for Collie Williams Road.

	It is considered that the views from this unnamed, unconstructed access road does not have any material impact on the overall amenity of the locality. ii) <u>Visibility from Lot 789 Future Dwelling:</u> It is acknowledged that without mitigation measures, the nominated location for a future dwelling on Lot 789 will maximise the views and therefore the visual impact of the Solar PVs and may see glimpses of the top of the BESS, based on the viewshed analysis considering topography only. The Supplementary Visual Assessment (VIA) (Emerge, 2025) identifies a range of alternative locations where a future dwelling could be reasonably located with little to no visual impact from the proposed development, and which the submitter may wish to consider. Notwithstanding, the project team has reviewed the situation and confirms that if a dwelling were to be located at the indicated location, screening planting could be implemented to block views of the Solar PVs and other infrastructure within the proposal. The proponent is agreeable to planting of a 5 metre-wide and 500m long screen using shrubby vegetation (up to 6 metres high, multi-stemmed/bushy, and native to the area) along the northern boundary at the commencement of construction works so it is established prior to the dwelling being occupied. The screening location is generally shown in **Figure 1** below. This planting could be offset 10 metres from the proposal's northern boundary to maintain the existing firebreak and leave some existing paddock areas in the immediate foreground. This type of vegetation identified tends to grow quicker than trees and could establish within 3-5 years at a mature height, with maintenance and potentially irrigation required during any dry summers during the establishment period. The requirement to maintain planting will be captured through a standard condition of development approval and implemented through a Landscaping Plan. The proponent has committed to preparing a Landscaping Plan as a condition of approval to ameliorate potential visual impacts on sensitive receptors, as identified in the Supplementary Visual Impact Assessment (Emerge, 2025). Given that the public submission was received after the consultation closing date and the short timeframe provided in which to respond, the Supplementary VIA (Emerge 2025) has not been updated to incorporate these further recommended mitigation measures. We therefore propose that the Supplementary VIA be further updated (as a condition of development approval) to consider the visibility of the proposed development from the identified future dwelling location and the

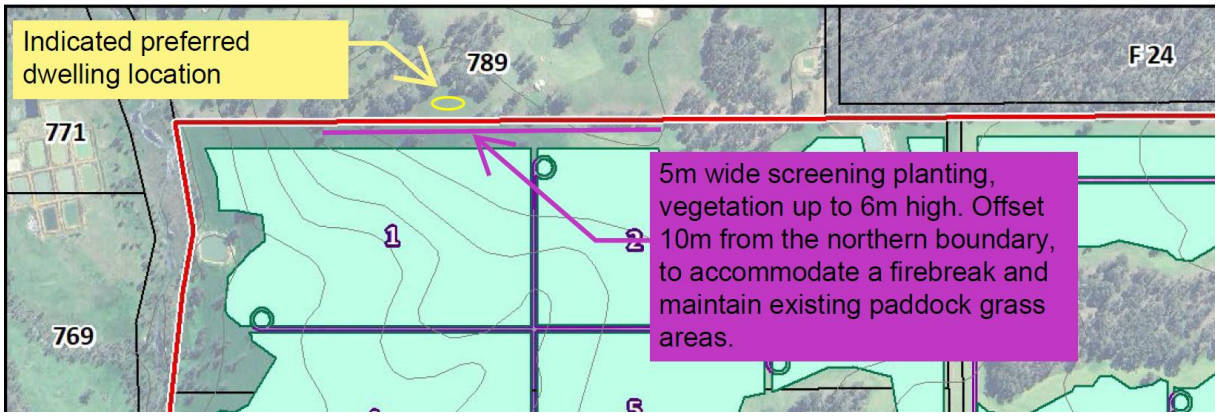
	recommended mitigation measures administered through the Landscape Plan.
B. Noise Impacts i) Cumulative Noise Impact Assessment ii) Noise Impacts on Future Lot 789 Dwelling	**B. Noise Impacts** i) <u>Cumulative Noise Impacts:</u> The project team has reviewed the Noise Impact Assessment (NIA) for the approved BESS south of the proposed development and notes the following: • Noise monitoring was undertaken due to the Collie Power Station. This determined that there was no significant contribution from this noise source to their nearest residences. Their nearest residences are closer to this noise source (Collie Power Station) than the subject development, and therefore the Collie Power Station would also not significantly contribute to noise at the subject site's receivers. • No adjustments are considered applicable for tonality. • Noise levels from the approved BESS have not been calculated directly for Lot 789. However, they present receivers R5, R7, and R11, which are in the vicinity of Lot 789 (these align with receivers R6, R8, and R11 identified in the proposed NIA but were not assessed against the proposed development). Predicted levels for the 1GW 80% Inverter Fans Speed scenario are 30 dB(A), 25 dB(A), and 29 dB(A). Since these are at least 5 dB below the assigned night-time level of 35 dB(A), they will not significantly contribute to noise at Lot 789 and do not impact the compliance of the proposal against the *Environmental Protection (Noise) Regulations 1997* and therefore the Collie Power Station would also not significantly contribute to noise at the subject site's receivers. ii) <u>Noise Impacts on Future Lot 789 Dwelling:</u> The proponent has committed to undertaking a noise monitoring program within the first 12 months of the project operating to demonstrate compliance with the acceptable criteria of the *Environmental Protection Act 1986* and the *Environmental Protection (Noise) Regulations 1997*. The noise monitoring program can consider noise impacts of the proposed development on the future dwelling location at Lot 789 and, if required, detail any appropriate actions and additional mitigation measures to ensure that noise emissions do not contravene the provisions of the aforementioned legislation.

C. Consistency with Planning Framework i) Land Use Permissibility ii) Building Setbacks iii) State Planning Policy 2.5 Objectives	**C. Consistency with Planning Framework** i) Land use permissibility: The establishment of renewable energy facilities within rural zones is common practice due to the size of the footprints (which are not practical in industrial areas), access to solar light and ability to mitigate any impacts such as noise. These uses have been anticipated within the rural landscape by the Shire of Collie through provision within the local planning framework and reflect a changing rural landscape throughout parts of Western Australia in response to a community and policy shift to renewable energy in the face of climatic and sustainability imperatives. The discretion to approve a renewable energy facility land use within the scheme indicates that the use has been contemplated in the consideration of rural amenity within the Shire of Collie. The previously approved BESS & Solar Farm projects within the 'Rural' zone in the Shire of Collie also demonstrate the ability for such a use to be appropriately established in the 'Rural' zone and for rural activities to continue on surrounding properties. Further, an objective of the 'Rural' zone is "*to provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses*." The proposed development is consistent with this local planning scheme objective and will not adversely impact surrounding rural pursuits, in fact providing for the retention of continued and compatible grazing around the solar panels. ii) Building Setbacks: The proposed development is entirely consistent with the provisions of the local planning framework being appropriately setback from adjacent lots, the Bingham River and Collie Williams Road. All setbacks proposed are in excess of the development requirements under the Shire of Collie *Local Planning Scheme No. 6,* consistent with the built form requirements and intensity stipulated for development in the Rural zone. As outlined in the development application report, a minimum front and rear setback of 30m is proposed and a minimum side setback of 15m. iii) State Planning Policy 2.5 Objectives: The development application report provides an assessment of the proposal against SPP 2.5, as follows: • Land Use Compatibility: The proposed development will not adversely impact existing agricultural activities. The proposed PV arrays have been designed to have a ground clearance ranging from 0.77m to 2.85m at its maximum tilt of 60 degrees, which is deemed acceptable to allow for sheep grazing in the vicinity of the solar panels.

	• Environmental Impact: An Environmental Assessment and Management Plan (EAMP) has been prepared that assesses the proposal against the effects on natural resources, including soil, water, and biodiversity, and measures to be implemented to mitigate any negative impacts. The EAMP confirms that the proposed development utilises largely cleared and degraded land, whilst preserving surrounding patches of remnant vegetation. As previously outlined, the current land use of the site for rural purposes will continue during the ongoing operation of the proposal. • Economic and Social Benefits: The project will contribute to the local economy and community, including job creation during both the construction and operational phases, and aiding in the provision of energy security. The additional employment opportunities will in part stimulate the local economy, providing a boost to the community of Collie and surrounding areas. In consultation with the Shire and local community, the proponent will identify social investment opportunities and targeted strategies to enhance positive social impacts associated with the Project. Investment into local social infrastructure and community benefit schemes will be benchmarked against the State Government's Draft Guideline on Community Benefits for Renewable Energy Projects (DEMIRS 2025), renewable energy projects throughout Australia and the Clean Energy Council guide to benefit sharing options. This will be delivered through a Community Benefit fund in line with best practice and the draft. • Infrastructure and Services: The proposed development considers the adequacy and suitability of existing infrastructure and services to support the development, and necessary upgrades required. The proposed development's connection to Western Power's 330 kV transmission network at Palmer Substation will enhance the integration of renewable energy into the grid. This connection will facilitate the efficient distribution of clean energy across the region, supporting both residential and industrial energy needs.
D. Provision of Elevations	**D. Provision of Elevations** Elevations of the proposed BESS and Solar PV DA were provided as Appendix B of the development application package. The visual assessment provided identify that views of Project, particularly the solar arrays, will

	change throughout the landscape in response to topography and vegetation. In the absence of a dwelling on Lot 789 it was not possible to undertake a targeted assessment for such on this lot. Notwithstanding, the Supplementary VIA and further information in this response address this request in more detail.

Figure 1 Proposed Screening Vegetation Extent



Kind regards,

Farida Farrag

Farida Farrag
Senior Consultant
+61 8 9346 0518
ffarrag@urbis.com.au

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 13.1.D

DAP Application - Battery Energy Storage System (BESS), No.4997 Collie-Williams Road, Collie

Supplementary Visual Impact Assessment

TECHNICAL MEMORANDUM

Supplementary Visual Impact Assessment - Lot 789 on Deposited Plan 232871 and Lots 774 and 771 on Deposited Plan 232870

PROJECT NUMBER	EP24-016(10)	**DOC. NUMBER**	EP24-016(10)—013d PPS
PROJECT	Hesperia Collie Palmer BESS and Solar PV Project	**CLIENT**	Enpowered Pty Ltd
AUTHOR	PPS	**REVIEWER**	KK
VERSION	D	**DATE**	July 2024

1 BACKGROUND

Emerge Associates prepared an Environmental Assessment and Management Plan (EAMP) (Emerge Associates 2025) to support the proposed development of a photovoltaic (PV) solar and battery energy storage system (BESS) facility (herein referred to as 'the proposal') in Palmer, within the Shire of Collie, Western Australia (WA). The EAMP provides a synthesis of information regarding the environmental values and attributes of the site and a management plan to respond to anticipated impacts to these values. It includes consideration of the visual amenity and potential impacts for the proposal in the context of the *Visual Landscape Planning in Western Australia Manual* (WAPC 2007) (the Visual Landscape Manual).

The proposal includes three main components which were assessed for visual impact (compared to the existing natural ground level):

- BESS battery component at a maximum 2.6 m height
- Four BESS lighting poles at a maximum 25 m height
- Solar PV component, with a maximum height of 2.85 m for each PV unit.

These components are surrounded by access ways that wind across the proposal area and are shown in **Plate 1**.

The visual impact assessment component of the EAMP found that:

- Viewer experience when looking at the proposal area will change and the extent of change will vary depending on the location of a receptor relative to the proposal, and length of time in the vicinity of the proposal (e.g. a car driving along Collie Williams Road will have a very short-term experience, compared to the potential experiences of residences surrounding the proposal).
- The topography (landform) only modelling suggests that the proposal could be visible to a large extent of the surrounding area (particularly the Solar PV component, the BESS and lightning poles would be less of an impact due to the location and scale of these features).
- When the existing stands of dense (multi-tiered e.g. understorey, midstorey and overstorey) vegetation were taken into account, the visual impacts are significantly reduced, particularly for a large number of the existing receptors (residences/dwellings) to the west of the proposal. The dense areas of remnant native or plantation vegetation provide a screen blocking any view of the proposal, and the location of this vegetation is based on the extent of native vegetation data prepared by the Department of Primary Industries and Regional Development (DPIRD).
- Where vegetation is of lower density (e.g. trees over paddock grasses) or are patchy in nature, the presence of vegetation would not offer the same screening value as the dense multi-tiered

vegetation; however, would still contribute to blending the proposal, and making the large array of PV panels less prominent.

Generally, due to the scale of the infrastructure proposed (not too dissimilar to a typical residential building in height), the visibility of the proposal will reduce over distance, and any potential visual impacts will be the most pronounced within 0.5 km of the proposal. As the distance increases, the infrastructure will become increasingly smaller to the naked eye and less discernible. Similarly, as the distance between a receptor and the proposal increases, the presence of vegetation and other buildings in between is also likely to improve the blending of the proposal.

The EAMP can be referred to for detail regarding the visual impact assessment methodology.

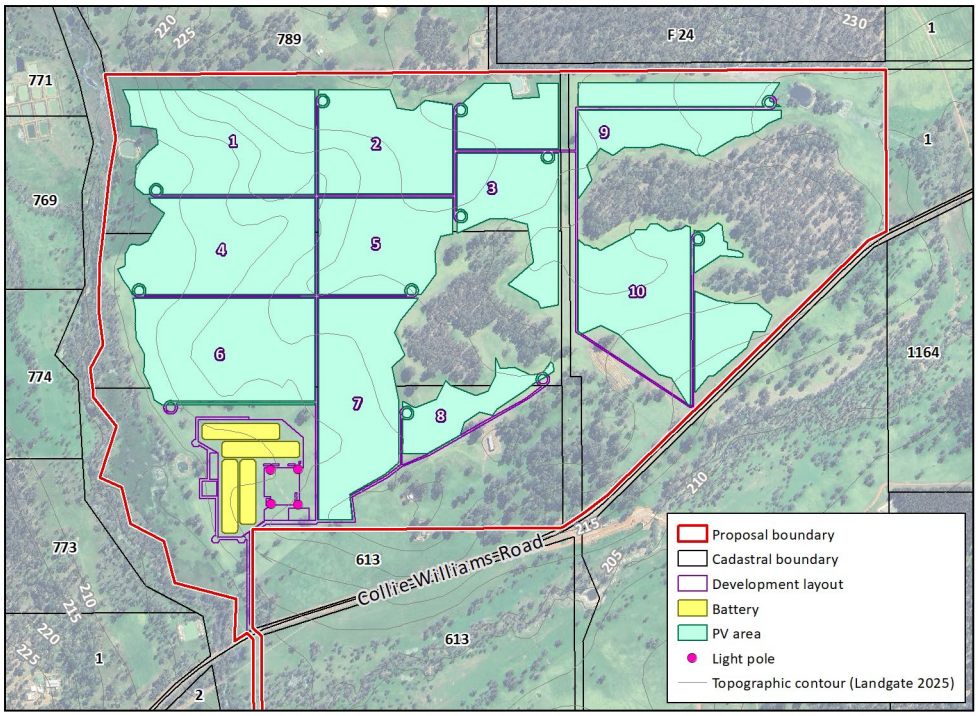


Plate 1: Proposed development showing location of infrastructure and proposal layout.

Of the Solar PVs, BESS and lightning poles, the Solar PVs have the likely greater visual impact, due to the extent of panels and their potential to look like a single mass at distance.

The development application for the proposal was lodged by Enpowered Pty Ltd (the proponent), a subsidiary of Hesperia Property Pty Ltd ,and it is understood that three public submissions were received raising concerns of the likely visual impacts of the proposal. The concerns are in relation to potential visual impacts from the proposal on the following landholdings:

- **Lot 771** (Deposited Plan 232870), which is 41.1 ha in area and located to the north-west of the proposal. A 'sensitive' receptor (i.e. rural dwelling) was previously identified in the central portion of Lot 771 approximately 0.6 km west of the proposal boundary. The dwelling is located in more open areas, with some vegetation nearby.
- **Lot 774** (Deposited Plan 232870), which is 41.77 ha in area and located to the west of the proposal. A 'sensitive' receptor (i.e. rural dwelling) was previously identified in the western

portion of Lot 774 approximately 1 km west of the proposal boundary. The dwelling is located in the middle of densely forested areas.

- **Lot 789** (Deposited Plan 232871), which is 42.39 hectares (ha) in area and is located directly to the north of the proposal. As no dwelling currently exists within Lot 789, it was not previously identified as a 'sensitive' receptor (i.e. rural dwelling) in the EAMP.

Emerge Associates, on behalf of the proponent, have undertaken further assessment of the proposal's visual impacts specific to Lot 771, 774 and 789. Consideration of the visual impacts based on the characteristics of the land and each lot is addressed individually below.

The proponent has historically liaised with some of the submitters and/or other adjoining landowners, and photographic imagery captured by the proponent as part of these discussions has been included below and helped inform the outlined information. In addition, photographic imagery captured by Emerge Associates as part of previous site investigations, have also been used below.

2 LOT 771

Lot 771 is located to the north-west of the proposal, with an existing residence (sensitive receptor) in the eastern portion of the lot. This is shown in **Plate 2** below. The existing residence has a mix of taller, denser vegetation (generally at least 15 m high as a minimum) to the immediate south and west, and lesser height vegetation (at least 8 m high within the valley) to the east, the general extent of which is shown in **Plate 2**. There is also lower density vegetation between the receptors which was not included in the viewsheds.

Generally, based on the viewsheds in the EAMP and the context for the receptor within Lot 771:

- Only the eastern-most portion of the lot would have potential visibility of proposal infrastructure. The dense (multi-tiered) vegetation, an example of which is provided in **Plate 3**, would screen views to the south and south-east.
- The BESS and lightning poles are expected to be fully screened by the dense (multi-tiered) vegetation.
- The BESS will have a similar bulk and scale to a large shed and/or dwelling and will not significantly change the existing rural outlook; and similarly the limited number of poles (4 poles) and their scale (like power poles/street lights) mean they will not be discernible to a naked eye, even if a viewer was looking from the eastern portion of the lot.
- Only the eastern-most portion of the lot would have potential visibility of the PVs, including the dwelling location.
- Based on a review of the conditions from the existing residence (see **Plate 4**), the Solar PVs are likely to be blended and less visible due to the lower density vegetation not picked up by the analysis, with only glimpses of the PVs likely in the distance (more than 0.6 km). The black colour of the panels will change the views, but this colour is expected to blend with the vegetation at distance.

The Solar PV panels may be glimpsed through the existing vegetation from the existing residence, but is not expected to be visible on mass, or change the viewing experience significantly at the distance of the residence to the proposal.

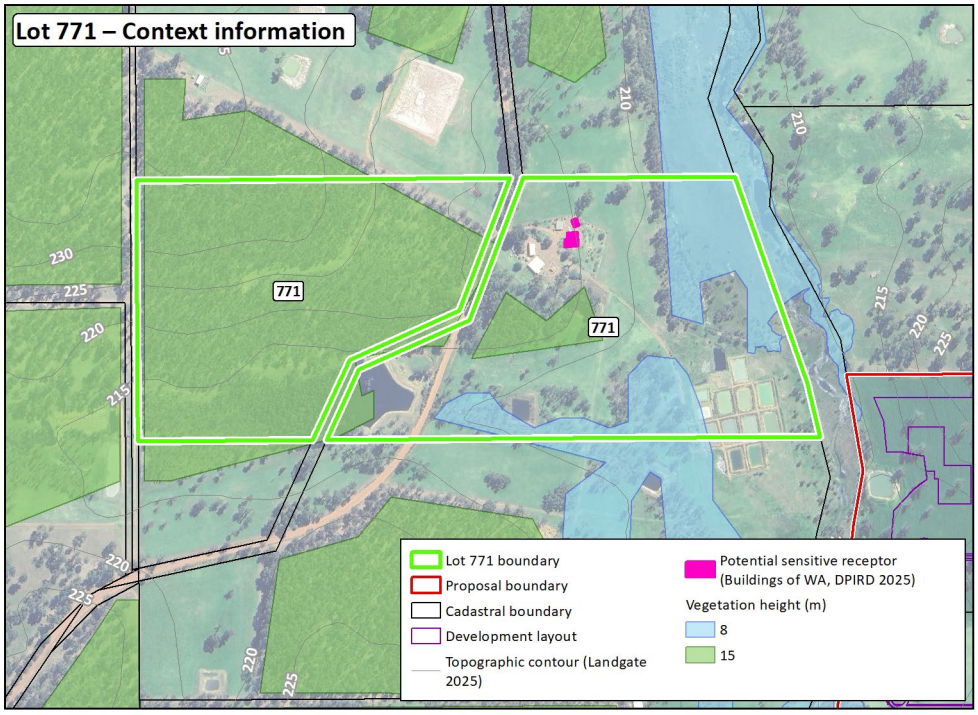


Plate 2: Context for the location of the sensitive receptor in Lot 771.



Plate 3: Looking east towards the proposal area from within Lot 773 (directly south of Lot 774). Remnant native vegetation in Lot 771 and 774 will have similar characteristics to this vegetation.



Plate 4: Views looking south east from residence in Lot 771. Glimpses of the proposal (in background of photo) through the existing vegetation. Imagery indicates views of the Solar PVs will be blended by existing vegetation, even though not all is dense stands.

3 LOT 774

Lot 774 is located approximately 110 m west of the proposal boundary, with an existing residence (sensitive receptor) in the western portion of the lot surrounded by dense areas of remnant native vegetation and more than 1 km from the proposal. This is shown in **Plate 5** below. The existing residence is nestled in amongst taller, denser vegetation (generally at least 15 m high). The eastern portion of the lot has lesser height vegetation (at least 8 m high within the valley) to the east, the general extent of which is shown in **Plate 5**. There is also lower density vegetation between the receptor which was not included in the viewsheds in the EAMP.

Generally, based on the viewsheds in the EAMP and the context for the receptor within the site:

- For Lot 774, the existing residence in the western portion of the landholding will be fully screened from the proposal by the existing vegetation (**Plate 3**).
- Only the eastern-most portion of the lot would have potential visibility of proposal infrastructure. However, similar to the views from Lot 771 (see **Plate 4**), vegetation in the waterway and scattered vegetation not identified as 'dense' (in **Plate 5**) is expected to assist with blending the infrastructure, particularly the Solar PVs. No sensitive receptors were identified in this location, although existing shed infrastructure appears to be present based on a review of the aerial photography. From this location:
    - The BESS and lightning poles are expected to be largely screened by the dense (multi-tiered) vegetation, shown in **Plate 5**. Similar to Lot 771, the BESS will have a similar bulk and scale to a large shed and/or dwelling and will not significantly change the existing rural outlook; and similarly the limited number of poles (4 poles) and their scale (like power poles/street

lights) mean they will not be discernible to a naked eye, even if a viewer was looking from the eastern portion of the lot.

- The Solar PVs are likely to be blended and less visible due to the lower density vegetation not picked up by the analysis, with only glimpses of the PVs likely. The black colour of the panels will change the views, but this colour is expected to blend with the vegetation at distance.

The existing residence will be fully screened by the remnant vegetation in the lot; while in the eastern portion of the lot, the proposal will be blended similar to the outcomes described for Lot 771.

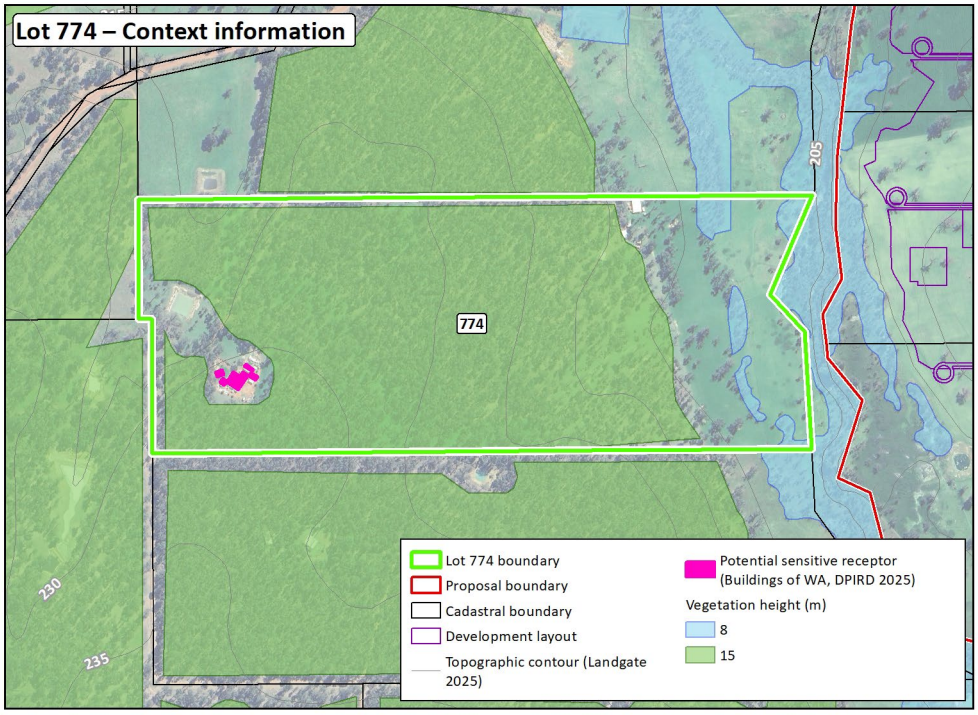


Plate 5: Context for the location of the sensitive receptor in Lot 774.

4 LOT 789

Lot 789 is located to the immediate north of the proposal, with no existing residence and/or sensitive receptor identified. It is understood that a submission was received by the proponent raising concerns regarding the future potential for a residence to be located within Lot 789 and potentially affected by the proposal. For Lot 789, the limited and more open nature of the vegetation located between the proposal offers less screening ability than the vegetation in Lot 771 or 774.

Given there is no sensitive receptor to consider the visual impacts against, a different assessment approach has been applied to understand the proportion of Lot 789 that may be affected by the proposal. The assessment has built on the preview viewshed analysis (presented in the EAMP) and considered a viewer height of 1.8 m on top of the natural ground surface (a reflection of where a person may stand) compared to the proposal infrastructure. With regard to the viewshed analysis from the EAMP:

- **Plate 6** shows the visibility of the BESS. The BESS would only be visible in the southern-most portion of Lot 789, within 150 m of the boundary. The BESS will be located lower in the landscape and the natural rise in the southern portion of the lot acts as a screen to the BESS. The BESS will also have a similar bulk and scale to a large shed and/or dwelling and will not significantly change the existing rural outlook.
- **Plate 7** shows the visibility of the lightning poles. Similar to the BESS, the rise in the southern portion of the lot acts as a natural screen and the predicted visibility based on topography only is in the southern portion of the lot (mostly within 150 m). The limited number of poles (4 poles) and their scale (like power poles/street lights) mean they will not be discernible to a naked eye, even if a viewer was looking from the southernmost portion of the lot.
- **Plate 8** shows the visibility of the Solar PVs. Solar PVs would be visible from a large portion of Lot 789; however, predominantly due to the existing natural rise that is found in the southernmost portion of the lot, the Solar PVs would not be visible from at least 8.5 ha of the lot.

A summary of the visible and non-visible areas for each of the infrastructure components identified above based on topography only is outlined in **Table 1** below.

Table 1: Visible areas versus non-visible areas within Lot 789

	BESS Battery	BESS Lightning Poles	Solar PVs
Visible (1.8 m viewer height) (ha)	2.12	22.34	33.74
Visible (1.8 m viewer height) (%)	5	53	80
Non-visible (ha)	40.24	20.02	8.62
Non-visible (%)	95	47	20

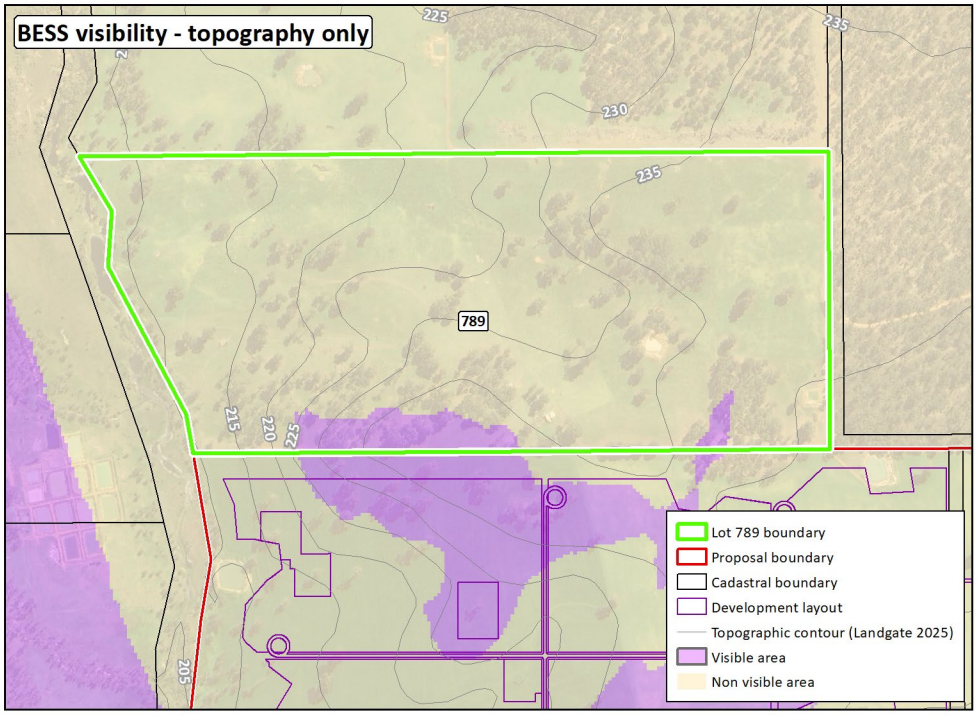


Plate 6: Visible areas within Lot 789 based on a 1.8 m viewer height standing on the natural ground compared to the BESS.

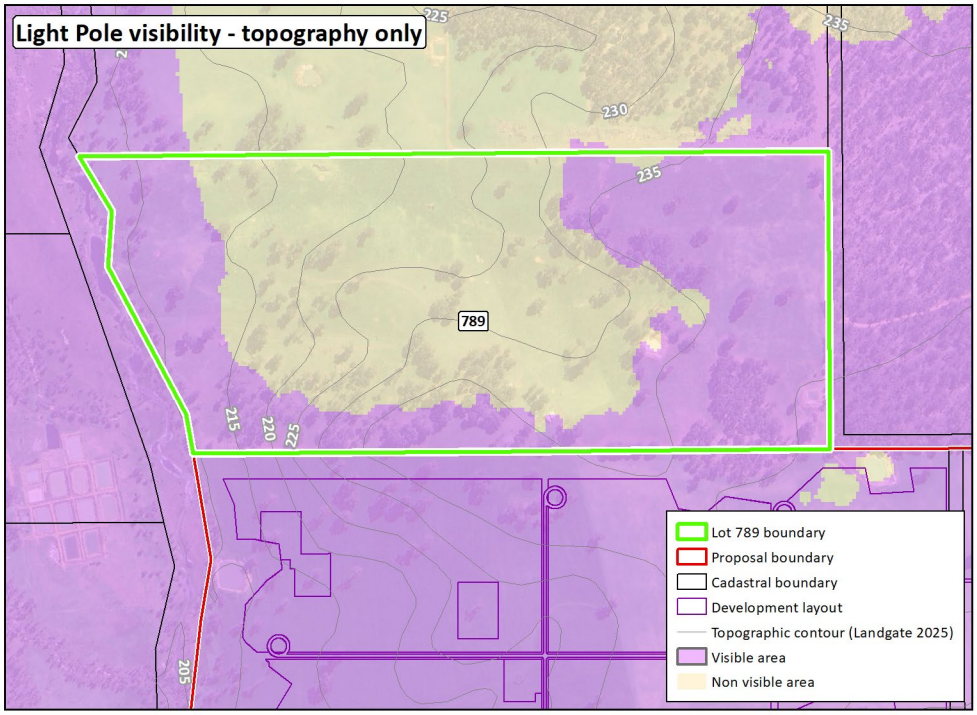


Plate 7: Visible areas within Lot 789 based on a 1.8 m viewer height standing on the natural ground compared to the BESS lightning poles.

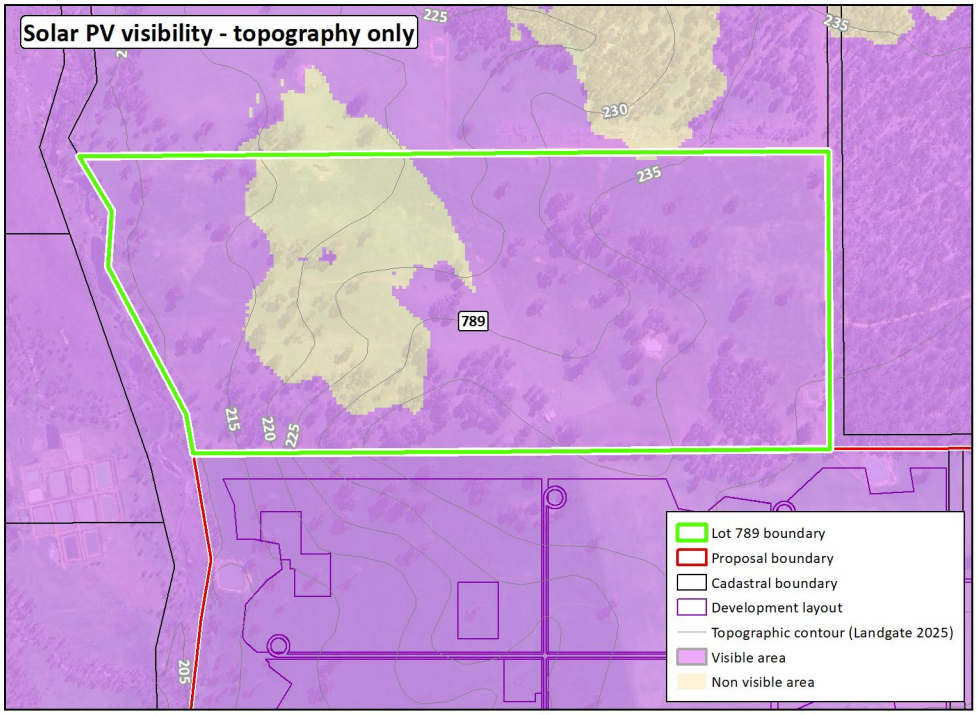


Plate 8: Visible areas within Lot 789 based on a 1.8 m viewer height standing on the natural ground compared to the Solar PVs

As the Solar PVs are predicted to be the more extensively visible infrastructure component, a further assessment of visibility was undertaken, to attribute how many of the Solar PV component of the proposal might be visible using a proportional assessment. Each of the Solar PV cells (1-10) was assessed as a proportion of the proposal, giving an indication of how much of the Solar PVs might be visible to receptors within Lot 789. This is a useful way to demonstrate how the topography of the proposal itself and adjoining lots reduces (hides) the full extent of the proposal.

The proportional assessment for Lot 789 is shown in **Plate 9** and indicates:

- The greatest area of Solar PVs will be visible along the southern boundary of Lot 789, where a natural rise is present.
- Less than 40% of the Solar PV area would be visible across the majority of Lot 789 (dark green colour in **Plate 9**).

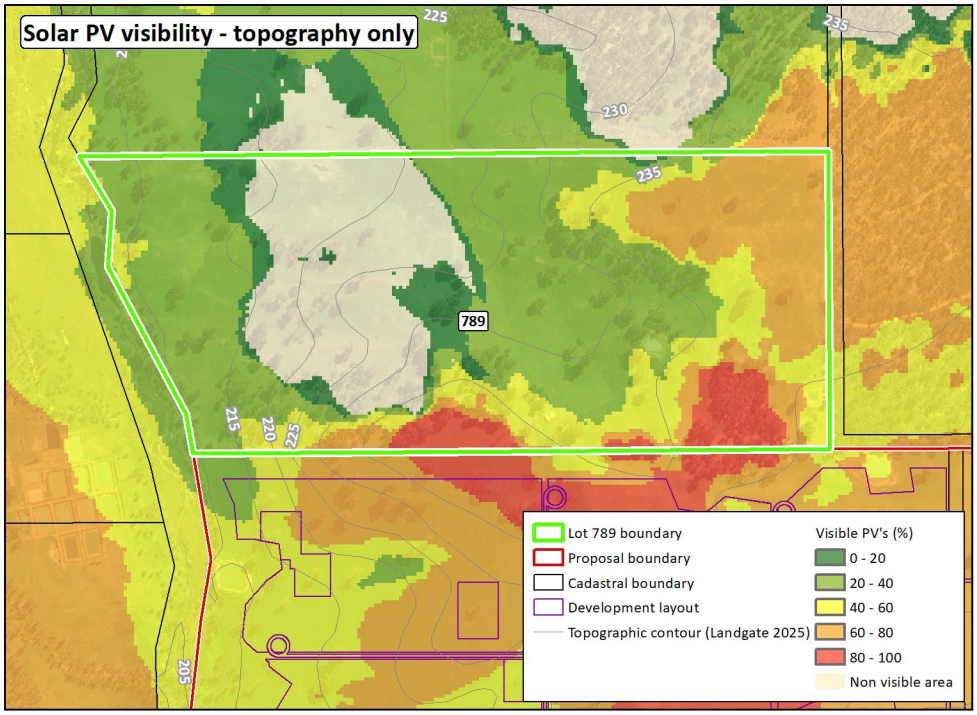


Plate 9: Proportional assessment for visible areas within Lot 789 based on a 1.8 m viewer height standing on the natural ground compared to the Solar PVs. Each of the Solar PV cells (1-10) is assessed as a proportion of the proposal, giving an indication of how much of the Solar PVs might be visible within Lot 789.

The more open nature of the vegetation present offers less screening ability than Lot 771 or 774. Lot 789 has at least an 8 ha portion of the landholding which will not be able to see the proposal due to the existing topography (no reliance on vegetation), and in particular the natural high point located along the southern boundary of the lot. It would be possible to site a future rural dwelling in this location with no discernible view of the proposal.

Notwithstanding, vegetation along the southern boundary of Lot 789 (shown in **Plate 10** and **Plate 11**) will assist with blending the proposal, breaking up the visibility of the Solar PVs and making them less prominent. However, it is noted that outside the area identified as 'non-visible', the Solar PVs are expected to be visible, but the bulk and scale will be reduced where trees are present and the further the panels are from the viewer.



Plate 10: Looking north from the proposal boundary towards Lot 789, showing vegetation is relatively limited and scattered in form, and glimpses of the land are possible through the trees. Expect views south (from within Lot 789) towards the proposal area to be similar.

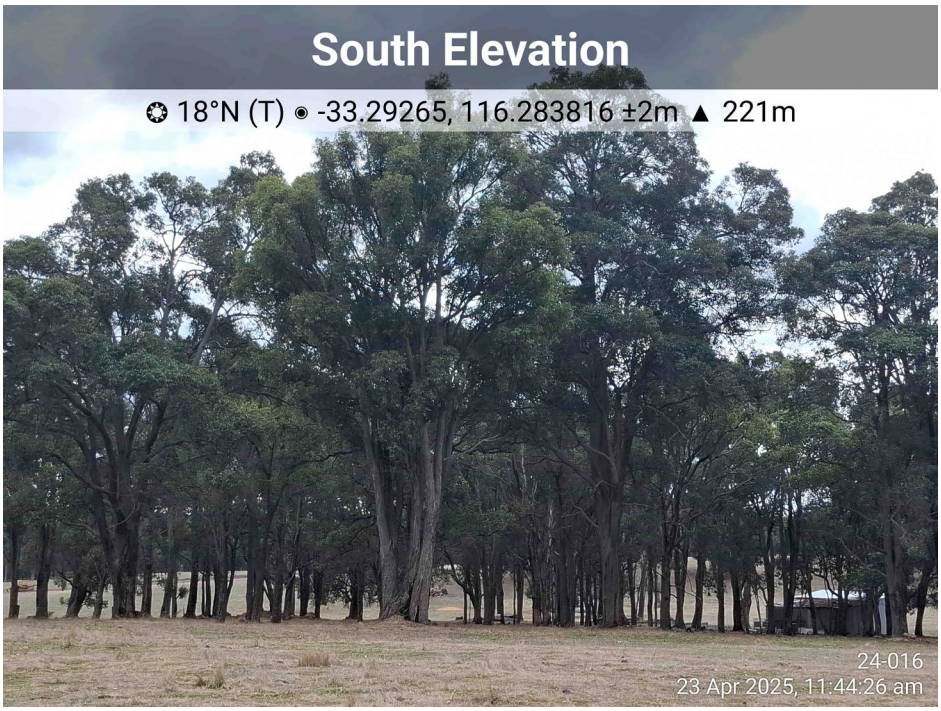


Plate 11: Looking north towards Lot 789 through a clump of trees in the south-eastern portion of that lot. Glimpses of the paddock areas behind suggest a similar view into the proposal area would be present through the trees, particularly where a viewer is in line with the vegetation.

5 CONCLUSION

Overall, the additional assessment work predicts that all the infrastructure features could be partially visible from at least some locations within Lots 789, 774 and 771.

The BESS battery and associated lighting poles are the least visible component of the proposed infrastructure. This is due to its compact form and relative topographic location in the landscape compared to the receptors. The Solar PVs are the most visible component of the proposal due to the greater spread of the panels along similar topographic contours as those occurring within the receptor's landholdings, however the intensity of the PVs visible will vary, but are expected to be greatest along the southern boundary of Lot 789 and through the valley (where the waterway is located) to the west.

Lot 771 and 774, when taking into consideration the screening capacity of dense vegetation relative to the existing receptors (rural dwellings) on Lot 774 and to an extent Lot 771, views of the infrastructure features associated with the proposal are expected to be non-existent (i.e. for Lot 774) or blended to large extent (i.e. for Lot 771) screening the majority of the proposal.

For Lot 789, the viewshed analysis identified a discrete, at least 8 ha portion (20%), within the central western portion of the lot, where no views for any of the infrastructure components of the proposal are predicted based on a viewer height of 1.8 m above natural ground and where a rural dwelling could be sited with no direct views of the proposal. This area of Lot 789 is an existing natural valley (with a height difference of nearly 20 m within the area where no visibility is predicted), surrounded by existing higher landform within Lot 789. The proportion assessment shows that the greatest number of PV panels are visible from the natural rise along the southern boundary of Lot 789, but outside of this area in the lot, less than 50% of the PV area would be visible. The existing vegetation will blend the views of the panels, disrupt their perceived bulk and make them less discernible. Glimpses of the panels through the trees will still occur.

Additional planting in key locations by the proponent will also serve to further mitigate potential visual impacts from the proposal and this can be implemented through conditions of approval. The proponent has confirmed that they are prepared to plant additional vegetation (trees/tall shrubs) to achieve this outcomes, and in consultation with the adjoining landowners would be prepared to commence staged planting within 12 months of approval to establish vegetation and allow early growth prior to the operation of the proposal.

6 REFERENCES

Emerge Associates 2025, *Environmental Assessment and Management Plan Collie BESS and Solar PV*, EP24-016(07)--007a PPS, A.

Western Australian Planning Commission (WAPC) 2007, *Visual Landscape Planning in Western Australia - a manual for evaluation, assessment, siting and design*, Perth.

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 13.1.E

DAP Application - Battery Energy Storage System (BESS), No.4997 Collie-Williams Road, Collie

Shire of Collie RAR

(ITEM XX – to be entered by DAP Secretariat) – Lot 100, 102, 787 and 788 (No.4997) Collie-Williams Road, and Land ID 3539122, 3539123 and 3539123, Palmer PROPOSED Battery Energy Storage System [BESS] and Solar PV Facility – Renewable Energy Facility. P041/25

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Regional Joint Development Assessment Panel
Local Government Area:	Shire of Collie
Applicant:	Urbis Ltd on behalf of Enpowered part of Hesperia
Owner:	Semlot Nominees Pty Ltd and State of WA for unnamed unconstructed roads
Value of Development:	$500 million
Responsible Authority:	Shire of Collie
Authorising Officer:	Alan Longbon, Town Planner
LG Reference:	P041/25
DAP File No:	DAP/25/02916
Application Received Date:	29 May 2025
Report Due Date:	14 August 2025
Application Statutory Process Timeframe:	90 Days
Attachment(s):	1. Development Application Report • Appendix A – Certificate of Title • Appendix B – Forms combined • Appendix C – Combined drawings • Appendix D – 250512 Sustainability statement • Appendix E - Enpowered_Collie Solar and Storage_TIS_Rev B • Appendix F - Appendix F - Environmental Noise Assessment • Appendix G - Collie BESS and Solar PV - EAMP • Appendix H - Bushfire Management Plan Collie BESS and Solar PV • Appendix I - Collie BESS Project Water Management Plan • Appendix J - EP25CF1a - Enpowered - Aboriginal Heritage Due Diligence 2. Confidential Summary of Submissions 3. Applicant Response to Submissions (inc. late submission and agency) 4. Supplementary Visual Impact Assessment 5. Confidential Summary Government / Service Agencies Referral Responses 6. Shire of Collie Ordinary Council Meeting Minutes 12 August 2025

Responsible Authority Recommendation

That the Regional Joint Development Assessment Panel resolves to:

1. **Approve** DAP Application reference DAP/25/02916 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of Clause 18 of the Shire of Collie Local Planning Scheme No. 6, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of 4 years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.

2. Within 12 months of the date of approval or at the commencement of operations, whichever comes first, a detailed landscaping plan must be submitted to the Shire of Collie that shows the development being further screened from neighbouring properties by a combination of earth bunds, bushes and trees to ameliorate potential visual impact on sensitive receptors as identified in the Supplementary Visual Impact Assessment (Emerge 2025) and to the satisfaction of the Shire of Collie The landscaping plan must address the following:
    a) A site plan of the existing and proposed development, including details of trees proposed to be retained;
    b) The species, size at maturity, planting locations and number of proposed plants;
    c) A key or legend detailing proposed species type grouped under the subheadings of tree, shrub and groundcover;
    d) Proposed timing and staging of planting; and
    e) Fence material, height and treatment.

    The landscaped area(s) must be planted and established in accordance with the approved Landscaping Plan. These areas must be maintained by the applicant for the entire period of operation in accordance with the Landscaping Plan and to the satisfaction of the Shire of Collie.

3. Prior to commencement, detailed design drawings and specifications to demonstrate surface water, stormwater and drainage management are to be submitted and approved to the satisfaction and specification of the Shire of Collie. The stormwater and drainage management design is to be implemented at construction and maintained for the duration of the development.

4. Prior to commencement, engineering drawings and specifications are to be submitted, approved and works undertaken in accordance with the approved engineering drawings and specifications, for the provision of site works and internal roads and accessways within the application area to the satisfaction of the Shire of Collie. The approved internal roads and accessways are to be constructed by the landowner/proponent.

5. Prior to commencement (including forward works), the proponent shall prepare a Construction Management Plan for the construction period. The Construction Management Plan must be lodged with and approved by the Shire of Collie and is required to address the following matters:
    a) Public safety, amenity and site security;
    b) Contact details of essential site personnel;
    c) Construction operating hours;
    d) Noise control and vibration management;
    e) Air, sand and dust management;
    f) Stormwater, drainage and sediment control;
    g) Soil excavation method;
    h) Waste management and materials re-use;
    i) Traffic and access management;
    j) Parking arrangements for contractors and subcontractors;
    k) Location of temporary construction areas;
    l) Community information, consultation and complaints management plan;
    m) Compliance with AS4970-2009 relating to the protection of existing trees on the development site;
    n) Bushfire risk and emergency management measures;
    o) Requirements to remediate or repair any damage sustained during construction to Collie Williams Road as established by a Pre-construction Road Condition Report; and
    p) Requirements to decommission and reinstate laydown and temporary workforce parking and office areas to pre-development condition.

    The approved Construction Management Plan must be adhered to for the entire duration of construction.

6. Prior to commencement, detailed design, drawings and specifications for the proposed effluent disposal system is to be submitted and approved to the specifications and satisfaction of the Shire of Collie. The effluent system design is to be implemented at construction and for the duration of the development.

7. Prior to commencement, detailed design for the new crossover to Collie Williams Road, including the construction and operation phases, is to be prepared to the satisfaction of Main Roads WA. The crossover design is to be implemented (built) before the start of the construction phase and maintained to the satisfaction of the Main Roads WA and Shire of Collie for the duration of the development.

8. Prior to the development operating, an environmental management plan (EMP) is to be prepared for the protection and management of the site's environmental assets during operation, to the satisfaction of the Shire of Collie. The EMP is to be implemented for the duration of the development.

9. Prior to the development operating, the applicant must submit an amended Bushfire Management Plan for the site to address the applicant's feedback to the DFES submission (Emerge 2025), to the satisfaction of the Shire of Collie. The occupier/owner must perform all the required Bushfire Protection Measures contained in the Bushfire Management Plan (as amended and approved by the Shire of Collie) for the duration of the development.

10. Prior to the development operating, arrangements are to be made for the provision of a suitable water supply service that will be available to the development, to the satisfaction of the Shire of Collie.

11. A Section 70A Notification pursuant to the Transfer of Land Act 1893 must be placed on the titles of all lots, at the full cost of the applicant, alerting landowners to the existence of the approved Bushfire Management Plan and advising landowners of their obligations in respect to the use and ongoing management of the land.

12. External lighting must comply with the requirements of AS4282 – Control of Obtrusive Effects of Outdoor Lighting.

13. The applicant is required to undertake a noise monitoring program within the first 12 months of the development operating and to provide an acoustics report to demonstrate compliance with the Environmental Protection (Noise) Regulations 1997. The acoustics report shall be prepared by a qualified acoustic engineer, outlining the results of the noise monitoring program and, if required, detailing appropriate actions and any additional mitigation measures to be undertaken to ensure that noise emissions do not contravene the provisions of the Environmental Protection (Noise) Regulations 1997. The acoustic report will be at the full cost of the owner/applicant and must be submitted for review and approval by the Shire of Collie.

Advice Notes

a. It is the applicant/owner's responsibility to ensure all required approvals are obtained prior to the works commencing. Works such as de-watering, aboriginal heritage due diligence, native vegetation clearing, high voltage cable installation, or working near existing infrastructure may require separate approvals from relevant private or government agencies.
b. The Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions should be consulted for advice on the preparation of the environmental management plan as required.
c. The proponent should manage stormwater in accordance with the Decision Process for Stormwater Management in Western Australia (DWER 2017 as amended) and the Stormwater Management Manual for Western Australia (DoW 2004–2007 as amended), with design/drawing details of the stormwater management systems mentioned in the Surface Water Management Plan, to the satisfaction of the Shire of Collie.
d. The development must comply at all times with the Environmental Protection Act 1986 and the Environmental Protection (Noise) Regulations 1997 in relation to noise emissions.

Reasons for Responsible Authority Recommendation

Complete this section where the Council resolution differs from the Officer Recommendation and provide the reasons as shown in the Council minutes here. The Officer Recommendation section below, including reasons, will also need to be completed.

Include a brief summary of key issues and provide clear and succinct reason/s for the recommendation. If the recommendation is for a refusal, this section may be used to emphasise the reasons in the recommendation if required.

Details: outline of development application

Region Scheme	N/A
Region Scheme - Zone/Reserve	N/A
Local Planning Scheme	Shire of Collie Local Planning Scheme No.6
Local Planning Scheme - Zone/Reserve	Rural
Structure Plan/Precinct Plan	N/A
Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and Permissibility:	Renewable Energy Facility "A" use within the Rural Zone
Lot Size:	Lots 100, 102, 787, and 788, Land ID 3539122, Land ID 3539123, Land ID 3539119, Total Area of 280 Hectares (project site 247.2395 Hectares)
Existing Land Use:	Rural
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☒ N/A ☐ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	Yes
Swan River Trust Area	No

Proposal:

Urbis Ltd on behalf of Enpowered part of Hesperia propose to build a renewable energy facility at the above location.

The proposal includes the following built elements:

- 200MW BESS Facility
- Up to 66MW AC Solar Farm
- 330kV Underground Transmission Cable

- Facility Collector Substation
- Control Systems
- Water Storage Tanks
- Internal access roads/tracks/fencing
- Cabling
- Operations and Facilities Space

Processes associated with operations of the proposed site are detailed below:

BESS Facility
The BESS facility can deliver 200MW of capacity into the Southwest Interconnected System (SWIS) at the point of connection. The BESS is comprised of skid mounted power conversion units and battery cells housed in shipping containers.
The general arrangement of the BESS has been designed to address constructability, maintainability, operability, fire separation, sensitive receptors and environmental constraints.
The facility is proposed to be secured with a fence of 3m in height above ground for security purposes. The fence will consist of minimum 2.4m of weld mesh, with remaining 0.6m consisting of barbed wire at the top of the fence.

Facility Collector Substation
A collector substation will be integrated into the BESS facility. The facility will feature two 330/33kV power transformers with associated switchgear, a control building, and multiple 33kV switch rooms designated for the PV and BESS systems. An evaporation pond has been provisioned to accommodate transformer oil collection in the event of any system failures.

Solar Farm
The proposed solar farm will have a capacity of up to 66MW. The solar farm will use bifacial single axis tracking technology. The tracker configuration selected is a one-in-portrait system with a north-south single axis, rotating in a west-east direction with a turning angle range of 60 in each direction. At the maximum tilt of 60°, the array achieves a ground clearance ranging from 0.77m to 2.85m, which allows for sheep grazing in the vicinity of the solar panels.

For the most part the existing pastoral land use of the site will continue to operate as before because the grazing of sheep will continue along the land use of renewable energy facility.

Transmission Cable
A 330kV underground cable system is proposed to establish a connection between the Enpowered Facility collector substation and the Western Power Palmer Terminal, currently under construction. The cable, with an approximate length of 2km, will be direct buried within an easement located within existing road reserves (20m width).

This system will utilise three single-core XLPE (cross-linked polyethylene) aluminium cables. Horizontal directional drilling (HDD) techniques are proposed to be employed to traverse roads and creeks. The cables will be enclosed in conduits for additional protection. There will also be a separate communication and earthing cable installed in a conduit, transversing the full length of the line route.

Workforce

During construction, it is proposed there will be a workforce of approximately 50-100 people, with construction expected to take 18 months to complete.

Once in operation, the site will employ a combination of on and offsite monitoring personnel on the following basis:

330kV Transmission Cable
- Inspections: Monthly
- Maintenance: As required (determined via online condition monitoring)

Facility Collector Substation
- Inspections: Monthly
- Routine Maintenance: 6 yearly

Solar and BESS
- Inspections: Monthly
- PV Cleaning: 6 monthly
- Routine Maintenance: 6 yearly

There will be no staff based permanently onsite.

Background:

The development occupies most of the 280-ha site, with the area being 247.2395 ha. It is in the locality of Palmer, approximately 14 kilometres northeast of the Collie townsite.

The site is currently accessed by Collie-Williams Road which is a 20m wide road reserve constructed to a sealed standard and a carriageway width of 7m.

Legislation and Policy:

Legislation
- *Environmental Protection Act 1986*
- *Environmental Protection (Noise) Regulations 1997*
- *Environmental Protection and Biodiversity Conservation Act 1999*
- *Aboriginal Heritage Act 1972*
- *Planning and Development Act 2005*
- *Planning and Development (Local Planning Schemes) Regulations 2015 (LPS Regulations);*
- *Planning and Development (Development Assessment Panels) Regulations 2011 (DAP Regulations)*
- Shire of Collie Local Planning Scheme No.6 (LPS6)

State Government Policies
- State Planning Strategy 2050
- Position Statement - Renewable Energy Facilities (DPLH/WAPC, 2020)
- State Planning Policy No. 2.0 Environment and Natural Resources Policy (DPLH/WAPC, 2003)
- State Planning Policy No. 2.5 Rural Planning (DPLH/WAPC, 2016)
- State Planning Policy No. 3.7 Planning in Bushfire Prone Areas (DPLH/WAPC, 2015)
- Guidance Statement 33 Environmental Guidance for Planning and

Development (EPA, 2008)
- Bunbury Geographe Sub-regional Strategy (DPLH/WAPC, 2022)
- Collie's Just Transition Plan
- Western Australian Climate Change Policy

Local Policies
- Shire of Collie Local Planning Strategy (2020)
- Shire of Collie Strategic Community Plan (2022)
- Shire of Collie Local Planning Policy 1.1 Stormwater Discharge from Building Sites (2017)

Structure Plans/Activity Centre Plans

None

Local Policies

- Shire of Collie Local Planning Strategy
- Local Planning Policy 1.1 Stormwater

Consultation:

Public Consultation

Prior to formal advertising as part of the development application, the proponent undertook pre-consultation through discussion with:

- The Shire of Collie
- Preliminary discussions and letter drops have been undertaken to inform adjacent landowners of the proposal and provide initial information ahead of the lodgement of the development application
- Consultation between Enpowered and the local Traditional Owners Elders in relation to the site and proposal is ongoing and is held outside of the planning process
- State Government Departments
- Liaison with DPLH, Lands division to determine signatories for Development Application forms. Additional engagement has occurred throughout the preparation of the technical reporting including liaison with
    - Department of Fire and Emergency Services
    - Department of Biodiversity, Conservation and Attractions
    - Department of Water and Environmental Regulation
    - Western Power
    - Battery and Solar Original Equipment Manufacturers (OEM)

The application underwent public consultation through the following ways, for a total period of 28 days:
- Letters to owners/occupiers of adjacent and surrounding properties on 30 May 2025
- Shire website from 30 May to 11 July
- Public Notice in the local newspaper on 5 and 19 June 2025
- Shire Facebook page on 5 and 19 June

Three (3) submissions were received from the public on the proposal. These are provided in full in Attachment 2 - Confidential Summary of Submissions and include a

supplementary late submission received by the Shire on 05 August 2025. No Officer's comment has been included in the RAR on the late submission; however, the applicant has provided a detailed response, which can be found in Attachment 3 - Applicant Response to Submissions (inc. late submission and agency).

Referrals/consultation with Government/Service Agencies

The proposal was referred to agencies and authorities for a period of 42 days, commencing 28 May 2025 to 11 July 2025. Responses were received from the following agencies and authorities:

- Department of Fire and Emergency Services (DFES)
- Main Roads WA (MRWA)
- Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)
- Department of Water and Environmental Regulation (DWER)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Department of Jobs, Tourism, Science and Innovation (JTSI)
- Water Corporation (WC)

The submissions received have been summarised and are provided in full in Attachment 5 – Confidential Summary Government / Service Agencies Referral Responses, which also includes the applicant's response(s).

Design Review Panel Advice

Not applicable.

Other Advice

The proposal has been referred internally to other departments within the Shire, and their advice has been reflected through the assessment and conditions.

Planning Assessment:

Provision	Requirement	Proposal	Assessment
LPS6 - Zones, Reserves and Objectives	The whole of the land is zoned 'Rural" where the proposed main and incidental use of Renewable Energy Facility is an "A" use that is permitted at the discretion of Council with the requirement that it be advertised for public comment.	Renewable Energy Facility and land uses incidental thereto.	The proposal is permitted in the zone and is in conformance with relevant performance standards such as boundary setbacks, landscaping, and carparking.
LPS6- Land Use Permissibility		The proposal involves the development and operation of a renewable energy facility. The Proposal is therefore consistent with the land use classification 'Renewable Energy Facility', which is defined in the scheme as: renewable energy facility means premises used to generate energy from a renewable energy source predominantly and includes any building or other structure used in, or relating to, the generation of energy by a renewable resource. It does not include electricity generation where the energy produced principally supplies a domestic and/or business premises and any on selling to the grid is secondary.	The proposed use is consistent with the definition of a renewable energy facility pursuant to LPS6. The continuation of the rural use of grazing sheep is an added bonus, as this continues the present rural use of the land and does not take the land out of rural production.
LPP 1.1 Stormwater Policy	LPP1.1 applies to all planning and building applications that include conditions requiring stormwater management. The policy notes the potential for new development to cause stormwater discharge, erosion, and landform scouring. The policy	Emerge Associates have prepared a Water Management Plan (WMP) to provide an assessment of the hydrological considerations associated with the subject site and implications on/of the proposed development about water management. (refer Appendix I).	The Department of Water and Environmental Regulation has been consulted and provided commentary on the WMP. This is discussed in the section below.

	notes the need for 'large developments' to be subject to condition requiring a 'Stormwater Drainage Plan.		
Planning and Development (Local Planning Schemes) Regulations 2015 - Matters to be Considered	(a) the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area. (b) the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving. (c) any approved State planning policy. (d) any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d). (e) any policy of the Commission.	Refer to comments in Section 4.4.2 – Shire of Collie Local Planning Scheme 6. Not-Applicable – There are no draft/proposed local planning schemes, amendments or other proposed planning instruments that apply to the Proposal. Refer to comments in Section 4.2.6 – State Planning Policies Not-Applicable Refer to comments in Section 4.2 – Strategic Considerations	Shire Officers have determined the following in relation to these matters: The proposal is consistent with the aims and generally consistent with the provisions of the Scheme. Commentary relating to State Planning Policy, particularly bushfire and environmental matters, is provided in the section below. The proposal is consistent with the strategic direction identified at a State and local

			level for the Rural zone and the wider objectives of the Collie Just Transition Plan.
	(f) any policy of the State.	Refer to comments in Section 4.2 – Strategic Considerations	
	(fa) any local planning strategy for this Scheme endorsed by the Commission.	Refer to comments in Section 4.4.1 – Shire of Collie Local Planning Scheme. Refer to comments in Section 4.5 – Local Planning Policies.	Commentary surrounding stormwater is detailed in the section below.
	(g) any local planning policy for the Scheme area.	Refer to comments in Section 4.4 – Local Planning Framework	
	(h) any structure plan or local development plan that relates to the development.	Not-Applicable	
	(i) any report of the review of the local planning scheme that has been published under the Planning and Development (Local Planning Schemes) Regulations 2015.	Not-Applicable	
	(j) in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve.	Not-Applicable. The Proposal does not relate to land reserved under LPS6.	
	(k) the built heritage conservation of any place that is of cultural significance.	There are no built heritage places within or nearby to the development area. Additionally the submitted Aboriginal Culture Heritage due diligence assessment did not identify any planning	The proposal is for a land use

		matters.	area identified for renewable energy development. There are limited sensitive land uses in proximity to the development, and the facility is not inconsistent with the objection of the Rural zone. Amenity, character and other impacts can be suitability mitigated and/or managed through the planning conditions recommended in the RAR.
	(l) the effect of the proposal on the cultural heritage significance of the area in which the development is located.	The Proposal does not relate to places identified as being of cultural heritage significance therefore this requirement is not applicable	
	(m) the compatibility of the development with its setting, including – (i) the compatibility of the development with the desired future character of its setting; and (ii) the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development.	The proposal is isolated from surrounding land use and does not result in significant air or noise emissions, or traffic volumes that may impact surrounding development/land use. The location of the proposal, away from the Collie townsite and significant natural features (such as the Collie River) mean the proposal is unlikely to generate adverse impacts to visual amenity that are not able to be addressed via appropriate planning conditions.	
	(o) the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource.	The Proposal is unlikely to generate any impacts on the waterway, management of surface water run-off has been considered as part of a detailed WMP (refer Appendix I). This is also further addressed through the planning conditions recommended in the RAR.	Environmental considerations have been detailed in the section below.
	(p) whether adequate provision has been	The Proposal is in an	

	made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved. (q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk. r) the suitability of the land for the development taking into account the possible risk to human health or safety.	existing, highly disturbed, Rural area. Remnant vegetation is proposed to be removed from the site and is subject to a Native Vegetation Clearing Permit application (NVCP) to the DWER. In addition while the project site has been substantially cleared, the parts that still house ecologically significant remnant eucalypt woodlands (and important individual trees) are proposed to be retained. The Proposal is supported several studies demonstrating management/mitigation of environmental risks such as an Environmental Assessment and Management Plan (EAMP): – (refer Appendix G) – Flora & Vegetation Survey (refer Appendix G) – Environmental Noise Assessment (refer Appendix F) – Water Management Plan (refer Appendix I) Bushfire Management Plan (refer Appendix H) Fauna and Targeted Black Cockatoo assessment (refer Appendix G) Visual Impact Analysis (refer Appendix G) The content of these reports is summarised in section 5 - Environmental Considerations of this report. There are no significant human safety risks generated by the Proposal. However, the Proposal gives rise to	A clearing permit will be considered by DWER. Key considerations, such as environment and bushfire, are detailed in sections below. Bushfire considerations are detailed in the section below.

		potential risks to human safety in the occurrence of a bushfire. Bushfire risk and safety management considerations are described in the BMP contained at (refer Appendix H).	The site is well served by a constructed sealed road primary distributor road. In accordance with the Austroads Guide to Road Design and MRWA/DPLH Road Reserves Review, the estimated design capacity of Collie-Williams Road is 8,000 to 12,000 vehicles per day. 2024/25 MRWA's data indicates that current traffic volumes are well below design capacity. Traffic management and site access are proposed to be addressed via planning conditions.
	(s) the adequacy of — (i) the proposed means of access to and egress from the site; and (ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles	The Project is supported by a TIS (refer Appendix G). The TIS describes the potential impact on egress points and arrangements for loading and unloading of materials. The Project is supported by a Transport Impact Statement (TIS) (refer to Appendix E). The TIS describes the predicted volumes of traffic generated by the proposed development.	
	(t) the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety.	The Proposal will not generate volumes of traffic that exceed the available capacity of the road network.	
		The Proposal is not readily accessible by public transport, bicycles or pedestrians.	There is no public transport in this area.
	(u) the availability and adequacy for the development of the following — (i) public transport services. (ii) public utility services.	The Proposed is not expected to generate significant operational waste. Refer to comments in Section 5.8 – Waste Management.	

	(iii) storage, management and collection of waste. (iv) access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities); (v) access by older people and people with disability. (v) the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses. (x) the impact of the development on the community as a Whole notwithstanding the impact of the development on particular individuals.	Not-applicable. The subject site is located approximately 14 kilometres northeast of the Collie townsite in the locality of Palmer. The Proposal closely aligns with and directly contributes to achieving various State government energy, employment and environmental policies, namely: – Reducing emissions from the energy sector. – Ensuring a secure and dependable electricity supply and providing affordable electricity for households and businesses. – Creating job opportunities for workers in the Collie region, with greatest employment opportunities	Not-applicable The development is expected be a benefit to the community and promote the development of other upstream and downstream. energy intensive uses in the area and help the Collie transition.

		during the construction phase. The Proposal presents benefits to the community that are likely to significantly outweigh any environmental, social, or economic impacts.	

Existing and Future Structure Planning

The proposal is not in an area affected by an existing or future structure plan.

Infrastructure, Service Provision and Transport

Rail

The development features no rail linkages.

Road

The development proposes using Collie Williams Road via a private accessway (a crossover and internal road) for all traffic.

Collie-Williams Road is a single-carriageway, two-lane sealed road and is approximately 7 metres (m) wide. It is classified as a Primary Distributor Road and is under the jurisdiction of Main Roads WA. In accordance with the Austroads Guide to Road Design and MRWA/DPLH Road Reserves Review, the estimated design capacity of Collie-Williams Road is 8,000 to 12,000 vehicles per day (vpd) as a Primary Distributor Road.

The applicant submitted a Traffic Impact Statement (TIS), which forecasts the following traffic volumes during the construction phase (refer to Table 1) and operational phase (refer to Table 2) of the development, which is detailed below.

Table 1: Traffic Volumes – Construction Phase

Assets	Heavy Vehicles		Light Vehicles	
	Daily Volumes	Peak Hour Volumes	Daily Volumes	Peak Hour Volumes
Transmission cable	15 – 25 trips per day	2 – 3 trips per hour	9 – 16 trips per day	6 – 11 trips per hour
Facility collector substation	15 – 25 trips per day	2 – 3 trips per hour	48 – 64 trips per day	32 – 43 trips per hour
BESS facility and solar farm	15 – 25 trips per day	2 – 3 trips per hour	64 – 72 trips per day	43 – 48 trips per hour

Table 1 – TIS volumes, Traffic Construction Phase

The TIS shows a maximum of 89 trips per day during all stages and peak hourly volumes of 73 movements. Under the WAPC Traffic Impact Assessment guidelines, an increase of 10 to 100 peak hour vehicles for a Primary Distributor

Road is considered low to moderate and generally deemed acceptable without requiring a detailed capacity analysis.

Shire officers also reviewed publicly available 2024/25 Main Road WA traffic count data (refer to Figure 5), which indicates Coalfields Hwy and Collie-Williams Road are not exceeding design capacity volumes.

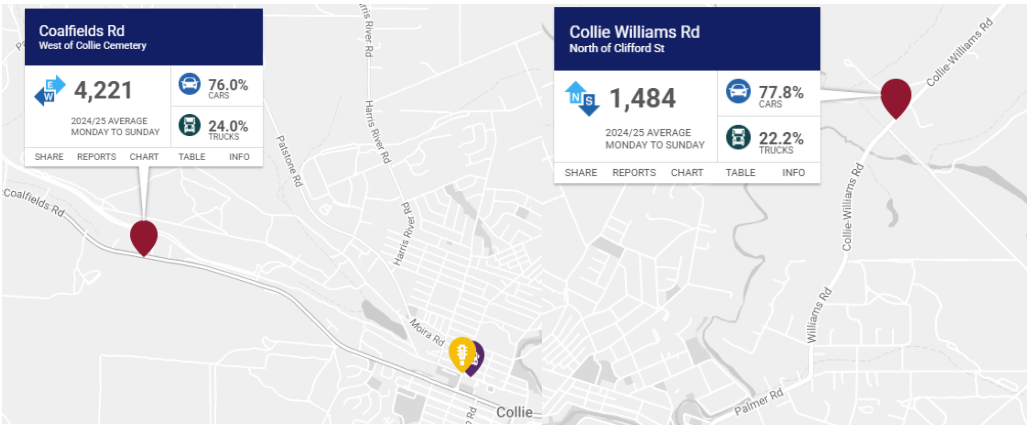


Figure 5 – Road Traffic Count Data – Main Roads WA Traffic Map Website

Once the development moves into the operational and maintenance phase(s), traffic impacts and volumes will significantly reduce and are not expected to affect road users or the Collie townsite, as shown by the modelled data in Table 2 below from the TIS.

Table 2: Traffic Volumes – Maintenance Phase

Assets	Routes	Frequency	Duration	Staff	Vehicles
Transmission cable	Inspection	Monthly	1 day	2	1 light vehicle
	Routine maintenance	Online monitoring system only			
Facility collector substation	Inspection	Monthly	1 week	3	2 light vehicles
	Routine maintenance	6-Yearly	4 weeks	10	1 MRV and 3 light vehicles
BESS facility and solar farm	Inspection	Monthly	1 week	3	2 light vehicles
	PV cleaning	6-Monthly	1 month	2	1 light vehicle
	Routine maintenance	6-Yearly	4 weeks	10	1 MRV and 3 light vehicles

Table 2 – TIS volumes, Traffic Operational and Maintenance Phase.

The proposal was also referred to MRWA, as the responsible authority for Collie-Williams Road and Coalfields Highway. MRWA responded to the referral and advised that they have no objection to the proposal; however, they recommended that a detailed traffic management plan be required to manage traffic during the construction phase. In line with the advice from MRWA, a planning condition has been recommended to ensure both traffic impacts are managed and are safe during the construction phase (this includes possible cumulative effects that may arise due to concurrent projects).

The assessment, with due regard to the advice received, is that a temporary traffic increase to the local road network is considered acceptable based on the traffic modelling, which was peer reviewed by Shire officers.

Power and Gas

A 330kV underground cable system is proposed to establish a connection between the Enpowered Facility collector substation and the Western Power Palmer Terminal, currently under construction.

Water and Environment.

Potable water – potable water would be required within the site during maintenance operations. The proposal will be serviced by the existing potable water network which runs along the Collie-William Road (DN750 referred to as the Great Southern Town Water Supply).

The Department of Water and Environmental Regulation (DWER) has provided a referral response to the proposal with the following comments:

> 'DWER wishes for an onsite acoustic assessment to be made by the local environmental health officer or the Department itself. This requirement has been made a condition of approval.'

Fire/Bushfire

Non-potable water - non-potable water needs for bushfire requirements will be supplied by scheme water in addition to a surplus of harvested water collected from the operations buildings.

The proposal is located within an area considered bushfire prone, a Bushfire Management Plan (BMP) has been prepared in accordance with SPP 3.7 and the Guidelines, demonstrating bushfire risk is appropriately addressed.

The following measures have been designed into the proposal:

The applicable BAL ratings to key components based on all vegetation being forest includes:

- Solar PV units: which are sited within areas that achieve BAL-29 or below with large portions of the panels subject to BAL-LOW. While there is no requirement under SPP3.7 to locate this infrastructure in BAL-29 or below, the decision to do so is driven by commercial risk avoidance and is achieved. As such, there is no bush fire risk reason that solar PV cells could not be in higher BAL rated areas if necessary.
- Battery storage units: which are positioned to achieve BAL-19 or below, with the majority of units achieving BAL-LOW.
- Building maintenance and switchboard sheds (habitable buildings): Located on the eastern portion of the proposed BESS facility, entirely within an area of BAL-LOW.
- Provision of a 6m wide internal access driveway to the Collie-Williams Road and an internal private two-way driveway network to allow escape from the site in caser of a fire.
- The proposed development will be serviced by a reticulated water supply, complemented by a dedicated 50,000 L water tank for firefighting purposes.
- The site will largely continue to be managed to maintain a low-threat state, primarily through ongoing grazing activities (substituted with slashing when required), including areas under the solar panels.

The proposal and associated BMP were referred to DFES. DFES made the following comments and recommendations:

> The Hazard Management Agency has overall responsibility for managing the response to a fire emergency under the *Emergency Management Act 2005*. DFES advises the proposed development is in a location and broader landscape that has an extreme bushfire hazard on multiple aspects. In DFES' opinion the location presents an unacceptable risk to people, property and infrastructure.
>
> If the decision maker is inclined to approve the proposed development, DFES recommends the BMP be modified to ensure it is accurate and the bushfire risk management/mitigation measures are effective and can be implemented in perpetuity. Should the modified BMP affect the design of the proposal, the proposal should be amended to reflect these modifications.

Conclusion:

The decision maker is required to exercise discretion that the proposal is consistent with the principles of orderly and proper planning and has been sufficiently advertised for public comment.

The proposal is reliant on further approvals from other government agencies to allow for the project to proceed. This includes:

- Environmental/Clearing Permits and Licences;
- Approvals to connect to existing water supply; and
- Approvals to connect to the power supply and install underground high-voltage cabling.

In obtaining these approvals, the project will have addressed all outstanding issues that relate to this application.

Additionally, if approved, the Shire of Collie will require further work to be undertaken on detailed design for surface water, effluent disposal, bushfire management, landscaping, screening, site accessways, traffic management, noise monitoring, and environmental management.

This project is significant in the implementation of Collie's Just Transition Plan and creating future skilled employment in the area, with the State's commitment to close State-run coal-fired power stations in Collie. Enpowered is one of several industries seeking to establish in Collie and the Coolangatta Industrial Area, where the Synergy Battery Energy Storage System has already commenced construction.

It is recommended that the application be approved subject to conditions.

Attachments

1. Development Application Report
    - Appendix A – Certificate of Title
    - Appendix B – Forms combined
    - Appendix C – Combined drawings
    - Appendix D – 250512 Sustainability statement
    - Appendix E - Enpowered_Collie Solar and Storage_TIS_Rev B
    - Appendix F - Environmental Noise Assessment
    - Appendix G - Collie BESS and Solar PV - EAMP
    - Appendix H - Bushfire Management Plan Collie BESS and Solar PV
    - Appendix I - Collie BESS Project Water Management Plan
    - Appendix J - EP25CF1a - Enpowered - Aboriginal Heritage Due Diligence
2. Confidential Summary of Submissions
3. Applicant Response to Submissions (inc. late submission and agency)
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6. Shire of Collie Ordinary Council Meeting Minutes 12 August 2025

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 14.3.A

Financial Management Report June 2025

Shire of Collie

Monthly Financial Report

For the period ended 30 June 2025



SHIRE OF COLLIE

MONTHLY FINANCIAL REPORT

(Containing the required statement of financial activity and statement of financial position)

For the period ended 30 June 2025

LOCAL GOVERNMENT ACT 1995
LOCAL GOVERNMENT (FINANCIAL MANAGEMENT) REGULATIONS 1996

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SHIRE OF COLLIE
STATEMENT OF COMPREHENSIVE INCOME
BY NATURE
FOR THE YEAR ENDED 30 JUNE 2025

	2024/25 Actual	2024/25 Budget	2023/2024 Actual
Revenue	$	$	$
Rates	7,718,980	7,700,592	7,279,446
Grants, subsidies and contributions	2,758,660	1,489,118	3,982,523
Fees and charges	2,753,006	2,801,620	2,709,524
Interest revenue	251,754	328,928	394,754
Other revenue	141,197	0	325,600
	13,623,597	12,320,258	14,691,847
Expenses			
Employee costs	(6,405,639)	(6,915,000)	(6,682,446)
Materials and contracts	(5,131,998)	(5,020,414)	(5,320,168)
Utility charges	(648,718)	(620,000)	(707,483)
Depreciation	(2,769,370)	(2,769,370)	(2,827,474)
Finance costs	(46,770)	(52,540)	(43,528)
Insurance	(359,059)	(357,251)	(362,381)
Other expenditure	(148,800)	(114,780)	(109,680)
	(15,510,354)	(15,849,355)	(16,053,160)
	(1,886,757)	(3,529,097)	(1,361,313)
Capital grants, subsidies and contributions	180,568	1,863,612	535,562
Profit on asset disposals	9,339	0	10,520
Loss on asset disposals	(12,860)	0	0
	177,047	1,863,612	546,082
Net result for the period	**(1,709,710)**	**(1,665,485)**	**(815,231)**
Other comprehensive income for the period			
Items that will not be reclassified subsequently to profit or loss			
Changes in asset revaluation surplus	0	0	0
Share of comprehensive income of associates accounted for using the equity method	0	0	0
Total other comprehensive income for the period	**0**	**0**	**0**
Total comprehensive income for the period	**(1,709,710)**	**(1,665,485)**	**(815,231)**

This statement is to be read in conjunction with the accompanying notes.

SHIRE OF COLLIE
STATEMENT OF COMPREHENSIVE INCOME
BY PROGRAM
FOR THE YEAR ENDED 30 JUNE 2025

	2024/25 Actual	2024/25 Budget	2023/2024 Actual
Revenue	$	$	$
Governance	108,573	49,000	374,076
General Purpose Funding	9,823,522	8,536,139	9,994,229
Law, order, public safety	847,948	170,757	619,359
Health	16,331	18,000	18,865
Education and welfare	25,000	51,000	0
Housing	6,537	6,080	6,089
Community amenities	2,244,172	2,421,305	2,255,128
Recreation and culture	269,025	338,400	285,959
Transport	9,340	194,110	157,536
Economic services	111,852	509,224	378,466
Other property and services	148,973	21,000	359,774
	13,611,273	12,315,015	14,449,481
Expenses			
Governance	(616,184)	(805,857)	(892,108)
General Purpose Funding	(59,633)	(67,475)	(194,416)
Law, order, public safety	(1,346,361)	(942,839)	(1,232,992)
Health	(146,093)	(214,748)	(199,229)
Education and welfare	(131,803)	(148,159)	(111,331)
Housing	(5,383)	(6,777)	(5,580)
Community amenities	(3,562,912)	(3,256,738)	(4,046,490)
Recreation and culture	(3,302,281)	(3,703,992)	(3,670,341)
Transport	(3,265,009)	(4,050,671)	(3,754,488)
Economic services	(691,316)	(1,061,848)	(888,284)
Other property and services	(2,324,286)	(1,532,468)	(1,017,964)
	(15,451,261)	(15,791,572)	(16,013,223)
Finance Costs			
Governance	(175)	(824)	(1,770)
Law, order, public safety	0	(600)	0
Health	0	(600)	0
Community amenities	(4,759)	(6,813)	(6,932)
Recreation and culture	(18,727)	(18,908)	(5,181)
Transport	(22,907)	(26,119)	(28,642)
Other property and services	(202)	1,324	(1,004)
	(46,770)	(52,540)	(43,529)
	(1,886,758)	(3,529,097)	(1,607,271)
Non Operating			
Capital grants, subsidies and contributions	180,568	1,863,612	781,520
Profit on asset disposals	9,340	0	10,520
Loss on asset disposals	(12,860)	0	0
	177,048	1,863,612	792,040
Net result for the period	**(1,709,710)**	**(1,665,485)**	**(815,231)**
Other comprehensive income for the period			
Items that will not be reclassified subsequently to profit or loss			
Changes in asset revaluation surplus	0	0	0
Share of comprehensive income of associates accounted for using the equity method	0	0	0
Total other comprehensive income for the period	**0**	**0**	**0**
Total comprehensive income for the period	**(1,709,710)**	**(1,665,485)**	**(815,231)**

This statement is to be read in conjunction with the accompanying notes.

SHIRE OF COLLIE
STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 30 JUNE 2025

	Note	Adopted Budget Estimates (a)	YTD Budget Estimates (b)	YTD Actual (c)	Variance* $ (c) - (b)	Variance* % ((c) - (b))/(b)	Var.
		$	$	$	$	%	
OPERATING ACTIVITIES							
Revenue from operating activities							
General rates		7,700,592	7,700,592	**7,718,980**	18,388	0.24%	
Grants, subsidies and contributions		1,489,118	1,489,118	**2,758,660**	1,269,542	85.25%	▲
Fees and charges		2,801,620	2,801,620	**2,753,006**	(48,614)	(1.74%)	
Interest revenue		328,928	328,928	**251,754**	(77,174)	(23.46%)	▼
Other revenue		0	0	**141,197**	141,197	0.00%	
Profit on asset disposals		7,122	0	**9,339**	9,339	0.00%	
		12,327,380	**12,320,258**	**13,632,936**	**1,312,678**	10.65%	
Expenditure from operating activities							
Employee costs		(6,915,000)	(6,915,000)	**(6,405,639)**	509,361	7.37%	
Materials and contracts		(5,027,536)	(5,020,414)	**(5,131,998)**	(111,584)	(2.22%)	
Utility charges		(620,000)	(620,000)	**(648,718)**	(28,718)	(4.63%)	
Depreciation		(2,769,370)	(2,769,370)	**(2,769,370)**	0	0.00%	
Finance costs		(52,540)	(52,540)	**(46,770)**	5,770	10.98%	
Insurance		(357,251)	(357,251)	**(359,059)**	(1,808)	(0.51%)	
Other expenditure		(114,780)	(114,780)	**(148,800)**	(34,020)	(29.64%)	▼
Loss on asset disposals		0	0	**(12,860)**	(12,860)	0.00%	
		(15,856,477)	**(15,849,355)**	**(15,523,214)**	**326,141**	2.06%	
Non cash amounts excluded from operating activities	2(c)	2,769,370	2,769,370	**2,772,891**	3,521	0.13%	
Amount attributable to operating activities		**(759,727)**	**(759,727)**	**882,613**	**1,642,340**	216.18%	
INVESTING ACTIVITIES							
Inflows from investing activities							
Proceeds from capital grants, subsidies and contributions		1,863,612	1,863,612	**180,568**	(1,683,044)	(90.31%)	▼
Proceeds from disposal of assets		40,000	40,000	**0**	(40,000)	(100.00%)	▼
Proceeds from financial assets at amortised cost - self supporting loans		7,081	7,081	**(20,359)**	(27,440)	(387.52%)	▼
Proceeds from financial assets at amortised cost - advance		5,000	5,000	**0**	(5,000)	(100.00%)	
		1,915,693	**1,915,693**	**160,209**	**(1,755,484)**	(91.64%)	
Outflows from investing activities							
Acquisition of property, plant and equipment		(1,019,500)	(1,019,500)	**(90,657)**	928,843	91.11%	▲
Acquisition of infrastructure		(2,994,163)	(2,994,163)	**(2,344,394)**	649,769	21.70%	▲
Payments for financial assets at amortised cost - self supporting loans		(500,000)	(500,000)	**(500,000)**	0	0.00%	
		(4,513,663)	**(4,513,663)**	**(2,935,051)**	**1,578,612**	34.97%	
Amount attributable to investing activities		**(2,597,970)**	**(2,597,970)**	**(2,774,842)**	**(176,872)**	(6.81%)	
FINANCING ACTIVITIES							
Inflows from financing activities							
Proceeds from new borrowings		500,000	500,000	**500,000**	0	0.00%	
Transfer from reserves		897,500	897,500	**97,500**	(800,000)	(89.14%)	▼
		1,397,500	**1,397,500**	**597,500**	**(800,000)**	(57.25%)	
Outflows from financing activities							
Payments for principal portion of lease liabilities		(33,502)	(33,502)	**(33,502)**	0	0.00%	
Repayment of borrowings		(210,322)	(210,322)	**(207,231)**	3,091	1.47%	
Transfer to reserves		(778,929)	(778,929)	**(853,929)**	(75,000)	(9.63%)	
		(1,022,753)	**(1,022,753)**	**(1,094,662)**	**(71,909)**	(7.03%)	
Amount attributable to financing activities		**374,747**	**374,747**	**(497,162)**	**(871,909)**	(232.67%)	
MOVEMENT IN SURPLUS OR DEFICIT							
Surplus or deficit at the start of the financial year	2(a)	3,009,448	3,009,448	**2,930,455**	(78,993)	(2.62%)	
Amount attributable to operating activities		(759,727)	(759,727)	**882,613**	1,642,340	216.18%	▲
Amount attributable to investing activities		(2,597,970)	(2,597,970)	**(2,774,842)**	(176,872)	(6.81%)	
Amount attributable to financing activities		374,747	374,747	**(497,162)**	(871,909)	(232.67%)	▼
Surplus or deficit after imposition of general rates		**26,498**	**26,498**	**541,064**	**514,566**	1941.88%	▲

KEY INFORMATION

▲▼ Indicates a variance between Year to Date (YTD) Budget and YTD Actual data outside the adopted materiality threshold.
▲ Indicates a variance with a positive impact on the financial position.
▼ Indicates a variance with a negative impact on the financial position.
Refer to Note 3 for an explanation of the reasons for the variance.

This statement is to be read in conjunction with the accompanying notes.

SHIRE OF COLLIE
STATEMENT OF FINANCIAL POSITION
FOR THE PERIOD ENDED 30 JUNE 2025

	Actual 30 June 2024	Actual as at 30 June 2025
	$	$
CURRENT ASSETS		
Cash and cash equivalents	7,491,236	4,835,317
Trade and other receivables	2,996,480	3,391,818
Other financial assets	108,964	103,964
Inventories	17,621	138,405
Other assets	893,694	521,906
TOTAL CURRENT ASSETS	11,507,995	8,991,410
NON-CURRENT ASSETS		
Trade and other receivables	677,684	677,684
Other financial assets	17,500	517,500
Property, plant and equipment	28,476,886	27,979,331
Infrastructure	159,565,515	159,728,751
Right-of-use assets	49,389	49,389
TOTAL NON-CURRENT ASSETS	188,786,974	188,952,655
TOTAL ASSETS	200,294,969	197,944,065
CURRENT LIABILITIES		
Trade and other payables	2,613,986	1,038,815
Contract liabilities	747,868	3,222,499
Capital grant/contributions liabilities	1,799,920	0
Lease liabilities	33,503	9,302
Borrowings	203,240	213,665
Employee related provisions	782,694	782,694
TOTAL CURRENT LIABILITIES	6,181,211	5,266,975
NON-CURRENT LIABILITIES		
Lease liabilities	16,997	7,696
Borrowings	930,921	1,213,264
Employee related provisions	43,626	43,626
Other provisions	3,240,607	3,240,607
TOTAL NON-CURRENT LIABILITIES	4,232,151	4,505,193
TOTAL LIABILITIES	10,413,362	9,772,168
NET ASSETS	**189,881,607**	**188,171,897**
EQUITY		
Retained surplus	38,196,137	35,729,998
Reserve accounts	3,463,317	4,219,746
Revaluation surplus	148,222,153	148,222,153
TOTAL EQUITY	**189,881,607**	**188,171,897**

This statement is to be read in conjunction with the accompanying notes.

1 BASIS OF PREPARATION AND MATERIAL ACCOUNTING POLICIES

BASIS OF PREPARATION

This prescribed financial report has been prepared in accordance with the *Local Government Act 1995* and accompanying regulations.

Local Government Act 1995 requirements
Section 6.4(2) of the Local Government Act 1995 read with the *Local Government (Financial Management) Regulations 1996,* prescribe that the financial report be prepared in accordance with the *Local Government Act 1995* and, to the extent that they are not inconsistent with the Act, the Australian Accounting Standards. The Australian Accounting Standards (as they apply to local governments and not-for-profit entities) and Interpretations of the Australian Accounting Standards Board were applied where no inconsistencies exist.

The *Local Government (Financial Management) Regulations 1996* specify that vested land is a right-of-use asset to be measured at cost, and is considered a zero cost concessionary lease. All right-of-use assets under zero cost concessionary leases are measured at zero cost rather than at fair value, except for vested improvements on concessionary land leases such as roads, buildings or other infrastructure which continue to be reported at fair value, as opposed to the vested land which is measured at zero cost. The measurement of vested improvements at fair value is a departure from AASB 16 which would have required the Shire to measure any vested improvements at zero cost.

Local Government (Financial Management) Regulations 1996, regulation 34 prescribes contents of the financial report. Supplementary information does not form part of the financial report.

Accounting policies which have been adopted in the preparation of this financial report have been consistently applied unless stated otherwise. Except for cash flow and rate setting information, the financial report has been prepared on the accrual basis and is based on historical costs, modified, where applicable, by the measurement at fair value of selected non-current assets, financial assets and liabilities.

PREPARATION TIMING AND REVIEW

Date prepared: All known transactions up to 28 July 2025

THE LOCAL GOVERNMENT REPORTING ENTITY
All funds through which the Shire controls resources to carry on its functions have been included in the financial statements forming part of this financial report.

All monies held in the Trust Fund are excluded from the financial statements.

MATERIAL ACCOUNTING POLICES
Material accounting policies utilised in the preparation of these statements are as described within the 2024-25 Annual Budget. Please refer to the adopted budget document for details of these policies.

Critical accounting estimates and judgements
The preparation of a financial report in conformity with Australian Accounting Standards requires management to make judgements, estimates and assumptions that effect the application of policies and reported amounts of assets and liabilities, income and expenses.

The estimates and associated assumptions are based on historical experience and various other factors believed to be reasonable under the circumstances; the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

As with all estimates, the use of different assumptions could lead to material changes in the amounts reported in the financial report.

The following are estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year and further information on their nature and impact can be found in the relevant note:

- Fair value measurement of assets carried at reportable value including:
  - Property, plant and equipment
  - Infrastructure
- Impairment losses of non-financial assets
- Expected credit losses on financial assets
- Assets held for sale
- Investment property
- Estimated useful life of intangible assets
- Measurement of employee benefits
- Measurement of provisions
- Estimation uncertainties and judgements made in relation to lease accounting

2 NET CURRENT ASSETS INFORMATION

(a) Net current assets used in the Statement of Financial Activity

	Note	Adopted Budget Opening 1 July 2024	Actual as at 30 June 2024	Actual as at 30 June 2025
Current assets		**$**	**$**	**$**
Cash and cash equivalents		6,030,657	7,491,236	4,835,317
Trade and other receivables		1,998,205	2,996,480	3,391,818
Other financial assets		106,862	108,964	103,964
Inventories		21,240	17,621	138,405
Contract assets		54,892	0	0
Other assets		31,810	893,694	521,906
		8,243,666	11,507,995	8,991,410
Less: current liabilities				
Trade and other payables		(787,723)	(2,613,986)	(1,038,815)
Other liabilities		(615,480)	(2,547,788)	(3,222,499)
Lease liabilities		(33,503)	(33,503)	(9,302)
Borrowings		(198,585)	(203,240)	(213,665)
Employee related provisions		(367,715)	(782,694)	(782,694)
		(2,003,006)	(6,181,211)	(5,266,975)
Net current assets		6,240,660	5,326,784	3,724,435
Less: Total adjustments to net current assets	2(b)	(3,231,212)	(2,396,329)	(3,183,371)
Closing funding surplus / (deficit)		**3,009,448**	**2,930,455**	**541,064**

(b) Current assets and liabilities excluded from budgeted deficiency

Adjustments to net current assets				
Less: Reserve accounts		(3,463,300)	(3,463,317)	(4,219,746)
Add: Current liabilities not expected to be cleared at the end of the year				
- Current portion of lease liabilities		33,503	33,503	9,302
- Current portion of borrowings		198,585	203,240	213,665
- Current portion of employee benefit provisions		0	830,245	813,408
Total adjustments to net current assets	2(a)	**(3,231,212)**	**(2,396,329)**	**(3,183,371)**

(c) Non-cash amounts excluded from operating activities

	Adopted Budget Estimates 30 June 2025	YTD Budget Estimates 30 June 2025	YTD Actual 30 June 2025
	$	**$**	**$**
Adjustments to operating activities			
Less: Profit on asset disposals	0	0	(9,339)
Add: Loss on asset disposals	0	0	12,860
Add: Depreciation	2,769,370	2,769,370	2,769,370
Total non-cash amounts excluded from operating activities	**2,769,370**	**2,769,370**	**2,772,891**

3 EXPLANATION OF MATERIAL VARIANCES

The material variance thresholds are adopted annually by Council as an indicator of whether the actual expenditure or revenue varies from the year to date actual materially.
The material variance adopted by Council for the 2024-25 year is $10,000 and 10.00% whichever is the greater.

Description	Var. $	Var. %	
	$	%	
Revenue from operating activities			
Grants, subsidies and contributions The majority of this variance relates to Financial Assisted Grant (FAG's) income, relating to 2026 financial year, totalling $1.36m being received in to the Shire's bank account on 24 June, which had not been budgeted for.	**1,269,542**	**85.25%**	▲
Interest revenue Less interest received than originally budgeted due to decline in interest rates on term deposit investments and bank money held.	**(77,174)**	**(23.46%)**	▼
Expenditure from operating activities			
Other expenditure Elected members annual attendance fee was under budgeted by ($30k).	**(34,020)**	**(29.64%)**	▼
Inflows from investing activities			
Proceeds from capital grants, subsidies and contributions Less capital grant income due to less capital expenditure than originally budgeted.	**(1,683,044)**	**(90.31%)**	▼
Proceeds from financial assets at amortised cost - self supporting loans Costs associated with the loan appear to have been added to the loan balance. These combined with the interest have resulted in the loan balance being higher than the initial agreed loan of $500k. Further investigation to be conducted by the finance team to ensure these costs are on charged to the Golf Club.	**(27,440)**	**(387.52%)**	▼
Outflows from investing activities			
Acquisition of property, plant and equipment The purchase of a compactor for the landfill has been delayed to 2026 financial year, accounting for $800k of the variance.	**928,843**	**91.11%**	▲
Acquisition of infrastructure Delays in infrastructure projects, including; WA bicycle network $270k Forest St kerb island $185k Footpaths $124k Swinging bridge $60k Waste transfer modifications $45k	**649,769**	**21.70%**	▲
Inflows from financing activities			
Transfer from reserves As mentioned above, the acquisition of the compactor for the landfill has been delayed to 2026 financial year, as such, ($800k) was not transferred from reserves during 2025 financial year. This transfer is expected to occur in 2026.	**(800,000)**	**(89.14%)**	▼
Surplus or deficit after imposition of general rates Movement relates to above	**514,566**	**1941.88%**	▲

SHIRE OF COLLIE
SUPPLEMENTARY INFORMATION
FOR THE PERIOD ENDED 30 JUNE 2025

1 RESERVE ACCOUNTS

	Budget				Actual			
Reserve account name	Opening Balance	Transfers In (+)	Transfers Out (-)	Closing Balance	Opening Balance	Transfers In (+)	Transfers Out (-)	Closing Balance
	$	$	$	$	$	$	$	$
Reserve accounts restricted by Council								
Leave reserve	422,893	12,691	0	435,584	413,323	12,691	0	426,014
Building reserve	666,052	119,987	0	786,039	662,272	144,987	0	807,259
Plant reserve	754,909	372,653	(497,500)	630,062	761,167	397,653	(97,500)	1,061,320
Waste reserve	591,113	67,739	(400,000)	258,852	598,206	92,739	0	690,945
Revaluation reserve	46,330	11,391	0	57,721	46,330	11,391	0	57,721
Airport reserve	23,495	10,705	0	34,200	23,495	10,705	0	34,200
Election reserve	7,482	5,225	0	12,707	4,331	5,225	0	9,556
River Rehabilitation reserve	84,409	22,533	0	106,942	87,602	22,533	0	110,135
Roche Park reserve	86,573	42,598	0	129,171	86,533	42,598	0	129,131
Legal reserve	177,357	5,321	0	182,678	177,360	5,321	0	182,681
Collie Mineworkers Swimming Pool reserve	100,568	33,018	0	133,586	95,342	33,018	0	128,360
Parks & Ovals reserve	226,505	36,797	0	263,302	231,737	36,797	0	268,534
New initiative reserve	204,817	36,147	0	240,964	254,821	36,147	0	290,968
Information and Communication Technology res	70,797	2,124	0	72,921	20,798	2,124	0	22,922
Unspent Grants reserve	0	0	0	0	0	0	0	0
	3,463,300	**778,929**	**(897,500)**	**3,344,729**	**3,463,317**	**853,929**	**(97,500)**	**4,219,746**

2 CAPITAL ACQUISITIONS

Capital acquisitions	Adopted Budget	YTD Budget	YTD Actual	YTD Variance
	$	$	$	$
Buildings - specialised	57,000	57,000	47,389	(9,611)
Plant and equipment	962,500	962,500	43,268	(919,232)
Acquisition of property, plant and equipment	**1,019,500**	**1,019,500**	**90,657**	**(928,843)**
Infrastructure - roads	2,202,754	2,202,754	2,122,049	(80,705)
Infrastructure - footpaths	394,785	394,785	106,211	(288,574)
Infrastructure - drainage	125,000	125,000	71,636	(53,364)
Infrastructure - parks and ovals	226,624	226,624	44,274	(182,350)
Infrastructure - other	45,000	45,000	0	(45,000)
Infrastructure - Bridges	0	0	225	225
Acquisition of infrastructure	**2,994,163**	**2,994,163**	**2,344,394**	**(649,769)**
Total of PPE and Infrastructure	**4,013,663**	**4,013,663**	**2,435,051**	**(1,578,612)**
Total capital acquisitions	**4,013,663**	**4,013,663**	**2,435,051**	**(1,578,612)**
Capital Acquisitions Funded By:				
Capital grants and contributions	1,863,612	1,863,612	0	(1,863,612)
Borrowings	500,000	500,000	500,000	0
Plant reserve	497,500	497,500	97,500	(400,000)
Waste reserve	400,000	400,000	0	(400,000)
Contribution - operations	712,551	712,551	1,837,551	1,125,000
Capital funding total	**4,013,663**	**4,013,663**	**2,435,051**	**(1,578,612)**

KEY INFORMATION

Initial recognition

An item of property, plant and equipment or infrastructure that qualifies for recognition as an asset is measured at its cost.

Upon initial recognition, cost is determined as the amount paid (or other consideration given) to acquire the assets, plus costs incidental to the acquisition. The cost of non-current assets constructed by the Shire includes the cost of all materials used in construction, direct labour on the project and an appropriate proportion of variable and fixed overheads. For assets acquired at zero cost or otherwise significantly less than fair value, cost is determined as fair value at the date of acquisition.

Assets for which the fair value as at the date of acquisition is under $5,000 are not recognised as an asset in accordance with *Local Government (Financial Management) Regulation 17A(5).* These assets are expensed immediately.

Where multiple individual low value assets are purchased together as part of a larger asset or collectively forming a larger asset exceeding the threshold, the individual assets are recognised as one asset and capitalised.

Individual assets that are land, buildings and infrastructure acquired between scheduled revaluation dates of the asset class in accordance with the Shire's revaluation policy, are recognised at cost and disclosed as being at reportable value.

Measurement after recognition

Plant and equipment including furniture and equipment and right-of-use assets (other than vested improvements) are measured using the cost model as required under *Local Government (Financial Management) Regulation 17A(2).* Assets held under the cost model are carried at cost less accumulated depreciation and any impairment losses being their reportable value.

Reportable Value

In accordance with *Local Government (Financial Management) Regulation 17A(2),* the carrying amount of non-financial assets that are land and buildings classified as property, plant and equipment, investment properties, infrastructure or vested improvements that the local government controls.

Reportable value is for the purpose of *Local Government (Financial Management) Regulation 17A(4)* is the fair value of the asset at its last valuation date minus (to the extent applicable) the accumulated depreciation and any accumulated impairment losses in respect of the non-financial asset subsequent to its last valuation date.

3 RECEIVABLES

Rates receivable	30 June 2024	30 Jun 2025
	$	$
Opening arrears previous year	1,873,668	2,170,551
Levied this year	7,279,446	7,718,980
Less - collections to date	(6,982,563)	(7,056,240)
Gross rates collectable	**2,170,551**	**2,833,291**
Allowance for impairment of rates receivable	0	0
Net rates collectable	**2,170,551**	**2,833,291**
% Collected	76.3%	71.4%

Receivables - general	Credit	Current	30 Days	60 Days	90+ Days	Total
	$	$	$	$	$	$
Receivables - general	(1,741)	28,727	4,938	14,975	82,054	128,953
Percentage	(1.4%)	22.3%	3.8%	11.6%	63.6%	
Balance per trial balance						
Trade receivables						128,953
GST receivable						474,967
Allowance for impairment of receivables from contracts with customers						(45,393)
Total receivables general outstanding						**558,527**

Amounts shown above include GST (where applicable)

KEY INFORMATION

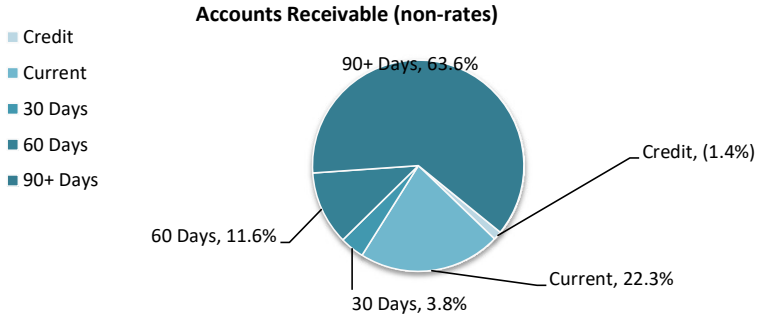
Trade and other receivables include amounts due from ratepayers for unpaid rates and service charges and other amounts due from third parties for goods sold and services performed in the ordinary course of business.

Trade receivables are recognised at original invoice amount less any allowances for uncollectable amounts (i.e. impairment). The carrying amount of net trade receivables is equivalent to fair value as it is due for settlement within 30 days.

Classification and subsequent measurement

Receivables which are generally due for settlement within 30 days except rates receivables which are expected to be collected within 12 months are classified as current assets. All other receivables such as, deferred pensioner rates receivable after the end of the reporting period are classified as non-current assets.

Trade and other receivables are held with the objective to collect the contractual cashflows and therefore the Shire measures them subsequently at amortised cost using the effective interest rate method.



3 OTHER CURRENT ASSETS

Other current assets	Opening Balance 1 July 2024	Asset Increase	Asset Reduction	Closing Balance 30 June 2025
	$	$	$	$
Other financial assets at amortised cost				
Financial assets at amortised cost	5,000	0	(5,000)	0
Financial assets at fair value through other comprehensive income	103,964	0	0	103,964
Inventory				
Fuel	17,621	120,784	0	138,405
Other assets				
Prepayments	130,559	0	(25,790)	104,769
Accrued income	319,700	0	(319,700)	0
Contract assets	443,435	0	(26,298)	417,137
Total other current assets	**1,020,279**	**120,784**	**(376,788)**	**764,275**

Amounts shown above include GST (where applicable)

KEY INFORMATION

Other financial assets at amortised cost

The Shire classifies financial assets at amortised cost if both of the following criteria are met:

- the asset is held within a business model whose objective is to collect the contractual cashflows, and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

Inventory

Inventories are measured at the lower of cost and net realisable value.
Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Contract assets

A contract asset is the right to consideration in exchange for goods or services the entity has transferred to a customer when that right is conditioned on something other than the passage of time.

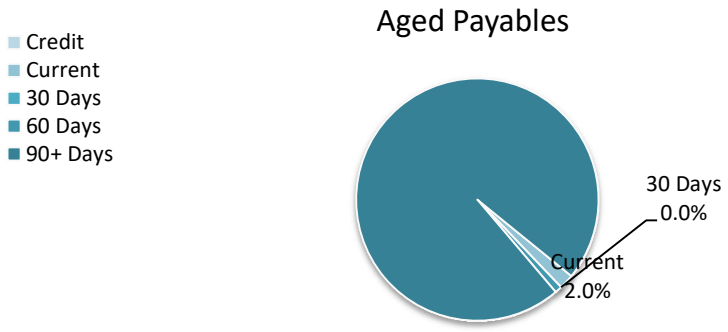
4 PAYABLES

Payables - general	Credit	Current	30 Days	60 Days	90+ Days	Total
	$	$	$	$	$	$
Payables - general	0	795	0	397	38,551	39,743
Percentage	0.0%	2.0%	0.0%	1.0%	97.0%	
Balance per trial balance						
Sundry creditors						39,743
Accrued salaries and wages						535,210
Bonds and deposits held						463,862
Total payables general outstanding						**1,038,815**

Amounts shown above include GST (where applicable)

KEY INFORMATION

Trade and other payables represent liabilities for goods and services provided to the Shire prior to the end of the period that are unpaid and arise when the Shire becomes obliged to make future payments in respect of the purchase of these goods and services. The amounts are unsecured, are recognised as a current liability and are normally paid within 30 days of recognition. The carrying amounts of trade and other payables are considered to be the same as their fair values, due to their short-term nature.



5 BORROWINGS

Repayments - borrowings

Information on borrowings			New Loans		Principal Repayments		Principal Outstanding		Interest Repayments	
Particulars	**Loan No.**	**1 July 2024**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**
		$	$	$	$	$	$	$	$	$
Loan 117 Shire Depot Relocation	117	559,664	0	0	(83,042)	(84,464)	476,622	475,200	(21,374)	(26,119)
Loan 118 Truck Bay Toilet (Throssell St) & Caravan Park Facilities	118	38,059	0	0	(9,213)	(9,078)	28,846	28,981	(1,201)	(1,445)
Loan 119 Weighbridge Modifications, Irrigation Audit and Bore Development Strategy, Open Space Strategy & Roche Park Wall Stabilisation	119	72,886	0	0	(16,058)	(14,014)	56,828	58,872	(1,420)	(1,966)
Loan 120 Roche Park Court 3 timber overlay and floor treatment	120	64,923	0	0	(13,161)	(10,410)	51,762	54,513	(1,116)	(1,486)
Loan 121 Construction of Venn Street River Stop	121	141,451	0	0	(30,023)	(22,841)	111,428	118,610	(1,873)	(2,859)
Loan 122 Building Capital Works	122	201,729	0	0	(43,624)	(30,228)	158,105	171,501	(1,931)	(3,449)
Loan 123 Solar Panels	123	27,238	0	0	(18,274)	(18,136)	8,964	9,102	(116)	(431)
Loan 124 Server Upgrade	124	28,210	0	0	(14,195)	(14,070)	14,015	14,140	(154)	(419)
		1,134,160	0	0	(227,590)	(203,241)	906,570	930,919	(29,185)	(38,174)
Self supporting loans										
Loan 125Collie Golf Club		0	500,000	500,000	20,359	(7,081)	520,359	492,919	(25,860)	(13,542)
		0	500,000	500,000	20,359	(7,081)	520,359	492,919	(25,860)	(13,542)
Total		**1,134,160**	**500,000**	**500,000**	**(207,231)**	**(210,322)**	**1,426,929**	**1,423,838**	**(55,045)**	**(51,716)**
Current borrowings		210,322					213,665			
Non-current borrowings		923,838					1,213,264			
		1,134,160					**1,426,929**			

All debenture repayments were financed by general purpose revenue.
Self supporting loans are financed by repayments from third parties.

New borrowings 2024-25

Particulars	**Amount Borrowed Actual**	**Amount Borrowed Budget**	**Institution**	**Loan Type**	**Term Years**	**Total Interest & Charges**	**Interest Rate**	**Amount (Used) Actual**	**Amount (Used) Budget**	**Balance Unspent**
	$	$				$	%	$	$	$
Collie Golf Club	500,000	500,000	WA Treasury	SSL	20	(25,860)	5.40	500,000	500,000	0
	500,000	**500,000**				**-25,860**		**500,000**	**500,000**	**0**

KEY INFORMATION
The Shire has elected to recognise borrowing costs as an expense when incurred regardless of how the borrowings are applied.

Fair values of borrowings are not materially different to their carrying amounts, since the interest payable on those borrowings is either close to current market rates or the borrowings are of a short term nature.

6 LEASE LIABILITIES

Movement in carrying amounts

Information on leases			New Leases		Principal Repayments		Principal Outstanding		Interest Repayments	
Particulars	**Lease No.**	**1 July 2024**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**
		$	**$**	**$**	**$**	**$**	**$**	**$**	**$**	**$**
Admin Plotter	5	9,176	0	0	(6,097)	(6,097)	3,079	3,079	(83)	(83)
Computer	6	21,060	0	0	(21,060)	(21,060)	0	0	(201)	(201)
Admin Colour Photocopier	1	13,635	0	0	(4,066)	(4,066)	9,569	9,569	(326)	(326)
Roche Park Photocopier	7	314	0	0	(314)	(314)	0	0	(1)	(1)
Depot Photocopier	8	6,315	0	0	(1,965)	(1,965)	4,350	4,350	(213)	(213)
Total		**50,500**	**0**	**0**	**(33,502)**	**(33,502)**	**16,998**	**16,998**	**(824)**	**(824)**
Current lease liabilities		9,302					9,302			
Non-current lease liabilities		7,696					7,696			
		16,998					**16,998**			

All lease repayments were financed by general purpose revenue.

KEY INFORMATION

At inception of a contract, the Shire assesses if the contract contains or is a lease. A contract is or contains a lease, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. At the commencement date, a right of use asset is recognised at cost and lease liability at the present value of the lease payments that are not paid at that date. The lease payments are discounted using that date. The lease payments are discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the Shire uses its incremental borrowing rate.

All contracts classified as short-term leases (i.e. a lease with a remaining term of 12 months or less) and leases of low value assets are recognised as an operating expense on a straight-line basis over the term of the lease.

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 14.4.A

List of Accounts

16 June to 15 July 2025

SHIRE OF COLLIE

List of Accounts Submitted to Council - 16th June 2025 - 15th July 2025

Chq/EFT	Date	Name	Description	Amount	Payment
Electronic Funds Transfer					
EFT39811	19/06/2025	WA AUSTRALIAN SERVICES UNION WA (ASU)	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 157.00
EFT39812	19/06/2025	ARROW BRONZE	CEMETERY PLAQUE		-$ 469.47
EFT39813	19/06/2025	ADAMS COMMERCIAL SERVICES	HIGH PRESSURE CLEAN THE CBD FOOTPATH PAVING BETWEEN THE 2 ROUNDABOUTS IN FORREST STREET		-$ 9,592.00
EFT39814	19/06/2025	AUSTRALIAN TAXATION OFFICE	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 42,861.00
EFT39815	19/06/2025	SCOTT CHRISTINGER	ONGOING ELECTRICAL ISSUES AT PCYC CARPARK		-$ 1,366.75
EFT39816	19/06/2025	DEPARTMENT OF HUMAN SERVICES	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 351.18
EFT39817	19/06/2025	COLLIE SALVAGE & HARDWARE	INVOICES BELOW		-$ 714.20
INV-5486	31/05/2025		BIT NUT SETTER, BELT CLOTH, SEALANT CRYSTAL CLEAR, LOW SHEEN WHITE 4 LT, BITUMEN RUBBER 4LT, FLAT BRUSH, TOILET SEAT, BRACKET SELF TAPPING SCREWS, BRACKET DRILL BIT - FLOOD GATES, NUTS AND BOLTS FLOOD GATES, KNOB SET ENTRANCE X 2, TOILET SEAT X 2, STAR PICKET	$ 341.05	
INV-5486 - 59187	31/05/2025		GALVANISED HEX MASON BOLT X 10, STEEL GP ELECTRODES, STEEL DRILL BITS 5.5MM, STEEL DRILL BITS 4.5MM, STEEL DRILL BITS 3/16, HEX MASON BOLTS X 9, 13MM DRILL BIT, 230MM ROLLER COVER PACK X 2, ENGINEERS CHALK X 8, ROOFING BOLTS/NUTS X 14, HOOKS AND HAT COAT CHROME X 2, HOOKS ROBE, CONCRETE BLADE, WELDING ROBS X 3	$ 364.35	
INV-5486 - 59037	31/05/2025		JUNCTION BOX LARGE	$ 8.80	
EFT39818	19/06/2025	EASIALARY PTY LTD	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 1,474.45
EFT39819	19/06/2025	HENDERSON HARDWARE	INVOICES BELOW		-$ 340.15
199044417	13/05/2025		ANGLE BRACKET	$ 10.80	
199044418	13/05/2025		FLAT BRUSH	$ 3.50	
199044460	13/05/2025		PADBOLT DOUBLE EYE	$ 18.05	
199044891	20/05/2025		MESH CONCRETE	$ 97.50	
199044964	21/05/2025		HAP AND STAPLE 115MM	$ 16.40	
199044931	21/05/2025		BEND DWV PVC F&F 100MM X 45, 1005806 PIPE PVC DWV 100MM X 6M LENGTH	$ 146.70	
199045064	22/05/2025		PVC REDUCER STORM SOCKET 100 X 90 MM	$ 6.00	
199045233	26/05/2025		CAULKING GUN AND LIQUID NAILS	$ 41.20	
EFT39820	19/06/2025	LOGIC ENTERPRISES (WA) PTY LTD.	PRE EMPLOYMENT MEDICAL		-$ 390.50
EFT39821	19/06/2025	OZARB TREE SERVICE	PRUNE OVERHANGING TREES AT THE REAR OF MOIRA ROAD		-$ 2,640.00
EFT39822	19/06/2025	PHOENIX GLASS	REMOVAL AND REPLACEMENT OF DAMAGED GLASS PANE IN SHIRE ADMIN OFFICE		-$ 419.00
EFT39823	19/06/2025	PFI SUPPLIES (THE TRUSTEE FOR TEEPEE TRUST)	INVOICES BELOW		-$ 729.80
14955	13/05/2025		CLEANING MATERIALS FOR ADMIN OFFICE AND CONTRACT CLEANER	$ 248.00	
15531	26/05/2025		DISPENSER H/T LIVI SLIMFOLD/ULTRA PLASTIC, 2 SLIMFOLD H/T PUREST AIRFOLD CTN 2400	$ 99.50	
15529	26/05/2025		T/ROLL CTN 48, COMPACT H/T PUREST PREM AIRFOLD CTN 2400, SLIMFOLD H/T PUREBLUE, MOP HEAD ANTIBACTERIAL OATES, 500ML BOTTLE EMPTY PLAIN 28/410 EACH, TRIGGER SPRAY CANYON BLUE/WHITE EACH, EXTENSION LEAD 20M PACVAC, TEST & TAG	$ 382.30	
EFT39824	19/06/2025	P & S GRIGGS PLUMBING	REPAIR AND REPLACE STOLEN PIPING AND FITTINGS TO THE WALLSEND GROUND STABLE TOILETS. (INSURANCE CLAIM PENDING)		-$ 3,679.00
EFT39825	19/06/2025	SOUTHERN LOCK & SECURITY	SUPPLY OF REGISTERED KEY FOR SHIRE BUILDINGS		-$ 86.00
EFT39826	19/06/2025	SANDGROPER CONTRACTING PTY LTD	CLEANING OF DRAINS (SHIRE ROAD SWEEPER OUT OF SERVICE)		-$ 3,509.00
EFT39827	19/06/2025	WINC AUSTRALIA PTY LTD	WHITE A4 PAPER SUPPLIES RATES PRINTING		-$ 195.56

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39828	19/06/2025	TELSTRA LIMITED	INVOICES BELOW		-$ 5,021.62
K378654451-5	09/06/2025		TELEPHONE CHARGES 02/06/2025 - 01/07/2025	$ 4,871.62	
K518680851-2	12/06/2025		INTERNET AND DATA PLAN 02/06/2025 - 01/07/2025,	$ 150.00	
EFT39829	19/06/2025	TALIS CONSULTANTS	FOUR SAMPLING EVENTS AMBIENT GROUNDWATER AND AMBIENT SURFACE WATER FEBRUARY 2025		-$ 8,481.03
EFT39830	19/06/2025	TLC CARPET AND TILE CLEANING	CLEANING SERVICES SHIRE PUBLIC TOILET AND BBQ CLEANING JUNE 2025		-$ 11,496.13
EFT39831	19/06/2025	WA DISTRIBUTORS	ROCHE PARK KIOSK EXPENSES		-$ 462.40
EFT39832	24/06/2025	BUSSELTON PUMPSHOP	SUBMERSIBLE PUMP AND ASSOCIATED FITTINGS LGGS - DFES		-$ 3,609.89
EFT39833	24/06/2025	BDO TRADING PTY LTD	COUNCIL OFFICES 1500X1800 ACOUSTIC SCREENS		-$ 5,566.00
EFT39834	24/06/2025	COLLIE AUTO ELECTRICS	INVOICES BELOW		-$ 600.00
00007884	11/02/2025		REPLACE AIR CON CORE & REGAS # 2 TRACTOR	$ 500.00	
00007909	08/04/2025		SUPPLY & FIT NEW TRAILER PLUG - CO17693 - HINO 500	$ 100.00	
EFT39835	24/06/2025	CLEANAWAY PTY LTD	RECYCLING COLLECTION AT THE TRANSFER STATION - MAY 24		-$ 20,618.18
EFT39836	24/06/2025	COLLIE COMMUNITY PUBLISHERS (CRV BULLETIN)	INVOICES BELOW		-$ 1,924.40
660442813	13/03/2025		SHIRE UPDATE - PUBLISHING OF THE MONTHLY SHIRE UPDATE	$ 528.00	
837462552	20/03/2025		BULLETIN ADVERT - LOCAL PLANNING SCHEME AMENDMENT NOTICE	$ 190.30	
859209471	27/03/2025		ADVERTISING FOR CLUB DEVELOPMENT WORKSHOP BRING HELD ON THE 9TH OF APRIL.	$ 275.00	
660442836	10/04/2025		SHIRE UPDATE - PUBLISHING OF THE MONTHLY SHIRE UPDATE	$ 528.00	
928294892	10/04/2025		PUBLIC NOTICE BRIDGE MAINTENANCE ADVERT	$ 50.00	
1015057983	01/05/2025		ADVERTISING TOWN PLANNER POSITION	$ 353.10	
EFT39837	24/06/2025	COFFEEROCK CONTRACTING	COLLIE PRESTON BFB ENGINE BAY - APPROVED FUNDS VIA DFES ASSET MAINTENANCE FUND.		-$ 21,595.00
EFT39838	24/06/2025	EDGE LANDWORKS PTY LTD	INVOICES BELOW		-$ 9,075.00
INV-0642	13/05/2025		MECHANICAL MITIGATION WORKS TO VENN STREET EAST	$ 3,025.00	
INV-0646	22/05/2025		MAF MITIGATION WORKS	$ 6,050.00	
EFT39839	24/06/2025	FUELRITE SERVICES	REPAIRS TO SECOND DIESEL BOWSER NON OPERATIONAL		-$ 417.45
EFT39840	24/06/2025	COLLIE FLORIST	1 X WREATH - COMBINED SCHOOLS ANZAC SERVICE		-$ 65.00
EFT39841	24/06/2025	HENDERSON HARDWARE	SUPPLY GARRISON FENCING 144M X 1.8M HIGH WITH DOUBLE GATE REC GROUND FENCING		-$ 37,580.00
EFT39842	24/06/2025	ROB BENNETT MOBILE SERVICES	REPAIRS TO HYDRAULICS ON FLOAT TRUCK - CO30167		-$ 382.36
EFT39843	24/06/2025	IT VISION SOFTWARE PTY LTD	SYNERGYSOFT END OF YEAR RATES & BILLING 2-DAY TRAINING		-$ 1,375.00
EFT39844	24/06/2025	JANICE PLATT	INVOICES BELOW		-$ 450.00
INV-0571	05/06/2025		BLOG WRITING X 2 ACCOMMODATION GUIDE TO COLLIE, ART LOVERS GUIDE TO COLLIE	$ 300.00	
INV-0573	06/06/2025		BLOG WRITING X 1 HISTORY AND HERITAGE OF COLLIE	$ 150.00	
EFT39845	24/06/2025	JAPANESE TRUCK & BUS SPARES PTY LTD	INVOICES BELOW		-$ 2,197.85
585611	28/05/2025		PARTS FOR HINO TIPPER TRUCK (CO19468)	$ 2,143.75	
586529	05/06/2025		SPRING PIN REAR OF FRONT FOR CO19468 - TIPPER TRUCK	$ 54.10	
EFT39846	24/06/2025	KOHDY JAMES FLYNN	ANNUAL HONORARIUM PAYMENT FOR VOLUNTEER CHIEF BUSH FIRE CONTROL OFFICER		-$ 1,000.00
EFT39847	24/06/2025	KOOL KREATIVE	INVOICES BELOW		-$ 6,084.38
A9759-1	16/06/2025		TOURISM AND MARKETING DESIGN PROJECT (STAGE 2A) SOUTH32 TOURISM PARTNERSHIP	$ 618.75	
A9758	16/06/2025		TOURISM AND MARKETING DESIGN PROJECT (STAGE 2) SOUTH32 TOURISM PARTNERSHIP	$ 5,465.63	
EFT39848	24/06/2025	LESCHENAULT COMMUNITY NURSERY INC	PLANTS FOR MARG WILSON CAR PARK		-$ 297.10
EFT39849	24/06/2025	OZARB TREE SERVICE	REMOVAL 4 X LOWER BRANCHES GASTALDO ROAD WORSLEY		-$ 5,440.00
538	27/05/2025		REMOVAL OF DAMAGED TREE AT CARAVAN PARK	$ 440.00	
540	11/06/2025		PRUNE TREES ALONG PENDLETON ST	$ 2,500.00	
543	12/06/2025		MAKE SAFE ONE LARGE JARRAH TREE 328 STEERE ST NORTH	$ 2,500.00	

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39850	24/06/2025	PICTON CIVIL PTY	WET HIRE 1 X DOUBLE-SIDED TIPPERS AND 1 X PRIME MOVER TO TRANSPORT SAND FROM PREMIER COAL TO GIBB'S ROAD LANDFILL FACILITY.		-$ 2,530.00
EFT39851	24/06/2025	J & J SWAN PTY LTD. T/A PARTNERS IN SAFETY	COTTON GLOVES 1 CARTON		-$ 531.50
EFT39852	24/06/2025	THE PRINT SHOP BUNBURY	CAP FUNDING 2025 - PRINTING OF WALLET CARDS - COMMUNITY GRANT FUNDED PROJECT		-$ 415.80
EFT39853	24/06/2025	P & S GRIGGS PLUMBING	REPAIR THE PIPEWORK AND METER AT THE SOUND SHELL		-$ 1,517.98
EFT39854	24/06/2025	DEPT OF LOCAL GOVERNMENT, SPORT AND CULTURAL INDUSTRIES	UNEXPENDED GRANT FUNDS - HIKE ABILITY PROJECT 2022-23 50% OF HIKES PROVIDED		-$ 8,827.39
EFT39855	24/06/2025	SOUTHERN LOCK & SECURITY	INVOICES BELOW		-$ 275.00
C39651	28/05/2025		RESTRICTED KEYS CUT	$ 25.00	
C39671	30/05/2025		METLAM INDICATOR BOLT SERIES SURFACE MOUNT	$ 250.00	
EFT39856	24/06/2025	COLLIE MOWERS AND MORE	ANNUAL SERVICE OF THE COLLIE SES UNITS 3X CHAINSAW		-$ 816.90
EFT39857	24/06/2025	SEEK LIMITED	INVOICES BELOW		-$ 1,012.00
701175443	30/04/2025		ADVERTISING ON SEEK FOR THE TOWN PLANNER POSITION	$ 385.00	
701193752	12/05/2025		RECRUITMENT ADVERTISING FOR THE BUILDING MAINTENANCE OFFICER	$ 627.00	
EFT39858	24/06/2025	SOUTHWEST HOIST AND CRANE	QUARTERLY INSPECTION HOISTS MAY 2025		-$ 1,302.40
EFT39859	24/06/2025	WINC AUSTRALIA PTY LTD	INVOICES BELOW		-$ 1,077.22
9901668751	05/04/2025		OFFICE STATIONARY - PAPER, CLOCK, BATTERIES	$ 286.42	
9901679640	29/05/2025		STATIONERY ORDER FOR DEPOT, PAPER, NOTEBOOKS, MARKERS, PENS, CORRECTION FLUID	$ 447.93	
9901679810	30/05/2025		PRINTER INK FOR WASTE TRANSFER STATION - EPSON 212XL - YELLOW X 3	$ 121.11	
9901686842	05/06/2025		A4 PAPER X 6 CARTONS	$ 221.76	
EFT39860	24/06/2025	AUSTRAL MASONRY HOLDINGS PTY LTD (T/AS URBANSTONE)	DIAMOND CUT RECON SINGLE SIDED BULL NOSE 500 X 150 X 50		-$ 832.92
EFT39861	24/06/2025	WESTRAC EQUIPMENT PTY LTD	INVOICES BELOW		-$ 1,608.00
PI0987731	23/05/2025		PARTS TO REPAIR CAT GRADER - CO14596 (BELT, STEP, PLATE ETC)	$ 1,332.47	
PI 0989728	25/05/2025		PARTS TO REPAIR CAT GRADER - CO14596	$ 239.23	
PI 0989729	25/05/2025		RADIATOR HOSE - CAT LOADER - (114CO)	$ 36.30	
EFT39862	24/06/2025	WEED PEST & VERMIN CONTROL - NEIL FRASER	WEED SPRAYING CARDIFF PARK		-$ 1,001.00
EFT39863	26/06/2025	DEPARTMENT OF TRANSPORT	FLEET VEHICLE REGISTRATIONS 2024 -2025		-$ 15,336.45
EFT39864	26/06/2025	ARROW BRONZE	INVOICES BELOW		-$ 1,165.99
764635A	21/05/2025		CEMETERY PLAQUE	$ 365.78	
764635B	21/05/2025		CEMETERY PLAQUE	$ 800.21	
EFT39865	26/06/2025	AIR LIQUIDE WA PTY LTD	MONTHLY GAS CYLINDER RENTAL FOR DEPOT WORKSHOP		-$ 28.16
EFT39866	26/06/2025	ACCESS WELLBEING SERVICES	ACCESS EAP COUNSELLING		-$ 671.00
EFT39867	26/06/2025	AMAROO DELI & CAFE	CATERING FOR FAREWELL MORNING TEA		-$ 220.00
EFT39868	26/06/2025	ASK WASTE MANAGEMENT PTY LTD	INVOICES BELOW		-$ 33,940.50
INV-0276	02/06/2025		LANDFILL CLOSURE MANAGEMENT PLAN - REPORT AND FINANCIAL ASSESSMENT	$ 13,150.50	
INV-0277	02/06/2025		STORMWATER & LEACHATE MANAGEMENT PLAN REPORT, CALCULATIONS, PLANS	$ 20,790.00	
EFT39869	26/06/2025	ATC WORK SMART INC	INVOICES BELOW		-$ 5,020.48
GT41674	29/05/2025		MECHANIC TRAINEE FOR PERIOD 11/05/2025 - 24/05/2025	$ 2,510.24	
GT41914	12/06/2025		MECHANIC TRAINEE FOR PERIOD 11/05/2025 - 24/05/2025	$ 2,510.24	
EFT39870	26/06/2025	J. BLACKWOOD & SON PTY LTD	SAFETY BOOT LUZIP ALPHA2 WHT		-$ 220.00
EFT39871	26/06/2025	BUSY BEE DRY CLEANERS	DRY CLEANING - LINEN TABLE CLOTHS FOR COUNCIL MEETINGS 2025		-$ 36.30
EFT39872	26/06/2025	BLACK DIAMOND LODGE	ACCOMMODATION FOR NEW SHIRE PLANNER FOR HANDOVER PERIOD 9TH - 13TH JUNE 2025		-$ 480.00
EFT39873	26/06/2025	COLLIE AUTO ELECTRICS	DEGAS A/C #22 - CAT. WHEEL LOADER (114CO)		-$ 80.00

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39874	26/06/2025	SCOTT CHRISTINGER	INVOICES BELOW		-$ 7,275.50
INV-0801	02/12/2024		INSTALL UP LIGHTS TO MURAL WALL - LIGHT UP AREA USED FOR SLEIGH AT CHRISTMAS	$ 4,394.00	
INV-0864	07/02/2025		REPLACE FAULTY LIGHTS TO THE ART GALLERY FOYER. SPARE LIGHTS ON SITE.	$ 379.50	
INV-0952	15/04/2025		REPAIRS TO EYE WASH STATION, REPAIR TO WEIGHT BRIDGE, ESTIMATE FOR ELECTRICAL INSTALLATION NEW COMPACTOR SHED	$ 1,100.00	
INV-1046	13/06/2025		LIGHTING REPAIRS COUNCIL ADMIN BUILDING, COUNCIL CHAMBER STAIRWELL	$ 500.00	
INV-1050	13/06/2025		LIGHTING AT LIBRARY CHECKED FOR FAULTY FITTINGS INCLUDING JAN WALLACE ROOM	$ 902.00	
EFT39875	26/06/2025	PETE'S	INVOICES BELOW		-$ 2,319.95
274445	07/05/2025		STAFF PPE WEAR AND LOGO EMBROIDERY	$ 204.50	
274443	07/05/2025		STAFF PPE WEAR LOGO EMBROIDERY	$ 68.90	
274612	14/05/2025		STAFF PPE BISLEY BL6896 AND LOGO EMBROIDERY	$ 225.80	
274786	21/05/2025		STAFF PPE BISLEY JACKETS X 5 AND LOGO EMBROIDERY	$ 559.20	
274874	23/05/2025		STAFF PPE WEAR LOGO EMBROIDERY	$ 161.80	
274875	23/05/2025		STAFF PPE BISLEY 5 IN 1 SZ 6XL, LOGO EMBROIDERY	$ 139.80	
274955	27/05/2025		STAFF PPE WEAR LOGO EMBROIDERY	$ 651.20	
275185	05/06/2025		STAFF PPE WEAR LOGO EMBROIDERY	$ 308.75	
EFT39876	26/06/2025	CLEANAWAY PTY LTD	WASTE REFUSE CONTRACT MAY 2025 - RESIDENTIAL		-$ 89,224.51
EFT39877	26/06/2025	COLLIE CHAMBER OF COMMERCE & INDUSTRY	SOCIAL LADIES NETBALL - GRAND FINAL WINNERS (4 X $25 VOUCHERS)		-$ 150.00
EFT39878	26/06/2025	COLLIE COMMUNITY PUBLISHERS (CRV BULLETIN)	BULLETIN - 5 JUNE - NOTICE OF PUBLIC ADVERTISEMENT OF DEVELOPMENT PROPOSAL - COLLIE WILLIAMS ROAD, PALMER.		-$ 190.30
EFT39879	26/06/2025	CHARGEFOX PTY LTD	CONNECTOR MANAGEMENT FEES FOR FORREST STREET COLLIE STATION 4039 FROM 01/05/2025 - 31/05/2025		-$ 61.38
EFT39880	26/06/2025	THE COLLIE PROPERTY TRUST (CLUB HOTEL MOTEL)	REFRESHMENTS CHRISTMAS FUNCTION		-$ 858.78
EFT39881	26/06/2025	COLLIE SALVAGE & HARDWARE	1M X 350 X 350 CREAM PLAIN		-$ 5,525.40
EFT39882	26/06/2025	CANVAS WORKS SOUTH WEST	SUPPLY AND INSTALL NEW SHADE SAIL INCLUDING POSTS TO THE LIONS PARK PLAYGROUND EXTENSION - LRCI FUNDED		-$ 7,260.00
EFT39883	26/06/2025	CORSIGN WA	CUSTOM NO SMOKING SIGNS		-$ 919.60
EFT39884	26/06/2025	LANDGATE	INVOICES BELOW		-$ 2,435.35
403187	07/05/2025		VALUATION ROLL, MINING TENEMENTS	$ 1,119.35	
403336	15/05/2025		UV GENERAL VALS N/R COUNTRY SHARED, UV GENERAL VALUES RES C/TOWNS SHARED	$ 1,316.00	
EFT39885	26/06/2025	EAST END CONTRACTORS	INVOICES BELOW		-$ 43,952.04
ADG1560885	06/05/2025		COMPACTION OF WASTE AT COLLIE WASTE FACILITY.	$ 21,952.04	
ADG1560889	10/06/2025		COMPACTION OF WASTE AT COLLIE WASTE FACILITY.	$ 22,000.00	
EFT39886	26/06/2025	4PARK PTY LTD / T/A FORPARK AUSTRALIA	INVOICES BELOW		-$ 50,514.20
INV102954	13/06/2025		REPLACEMENT SPRING FOR SOLDIERS PARK FOR DUE TO VANDALISM	$ 621.50	
INV103037	23/06/2025		CUBE 3PM FREESTANDING, SOUND ARCH, MINING CART ROCKER, TRAIN ROCKER, SAND TABLE FREE STANDING , SAND WHEEL, SWING POST 2 BAY, 2 STRAP & TODDLER SEAT DELIVERY, INSTALLATION PLAYGROUND LIONS PARK LRCI FUNDED	$ 49,892.70	
EFT39887	26/06/2025	STRATAGREEN	GLYPHOSATE GREEN 360 20LTR		-$ 636.27
EFT39888	26/06/2025	GREENACRES TURF GROUP	SUPPLY AND LAY 60M2 VILLAGE GREEN JUMBO ROLLS - RECREATION GROUND		-$ 4,418.70
EFT39889	26/06/2025	GRACE RECORDS MANAGEMENT AUST PTY LTD	RECORDS DESTRUCTION - 111 CARTONS		-$ 1,337.91
EFT39890	26/06/2025	HENDERSON HARDWARE	INVOICES BELOW		-$ 52,110.00
102001474	24/06/2025		FENCING AROUND DOG EXERCISE AREA COOMBES & RIVER AVE	$ 44,630.00	
102001478	25/06/2025		CEMETERY FENCING - TO BE INSTALLED IN BETWEEN 16 EXISTING BRICK PILLARS	$ 7,480.00	

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39891	26/06/2025	HEATLEY SALES PTY LTD	INVOICES BELOW		-$ 566.52
Y652207	26/05/2025		STAFF PPE - F/GLASS TOE CAP SAFETY BOOT	$ 205.98	
Y652884	12/06/2025		STAFF PPE STEEL BLUE SOUTHERN CROSS ZIP BOOT	$ 178.42	
Y652919	13/06/2025		STAFF PPE CONQUEST HIGH CUT ZIP F/GLASS TOE	$ 182.12	
EFT39892	26/06/2025	HARMONIC ENTERPRISES PTY LTD	INVOICES BELOW		-$ 18,060.35
2567	14/05/2025		IT SUPPORT - BLOCK HOURS RENEWAL	$ 3,539.25	
2660	19/06/2025		ENCHANCED SUPPORT UPGRADES TO SERVER AND HARDWARE	$ 14,521.10	
EFT39893	26/06/2025	IT VISION SOFTWARE PTY LTD (Ready Tech)	INVOICES BELOW		-$ 91,072.77
INITV042206	20/05/2025		ANNUAL LICENSE SYNERGYSOFT SUBSCRIPTION JULY 2025 - JUNE 2026	$ 90,247.77	
INITV042409	16/06/2025		TRAINING & DEVELOPMENT - SYNERGYSOFT END OF YEAR FINANCIALS	$ 825.00	
EFT39894	26/06/2025	CONNECT CCS	OVERCALLS FEE FOR CONTRACT CA0184 MAY 2025		-$ 517.88
EFT39895	26/06/2025	INTERFIRE AGENCIES	REQUIRED PPE FOR VBFB MEMBERS - BOOTS, TORCH, NECK PROTECTOR, HARNESS, HELMET, STICKERS		-$ 1,926.52
EFT39896	26/06/2025	LOTEX FILTER CLEANING SERVICE	CLEANING OF FILTERS X 6 MAY 2025		-$ 151.83
EFT39897	26/06/2025	LG BEST PRACTICES PTY LTD	INVOICES BELOW		-$ 5,676.00
22826	30/04/2025		ASSISTANCE WITH ANNUAL AUDIT	$ 308.00	
22856	31/05/2025		ASSISTANCE WITH THE PROCESSING OF THE VALUATION SCHEDULES 2024/25	$ 5,368.00	
EFT39898	26/06/2025	LG COMMUNITY PARTNERS PTY LTD	ACCOUNTING SUPPORT W/E 23.05.2025		-$ 792.00
EFT39899	26/06/2025	LO-GO APPOINTMENTS	INVOICES BELOW		-$ 2,050.62
H5194	28/05/2025		EMPLOYMENT COSTS FOR RELIEF RANGER 21ST MAY TO 24TH MAY	$ 1,823.51	
H5195	28/05/2025		EMPLOYMENT COSTS FOR RELIEF RANGER 21ST MAY TO 24RD MAY - MEALS AND FUEL	$ 227.11	
EFT39900	26/06/2025	LOCAL GOVERNMENT WORKS ASSOCIATION WA INC	MEMBERSHIP CALEB FLATT		-$ 100.00
EFT39901	26/06/2025	MJB INDUSTRIES	1200MM SQ JP COVER X 150MM THICK WITH 750MM RND CONCRETE INSERT NOT TRAFFICABLE		-$ 3,568.48
EFT39902	26/06/2025	MIRACLE RECREATION EQUIPMENT	SWING SET FOR WYVERN PARK		-$ 3,410.00
EFT39903	26/06/2025	NOLA GREEN	AUS DAY - PHOTOGRAPHY FOR AUSTRALIA DAY BREAKFAST		-$ 300.00
EFT39904	26/06/2025	OFFICEWORKS	INVOICES BELOW		-$ 18.49
606407854	08/12/2023		BALANCE OF PURCHASE AFTER EXCHANGE OF LIBRARY STATIONARY & STAFF PLANNERS -	-$ 2.46	
621364429	29/04/2025		COUNCILLOR PRINTS & GROUP PHOTO FOR 2023 FRAME IN THE CHAMBERS	$ 13.00	
621365659	29/04/2025		DELIVERY FEE ON PRINTS	$ 7.95	
EFT39905	26/06/2025	OZARB TREE SERVICE	INVOICES BELOW		-$ 2,720.00
541	11/06/2025		PRUNE 2 TREES CHERRY STREET CARDIFF REMOVE WASTE	$ 660.00	
545	18/06/2025		HARD POLLARD PRUNE 1 X BOX TREE NEXT TOO COLLIE FOOTBALL CLUB BUILDING , REMOVE ALL WASTE	$ 1,400.00	
550	23/06/2025		REMOVE DANGEROUS SNAPPED BRANCHES FOOTPATH BEHIND SYNERGY HALL - SKATEPARK HEADING EAST	$ 660.00	
EFT39906	26/06/2025	PFI SUPPLIES (THE TRUSTEE FOR TEEPEE TRUST)	INVOICES BELOW		-$ 608.85
16189	09/06/2025		COMPACT H/T PURE BLUE, JUMBO 2PLY T/ROLL PURE, 2PLY T/ROLL PURE 400SHEET CTN 48, WIPES RAPID CLEAN HD BLUE ROLL 90, GENTLE PINK LIQUID HAND SOAP 5LT	$ 558.85	
16191	09/06/2025		DISPENSER H/T LIVI SLIMFOLD/ULTRA PLASTIC	$ 50.00	
EFT39907	26/06/2025	J & J SWAN PTY LTD T/A PARTNERS IN SAFETY	10 PPE KIT BAGS FOR THE SHIRE OF COLLIE BFB MEMBERS LGGS FUNDED		-$ 1,344.00
EFT39908	26/06/2025	THE PRINT SHOP BUNBURY	BUSINESS CARDS FOR DDS & HR		-$ 192.50

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39909	26/06/2025	P & S GRIGGS PLUMBING	INVOICES BELOW		-$ 2,153.80
INV-19573	11/06/2025		REPAIR DAMAGE TO CENTRAL TOILETS TAP WARE DUE TO VANDALISM	$ 778.25	
INV-19581	11/06/2025		REPAIR DOG PUND DRINKING FIXTURES	$ 363.00	
INV-19586	12/06/2025		ISOLATE DRINKING FOUNTAIN AT SKATE PARK DUE TO VANDALISM	$ 710.05	
INV-19632	18/06/2025		UNBLOCK DUMP POINTS AT BOTH VISITOR CENTRE & TRUCK BAY	$ 302.50	
EFT39910	26/06/2025	QHSE INTEGRATED SOLUTIONS PTY LTD (SKYTRUST)	SKYTRUST INTELLIGENCE SYSTEM MONTHLY SUBSCRIPTION SKYTRUST		-$ 493.90
EFT39911	26/06/2025	REUBEN'S NEWSAGENCY	CAP 2025 - SNAP FRAMES 30 X A4 AND 15 X A3 - GRANT FUNDED COMMUNITY PROGRAM		-$ 1,424.55
EFT39912	26/06/2025	REGIONAL DEVELOPMENT AUSTRALIA - SOUTH WEST	CLIMATE REPORTING READINESS - BUSINESS WORKSHOP. COLLIE 25.6.25		-$ 25.00
EFT39913	26/06/2025	REDFISH TECHNOLOGIES	INVESTIGATE AND REPAIR FAULT WITH SHIRE'S AV SYSTEM IN COUNCIL CHAMBERS		-$ 760.41
EFT39914	26/06/2025	STEWART & HEATON CLOTHING CO PTY LTD	INVOICES BELOW		-$ 1,920.17
SIN-4083048	10/06/2025		REQUIRED PPE FOR BFB MEMBERS - TSHIRTS X 5	$ 165.39	
SIN-4083877	11/06/2025		REQUIRED PPE FOR BFB MEMBERS - JACKETS	$ 912.56	
SIN-4087704	19/06/2025		REQUIRED PPE FOR BFB MEMBERS - BADGES	$ 39.14	
SIN-4088427	20/06/2025		REQUIRED PPE FOR BFB MEMBERS - 40 X BFB CAPS	$ 770.00	
SIN-4089485	23/06/2025		REQUIRED PPE FOR BFB MEMBERS TSHIRT	$ 33.08	
EFT39915	26/06/2025	SANPOINT PTY LTD. ATFT FIORE FAMILY TRUST (LD	INVOICES BELOW		-$ 51,150.00
143835	22/04/2025		INSTALL NEW MAINLINE TO BAARNIMAAR PARK - LRCI FUNDED	$ 22,550.00	
143834	30/04/2025		INSTALL NEW IRRIGATION SYSTEM TO FINLAY PARK - LRCI FUNDED	$ 28,600.00	
EFT39916	26/06/2025	SEEK LIMITED	SEEK ADVERT FOR MANAGER PLANNING & DEVELOPMENT VACANCY		-$ 517.00
EFT39917	26/06/2025	WINC AUSTRALIA PTY LTD	OFFICE STATIONARY - SCREEN WIPES, POST IT NOTES, A5 NOTEBOOK, TOILET SPRAY		-$ 240.34
EFT39918	26/06/2025	TYREPOWER	INVOICES BELOW		-$ 2,885.00
3433319	05/06/2025		TYRES FOR BOBCAT/MOWER TRAILER	$ 500.00	
3433842	20/06/2025		PUNCTURE REPAIR GRADER	$ 145.00	
3435359	20/06/2025		PUNCTURE REPAIR BACKHOE	$ 120.00	
3435876	20/06/2025		REPLACEMENT TYRES TIP TRUCK	$ 1,960.00	
3436014	20/06/2025		PUNCTURE REPAIR CO19468	$ 160.00	
EFT39919	26/06/2025	TALIS CONSULTANTS	INVOICES BELOW		-$ 7,369.45
34716	31/05/2025		BI-ANNUAL GROUNDWATER SAMPLING AND ANALYSIS OF PFAS AT GIBBS ROAD LANDFILL FACILITY.	$ 731.61	
34715	31/05/2025		FOUR SAMPLING EVENTS AMBIENT GROUNDWATER AND AMBIENT SURFACE WATER	$ 6,637.84	
EFT39920	26/06/2025	SUPERKINGS HOTELS PTY LTD T/A THE COLLIEFIELDS	CATERING FOR COUNCIL MEETING, 10 JUNE 2025		-$ 390.00
EFT39921	26/06/2025	TEAM GLOBAL EXPRESS PTY LTD	INVOICES BELOW		-$ 222.96
0663-S280142	08/06/2025		FREIGHT FOR DELIVERY FROM STEWART & HEATON	$ 42.68	
0664-S280142	15/06/2025		FREIGHT FOR DELIVERY FROM INTERFIRE, FREIGHT FOR DELIVERY FROM BUCHER MUNICIPAL , FREIGHT FOR	$ 147.38	
0665-S280142	25/06/2025		FREIGHT FOR DELIVERY FROM INTERFIRE	$ 32.90	
EFT39922	26/06/2025	TIMBER INSIGHT	COOMBES STREET BRIDGE INSPECTION		-$ 825.00
EFT39923	26/06/2025	VON BIBRA SIGNS	REPLACEMENT ENTRANCE SIGN FOR GIBB'S ROAD LANDFILL FACILITY, TO MEET COMPLIANCE REQUIREMENTS.		-$ 398.00
EFT39924	26/06/2025	VISIMAX	KETCH-ALL ANIMAL CONTROL POLE - QUICK RELEASE, 153CM (5'), ALUMINIUM		-$ 869.90
EFT39925	26/06/2025	WML CONSULTANTS	FORREST ST - MEDIAN STRIP ADJUSTMENTS		-$ 1,749.00
EFT39926	26/06/2025	WESTRAC EQUIPMENT PTY LTD	INSPECTION & PARTS LIST FOR CAT LOADER #114CO		-$ 1,469.99
EFT39927	26/06/2025	COLLIE BIN HIRE	INVOICES BELOW		-$ 4,444.00
11465	31/05/2025		SKIP BIN HIRE DEPOT MAY 2025, SKIP BIN HIRE MINNINGUP POOL X9 MAY 2025, SKIP BIN X 2 HIRE BLACK DIAMOND X 9 MAY 2025	$ 2,156.00	
11476	11/06/2025		PUMP OUT RV DUMP POINTS AT COLLIE VISITORS CENTRE - 04.06.2025	$ 902.00	
11482	18/06/2025		PUMP OUT RV DUMP POINT AT TRUCK BAY 13.06.2025	$ 902.00	
11481	18/06/2025		PUMP OUT RV DUMP POINTS AT TRUCK BAY 08.06.2025	$ 484.00	

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39928	26/06/2025	WATER CORPORATION	INVOICES BELOW		-$ 6,956.93
0222 9006823797	29/05/2025		WALLSEND SHOWGROUNDS WATER USE AND SERVICE CHARGE 28/03/2025 - 27/05/2025,	$ 519.93	
0101 9006847342	29/05/2025		COALFIELDS RD STREET WATER USE AND SERVICE CHARGE 23/03/2025 - 28/05/2025,	$ 1,810.42	
0146 9006846155	29/05/2025		HEBE PARK 9 WELLINGTON BVD STREET WATER USE AND SERVICE CHARGE 26/03/2025 - 28/05/2025,	$ 1,393.09	
0151 9006815439	29/05/2025		FINLAY GARDENS LOT 2883THROSSELL ST COLLIE WATER USE AND SERVICE CHARGE 26/03/2025 - 28/05/2025,	$ 1,190.30	
0173 9006815332	29/05/2025		THROSSELL STREET VERGE WATER USE AND SERVICE CHARGE 26/03/2025 - 28/05/2025,	$ 719.22	
0188 9006815340	29/05/2025		TRUCK BAY TOILETS THROSSELL STREET WATER USE AND SERVICE CHARGE 26/03/2025 - 28/05/2025	$ 1,323.97	
EFT39929	26/06/2025	WA DISTRIBUTORS	ROCHE PARK KIOSK EXPENSES - CONFECTIONERY, SPORTS DRINKS		-$ 411.70
EFT39930	26/06/2025	WREN OIL	PUMP OUT OF BULK WASTE OIL AT WASTE TREATMENT STATION		-$ 264.00
EFT39931	26/06/2025	WEED PEST & VERMIN CONTROL - NEIL FRASER	SPRAYING OF BLACKBERRY (RIVER BANK AREA BANKS ROAD HARRIS RIVER)		-$ 247.50
EFT39932	30/06/2025	TILMA GROUP PTY LTD	TOURISM AND MARKETING PROJECT - EVENTS TOOLKIT		-$ 6,596.70
EFT39933	30/06/2025	ARROW BRONZE	CEMETERY PLAQUE REQUEST - O'DRISCOLL		-$ 461.18
EFT39934	30/06/2025	ANNA FARRELL	SOCIAL WOMEN'S NETBALL UMPIRE PAYMENT		-$ 45.00
EFT39935	30/06/2025	ALLANSON BUSHFIRE BRIGADE	PAYMENT FOR BRIGADE TO BURN/PATROL/MOP UP GREEN WASTE PILES AT TRANSFER STATION 12.06.2025		-$ 1,000.00
EFT39936	30/06/2025	A HORRIDGE	RATES REFUND FOR ASSESSMENT A3073		-$ 333.25
EFT39937	30/06/2025	ASK WASTE MANAGEMENT PTY LTD	INVOICES BELOW		-$ 20,575.50
INV-0282	24/06/2025		PROVISION OF LANDFILL CLOSURE MANAGEMENT PLAN IN ACCORDANCE WITH DWER REQUIREMENTS AND METHODOLOGY	$ 17,110.50	
INV-0283	24/06/2025		PROVISION OF STORMWATER & LEACHATE MANAGEMENT PLAN IN ACCORDANCE WITH DWER REQUIREMENTS AND METHODOLOGY	$ 3,465.00	
EFT39938	30/06/2025	J. BLACKWOOD & SON PTY LTD	TRIO DOOR CLOSER SILVER 120KG		-$ 369.60
EFT39939	30/06/2025	COLLIE FREIGHTLINES	FREIGHT FOR DELIVERY FROM JAPANESE TRUCK & BUS SPARES		-$ 376.99
EFT39940	30/06/2025	SCOTT CHRISTINGER	INVOICES BELOW		-$ 2,345.20
INV-1003	16/05/2025		REPLACEMENT 2 X LIGHTS IN WOMEN'S EXTERNAL CHANGEROOMS AT ROCHE PARK	$ 198.00	
INV-1057	23/06/2025		REPLACE METER BOX AT WALLSEND GROUND	$ 2,147.20	
EFT39941	30/06/2025	BOC LIMITED	MONTHLY RENTAL FOR MEDICAL OXYGEN BOTTLES (SIZE C): 28/04/2025 - 28/05/2025		-$ 14.26
EFT39942	30/06/2025	CARDINAL CONTRACTORS	100MM-400MM ROCK (LATERITE LOCAL) FOR RETENTION BASIN IN FORREST STREET		-$ 2,761.00
EFT39943	30/06/2025	COLLIE RAILWAY STATION GROUP INC	INVOICES BELOW		-$ 281.80
2018450091	27/05/2025		REIMBURSEMENT FOR ELECTRICITY PAYABLE AS PER SUB METER PERIOD UNTIL 21/05/2025,	$ 73.13	
0099 9013946031	29/05/2025		WATER REIMBURSEMENT FOR THE PERIOD OF 26/03/2025 - 28/05/2025,	$ 208.67	
EFT39944	30/06/2025	CRESCENT CONVEYANCERS	INVOICES BELOW		-$ 1,495.66
A2870	30/06/2025		RATES REFUND FOR ASSESSMENT A2870	$ 666.50	
A4822	30/06/2025		RATES REFUND FOR ASSESSMENT A4822	$ 829.16	
EFT39945	30/06/2025	CARBONE BROS PTY LTD	WIDEN & RESEAL SHOULDERS TO 0.5M, RESEAL AND INSTALL AUDIBLE EDGE LINE TO HARRIS RIVER ROAD		-$ 63,580.22
EFT39946	30/06/2025	COLLIE COMMUNITY PUBLISHERS (CRV BULLETIN)	INVOICES BELOW		-$ 359.56
1169992847	05/06/2025		BULLETIN - 5 JUNE - NOTICE OF PUBLIC ADVERTISEMENT OF DEVELOPMENT PROPOSAL - COLLIE WILLIAMS ROAD, PALMER.	$ 190.30	
1200406112	12/06/2025		BULLETIN NOTICE - COLLIEBURN CARDIFF BUSH FIRE BRIGADE AGM - EDITION 12 JUNE 2025	$ 108.76	
1230576397	19/06/2025		POSITION VACANT ADVERTISEMENT	$ 60.50	

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39947	30/06/2025	THE COLLIE PROPERTY TRUST (CLUB HOTEL MOTEL)	INVOICES BELOW		-$ 549.89
19197	13/06/2024		COUNCIL REFRESHMENTS	$ 140.00	
33320	05/08/2024		COUNCIL REFRESHMENTS	$ 61.99	
47623	13/09/2024		COUNCIL REFRESHMENTS	$ 139.96	
76041	04/12/2024		WINE - CHARLOTTE WHITE WORKSHOP	$ 105.94	
45995	10/09/2025		COUNCIL REFRESHMENTS	$ 102.00	
EFT39949	30/06/2025	COLLIE PETS AND VETS	INVOICES BELOW		-$ 2,260.00
332159	06/05/2025		MICROCHIPPING	$ 50.00	
332106	06/05/2025		EUTHANASIA SERVICES	$ 250.00	
332323	08/05/2025		EUTHANASIA SERVICES	$ 280.00	
332579	12/05/2025		EUTHANASIA SERVICES	$ 140.00	
332741	14/05/2025		EUTHANASIA SERVICES	$ 220.00	
332810	15/05/2025		EUTHANASIA SERVICES	$ 110.00	
333092	19/05/2025		MICROCHIPPING	$ 50.00	
333201	20/05/2025		EUTHANASIA SERVICES	$ 140.00	
1000041	21/05/2025		EUTHANASIA SERVICES	$ 140.00	
1000042	21/05/2025		EUTHANASIA SERVICES	$ 550.00	
1000160	23/05/2025		EUTHANASIA SERVICES	$ 110.00	
1000498	30/05/2025		EUTHANASIA SERVICES	$ 110.00	
1001535	23/06/2025		EUTHANASIA SERVICES	$ 110.00	
EFT39950	30/06/2025	COLLIE SALVAGE & HARDWARE	8MM X 100M ROLLS OF SILVER MONO POLY ROPE		-$ 453.00
EFT39951	30/06/2025	EDGE LANDWORKS PTY LTD	MAF MITIGATION WORKS IN THE SHIRE OF COLLIE, INCLUDING COLLIE AIR STRIP - BUSHFIRE MITIGATION GRANT		-$ 17,000.00
EFT39952	30/06/2025	EMILY TREWHITT	SOCIAL WOMEN'S NETBALL UMPIRE PAYMENT	-$ 15.00	-$ 15.00
EFT39953	30/06/2025	DEPARTMENT OF FIRE AND EMERGENCY SERVICES	2024/25 ESL QUARTER 4 REMITTANCE		-$ 53,864.10
EFT39954	30/06/2025	FEDERAL HOTEL	12 MEALS - FIRE INCIDENT # 716698 - SALVATION ROAD		-$ 540.00
EFT39955	30/06/2025	FULTON HOGAN INDUSTRIES PTY LTD	STEERE STREET 30MM OVERLAY SHIRE OF COLLIE SURFACING WORKS		-$ 41,090.50
EFT39956	30/06/2025	GEMMA O'BRIEN	SOCIAL WOMEN'S NETBALL UMPIRE PAYMENT - TERM 2		-$ 315.00
EFT39957	30/06/2025	HEATLEY SALES PTY LTD	STAFF PPE7 CONQUEST HIGH CUT ZIP F/GLASS TOE		-$ 205.98
EFT39958	30/06/2025	HARRIS RIVER FIRE BRIGADE	BROTHER TN253 BLACK TONER FOR PRINTER		-$ 224.00
EFT39959	30/06/2025	HAZEL MARY BOARDMAN	RATES REFUND FOR ASSESSMENT A114		-$ 693.29
EFT39960	30/06/2025	INTERFIRE AGENCIES	PPE FOR MEMBERS - GLOVES - LGGS		-$ 451.00
EFT39961	30/06/2025	KATY JEAN O'BRIEN	SOCIAL WOMEN'S NETBALL UMPIRE PAYMENT		-$ 225.00
EFT39962	30/06/2025	MOORE AUSTRALIA PTY LTD	MOORE AUSTRALIA (WA) - INVITATION 2025 LOCAL GOVERNMENT ANNUAL FINANCIAL REPORTING WORKSHOP		-$ 2,310.00
EFT39963	30/06/2025	IXOM OPERATIONS PTY LTD	SERVICE FEES FOR CHLORINE CYLINDERS AT COLLIE SWIMMING POOL - 70KG & 920KG		-$ 175.62
EFT39964	30/06/2025	OFFICE OF THE AUDITOR GENERAL	FEE FOR ATTEST AUDIT FOR THE YEAR ENDED 30 JUNE 2024		-$ 60,830.00
EFT39965	30/06/2025	OZARB TREE SERVICE	REMOVE DAMAGED TREE AT CARAVAN PARK		-$ 440.00
EFT39966	30/06/2025	PICTON CIVIL PTY	CARTAGE OF SAND TO THE WASTE FACILITY TO MEET LICENCE COMPLIANCE.		-$ 2,420.00
EFT39967	30/06/2025	PROMACO GEODRAFT	TOURISM AND MARKETING DESIGN PROJECT - MAP CARTOGRAPHY -SOUTH32 TOURISM PROJECT		-$ 3,300.00
EFT39968	30/06/2025	PAULL AND WARNER RESOURCES PTY LTD T/AS SOUTH WEST FIRE	INVOICES BELOW		-$ 42,185.70
I39119	25/06/2025		ANNUAL SERVICE, FAULT FIND AND REPAIRS OF THE CARDIFF 4.4 APPLIANCE - LGGS	$ 33,513.30	
I39141	25/06/2025		ANNUAL SERVICE AND INSPECTION OF THE COLLIE PRESTON 2.4 APPLIANCE - LGGS	$ 8,672.40	

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39969	30/06/2025	REUBEN'S NEWSAGENCY	INVOICES BELOW		-$ 1,776.88
ADMIN PAPERS SEP 24	29/09/2024		NEWSPAPERS FOR ADMIN FOR SEP 24	$ 17.60	
I0000035805	07/10/2024		2 X MULTI PEN + 1 X PAINT PEN	$ 16.90	
ADMIN PAPERS OCT 24	03/11/2024		NEWSPAPERS FOR ADMIN OCT 2024	$ 22.00	
ADMIN PAPERS NOV 24	01/12/2024		NEWSPAPERS FOR ADMIN FOR NOV 24	$ 17.60	
I0000036288	13/12/2024		2025 DIARIES FOR STAFF	$ 808.31	
I0000036314	17/12/2024		CLIP FRAMES FOR EMERGENCY EVACUATION POSTERS - A3 - LIBRARY X 3, CLIP FRAMES FOR EMERGENCY EVACUATION POSTERS - A3 WASTE TRANSFER STATION X 4	$ 301.00	
ADMIN PAPERS DEC 24	29/12/2024		NEWSPAPERS FOR ADMIN FOR DEC 2024	$ 17.60	
I0000036420	03/01/2025		2025 DIARY FOR STAFF	$ 46.99	
I0000036449	07/01/2025		2025 DIARY FOR STAFF	$ 16.99	
I0000036501	15/01/2025		2025 DIARIES FOR STAFF	$ 43.98	
ADMIN PAPERS JAN 25	02/02/2025		NEWSPAPERS FOR ADMIN JAN 25	$ 23.90	
LIB PAPERS FEB 25	02/03/2025		NEWSPAPERS & MAGAZINES FOR LIBRARY FEB 2025	$ 109.09	
ADMIN PAPERS FEB 25	02/03/2025		NEWSPAPERS FOR ADMIN FOR FEB 25	$ 17.60	
I0000036828	05/03/2025		A3 SNAP FRAMES FOR THE WASTE TRANSFER STATION	$ 86.00	
I0000036904	14/03/2025		2025 WALL PLANNER CALENDAR	$ 17.95	
LIB PAPERS MAR 25	30/03/2025		NEWSPAPERS & MAGAZINES FOR LIBRARY MAR 2025	$ 109.09	
ADMIN PAPERS MAR 25	30/03/2025		NEWSPAPERS FOR ADMIN FOR MAR 2025	$ 17.60	
LIB PAPERS APR 25	27/04/2025		LIBRARY PAPERS APR 25	$ 86.68	
EFT39970	30/06/2025	SCAVENGER SUPPLIES Pty Ltd	PLEASE PROVIDE REPLACEMENT FULL FACE RESPIRATORS AND FILTERS FOR BFB VOLUNTEERS - LGGS		-$ 11,783.20
EFT39971	30/06/2025	STEPHANIE ANN ROBINSON	SOCIAL WOMEN'S NETBALL UMPIRE PAYMENT		-$ 45.00
EFT39972	30/06/2025	SUPERKINGS HOTELS PTY LTD	CATERING - ORDINARY COUNCIL MEETING 08/04/2025		-$ 260.00
EFT39973	30/06/2025	THE FIFTEENTH CREATIVE	TOURISM & MARKETING PROJECT - CONTENT PLAN AND CALENDAR - SOUTH32 TOURISM PROJECT		-$ 4,400.00
EFT39974	30/06/2025	TEAM GLOBAL EXPRESS PTY LTD	FREIGHT FOR DELIVERY TO PATHWEST FROM EHO		-$ 49.69
EFT39975	30/06/2025	TRENAYA HARTLEY	SOCIAL WOMEN'S NETBALL UMPIRE PAYMENT		-$ 90.00
EFT39976	30/06/2025	VON BIBRA SIGNS	ADDITIONAL PARTS TO COMPLETE WASTE FACILITY ENTRANCE SIGN TO MEET DWER COMPLIANCE.		-$ 180.00
EFT39977	30/06/2025	WENDY MARGARET NELSON	RATES REFUND FOR ASSESSMENT A4304		-$ 666.50
EFT39978	30/06/2025	WEED PEST & VERMIN CONTROL - NEIL FRASER	CHEMICAL FREE WEED CONTROL WYVERN PARK		-$ 286.00
EFT39979	09/07/2025	BARRIER REEF GROUP BUNBURY PTY LTD	REFUND OF BCITF FEE INCORRECTLY PAID		-$ 77.99
EFT39980	09/07/2025	COLLIE TOWING	TOWING OF 1 ABANDONED VEHICLE		-$ 165.00
EFT39981	09/07/2025	ARROW BRONZE	CEMETERY PLAQUE		-$ 533.14
EFT39982	09/07/2025	ATC WORK SMART INC	INVOICES BELOW		-$ 5,020.48
GT41418	15/05/2025		MECHANIC TRAINEE FOR PERIOD 27/04/2025 - 10/05/2025	$ 2,510.24	
GT42188	26/06/2025		MECHANIC TRAINEE FOR PERIOD 08/06/2025 - 21/06/2025	$ 2,510.24	
EFT39983	09/07/2025	BUILDING COMMISSION	BUILDING PERMITS X 15 (SERVICES LEVY) JUN 25		-$ 1,869.48
EFT39984	09/07/2025	CLAIRE FIONA KELLOW	RATES REFUND FOR ASSESSMENT A2844		-$ 822.85
EFT39985	09/07/2025	COLLIE PETS AND VETS	INVOICES BELOW		-$ 77.55
333119	19/05/2025		BOARDING ASSISTANCE - CREDIT NOTE APPLIED $197.45	$ 275.00	
EFT39986	09/07/2025	HENDERSON HARDWARE	CUTTING KEY FOR LIBRARY UNDERCROFT OFFICE		-$ 9.00
EFT39987	09/07/2025	HARMONIC ENTERPRISES PTY LTD T/AS HARMONIC IT	INVOICES BELOW		-$ 3,563.56
2648	18/06/2025		IT SUPPORT - DIRECT HOSTING - MAY 2025	$ 495.00	
2683	26/06/2025		IT SUPPORT - SUPPORT HOURS FOR JUNE 2025	$ 3,068.56	
EFT39988	09/07/2025	JANE MCLEAN	RATES REFUND FOR ASSESSMENT A2347		-$ 1,069.80
EFT39989	09/07/2025	MARTIN PHILLIP CRAKER	RATES REFUND FOR ASSESSMENT A3628 3060		-$ 1,027.93

Chq/EFT	Date	Name	Description	Amount	Payment
EFT39990	09/07/2025	PLANNING INSTITUTE OF AUSTRALIA	JOB ADVERTISEMENT MANAGER PLANNING AND DEVELOPMENT		-$ 360.00
EFT39991	09/07/2025	PREMIER COAL PTY LTD	Q4 24/25 SAND REMOVAL FEE - 1399.51 TONNES		-$ 2,561.10
EFT39992	09/07/2025	COLLIE RIDGE RESORT	ACCOMMODATION FOR CONSULTING SERVICES FOR COLLIE POOL CHLORINE DOSING X 4 NIGHTS		-$ 1,000.00
EFT39993	09/07/2025	RAMILO NOMINEES PTY LTD ATF FAMILO UNIT TRUST	RATES REFUND FOR ASSESSMENT A2636		-$ 1,175.16
EFT39994	09/07/2025	SOUTHERN LOCK & SECURITY	NEW LOCK & BARREL INSTALLATION		-$ 331.98
EFT39996	09/07/2025	STATION MOTORS	SERVICE CO102 CHECKING OF ENGINE LIGHT SHOWING ON		-$ 120.00
EFT39997	09/07/2025	SCOPE BUSINESS IMAGING	INVOICES BELOW		-$ 3,698.14
712387	30/06/2025		LIBRARY PHOTOCOPIER SERVICE PLAN AND SUPPORT 31/05/2025 - 30/06/2025	$ 421.44	
712386	30/06/2025		DEPOT PHOTOCOPIER SERVICE PLAN AND SUPPORT 31/05/2025 - 30/06/2025	$ 329.60	
712385	30/06/2025		ADMIN PHOTOCOPIER SERVICE PLAN AND SUPPORT 31/05/2025 - 30/06/2025	$ 2,947.10	
EFT39998	09/07/2025	TELAIR PTY LTD	TELAIR INTERNET SERVICE - MONTHLY FEE		-$ 484.00
EFT39999	09/07/2025	TLC CARPET AND TILE CLEANING	INVOICES BELOW		-$ 14,364.93
INV-1461	30/06/2025		CLEANING OF TOILETS FACILITIES AT FOOTBALL GROUNDS AND VELODROME	$ 2,750.00	
INV-1442	30/06/2025		CLEANING OF PUBLIC TOILET AND BBQ CLEANING FOR JUNE 2025	$ 11,614.93	
EFT40000	09/07/2025	VALERIE MERLE FERGUSON	RATES REFUND FOR ASSESSMENT A2612		-$ 1,441.97
EFT40001	09/07/2025	SYNERGY	INVOICES BELOW		-$ 21,202.10
BAM027	09/07/2025		WASTE TRANSFER STATION ELECTRICITY 03.04.2025 - 04.06.2025	$ 728.13	
BAM035	09/07/2025		COLLIE ART GALLERY ELECTRICITY 02.04.2025 - 04.06.2025	$ 1,270.23	
134200.05	09/07/2025		STREET LIGHTING 09.04.2025 - 09.06.2025	$ 125.32	
134200.05	09/07/2025		STREET LIGHTING 02.04.2025 - 02.06.2025	$ 353.32	
0805	09/07/2025		HERITAGE PARK ELECTRICTY 26.03.2025 - 26.05.2025	$ 130.49	
BAM003	09/07/2025		DEPOT ELECTRICTY 22.05.2025 - 20.06.2025	$ 3,363.14	
0804	09/07/2025		WYVERN PARK ELECTRICITY 28.03.2025-29.05.2025	$ 127.35	
134200.05	09/07/2025		STREET LIGHTING ELECTRICITY 02.04.2025 - 04.06.2025	$ 121.24	
134200.05	09/07/2025		STREET LIGHTING ELECTRICITY 02.04.2025 - 04.06.2025	$ 129.36	
125820.05	09/07/2025		POOL ELECTRICITY 20.05.2025 - 16.06.2025	$ 9,982.49	
134200.05	09/07/2025		STREET LIGHTING ELECTRICITY 28.04.2025 - 27.05.2025	$ 54.69	
F052	09/07/2025		PRESTON ROAD BUSH FIRE BRIGADE ELECTRICITY 25.03.2025 - 26.05.2025	$ 254.67	
0692	09/07/2025		ALLANSON RESERVE ELECTRICITY 29.04.2025 - 26.06.2025	$ 135.44	
0696	09/07/2025		WALLSEND GROUND / SHOWGROUND ELECTRICITY 20.05.2025 - 16.06.2025	$ 1,021.53	
BAM007	09/07/2025		LIBRARY ELECTRICITY 02.04.2025 - 04.06.2025	$ 787.34	
BAM002	09/07/2025		ADMINISTRATION OFFICE ELECTRICITY 20.05.2025 - 16.06.2025	$ 1,311.16	
0164	09/07/2025		ROCHE PARK ELECTRICITY 20.05.2025 - 16.06.2025	$ 1,306.20	
EFT40002	15/07/2025	WA AUSTRALIAN SERVICES UNION WA (ASU)	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 157.00
EFT40003	15/07/2025	AIR LIQUIDE WA PTY LTD	MONTHLY GAS CYLINDER RENTAL FOR DEPOT WORKSHOP		-$ 28.16
EFT40004	15/07/2025	AUSTRALIAN TAXATION OFFICE	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 39,433.00
EFT40005	15/07/2025	J. BLACKWOOD & SON PTY LTD	INVOICES BELOW		-$ 220.00
EFT40006	15/07/2025	BIOBAG WORLD AUSTRALIA PTY LTD	DOG WASTE BAGS ON ROLL - INCLUDING FREIGHT		-$ 1,584.00
EFT40007	15/07/2025	COLLIE FREIGHTLINES	FREIGHT FOR DELIVERY FROM STRATA GREEN		-$ 115.19
EFT40008	15/07/2025	SCOTT CHRISTINGER	VISITORS CENTRE REPAIR OF FAULTY LIGHT FITTINGS, VARIOUS TUBES TO BE REPLACED		-$ 3,143.80
EFT40009	15/07/2025	DEPARTMENT OF HUMAN SERVICES	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 174.78
EFT40010	15/07/2025	CLEANAWAY PTY LTD	INVOICES BELOW		-$ 107,988.50
21852084	30/06/2025		RECYCLING COLLECTION AT THE TRANSFER STATION - JUN 24 ,	$ 19,184.49	
21856687	30/06/2025		CUSTOMER SERVICE CENTRE JUN 2025, CLEANAWAY BIN REPAIRS AND MAINTENANCE JUN 2025	$ 88,804.01	
EFT40011	15/07/2025	COLLIE CHAMBER OF COMMERCE & INDUSTRY	SOCIAL NETBALL UMPIRE PAYMENTS X 2 FIRST SEMESTER 2025 - INCLUDING G F PAYMENTS.		-$ 1,260.00
EFT40012	15/07/2025	CARDINAL CONTRACTORS	20T OF WHITE SAND FOR DELIVERY TO SHIRE DEPOT IN COCKIE BEND		-$ 624.81

Chq/EFT	Date	Name	Description	Amount	Payment
EFT40013	15/07/2025	COLLIE AUTO TECH	FAULT FIND AND RECTIFY WHEEL BEARING ISSUE ON THE ALLANSON BFB FAST FILL PUMP TRAILER -LGGS		-$ 345.10
EFT40014	15/07/2025	COMFORTSTYLE COLLIE	IMPERIAL 1500 WORKSTATION DESK, ECLIPSE CHAIR COUNCIL OFFICES		-$ 978.00
EFT40015	15/07/2025	COLLIE COMMUNITY PUBLISHERS	ANNUAL ELECTORS MEETING ADVERTISEMENT		-$ 122.36
EFT40016	15/07/2025	LANDGATE	INVOICES BELOW		-$ 312.78
405023	21/06/2025		UNIMPROVED VALUES CHARGEABLE SCHEDULE	$ 111.00	
405021	21/06/2025		UNIMPROVED VALUES CHARGEABLE	$ 111.00	
405395	28/06/2025		GROSS RENTAL VALUATIONS	$ 90.78	
EFT40017	15/07/2025	EASIALARY PTY LTD	PAYROLL DEDUCTIONS/CONTRIBUTIONS		-$ 1,474.45
EFT40018	15/07/2025	4PARK PTY LTD / T/A FORPARK AUSTRALIA	INVOICES BELOW		-$ 200.20
INV103130A	27/06/2025		TODDLER SWING SEAT	$ 134.20	
INV103130B	27/06/2025		FREIGHT FOR SWING BARBARA SMITH PARK	$ 66.00	
EFT40019	15/07/2025	FUEL TECHNOLOGY PTY LTD	SIX MONTHLY REPLACEMENT OF DIESEL STORAGE TANK BREATHER ELEMENT SUPPLY & INSTALL		-$ 269.50
EFT40020	15/07/2025	GRACE RECORDS MANAGEMENT AUST PTY LTD	RECORDS MANAGEMENT COLLECTION AND DESTRUCTION 50 CARTONS		-$ 613.25
EFT40021	15/07/2025	HEATLEY SALES PTY LTD	STAFF PPE HIGH CUT ZIP WITH FIBREGLASS TOE CAP SAFETY BOOT		-$ 182.12
EFT40022	15/07/2025	ILLION AUSTRALIA PTY LTD T/A ILLION TENDERLINK	ADVERTISING OF TENDER RFT01-2025 WASTE TRANSFER STATION PLANT SHED		-$ 181.50
EFT40023	15/07/2025	JAPANESE TRUCK & BUS SPARES PTY LTD	PARTS FOR ISUZU TRUCK (CO8554) - SEAT BELT, CHECK STRAP FRONT DOOR		-$ 620.65
EFT40024	15/07/2025	LG BEST PRACTICES PTY LTD	ASSISTANCE WITH RATES SCHEDULES, VALUATION INPUT AND RECONCILIATION, ASSET REGISTER		-$ 528.00
EFT40025	15/07/2025	LIVING SPRINGS WATER PTY LTD	ADMIN OFFICE - SPRINGWATER DELIVERY 20.06.2025 X 6		-$ 126.00
EFT40026	15/07/2025	IAN H MIFFLING	MILEAGE CLAIM 224 KM @ $0.88 PER KM		-$ 472.56
EFT40027	15/07/2025	OMNICOM MEDIA GROUP AUSTRALIA PTY LTD	ADVERTISING TENDER FOR COLLIE WASTE TRANSFER STATION – DESIGN & CONSTRUCT, NEW PLANT SHED AND COMPOUND		-$ 717.89
EFT40028	15/07/2025	PREMIER COAL PTY LTD	INVOICES BELOW		-$ 2,462.34
A4605	30/06/2025		RATES REFUND FOR ASSESSMENT A4605	$ 820.78	
A4870	30/06/2025		RATES REFUND FOR ASSESSMENT A4870	$ 820.78	
A4967	30/06/2025		RATES REFUND FOR ASSESSMENT A4967	$ 820.78	
EFT40029	15/07/2025	PRATICO MECHANICAL AND DIAGNOSTICS PTY LTD T/A HYDRAULINK SOUTH WEST	REPLACE AIR HOSE ON TRUCK # 32 (CO19468) - EMERGENCY SERVICES - LGGS		-$ 538.11
EFT40030	15/07/2025	PAULL AND WARNER RESOURCES PTY LTD T/AS SOUTH WEST FIRE	INVOICES BELOW		-$ 11,360.39
I39143	27/06/2025		ANNUAL SERVICE AND REPAIRS ALLANSON 3.4U APPLIANCE - LGGS	$ 9,129.92	
I39144	27/06/2025		4X REPLACEMENT 30M X 25MM PERCOLATING DELIVERY LINE WITH STORZ FITTING	$ 2,230.47	
EFT40031	15/07/2025	STATION MOTORS	SERVICE VEHICLE CO102		-$ 570.55
EFT40032	15/07/2025	SOS OFFICE EQUIPMENT	PHOTOCOPIER BILLING FOR SES PRINTER - LGGS		-$ 112.56
EFT40033	15/07/2025	SCAVENGER SUPPLIES Pty Ltd	REPLACE BURN OVER BLANKET TO CARDIFF 4.4 & LT, HARRIS 1.4 AND ALLANSON LT - LGGS		-$ 3,454.00
EFT40034	15/07/2025	SHAH & PATEL PTY LTD - T/A SIZZLES DELI	INVOICES BELOW		-$ 237.50
INV-0210	30/06/2025		LUNCHES TO THE SES MEMBERS COMPLETING DFES TRAINING NET CONTROL OPS - LGGS	$ 64.80	
INV-0213	30/06/2025		LIGHT SUPPER FOR THE SHIRE OF COLLIE BFAC MEETING 30.06.2025	$ 172.70	
EFT40035	15/07/2025	TYREPOWER	PUNCTURE REPAIR 100CO		-$ 45.00
EFT40036	15/07/2025	TEAM GLOBAL EXPRESS PTY LTD	FREIGHT FOR DELIVERY FROM STEWART & HEATON		-$ 101.51
EFT40037	15/07/2025	COLLIE BIN HIRE	PUMP OUT RV DUMP POINTS AT TRUCK BAY - 23.06.2025		-$ 421.30
30062025	30/06/2025	SHIRE OF DONNYBROOK	COUNCIL MEMBER ATTENDANCE AT WALGA CEO PERFORMANCE REVIEW TRAINING		-$ 369.52
Payment by Petty Cash					
EFT39995	09/07/2025	PETTY CASH REIMBURSEMENT	INVOICES BELOW		- 253.72
PETTY CASH APR 25	01/05/2025		POST OFFICE - P O BOX RENTAL, POST OFFICE - WWC CHECK	$ 175.00	
PETTY CASH MAY 25	30/05/2025		CAP THREADED 3/4, SOCKET, PVC CAP, PIPE, SADDLE 20MM GALV, PLACID ARK ROADHOUSE: MEALS FOR TRAINING COURSE	$ 78.72	

Chq/EFT	Date	Name	Description	Amount	Payment
Payments made by BPAY					
		NO BPAY PAYMENTS			
Payments made by direct debit					
DD33047.1	21/06/2025	AMPOL	INVOICES BELOW		- 8,918.78
9431370143	09/05/2025		DIESEL DELIVERY AMPOL 2500LTR 09/05/2025	4321.90	
9431419253	23/05/2025		DIESEL DELIVERY 23/05/2025 2600LTR	4596.88	
DD33130.2	16/06/2025	WA TREASURY CORPORATION	LOAN REPAYMENT 122 16/06/2025		- 25,166.47
DD33130.3	26/06/2025	WA TREASURY CORPORATION	LOAN REPAYMENT LOAN 117 26/06/2025		- 52,791.80
DD33134.1	24/06/2025	AUSTRALIA POST	LIBRARY - MAY 2025 POSTAGE		- 99.60
DD33135.1	24/06/2025	AUSTRALIA POST	ADMIN - MAY 2025 POSTAGE		- 274.96
DD33172.1	08/07/2025	3E ADVANTAGE PTY LTD	DEPOT PHOTOCOPIER JUL 25		- 181.50
DD33173.1	01/07/2025	BOQ FINANCE (AUST) LIMITED	COMPUTER LEASE - JULY 25		- 5,067.52
DD33174.1	04/07/2025	FINRENT PTY LTD	LEASE LIABILITY - ADMIN PLOTTER LEASE - JULY 2025		- 402.59
DD33175.1	01/07/2025	LES MILLS ASIA PACIFIC	LES MILLS SIGNATURE PARTNERSHIP PACKAGE		- 739.06
DD33186.1	15/07/2025	SG FLEET AUSTRALIA PTY LTD	VEHICLE LEASE COMMUNITY EMERGENCY SERVICES MANAGER VEHICLE (CO31241)		- 1,644.88
DD33212.1	15/07/2025	WA TREASURY CORPORATION	LOAN PREPAYMENT LOAN 125 COLLIE GOLF CLUB 15/07/2025		- 20,623.46
DD33029.1	21/06/2025	IINET CONNECT BETTER	NBN25 SATELLITE MONTHLY CHARGE (21/06/2025 - 21/07/2025) - COLLIE PRESTON BFB		- 224.95
DD33032.1	16/06/2025	3E ADVANTAGE PTY LTD	ADMIN PHOTOCOPIER (JUN 2025)		- 566.50
Payments made by purchasing card					
DD33036.1	16/06/2025	COLES SUPERMARKET (RETAIL DECISIONS PTY LTD)	INVOICES BELOW		- 1,249.50
274400	21/05/2025		MILK FOR ADMIN BUILDING	$ 12.00	
645000	26/05/2025		KITCHEN SUPPLIES CHUX KITCHEN, MOCONNA CLASSIC, MILO CHOC, MILK SKIM & FULL, BRUSH SCRUB	$ 117.40	
472800	05/05/2025		KIOSK STOCK FOR RESALE - DRINKS, GOODS FOR TOASTIES, SAUSAGE ROLLS, MILK	$ 192.75	
425100	12/05/2025		KIOSK STOCK FOR RESALE - BREAD (TOASTIES), CHOCOLATES, MILK AND FRUIT.	$ 87.63	
446900	14/05/2025		ROCHE PARK KIOSK EXPENSES - STATIONERY EXPENSES , CLEANING EXPENSES, FIRST AID SUPPLIES	$ 237.95	
566400	21/05/2025		ROCHE PARK KIOSK EXPENSES - CONFECTIONERY, CLEANING EXPENSES	$ 158.85	
696600	29/05/2025		ROCHE PARK KIOSK EXPENSES - CONFECTIONERY, MILK	$ 34.50	
182600	08/05/2025		OFFICE SUPPLIES - RAW SUGAR AND DUCK GEL DISCS	$ 21.20	
426200	28/05/2025		FAREWELL CARDS X 2, KITCHEN AND CLEANING SUPPLIES -	$ 81.95	
65100	16/05/2025		RANGER SUPPLIES CAT LITTER, DOG FOOD	$ 96.00	
489300	08/05/2025		LIBRARY COFFEE AND MILK	$ 43.00	
7600	29/05/2025		GROCERIES - LIBRARY EVENTS	$ 24.00	
287800	01/05/2025		SIMPLY CLAY CLOMPING 10KG, MR MUSCLE DISINFECTANT SPRAY	50.2	
619100	08/05/2025		ORANGE JUICE, MILO , SAUSAGES, COLESLAW, ONIONS, G/F BREAD	$ 74.67	
807900	12/05/2025		MILK FOR ADMIN BUILDING	$ 17.40	
DD33179.1	14/07/2025	COLES SUPERMARKET (RETAIL DECISIONS PTY LTD)	INVOICES BELOW		- 630.25
650700	10/06/2025		CATERING FOR STAFF FAREWELL, CHEESE, CRACKERS, DIP	$ 58.45	
440400	26/06/2025		COFFEE BEANS FOR ADMIN OFFICE, CARD FOR STAFF	$ 58.00	
312300	18/06/2025		LIBRARY COFFEE AND MILK	$ 38.00	
445400	13/06/2025		MILK FOR ADMIN BUILDING	$ 14.90	
754800	19/06/2025		MILK FOR COUNCIL	$ 15.80	
769400	25/06/2025		DEPOT KITCHEN SUPPLIES COLES, MILO, TISSUES, SCOURER	$ 96.60	
117900	26/06/2025		MILK FOR COUNCIL REFRESHMENTS	$ 17.30	
384800	12/06/2025		ROCHE PARK CLEANING EXPENSES	$ 181.30	
99400	18/06/2025		ROCHE PARK KIOSK EXPENSES	$ 149.90	

Chq/EFT	Date	Name	Description	Amount	Payment
DD33154.1	21/06/2025	AMPOLCARD	INVOICES BELOW		- 2,146.99
E1728	05/05/2025		AMPOL FUEL CARD - MAY 2025 (104CO)	$ 56.68	
E4193	29/05/2025		AMPOL FUEL CARD - MAY 2025 (102CO)	$ 76.88	
E1109	30/04/2025		AMPOL FUEL CARD - MAY 2025 (100CO)	$ 56.05	
E13454	06/05/2025		AMPOL FUEL CARD - MAY 2025 (100CO)	$ 58.74	
E1937	07/05/2025		AMPOL FUEL CARD - MAY 2025 (CO31241)	$ 168.41	
E3060	19/05/2025		AMPOL FUEL CARD - MAY 2025 (CO31241)	$ 130.98	
E1232	01/05/2025		AMPOL FUEL CARD - MAY 2025 (107CO)	$ 116.93	
E2450	13/05/2025		AMPOL FUEL CARD - MAY 2025 (107CO)	$ 100.55	
E3415	21/05/2025		AMPOL FUEL CARD - MAY 2025 (107CO)	$ 98.97	
E4266	30/05/2025		AMPOL FUEL CARD - MAY 2025 (107CO)	$ 101.17	
E7150	01/05/2025		AMPOL FUEL CARD - MAY 2025 (CEO),	$ 83.95	
E2068	08/05/2025		AMPOL FUEL CARD - MAY 2025 (104CO)	$ 72.13	
E1988	08/05/2025		AMPOL FUEL CARD - MAY 2025 (CEO)	$ 82.75	
E2430	13/05/2025		AMPOL FUEL CARD - MAY 2025 (CEO)	$ 91.44	
E3433	21/05/2025		AMPOL FUEL CARD - MAY 2025 (CEO)	$ 99.92	
E4001	28/05/2025		AMPOL FUEL CARD - MAY 2025 (CEO)	$ 95.30	
E2369	12/05/2025		AMPOL FUEL CARD - MAY 2025 (100CO)	$ 66.50	
E3645	23/05/2025		AMPOL FUEL CARD - MAY 2025 (100CO)	$ 82.76	
E2454	13/05/2025		AMPOL FUEL CARD - MAY 2025 (104CO)	$ 77.25	
E607	19/05/2025		AMPOL FUEL CARD - MAY 2025 (104CO)	$ 78.22	
E3552	22/05/2025		AMPOL FUEL CARD - MAY 2025 (104CO)	$ 69.04	
E3916	27/05/2025		AMPOL FUEL CARD - MAY 2025 (104CO)	$ 69.73	
E495	11/05/2025		AMPOL FUEL CARD - MAY 2025 (102CO)	$ 66.93	
E2890	16/05/2025		AMPOL FUEL CARD - MAY 2025 (102CO)	$ 77.89	
E685	26/05/2025		AMPOL Fuel Card - MAY 2025 (102CO)	$ 67.82	
DD33185.1	07/07/2025	WRIGHT EXPRESS AUSTRALIA PTY LTD	INVOICES BELOW		- 500.44
76-1EFB204	22/06/2025		WEX MOTORPASS JUN 25 CARD FEES (1EFB204)	$ 5.50	
76-1DCF765	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (1DCF765)	$ 5.50	
76-CO17526	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (CO17526)	$ 5.50	
76-1EMN510	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (1EMN510)	$ 5.50	
76-1HAA346	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES	$ 13.50	
5639	16/06/2025		WEX MOTORPASS JUN 2025 FUEL AND CARD FEES (1EZE593)	$ 191.51	
76-1HXV736	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (1HXV736)	$ 5.50	
76-1EOB212	22/06/2025		WEX MOTORPASS JU 2025 CARD FEES (1EOB212)	$ 5.50	
128173	23/05/2025		WEX MOTORPASS JUN 2025 FUEL AND CARD FEES (CO31241)	$ 105.89	
4703	05/06/2025		WEX MOTORPASS JUN 2025 FUEL AND CARD FEES (CO31241)	$ 129.04	
76-CO31241	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (CO31241)	$ 5.50	
76-1DAN765	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (1DAN765)	$ 5.50	
76-CO20218	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (CO20218)	$ 5.50	
76-1CXV789	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (1CXV789)	$ 5.50	
76-1CST499	22/06/2025		WEX MOTORPASS JUN 2025 CARD FEES (1CST499)	$ 5.50	

Chq/EFT	Date	Name	Description	Amount	Payment
Corporate Credit Card					
DD33187.2	15/07/2025	BENDIGO BANK CREDIT CARD	2025-26 WA STATE BUDGET LUNCH - CEO & PRESIDENT		-$ 154.76
DD33210.1	14/07/2025	BENDIGO BANK CREDIT CARD	CEO CREDIT CARD FEE		-$ 4.00
Payroll					
SHIRE PAYROLL	2/07/2025	SHIRE PAYROLL	PAYROLL PPE 29/06/2025		-$ 146,352.91
			INCLUDING BELOW REIMBURSEMENTS		
SHIRE PAYROLL	2/07/2025		REIMBURSEMENT FOR FITNESS SUBSCRIPTION	$ 40.00	
	2/07/2025		REIMBURSEMENT FOR FITNESS SUBSCRIPTION	$ 40.00	
	2/07/2025		REIMBURSEMENT FOR LAWNMOWER FUEL	$ 15.07	
SHIRE PAYROLL	16/07/2025	SHIRE PAYROLL	PAYROLL PPE 13/07/2025		-$ 149,651.73
			INCLUDING BELOW REIMBURSEMENTS		
	16/07/2025		REIMBURSEMENT FOR FITNESS SUBSCRIPTION	$ 81.94	
	16/07/2025		REIMBURSMENT FOR HARDWARE SUPPLIES ADMIN OFFICE	66.84	
	16/07/2025		REIMBURSEMENT VEHICLE TRANSFER	20.50	
	16/07/2025		REIMBURSEMENT VEHICLE TRANSFER	$ 20.50	
	16/07/2025		REIMBURSEMENT FITNESS SUBSCRIPTION	$ 63.57	
	16/07/2025		REIMBURSEMENT FITNESS SUBSCRIPTION	$ 40.00	
DD33058.1	30/06/2025	PRECISION ADMINISTRATION SERVICES PTY LTD.	SUPERANNUATION FOR PPE 01.06.2025		-$ 33,291.50
DD33092.1	30/06/2025	PRECISION ADMINISTRATION SERVICES PTY LTD.	SUPERANNUATION FOR PPE 15.06.2025		-$ 33,836.64
Bank Code					
BENMUNI					-$ 1,858,094.46
					-$ 1,858,094.46

Certificate of Chief Executive Officer

This schedule of accounts to be passed for payment, covering vouchers as above was submitted to each member of Council has been checked and is fully supported by vouchers and invoices which are submitted herewith and which have been fully certified as to the receipt of goods and the rendition of services and as to prices, computations and costings and the amounts shown are due for payment.

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 19.1.A

Council Resolutions

Closed Since Last Meeting

Council Resolutions Closed Since Last Meeting

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9619	08-Jul-25	17.1	Bridge 3523 (Bussell's Bridge, Mungalup Road) – Emergency Works	That Council: 1.Acknowledge the advice received from Main Roads WA (MRWA) dated 1 July 2025 regarding concerns relating to Bridge 3523 – Mungalup Road; 2.Endorse a one lane closure on Bridge 3523 – Mungalup Road as an immediate required measure, until the required emergency works are undertaken to the satisfaction of MRWA; 3.Approve a 2025/26 budget amendment to increase General Ledger 134400 - Bridge Maintenance to reflect the increased cost of emergency repairs on Bridge 3523, and the receipt of a bridge maintenance grant from Main Roads WA to reflect two thirds (2/3) of the cost, with details of the actual incurred expenditure reported to Council through the Monthly Financial Report; 4.Approve a 2025/26 budget amendment to utilise Shire municipal funds to facilitate the Shire's 1/3 contribution to the required emergency repair work; and 5.Authorise the Chief Executive Officer to provide general advice to impacted businesses and landowners of the temporary lane closure to Bridge 3523 – Mungalup Road.	Closed Since Last Meeting	DO	One lane closure in place. Contractor appointed. Fabrication of hot dipped sleeve has commenced with on site installation scheduled for Monday 11 August.
9616	08-Jul-25	14.2	Financial Management Report – May 2025	That Council receive the Financial Management Reports for May 2025 as presented in Appendix 14.2.A.	Closed Since Last Meeting	FBEC	
9615	08-Jul-25	14.1	Accounts Paid – 16 May 2025 to 15 June 2025	That Council receives the List of Accounts paid for the period 16 May 2025 to 15 June 2025 as presented in Appendix 14.1.A totalling $2,107,309.24.	Closed Since Last Meeting	FBEC	
9614	08-Jul-25	11.1	Annual Budget 2025/26	That Council extend their appreciation to staff regarding the detail and the ease of reading the 2025/26 Budget.	Closed Since Last Meeting	CEO	

Council Resolutions Closed Since Last Meeting

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9613.a	08-Jul-25	11.1	Annual Budget 2025/26	MUNICIPAL FUND BUDGET FOR 2025/26 1.That Council pursuant to Section 6.2 of the Local Government Act 1995 and Part 3 of the Local Government (Financial Management) Regulations 1996, adopts the 2025/26 Budget as contained in Appendix 11.1.A [Under Separate Cover] of this Agenda and the Minutes, for the Shire of Collie for the 2025/26 financial year which includes the following: A.Statement of Comprehensive Income; B.Statement of Cash Flows; C.Statement of Financial Activity; D.Notes to and Forming Part of the Budget including: i.)Operating Income and Expenditure. ii.)Capital Income and Expenditure, including New, Upgrade and Renewal capital works. iii.)Revenue generated from the Schedule of Fees and Charges for 2025/26. iv.)Budget Program Schedules 3 to 14. MUNICIPAL FUND BUDGET FOR 2025/26 – RESERVE TRANSFERS & LOANS 2.That Council pursuant to Section 6.2 of the Local Government Act 1995 and Part 3 of the Local Government (Financial Management) Regulations 1996, adopts the Reserve Transfers and current and proposed loans drawdown and repayments detailed within the 2025/26 Budget as contained in Appendix 11.1.A [Under Separate Cover] of this Agenda and the Minutes, for the Shire of Collie for the 2025/26 financial year, with any variations from budget approved based on adjusted loan drawdown timing, the reserve purpose, actual expenditure and/or the transfer of unexpended 2024/25 capital works funding to Reserves, to be utilised and drawn down from the Carried Forward Projects Reserve in future years as required. GENERAL AND MINIMUM RATES, INSTALMENT PAYMENT ARRANGEMENTS, DISCOUNTS AND INTEREST 3.That Council: A.For the purposes of yielding the deficiency disclosed by the Municipal Fund Budget for 2025/26 adopted at Recommendation 1 above, Council pursuant to Sections 6.32, 6.33, 6.34 and 6.35 of the Local Government Act 1995 impose the following general rates and minimum rates on Gross Rental and Unimproved Values: i.)General Rates	Closed Since Last Meeting	CEO	Copy submitted to the Department. Copy placed on website

Council Resolutions Closed Since Last Meeting

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9613.b	08-Jul-25	11.1 cont	Annual Budget 2025/26 cont	ii.)General Rates •Gross Rental Value (GRV) Rated Properties = $0.084694 •Unimproved Value (UV) Rated Properties = $0.005288 ii.)Minimum Payments •Gross Rental Value (GRV) Rated Properties = $1,291.50 •Unimproved Value (UV) Rated Properties = $1,041.60 Rate in the Dollar$ Rate Yield Gross Rental value (GRV)$0.084694$4,850,735 GRV Minimum$1,291.50$2,198,133 TOTAL GRV$7,048,868 Unimproved Value (UV)$0.005288$699,121 UV Minimum$1,041.60$298,939 TOTAL UV$998,060 TOTAL GRV & UV YIELD$8,046,928 B.Pursuant to Section 6.45 of the Local Government Act 1995 and Regulation 64(2) of the Local Government (Financial Management) Regulations 1996, Council nominates the following dates for the payment in full by instalments: •Option 1 (Full Payment) -Full amount of rates and charges including arrears, to be paid on or before 29 August 2025 or 35 days after the date of issue appearing on the rate notice, whichever is later. •Option 2 (Four Instalments) -First instalment to be made on or before the due date of 29 August 2025 or 35 days after the date of issue appearing on the rate notice, whichever is later and including all arrears and a quarter of the current rates and service charges; -Second quarterly instalment to be made on or before the due date of 31 October 2025, or 2 months after the due date of the first instalment, whichever is later; -Third quarterly instalment to be made on or before the due date of 9 January 2026, or 2 months after the due date of the second instalment, whichever is later; and -Fourth quarterly instalment to be made on or before the due date of 13 March 2026, or 2 months after the due date of the third instalment, whichever is later.	Closed Since Last Meeting	CEO	

Council Resolutions Closed Since Last Meeting

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9613.c	08-Jul-25	11.1 cont	Annual Budget 2025/26 cont	C.Pursuant to Section 6.45 of the Local Government Act 1995 and Regulation 67 of the Local Government (Financial Management) Regulations 1996, Council adopts an instalment administration charge where the owner has elected to pay rates and charges (and service charges) through an instalment option of $18.00 for each instalment after the initial instalment is paid ($54.00 for four (4) instalment option). D.Pursuant to Section 6.45 of the Local Government Act 1995 and Regulation 68 of the Local Government (Financial Management) Regulations 1996, Council adopts an interest rate of 5.0% where the owner has elected to pay rates and charges (and service charges) through an instalment option. E.Pursuant to Section 6.51(1) and subject to Section 6.51(4) of the Local Government Act 1995 and Regulation 70 of the Local Government (Financial Management) Regulations 1996, Council adopts an interest rate of 10.0% for rates and charges (and service charges) and costs of proceedings to recover such charges that remains unpaid after becoming due and payable. F.Note that pursuant to Section 6.47 of the Local Government Act 1995, Council grant in 2025/2026 a 100% waiver/concession on the local government uniform rate charge to each of the following assessments: Assessment NumberOwnerProperty Address A987Ngalang Boodja Corporation154-158 Forrest Street, Collie A4295, A5219, A5833, A5838Alliance HousingUnit 3/25 Hutton Street, 21A Rogers Avenue, Unit 4/17 Moira Road, Unit 917 Moira Road, Collie A3977RSL Collie Cardiff2 Lefroy Street, Collie A3990Country Women's Association76 Throssell Street, Collie A4337, A5321Riverview Residence1 Burt Street, Collie 3-5 Vernon Street, Collie A4779North Collie HallLot1334 Princep Street, Collie A150Collie Pioneer Lodge50 Venn Street, Collie A5043Collie Italian Club19 Ewing Street, Collie A995Energy West Hall6 Lefroy Street, Collie A4813Red Cross73 Steere Street, Collie A1880Agencies for South West Accommodation22-24 Wallsend Street, Collie	Closed Since Last Meeting	CEO	

Council Resolutions Closed Since Last Meeting

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9613.d	08-Jul-25	11.1 cont	Annual Budget 2025/26 cont	GENERAL FEES & CHARGES FOR 2025/26 4.That Council pursuant to Section 6.16 of the Local Government Act 1995 and other relevant legislation, adopts the Fees & Charges as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes. OTHER STATUTORY FEES FOR 2025/26 5.That Council: A.Pursuant to Section 53 of the Cemeteries Act 1986, Council adopts the Fees & Charges for the Collie Cemetery as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes. B.Pursuant to Section 67 of the Waste Avoidance and Resource Recovery Act 2007, Council adopts the Fees & Charges for the removal and deposit of domestic and commercial waste as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes. C.Pursuant to Section 67 of the Waste Avoidance and Resource Recovery Act 2007 and Section 6.16 of the Local Government Act 1995, Council adopts the Fees & Charges for the deposit of domestic and commercial waste as contained in the 2025/26 Budget included as Appendix 11.1.A [Under Separate Cover] of this Agenda and Minutes. COUNCIL MEMBERS' FEES AND ALLOWANCES FOR 2025/26 6.That Council: A.In accordance with Section 5.98(1) of the Local Government Act 1995, Regulation 30 of the Local Government (Financial Management) Regulations 1996, Part 6.2(1) and Part 6.3(1)(a) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual Council member meeting attendance fees be set at $10,084 (55% of Band 3). B.In accordance with Section 5.98(1) of the Local Government Act 1995, Regulation 30 of the Local Government (Financial Management) Regulations 1996, Part 6.2(1) and Part 6.3(1)(a) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual meeting attendance fee for the President be set at $15,612 (55% of Band 3). C.In accordance with Section 5.98(5) of the Local Government Act 1995, Regulation 33 of the	Closed Since Last Meeting	CEO	

Council Resolutions Closed Since Last Meeting

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9613.e	08-Jul-25	11.1 cont	Annual Budget 2025/26 cont	C.In accordance with Section 5.98(5) of the Local Government Act 1995, Regulation 33 of the Local Government (Financial Management) Regulations 1996, and Part 7.2(1) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual allowance for the Shire President be set at $22,763 (55% of Band 3). D.In accordance with Section 5.98(1) of the Local Government Act 1995, Regulation 33A of the Local Government (Financial Management) Regulations 1996, and Part 7.3(1) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual allowance for the Deputy Shire President be set at $10,347 (25% of Band 3). E.In accordance with Section 5.99A(b) of the Local Government Act 1995, Regulation 34A of the Local Government (Financial Management) Regulations 1996, and Part 9.2(2) of the Determination of Local Government Elected Members pursuant to Section 7B of the Salaries and Allowances Act 1975, the annual allowance for Information Communication Technology expenses for Council members be set at $1,925 (55% of Band 3). MATERIAL VARIANCE REPORTING FOR 2025/26 7.That Council in accordance with Regulation 34(5) of the Local Government (Financial	Closed Since Last Meeting	CEO	
9612	08-Jul-25	8.1	Ordinary Council Meeting – 10 June 2025	That Council confirms the Minutes of the Ordinary Meeting of Council held on 10 June 2025.	Closed Since Last Meeting	Gov Cor	
9600	10-Jun-25	13.2	Community Emergency Services Manager - Memorandum of Understanding Reporting Department:Development	That Council authorise the Chief Executive Officer to negotiate and execute the 2025-2028 Community Emergency Services Manager Memorandum of Understanding (refer to Confidential Attachment 13.2) between the Shire of Collie and the Department of Fire and Emergency Services, for the employment of a Community Emergency Services Manager.	Closed Since Last Meeting	DDS	Agreement has been reached on the document. Document has been executed by both parties and employment contract finalised.
9596	10-Jun-25	11.3	Draft Fees & Charges – 2025/26	That Council: 1.Endorse the Draft Shire of Collie 2025/26 Schedule of Fees and Charges included as [Appendix 11.3.A], to become effective 8 July 2025. 2.Where required, give local public notice of the applicable Fees and Charges.	Closed Since Last Meeting	GC	
9594	10-Jun-25	11.1	Acceptance of Annual Report and Annual Electors Meeting – 2023/24	That Council: 1.Receive and adopt the Shire of Collie Annual Report for the 2023/24 financial year [Appendix 11.1.A], inclusive of the annual audit report. 2.Hold the Shire of Collie 2023/24 Annual Electors Meeting on Tuesday, 8 July 2025 in the Council Chambers, commencing at 6.00pm.	Closed Since Last Meeting	GC	Electors meeting held.

Shire of

Collie

Ordinary Council Meeting
12 August 2025

Appendix 19.1.B

Council Resolutions

Open

Council Resolutions Open

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9617	08-Jul-25	14.3	Acceptance of the Disability, Access and Inclusion Plan 2024-2029	That Council: 1.Approves the advertising of the Shire of Collie Disability Access and Inclusion Plan 2024- 2029 as attached to this report for public comment for 21 days; and 2.Requests the Chief Executive Officer to report the outcomes of the public comment period and present the proposed Disability Access and Inclusion Plan 2025-2029 at a subsequent 2025 Ordinary Council Meeting.	Open	DCCS	Plan has been advertised and public comment period has closed.
9615	08-Jul-25	13.1	Coalfields Museum and Historical Research Centre Business Case	That Council 1.Receive the Coalfields Museum & Historical Research Centre Business Case V1.1 dated May 2025; and 2.Request that the Chief Executive Officer work with the Coalfields Museum and Historical Research Centre and the Collie Visitor Centre to investigate the feasibility of the recommended option in the Business Case (Option 2: Co-location with the Collie Visitor Centre), and provide a report on the outcome to a future Ordinary Council Meeting before the end of 2025.	Open	DDS	Internal project working group has met to commence planning.
9602	10-Jun-25	13.4	Collie Visitor Centre Expansion Project – Grant Funding	That Council: 1.Note the findings and recommendations contain in the Feasibility Study for the proposed Collie Visitor Centre Expansion completed by Patrick Quinlivan in 2023 [Appendix 13.4.A]. 2.Authorises the CEO to finalise a revised scope of works for inclusion in a public tender with Collie Visitor Centre and Project Control Group for expansion of the Collie Visitor Centre project as detailed in the signed Financial Assistance Agreement (FAA) between the Department of Primary Industries and Regional Development (DPIRD) and the Shire of Collie dated 21 April 2022 [Appendix 13.4.B]. 3.Note that a further report(s) will be provided to Council as expansion of the Collie Visitor Centre project involves a public tender	Open	DDS	Internal project working group has met to commence planning.
9573	8-Apr-25	20.1	Food Organic and Garden Organic (FOGO) Waste	That Council: 1.Continue with the 3-bin FOGO collection service to households in Collie in accordance with Option 1 for the remainder of 2025, with the FOGO collection service diverted to Shire of Collie Waste Transfer site; 2.Request that the CEO provides a further report at the December 2025 Ordinary Council Meeting on the longer term future of the FOGO service in the Shire of Collie. 3.Communicate to the community the continued support for the FOGO service and the separation of waste as it is anticipated that this temporary diversion to the Shire's Waste facility is an interim arrangement due to factors outside of the control of the Shire of Collie.	Open	EWC/DOS /CEO	Further report to be provided in December 2025

Council Resolutions Open

Res No.	Resolution Date	Item No	Title	Motion	Status	Action By	Comment
9566	8-Apr-25	11.1	2025/26 Rating Strategy	That Council: 1.In line with forecast growth: a)Endorse a projected base rate revenue increase of 4.5% for the 2025/26 budget; b)Endorse a projected base rate revenue increase of 4.5%, 4.5%, 4.5% and 4.5% for the four year Corporate Business Plan; c)Endorse a projected base rate revenue increase of 3.5% for years five to fifteen of the Long Term Financial Plan. 2.Endorse the Rating Strategy 2025/26 to 2034/35 (Appendix 11.1.A) including the proposed introduction of Differential Rating from the 2026/27 financial year. 3.Endorse the establishment of the following proposed 6 Differential Rates across 11 Rating Categories: ii)RESIDENTIAL (including Residential Vacant) ii)COMMERCIAL (including Commercial Vacant) iii)INDUSTRIAL (including Industrial Vacant) iv)RURAL RESIDENTIAL (including Rural Residential Vacant) v)ACCOMMODATION vi) UV Rural (including Mining)	Open	CEO/DCCS	Included in draft long term financial plan. Future public workshops to be scheduled, potentially December 2025.
9558	11-Mar-25	10.2	Audit Committee Meeting – 11 March 2025	That Council support the Audit Committee's request to receive a report on the current Water Corporation water consumption invoices and locations to assess whether seasonal water consumption or leakage is the cause of current expenditure levels.	Open	DCS	Information collated and to be presented to a future meeting of the Audit Committee.
9556	11-Mar-25	10.1	Townscape & Environment Committee - 26 February 2025	That the Townscape and Environment Committee consider if the spatial extent of the Committee is the Collie Townsite, or the Collie Townsite and other localities within the Shire of Collie.	Open	DOS	To be considered at next Committee Meeting
9555	11-Mar-25	10.1	Townscape & Environment Committee - 26 February 2025	That the Townscape & Environment Committee consider the addition of biosecurity issues as an aim/objective of the committee within the terms of reference.	Open	DOS	To be considered at next Committee Meeting
9554	11-Mar-25	10.1	Townscape & Environment Committee - 26 February 2025	That Council review the terms of reference of the Townscape & Environment Committee to clarify areas of focus and spatial extent.	Open	DOS	To be considered prior to October elections.
9528	10-Dec-24	14.1	Rotary Fire Tower Restoration Project - Reserve 30555 Coombes Street, Collie	That Council authorise the Chief Executive Officer entering into a Facility User Agreement with the Rotary Club of Collie over a portion of Reserve 30555 Coombes Street, Collie for the purposes of storage and restoration of the Stage 1 Hut element of the Munro Fire Tower Project, at no charge for a period not exceeding 3 years, unless otherwise extended by Council. This agreement does not in any way indicate support for the project beyond Stage 1.	Open	CEO/DOS	

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9473	10-Sep-24	14.1	Draft Council Policy - Operations Policy 1.24 - Asset Management Policy	That Council resolves to; 1.Authorise officers to advertise for public comment the proposed draft Shire of Collie Asset Management Policy for a period of 28 days; 2.Subject to no objections being received during the advertising process, proceed with the policy without modification; and 3.Subject to 2. above, authorise officers to publish a notice of the Shire of Collie Asset Management Policy.	Open	GC	Advertising completed. No public submissions. To be incorporated in policy manual.
9380	12-Mar-24	13.3	Collie Airfield Master Plan	That the Council: 1. adopts the Collie Airfield Master Plan; 2. instruct CEO to investigate project planning for the implementation of the Collie Airfield Master Plan.	Open	DDS	Actions are underway to progress land tenure arrangements for the site
9260	12-Sep-23	15.1	Acknowledgement of Country	That Council review and amend Policy CS 4.6: •provide direction and guidance to Councillors and officers of the Shire of Collie as to when Welcome to and Acknowledgement of Country should be included at meetings and functions; and •ensure that an Acknowledgement of Country is included on the Shire website and in significant corporate documents and publications.	Open	GC	An Acknowledgement of Country is on website and in major reports currently. Survey provided to elected members. Collated responses to guide policy review.
9259	12-Sep-23	14.3	Proposed Road Widening – Christie Street, Collie	That the Council resolve to authorise necessary actions to widen the road reserve adjacent lot 1173; 16 Christie Street, Collie.	Open	DOS	Arrangements are being made to undertake the required survey
8952	08-Feb-22	20.2	Disposal of Property to Recover Rates (3 Year Process)	That Council resolve by Absolute Majority to enact Section 6.64 (1) (b) of the Local Government Act 1995 to sell the parcel of land attached to Assessment 37 (23 Clifton Street, COLLIE WA 6225) due to non-payment of rates and services for a period of three years or more.	Open	FM	To be reassessed as part of review of properties with outstanding rates later in 2025
8775	13-Jul-21	12.8	Buckingham Hall Training Project Proposal	That Council resolve to collaborate with the Heritage Skills Association WA to call for Expressions of Interest for the future use of the site.	Open	DCS	Further investigation and report to be provided to Council.