

Billabong Creek Environmental Water Regulators (SSI-50831979) - Removal of Scarred Trees and Salvage of Hearth | Environmental Management Plan

NSW DCCEEW – Water Group

May 2026

Document control

Version	Date	Author (name/role)	Review (name/role)	Changes
1	3 Apr 2026	Elma Aguilera	Jonas Ball	NA
2	24 Apr 2026	Jonas Ball	Jonas Ball	Minor changes to address comments
3	19/05/2026	Margaret Balandin	Margaret Balandin	Updated to address comments (Heritage NSW, CPHR and ER) Updated to remove reference to the plan being prepared as an AFSEMP as CEMP and sub-plans have been approved
4	21/05/2026	Margaret Balandin	Margaret Balandin	Updated to address ER comments

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1. Introduction

1.1. Purpose

The purpose of this Environmental Management Plan (EMP) for the Billabong Creek Regulators is to describe how NSW DCCEE (Water Group) will remove two scarred trees and salvage a hearth in accordance with the Department of Planning Conditions of Approval (SSI50831979) that were issued on 19 February 2026. This EMP has been prepared to enable discrete management of the removal of the scarred trees and salvage of the hearth by DCCEE separate to the construction contractor's activities.

This Plan sets out the environmental and Aboriginal cultural heritage management measures that will be implemented during activities described in this Plan.

This plan is prepared under Condition of Approval (CoA) C11, as an attachment of the Aboriginal Cultural Heritage Management Sub-plan (ACHMSP) that was approved by the Department of Planning Housing and Infrastructure (DPHI) on 6/05/2026.

Consultation with the Registered Aboriginal Parties (RAPs), Edward River Council (ERC), Heritage NSW and Conservation Programs, Heritage and Regulation Group (CPHR) has been undertaken as they are defined as relevant council and authorities.

1.2. Project environmental objectives

This EMP has been prepared as an attachment to the ACHMSP that was prepared in accordance with Condition C11 of SSI-50831979. The objectives of this EMP are to:

1.2.1. Overall EMP Objectives

- Carry out LiDAR, casting, scarred tree removal and hearth salvage in a manner that protects Aboriginal cultural heritage and respects RAP cultural values, consistent with CoAs E25–E28.
- Maintain effective buffers, fencing, bollards and no-go zones to protect nearby Aboriginal sites.
- Ensure that the removal of the scarred tree and salvage of the hearth are undertaken in a culturally appropriate manner in conjunction with the Registered Aboriginal Parties (RAPs) and any risks of heritage incidents are minimised.

1.2.2. Environmental Management Objectives

- Describe the early-works activities (tree recording and removal, hearth salvage, storage and transport) including their sequencing and duration).
- Provide figures showing the work areas, access tracks and the nearest sensitive receivers.

- Identify key environmental risks associated with early-works (heritage, biodiversity, soil/water, noise, dust and traffic) and present the initial risk assessment (C1(c)).
- Set out how the works will be undertaken to meet the performance outcomes in the documents listed in CoA A1, and to manage the risks identified
- Ensure correct implementation of heritage and environmental controls including RAP involvement, ecologist pre-clearance, chain-of-custody, secure storage and AHIMS/ASIRF requirements.

1.3. Planning Context - Planning Approval, permits and licences

Planning approval

This EMP is prepared under CoA C11 of the Instrument of Determination for SSI50831979, subject to ER endorsement and submission to the Planning Secretary. The EMP must describe activities, include figures of layout and sensitive receivers, provide an initial risk assessment, and show how performance outcomes (A1) will be met.

1.4. Legislation, standards, and guidelines

This EMP has been prepared having regard to:

- NPW Act 1974 (NSW) & NPW Regulation 2019 — Aboriginal objects/places; ASIRFs and AHIMS registration obligations.
- Conditions of Approval (SSI50831979).
- OEH 2011 & DECCW 2010 heritage reporting/guidelines — referenced in Condition E27
- DCCEE Water Group EMF procedures/guidelines (unexpected finds; incident; soil & water; biodiversity; biosecurity)
- Landcom (Blue Book) 2004 (Soils & Construction) — erosion and sediment control basis.

1.5. Project Aboriginal Heritage Assessments and Plans

An Aboriginal Cultural Heritage Assessment report (Austral Archaeology July 2025) (ACHAR) was prepared as part of the EIS process in consultation with Registered Aboriginal Parties (RAPs). An Aboriginal Cultural Heritage Management Plan (ACHMP) has been prepared as a sub plan of the CEMP. This has been prepared to meet CoAs C11 and E25–E28. The sub plan was approved by DPHI on 6/5/2026.

This EMP is being prepared to enable the removal and salvage of the Aboriginal Heritage sites which are impacted by the establishment of ancillary site facilities.

1.6. Scope

This EMP applies only to the removal of two scarred trees and salvage of the hearth. Specifically, it covers:

- installation of protection measures for Aboriginal cultural heritage (buffers, fencing, driplines, bollards, signage) - noting this has already occurred as part of the Low impact works undertaken by the contractor in April 2026
- some of the approved activities detailed in the Aboriginal Cultural Heritage Assessment Report (ACHAR) including:
 - Hartwood Weir Hearth (AHIMS 54-3-0061) – archaeological salvage
 - Hartwood Weir Scarred Tree 4 (AHIMS 54-3-0059) – LiDAR, scar casting, careful removal and salvage
 - Wanganella Scarred Tree 3 (AHIMS 54-2-0264) – LiDAR, scar casting, careful removal and salvage RAP engagement, monitoring and attendance at hold points
- recording, reporting, and management of all evidence required under Conditions A1, A9, A20–A24 C1, E2–E7, E11, E25–E28

This Plan does not cover full construction activities or the broader long term Aboriginal cultural heritage framework. Those requirements are addressed in the Aboriginal Cultural Heritage Management Sub-plan (ACHMSP) and Construction Environmental Management Plan (CEMP), which will be updated to incorporate the outcomes of the works described in this Plan.

The ACHMSP requires DPHI approval. The ACHMSP has undergone consultation with RAPs, Heritage NSW and other organisations as documented in Section 1.9. Any relevant comments on the ACHMSP have been incorporated into this EMP. Section 1.1 of the EMP outlines the relationship with the ACHMSP and Table 1 provides cross-referencing of where conditions E25–E28 have been addressed. Essentially this EMP provides greater detail than the ACHMSP on the scarred tree removal and salvage of the heritage hearth.

The Conditions of Approval (CoA) relevant to this Plan are listed in Table 1 below. A cross reference is also included to indicate where the condition is addressed in this Plan.

Table 1 Conditions of Approval relevant to the EMP

CoA	Obligation	Reference
Part A – Administrative Conditions		
GENERAL		
A1	The Proponent must carry out the SSI in accordance with the terms of this approval and generally in accordance with the: (a) <i>Billabong Creek Environmental Water Regulators Environmental Impact Statement</i> dated October 2024	Noted – the removal and the scarred trees and the salvage of the hearth was

CoA	Obligation	Reference
	(b) <i>Billabong Creek Environmental Water Regulators Response to Submissions – Main Report</i> dated May 2025 (c) <i>Billabong Creek Regulators Request for additional information</i> dated September 2025	identified in these documents.

EVIDENCE OF CONSULTATION

A9	Where the terms of this approval require consultation to be undertaken, evidence of the consultation undertaken must be submitted to the Planning Secretary and ER (as relevant) with the corresponding documentation. The evidence must include: (a) documentation of the consultation with the party identified in the condition of approval that has occurred before submitting the document for approval; (b) a log of the dates of engagement or attempted engagement with the identified party; (c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations; (d) outline of the issues raised by the identified party and how they have been addressed; and (e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.	A record of consultation will be submitted
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Part C – Construction Environmental Management Conditions

SITE ESTABLISHMENT WORK

C11	The CEMP sub-plan for Aboriginal Cultural Heritage Management must be prepared to incorporate mitigation measures identified in the documents listed in Condition A1 and the following: (a) be prepared by suitably qualified and experienced persons (b) be prepared in consultation with the Registered Aboriginal Parties (RAPs) and reviewed by Heritage NSW (c) include a description of the measures (and associated methodologies) including digital recording, removal, archaeological salvage, trimming of branches, and protection measures that would be implemented for all Aboriginal sites that would be impacted by the proposed works and all Aboriginal sites in	The sub-plan has been approved by DPHI on 6/5/2026. This EMP forms an attachment to the subplan and will require endorsement by the ER and approval by DPHI for the amendment
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CoA	Obligation	Reference
	the vicinity of the proposed works as identified in the documents listed in Condition A1 (d) the long-term management of any Aboriginal heritage items or cultural material collected under the ACHMP (e) ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that records are kept of these inductions f) ongoing consultation and involvement of RAPs during the implementation of the ACHMP (g) preparing Aboriginal Site Impact Recording Form/s (ASIRFs) for all Aboriginal heritage sites following construction activities with ASIRFs to be submitted to the Aboriginal Heritage Information Management System (AHIMS) registrar. (h) Include a program to monitor and report on the effectiveness of management measures and any Aboriginal cultural heritage impacts of the project.	
Part E – Key Issue Conditions		
BIODIVERSITY		
E2	The clearing of native vegetation must be minimised to the greatest extent practicable with the objective of reducing impacts to threatened ecological communities and threatened species habitat.	Table 5
E3	The Proponent must not clear any native vegetation or fauna habitat located outside the construction and operational disturbance footprints.	Table 5
E4	The Proponent must ensure that the vegetation habitat clearing limits specified in Table 3 and Table 4 are not exceeded.	Table 5: Biodiversity (land) - management measures
E5	Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Proponent must provide evidence to the Planning Secretary that biodiversity credits have been retired.	Table 5
E6	Prior to the impacts set out in Table 3 and Table 4: Species Credits the number and classes of ecosystem credits and species credits (like-for-like) must be achieved by: a. retirement of biodiversity credits of a number and class specified in Table 3: Ecosystem Credits and Table 4: Species Credits in accordance with the Biodiversity Conservation Act 2016; and/or b. where evidence of compliance with the Ancillary rule: biodiversity conservation action has been provided to the Planning Secretary, and/or	Table 5

CoA	Obligation	Reference
	c. making a payment into the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem and species credits	
E7	An Unexpected Finds Protocol must be developed for threatened species and threatened ecological communities before the commencement of Work. The Unexpected Finds Protocol must be submitted to the Planning Secretary for approval at least one month before the commencement of Work. Work cannot commence until the unexpected finds protocol is approved by the Planning Secretary. The Unexpected Finds Protocol must be implemented throughout the duration of Work.	Table 5: Biodiversity (land) - management measures Appendix E
RE-USE OF TIMBER		
E11	The SSI must maximise the reuse of native vegetation and other habitat features that have been approved for removal. Where reuse by the SSI is not possible, relevant council(s), Local Land Services, local Landcare groups, DPIRD Fisheries and any additional relevant government agencies must be consulted prior to the removal of vegetation and other habitat to determine if: (a) hollows, tree trunks (greater than 25-30 centimetres in diameter and 2-3 metres in length), mulch, bush rock and root balls salvaged from native vegetation impacted by the SSI; and (b) collected plant material, seeds and/or propagated plants from native vegetation impacted by the SSI, could be used by others in the local area in habitat enhancement and rehabilitation work which is currently underway or planned within 6 months of removal, before pursuing other disposal options. If the timber can be re-used by others, the Proponent must advise them and facilitate access for salvage. Note: Before reusing rootballs and other vegetative material by the SSI or offered to others, it must be checked by a suitably qualified arborist/ecologist pathologist to determine that Pathogens (including but not limited to <i>Phytophthora cinnamomi</i>, <i>Chytrid fungus</i>, <i>Myrtle rust</i> and <i>Fusarium wilt / Panama disease</i>) are absent from the construction footprint and the material is not showing signs of infection or pests.	Table 5: Biodiversity (land) - management measures Context & Description of Works Section 2 Note: The majority of the scarred trees would be “reused” for Aboriginal cultural purposes. Further consultation would be undertaken with RAPs and TOs on the potential to reuse any of the remains of the tree for ecological or other purposes
ABORIGINAL CULTURAL HERITAGE		
E25	All practicable steps must be taken so as not to harm, modify or otherwise impact Aboriginal objects except as authorised by this approval.	Table 4
E26	The Registered Aboriginal Parties (RAPs) must be kept informed about the SSI. The RAPs must be provided with the opportunity to be regularly consulted about the Aboriginal cultural heritage management requirements of the SSI.	Section 1.9

CoA	Obligation	Reference
	<i>Note: The intent of this condition is to keep RAPs regularly informed about project matters relating to Aboriginal Cultural Heritage.</i>	
E27	Where previously unidentified Aboriginal objects are discovered, all Work must immediately stop in the vicinity of the affected area and a suitably qualified and experienced Aboriginal heritage expert must be contacted to provide specialist heritage advice before Work recommences. The measures to consider and manage this process must be specified in the Aboriginal Cultural Heritage Management Plan required by Condition C9 and, where relevant, include registration in the Aboriginal Heritage Information Management System (AHIMS).	Table 4 and Appendix B
E28	An Aboriginal Cultural Heritage Salvage Report must be prepared following the completion of salvage activities under the Aboriginal Cultural Heritage Management Plan (ACHMP) required by Condition C9. The Aboriginal Cultural Heritage Salvage Report(s) must: a. be prepared by a suitable qualified expert b. be prepared in accordance with the <i>Guide to investigation, assessing and reporting on Aboriginal Cultural Heritage in NSW</i> (OEH 2011) and the <i>Code of practice for archaeological investigation of Aboriginal objects in New South Wales</i> (DECCW 2010) c. document the results of the salvage works and scarred tree removal and recording completed under the ACHMP d. document the results of any specialist studies including analysis of dating of hearth materials e. outline the long-term management strategy for all cultural material recovered from the project area, including any permanent public interpretive display f. be provided to the RAPs who must be given a minimum of 28 days to consider the report and provide comments before the report is finalised. The final report must be provided to the Planning Secretary, Heritage NSW, AHIMS, and the RAPs within 24 months of the completion of the Aboriginal archaeological collections and excavations.	Table 4

1.7. Terms and Abbreviations

Term / Acronym	Definition
Ancillary Facility	A temporary facility for construction of the SSI including an office and amenities compound, construction compound, skip bin, fuel and equipment containers, a fixed material stockpile area, access roads, borrow pit, temporary coffer dams and car parking facilities. Note: Where an approved CEMP contains a stockpile management protocol, a material stockpile area located within the construction boundary is not considered to be an ancillary facility.
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHMP	Aboriginal Cultural Heritage Management Plan
ACHMSP	Aboriginal Cultural Heritage Management Sub-plan
AFSEMP	Ancillary Facilities Site Establishment Management Plan
AHIMS	Aboriginal Heritage Information Management System
ASIRF	Aboriginal Site Impact Recording Form
Blue Book	Soils and Construction – Managing Urban Stormwater (Landcom, 2004)
CEMP	Construction environmental management plan
Chain of custody	Document hand-over trail for heritage objects. From field to storage, protecting integrity and traceability.
CoA	Condition(s) of Approval
CPA	Conservation Planning and Assessment (a branch of NSW DCCEEW Conservation Programs, Heritage and Regulation Group)
CPHR	Conservation Programs, Heritage and Regulation (a Group within NSW DCCEEW)
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
DCCEEW – Water Group	NSW Department of Climate Change, Energy, the Environment and Water – Water Group
DPHI	NSW Department of Planning, Housing and Infrastructure
DPIRD	NSW Department of Primary Industries and Regional Development

Term / Acronym	Definition
ECM	Environmental control map
End-capping (timber conservation)	Application of a sealant to freshly cut ends of salvaged timber sections to reduce rapid moisture loss. Preventing cracking during transport and interim storage.
EMP	Environmental management plan
EMF	Environmental management framework
Environmental assurance activity	Monitoring and review by DCCEEW to assess the effectiveness of environmental management controls
Environmental hold point	Work must stop until environmental management requirements under the contract have been assessed as met by DCCEEW
ER	Environmental Representative
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental work method statement
GDA94	Geocentric Datum of Australia 1994
HIAB	Truck-mounted loader crane (often used generically for a hydraulic loader crane)
Lift plan	A documented plan specifying rigging, sling placement (clear of scar), padding, crane setup, swing path, outriggers, spotters, wind thresholds, and exclusion zones for lifting/transporting the scarred tree sections.
LALC	Local Aboriginal Land Council
LLS	Local Land Services
MGA	Map Grid of Australia
NPW Act	National Parks and Wildlife Act 1974 (NSW)
PAD	Potential Archaeological Deposit

Term / Acronym	Definition
Pollution incident	The POEO Act Dictionary defines a pollution incident as: <i>An incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.</i>
POEO Act	Protection of the Environment Operations Act 1997 (NSW)
RAPs	Registered Aboriginal Parties
Statutory compliance stop work	Trigger to stop work under environmental laws and regulations
SSI	State Significant Infrastructure
Subcontractor	A Subcontractor is a person or other legal entity that has entered a contract with a Principal Contractor to conduct work
TOs	Traditional Owners
UFP	Unexpected Finds Protocol
UTP	Unexpected Threatened Species Finds Procedure / Protocol
WHS	Work Health and Safety

1.8. Environmental objectives

NSW DCCEEW’s vision is for “Thriving environment and communities for every generation.” This vision is supported by NSW DCCEEW-Water Group’s Environmental Policy and Environmental Management Framework, which has been developed to:

- Drive compliance with environmental legislation, codes of practice, and regulatory requirements applicable to NSW DCCEEW-Water Group projects and programs.
- Provide a structured and consistent approach to managing environmental issues throughout project and program development and delivery.

The Environmental Management Framework comprises guidelines, procedures, templates, and tools designed specifically for NSW DCCEEW Water Group – Infrastructure Development & Delivery projects. It aligns with ISO 14001 Environmental Management Systems and aims to:

- Identify and manage environmental risks effectively.
- Provide tools and resources to mitigate these risks.
- Continuously enhance environmental protection throughout project and program lifecycles.

1.9. Consultation

This EMP has been prepared in consultation with the agencies and stakeholders relevant to the scope of site establishment works. In accordance with Condition A9 of the Approval for SSI50831979, the Plan reflects consultation undertaken with:

- Heritage NSW (DCCEEW) – as the regulatory authority for Aboriginal cultural heritage matters
- NSW DPHI – Planning Group – in relation to interpretation of approval conditions and sequencing of site establishment works
- Registered Aboriginal Parties (RAPs) and Traditional Owners (TOs) – in relation to cultural values, methodology preferences, and participation requirements
- Edward River Council – as required by CoA C1 and C11
- CPHR - as the regulatory authority for terrestrial biodiversity matters

1.9.1. RAPs and TO consultation

There are 13 RAPs for the Project, namely:

- Bangerang Aboriginal Corporation
- Bundyi Aboriginal Cultural Knowledge
- Cummeragunja Local Aboriginal Land Council (LALC)
- Deniliquin LALC
- Leeton and District Local Aboriginal Land Council
- Sandhills Artefacts
- Wiradjuri Council of Elders
- Yarkuwa Indigenous Knowledge Centre
- Kevin Atkinson
- Roley Williams
- Maydina Penrith
- Redacted Group #1
- Redacted Group #2

Consultation with RAPs and TOs on the tree removal and the salvage of the hearth has been ongoing since 2023 with the preparation of an ACHAR for the EIS and updates of the ACHAR for the Submissions Report and RFI Report. The final version of the ACHAR can be found at the link below which includes a summary of consultation with RAPs and TOs.

<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=RFI-88125956%2120250917T031306.123%20GMT>

The concept of displaying the scarred tree from Hartwood at the heritage display in Conargo has been discussed with key RAPs and TOs since 2023 – and has included preliminary design of the display structure.

Ongoing consultation was held with the Deniliquin Local Aboriginal Land Council and TOs to discuss both the temporary and permanent storage arrangements for the two scarred trees recovered through project activities. Key points included:

- Agreement that the Hartwood scarred tree would be placed in temporary secure storage at the DCCEEW depot at Hardinge Street, Deniliquin while permanent arrangements are finalised.
- Confirmation that one scarred tree (Hartwood) will be permanently housed at the Conargo community hall heritage display, in alignment with community preferences and Cultural considerations.
- The Wanganella scarred tree (Wanganella) will be provided to the Yarkuwa Indigenous Knowledge Centre for cultural uses.

In March 2026, key RAPs and TOs undertook an inspection of the Hartwood scarred tree to agree on the proposed section of the tree to be retained, transport measures and the storage of the retained section of the tree.

Key RAPs and TOs have also indicated a desire to retain other parts of the scarred trees (ie. large branches) for use in ceremonies or the manufacture of Aboriginal cultural items. A decision on the other parts of the scarred trees to be retained and their storage would be made after the trees had been felled and the scarred sections removed.

1.9.2. Initial key regulatory agencies consultation

An initial joint meeting was held on 17 February 2026 with representatives from: Heritage NSW (DCCEEW), NSW DPHI – Planning Group and NSW DCCEEW – Water Group, to discuss the proposal to undertake the works under an Ancillary Facility Site Environmental Management Plan (AFSEMP) ahead of finalisation of the Aboriginal Cultural Heritage Management Sub-plan (ACHMSP).

During the meeting, the project team presented the rationale for the DCCEEW undertaking these works before other site establishment activities and sought agency advice on the appropriateness of managing these actions through a dedicated AFSEMP, consistent with Condition C1. The original justification for the AFSEMP was documented following the meeting and is included in Appendix D.

AFSEMP#1 was prepared for the main ancillary facility works being undertaken by the contractor. The main ancillary facility works AFSEMP#1 was approved by NSW DPHI – Planning Group on 10 April 2026. The proposed AFSEMP#2 for the scarred trees removal and hearth salvage was separate to the main facility works AFSEMP.

Heritage NSW and DPHI emphasised the need for:

- clear delineation between AFSEMP #2 site establishment works and ACHMSP construction phase works
- traceability to the ACHA and ACHMSP evidence base
- ensuring RAP consultation currency (≤6-month requirement)
- embedding hold points for RAP and Heritage Advisor attendance

These requirements have been incorporated into this Plan.

As the CEMP and CEMP sub-plans have been approved, preparation of the AFSEMP#2 under CoA C1 has now been superseded. This EMP will become an attachment of the approved ACHMSP. The EMP will require ER endorsement and approval of DPHI.

1.9.3. Summary of Consultation on the EMP

Consultation on the EMP has been undertaken with

- RAPs and TOs
- ERC
- CPHR
- Heritage NSW

A Consultation Evidence Log, consistent with Condition A8 has been maintained. Evidence of Consultation will be provided to the ER and the Planning Secretary in accordance with Condition A9.

2. Context and Description of Works

2.1. Billabong Creek Regulators Project

The Billabong Creek Regulators Project involves the replacement of two ageing weirs—Hartwood Weir and Wanganella Weir—with new, modern environmental water regulators as part of the Yanco Creek Modernisation Program. This upgrade aims to improve the efficiency, reliability and flexibility of water delivery within the Billabong Creek system, enabling better management of environmental and consumptive flows, while also enhancing fish passage and ecological outcomes across the broader Yanco Creek network. The works associated with Hartwood and Wanganella form part of Part 2 of the Yanco Creek Modernisation. Billabong Creek Regulators initiative, a State Significant Infrastructure (SSI 50831979) project assessed under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979*.

Figure 1 provides a location map and sensitive receivers for Hartwood and Wanganella are shown on Figure 6 and Figure 7.

2.2. Aboriginal Heritage Sites Impacted

The three heritage sites that would be impacted for the ancillary facilities are situated on the creek bank or adjacent floodplain, within the Construction Activity Zone and within 50 m of Billabong Creek.

Hartwood Weir Scarred Tree 4 (AHIMS 54-3-0059)

- Coordinates: 344262.5 E, 6091185.9 N (GDA94 / MGA55)
- Situated on the creek bank, ~25 m west of the proposed regulator footprint.
- Refer to Figure 2 and Figure 3

Wanganella Weir Scarred Tree 3 (AHIMS 54-2-0264)

- Coordinates: 300391 E, 6100634 N (GDA94 / MGA55)
- Located on the Billabong Creek floodplain, immediately adjacent to the Wanganella Weir works area..
- Refer to Figure 4 and Figure 5

Hartwood Weir Hearth (AHIMS 54-3-0061)

- Coordinates: 344312.0 E, 6091133 N (GDA94 / MGA55)
- Located on the Billabong Creek bank near Hartwood Weir.
- Refer to Figure 2 and Figure 3



Figure 1: Location Map – Overview of the location of the study area (Source EIS)

Figure 2: Hartwood Site Map - Redacted

Figure 3 Hartwood Hearth 54-3-0061 and Hartwood Scarred Tree 54-3-0059 - Redacted

.

Figure 4 Wanganella Site Map

Figure 5: Wanganella Weir Scarred Tree - Redacted

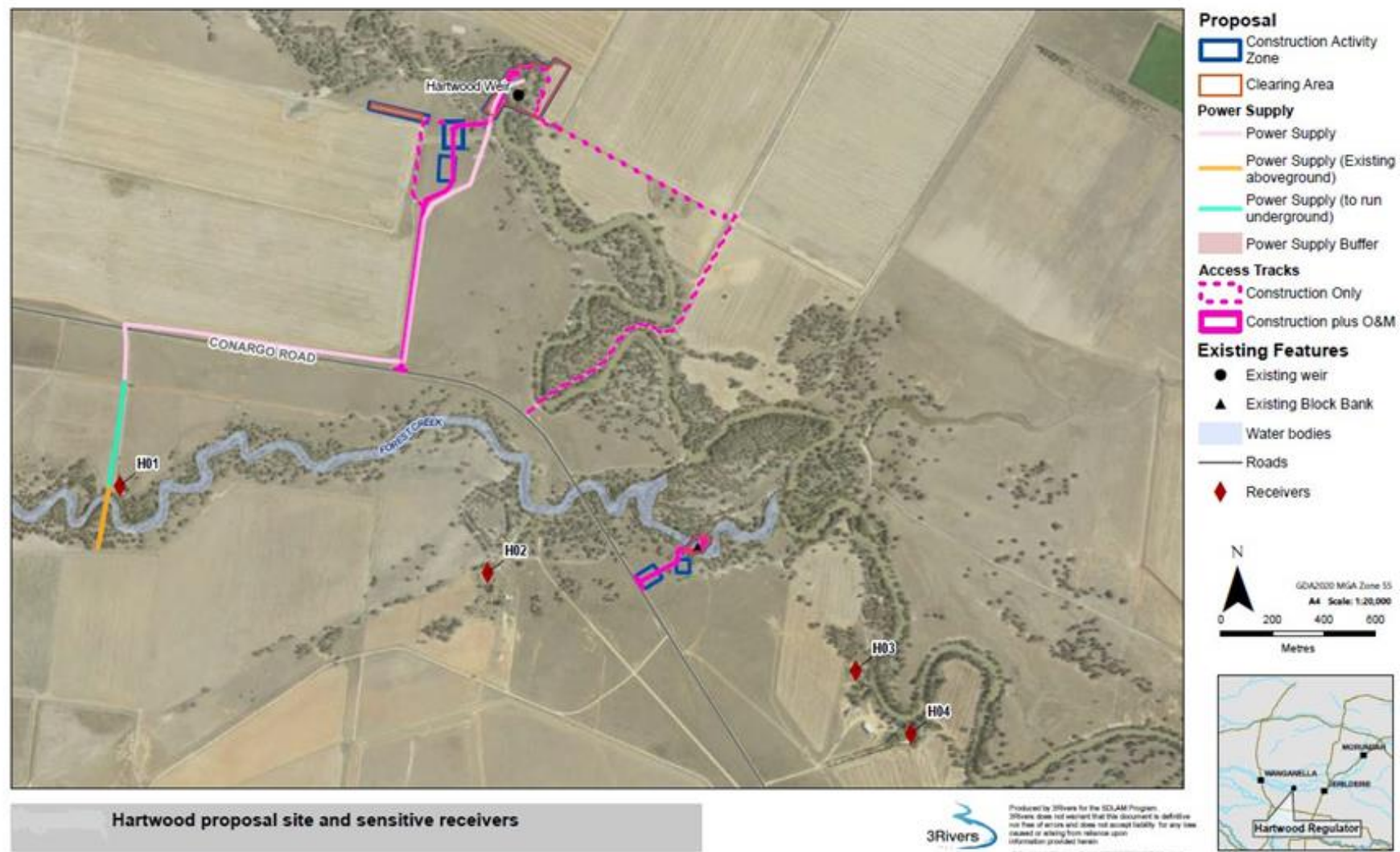


Figure 6 Hartwood sensitive receivers

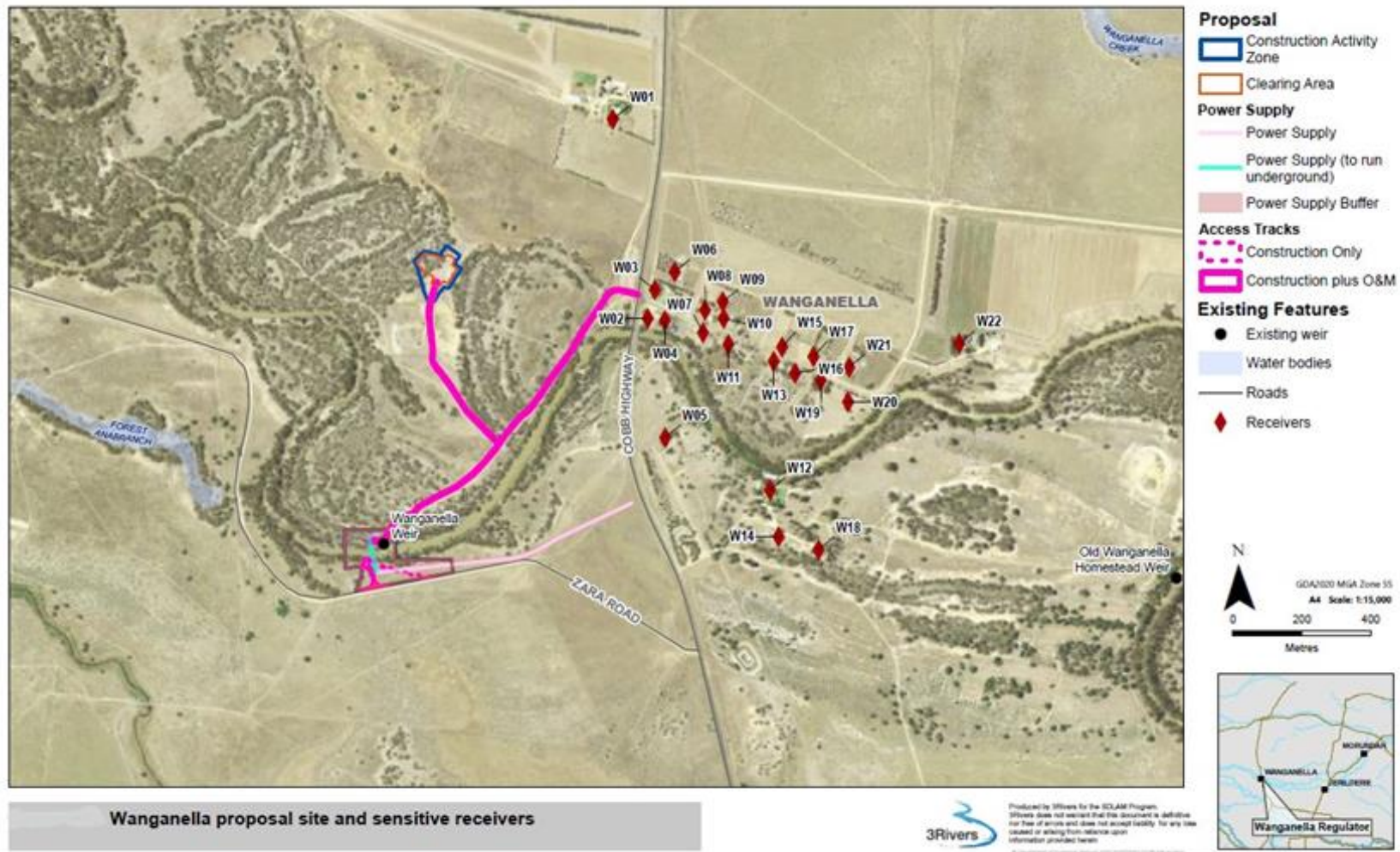


Figure 7 Wanganella Sensitive Receivers

2.3. Environmental Context

A summary of the biodiversity features of the impacted trees and hearth area is presented below.

Wanganella Scarred Tree (See Figure 8):

- Is within a moderate condition patch of PCT 7 - *River Red Gum - Warrego Grass - herbaceous riparian tall open forest wetland mainly in the Riverina Bioregion*
- Does not have mid-storey vegetation in the area around the tree
- Has no habitat features (eg. Fallen branches, rocks etc – as this area is used for informal camping)
- Is not a threatened species or part of a threatened ecological community
- Is dying and is in very poor condition
- Has hollows

Hartwood Scarred Tree (See Figure 9):

- Is within a moderate condition patch of PCT 13 - Black Box - Lignum woodland wetland
- Does not have mid-storey vegetation in the area around the tree
- There are habitat features such as fallen branches around the tree
- Is not a threatened species or part of a threatened ecological community
- Is healthy and is in good condition
- Has hollows

Hartwood Hearth is (See Figure 10):

- Within a moderate condition patch of PCT 13 - Black Box - Lignum woodland wetland
- Trees and mid-storey vegetation is absent in the immediate area around the hearth and the area consists of bare earth and sparse grass
- There are no habitat features such as fallen branches around the hearth site



Figure 8 Photo of Wanganella Scarred Tree



Figure 9 Photo of Hartwood Scarred Tree



Figure 10 Photo of Hearth site

Apart from the area immediate adjacent to the heritage sites, the only other areas that would be potentially impacted are the access routes to the heritage sites. Wherever possible existing tracks would be used, however there are small areas of grassland that would need to be traversed to access the sites. No trimming of trees would be required.

2.4. Description of Activities

The following provides a summary overview of the stages for the salvage and management of the scarred trees and the hearth:

- RAP engagement and consultation
- Recording of the trees (LiDAR scanning, digital recording, scar casting) prior to removal
- Pre-clearance inspection of trees for fauna
- Tree salvage
- Tree transport
- Treatment of section of Hartwood Weir Scarred Tree 4 to be retained for display at Conargo Hall

- Interim storage of section of Hartwood Weir Scarred Tree 4 to be retained until display site has been approved and established
- Interim storage of the Wanganella Weir Scarred Tree 3 until a decision on its final location is made by the RAPs and TOs
- Hearth salvage
- AHIMS record and salvage report

2.4.1. RAP engagement and monitoring

As noted previously, consultation with the RAPs on the removal of the scarred trees and salvage of the hearth was undertaken as part of the ACHAR – with the most recent consultation for the ACHAR in July 2025.

Also there has been ongoing consultation with key RAPs and TOs on the salvage and display of the Hartwood scarred tree for about 3 years – which included a site inspection in March 2026.

The final methodology for the recording and salvage of the trees is being developed in consultation with the RAPs and this document forms part of that consultation.

RAP representatives will be invited to attend:

- preworks inspections (already undertaken for Hartwood Scarred tree in March 2026)
- LiDAR scanning, casting, and tree salvage operations
- hearth salvage activities.

Generally, a minimum of two representative from the RAPs would be invited to participate in the salvage programme and the relocation of the Aboriginal salvaged objects.

The involvement of RAPs will be fully documented through photos and RAP attendance sheets, consistent with ACHMSP Sections 7.1–7.4

2.4.2. Recording of the salvaged scarred trees

Prior to salvage of the trees, LiDAR scanning to create a 3D model and a complete digital photographic recording of the tree would be undertaken. A cast of the scar would also be undertaken. Copies of the recordings will be provided to RAPs on request.

The natural lean information of Hartwood Weir Scarred Tree 4 (AHIMS 54 3 0059) will be recorded to inform the for future display (refer Figure 11).

2.4.3. Pre-clearance inspection of trees for fauna

Prior to removal of the trees, the trees and the area around them will be inspected by a qualified ecologist. If fauna is required to be relocated this would be undertaken in accordance with the measures detailed in Appendix H and I of this plan.

2.4.4. Salvage of scarred trees

The salvage of the trees will be undertaken:

- by a qualified arborist,
- in the presence of a qualified archaeologist and representatives of the RAPs
- in a manner to avoid damage to all culturally modified surfaces
- to include any cultural practices recommended by the RAPs

The arborist will provide a methodology for the technique for cutting and salvaging the trees and for lifting the tree onto the truck for transport.

The location of cuts for salvaging Hartwood Weir Scarred Tree 4 (AHIMS 54 3 0059) is shown in Figure 11 and key RAPs have agreed with the locations.

RAPs and TOs would have the opportunity to salvage any other sections of the trees for ceremonial use or the manufacture of Aboriginal cultural items.

The stump of the trees and any remaining sections of the trees would remain in-situ and be cleared/managed/reused by the construction contractor in compliance with the relevant management plans. Rehabilitation of the sites would occur as part the site-wide Rehabilitation Plan. The Rehabilitation Plan is currently being developed and further information will be provided within the Biodiversity Management Plan, a sub-plan of the Construction Environmental Management Plan.



Figure 11 Hartwood Weir Scarred Tree 4 Trunk and Branch Cut Locations

2.4.5. Transport of salvaged trees

The sections of the Hartwood Weir Scarred Tree 4 (AHIMS 54 3 0059) and Wanganella Weir Scarred Tree 3 (AHIMS 5420264) will be transported to the DCCEE Deniliquin Depot (Hardinge Street Deniliquin) in a truck. Wanganella Weir Scarred Tree 3 (AHIMS 5420264) will be transported to the Yarkuwa Indigenous Knowledge Centre.

The trees will be carefully secured in the truck to prevent damage during transport and unloading. Materials (such as padding) will be used to minimise movement of the tree during transport.

The remainder of the salvaged Hartwood Weir Scarred Tree 4 will be transported to the nominated location as agreed by the RAPs.

The trees will be lifted from the truck to the storage in accordance with the Arborist's lift plan.

2.4.6. Treatment of Scarred Trees

For the preservation of Hartwood Scarred Tree (AHIMS 54-3-0059) the following treatment will be undertaken.

- Insecticide treatment
- Fungicide treatment
- Capping the ends of the tree to retain moisture

2.4.7. Interim Storage of Scarred Trees

The Hartwood scarred tree will be stored in a weatherproof lockable shipping container at DCCEEW Deniliquin Depot (Hardinge Street Deniliquin).

2.4.8. Display of the Hartwood Scarred Tree

As noted in the Submissions Report (Section 4.2.6) it is intended that the Hartwood Scarred Tree be incorporated into an existing heritage display adjacent to the community hall in Conargo. Preliminary design details of the display are presented in Appendix F. Further design work, consultation with the RAPs and Edward River Council and planning approval for the display are required before the Hartwood Scarred Tree can be re-located to its final destination.

2.4.9. Wanganella Scarred Tree

The final location for the Wanganella scarred tree would be the Yarkuwa Indigenous Knowledge Centre where it would be used for cultural purposes.

2.4.10. Salvage of Hartwood Hearth — AHIMS 5430061

An archaeological salvage of the Hartwood Hearth will be conducted with an archaeologist and representatives of RAPs present.

Salvage involves surface and subsurface excavation, recording, sampling, and preparation of an Aboriginal Site Impact Recording Form (ASIRF) for AHIMS submission.

The proposed methodology for the hearth salvage excavation is:

- a. Divide the hearth into four quadrants using string lines.
- b. Select one quadrant to start excavation.
- c. Using a hand trowel, gradually excavate the selected quadrant down in stratigraphic units, or where stratigraphic layers are indistinct, in spits no greater than 5cm in depth.
- d. Continue to excavate until the entire quadrant is removed and/or datable material is recovered.
- e. Record the exposed sections.
- f. Dry sieving for the salvage excavations for the hearth would be undertaken, and it is intended to use a 5mm screen.

There are then three options that can be implemented depending upon RAP preferences for the hearth and based upon final determination of whether the hearth is concluded to be an Aboriginal cultural item:

- i. Continue salvage of parts of the remaining three quadrants following the same manner outlined above;
- ii. Lift a portion of the hearth for later analysis; or
- iii. Cease salvage and backfill the salvaged quadrant(s) with the excavated material.

If appropriate datable materials are recovered from the hearth excavation, then these would be submitted for radiocarbon dating and/or optically stimulated luminescence dating as determined appropriate by the archaeologists in consultation and with the agreement of the RAPs for the Project.

Artefacts and samples will be bagged/labelled; a salvage log and chain-of-custody completed.

The salvaged hearth materials will be held temporarily in a secure locked cabinet at the Project Archaeologist's premises or other location agreed to in consultation with the RAPs to allow for analysis and recording.

These Aboriginal objects would be held for up to 12 months post-salvage during which time it will be arranged for them, to be relocated within the Project Site, outside of the approved Development footprint or repatriated in a manner as chosen by the RAPs during ongoing consultation and/or in accordance with Requirement 26 of the Code of Practice. 12 months

Appendix A ACHMSP includes a salvage methodology. Recording will be undertaken in accordance with that documented in the ACHMSP. The location of salvaged Aboriginal objects (hearth material and stone artefacts - if located during salvage of Hartwood Weir Hearth) would be recorded by the submission of site card/s to the Aboriginal Heritage Information Management System (AHIMS). Refer to Section 2.4.11 for recording and reporting.

The location of salvaged hearth material would be recorded by the submission of site card/s to AHIMS, as legally required, within three months from the reburial/relocation of the salvaged Aboriginal objects. In the event that a

Care Agreement is sought by one of the RAPs for the Project for some or all of the recovered Aboriginal objects this agreement must be approved.

2.4.11. AHIMS recording and salvage reporting

An Aboriginal Cultural Heritage Salvage Report will be prepared following the completion of the salvage activities, by a suitable qualified expert, and will be prepared in compliance with CoA E28.

The salvage report will:

- be prepared in accordance with the *Guide to investigation, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) and the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010)
- document the results of the salvage works and scarred tree removal and recording completed under the ACHMSP
- outline the long-term management strategy for all cultural material recovered from the project area, including any permanent public interpretive display
- document the results of any specialist studies including analysis of dating of hearth materials

The draft salvage report would be provided to RAPs with a minimum 28 day period for review and comment before it is finalised. The final would be provided to the Planning Secretary, Heritage NSW, AHIMS, Edward River Council and the RAPs within two years of the completion of salvage works.

In accordance with Condition E19 following completion of work described in the documents listed in Condition A1 that is related to heritage, an Annotated Index and Reference of archival recording, historical research, archaeological excavations (with artefact analysis and identification of a final repository for finds), and other heritage documents of the SSI must be prepared. The final salvage report would also be included in the Annotated Index and Reference for the Project in Accordance with condition E19.

2.4.12. Plant and equipment (indicative)

The following plant and equipment is expected to be used:

- Light vehicles (4x4 utes) for access and supervision
- LiDAR scanning system (tripod-mounted scanner, control targets) for digital recording of scarred trees prior to casting/removal (AHIMS 54-3-0059, 54-2-0264)
- Arborist equipment for trimming/removal under supervision (hand saws, pole pruners; chainsaw only where cleared by the archaeologist)
- Small mobile crane or HIAB for controlled lifting of scar sections/boles after casting; rigging slings & protection pads (as per lift plan)
- Archaeological tools for hearth salvage (grids, trowels, buckets, sample bags, GPS, camera) (AHIMS 54-3-0061)
- Temporary fencing, bollards, high-vis bunting/signage for buffers & no-go zones per ACHA/ACHMSP controls
- Truck for transport of the salvaged trees.

- Protective material for the transport of the trees to avoid damage during transit.
- Spill kits, first-aid kits, UHF radios, fire extinguishers (≥ 9 L) for site safety and incident readiness (A33–A35)
- Locked container on site at the NSW DCCEEW depot Deniliquin Hardinge Street

2.4.13. Works duration

The duration of the works include:

- Mobilisation & site protection set-up: ~2–3 days at each site (buffers, flagging, bollards at Hartwood mounds; RAP/Advisor sign-off [HOLD POINT]).
- LiDAR & casting (each scarred tree): ~1–2 days/tree (including QA of scans, casting cure, documentation).
- Careful removal & load-out (each scarred tree): ~1 day/tree (crane/HIAB under Advisor + RAP).
- Hearth salvage (54-3-0061): ~2–3 days (layout, controlled excavation, sample handling, ASIRF, demob).

2.4.14. Works hours

The works, including delivery, would be undertaken in accordance with the works hours documented in Condition E29 *i.e.*:

- 7:00 am to 6:00 pm Mondays to Fridays, inclusive:
- 8:00 am to 1:00 pm Saturday: and
- at no time on Sundays or public holidays.

2.4.15. Site Restoration

The salvage of the Aboriginal artefacts is being undertaken to enable ancillary sites for construction. At completion of the construction works for the regulators the areas that are subject to salvage of artefacts would be returned to a pre-existing condition of the immediate surrounding areas.

2.5. Other potential impacts

The works would have negligible impacts on other environmental aspects (eg. Traffic, noise) due to their minor nature and short duration. Other potential impacts related to the tree removal and hearth salvage are presented in Table 2. Where relevant mitigation measures on environmental aspects have been included in Table 3 (general management measures), Table 4 (Aboriginal cultural heritage management) and Table 5 (biodiversity management measures).

Table 2 Other potential impacts

No.	Impact
Terrestrial Biodiversity	Loss of 2 mature Black box trees and a small patch of grass – noting their removal has already been approved as part of the works described in the EIS. Appropriate mitigation measures have been included to minimise any additional impacts on terrestrial biodiversity
Soil and water	The salvage of the heritage hearth would involve ground disturbance and there is a minor risk of soil and water impacts. Appropriate mitigation measures have been included to mitigate risks.
Noise	Works are at a minimum of 600m distant from the nearest residence at Wanganella and over 1km at Hartwood. The operation of the chainsaw may be audible at the nearest receivers however the duration of impact would be short. Other activities associated with salvage of the trees would be inaudible. The activities associated with the salvage of the heritage hearth would be inaudible
Traffic	A maximum of 20 vehicle movements would be associated with the activities. These would not result in any significant impacts on traffic.
All other environmental aspects	There would no or negligible impacts on other environmental aspects from the activities.

2.6. Status of other works

Other works will have commenced by the time this EMP is implemented including:

- Site delimitation and flagging of all environmentally sensitive features
- Biodiversity surveys required to be undertaken before clearing can commence
- Site establishment works as described in AFSEMP#1

3. Environmental Management

3.1. Environmental risk assessment

Following review of the existing environment, proposed construction activities, project context, legal and regulatory requirements and the planning approval, permits and licences, environmental aspects and impacts for the project were identified, and a risk assessment conducted Appendix A. Key environmental risks (impacts) that were identified in the Environmental Risk Assessment in Appendix A area summarised as:

Pre salvage activities

- RAP engagement and monitoring
- Cultural protocols and safety
- Flora and fauna impacts
- Casting failure

Salvage and storage

- Damage to culturally modified trees
- Sample loss of the hearth
- Prolonged storage of the tree

Transport of materials

- Damage during transport
- Deterioration such as due to pests
- Mislabelled/lost items
- Vandalism

3.2. Environmental management measures

The EMP has been prepared to outline and describe how DCCEEW, will comply with the Minister's Conditions of Approval (CoA), the Environmental Safeguards, and undertake its duties generally in accordance with the Planning Approval Documentation listed under Conditions of Approval (CoA) A1 where applicable for the removal of the scarred trees and hearth.

The removal and salvage must be carried out generally in accordance with:

- Billabong Creek Regulators Environmental Impact Statement (EIS) (DCCEEW, October 2024)
- Billabong Creek Regulators Response to Submissions – Main Report (RtS) (DCCEEW, May 2025)
- Billabong Creek Regulators Request for additional information (DCCEEW, September 2025)

Site specific management measures for potential environmental impacts that are required for the project are provided from Table 3 to Table 5.

Potential environmental impacts and key environmental management measures must be discussed at induction and daily prestart talks.

An environmental control map (ECM) and Erosion and Sediment Control Plans (ESCP) have been prepared in accordance with the Blue Book, will be progressively adapted as site conditions change, and will be available on site.

Environmental management measures are aligned with the Planning Approval, approvals, permits and licences issued by other agencies and DCCEE – Water Group's:

- 2025 03 EMF-GDL - Soil and water management guideline
- 2025 03 EMF-GDL - Water discharge and reuse guideline
- 2025 05 EMF-GDL - Biodiversity management guideline
- 2025 05 EMF-GDL - Biosecurity management guideline

Table 3: General Management measures

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence
G1	Workers unaware of cultural/environmental controls; non-compliance risk	Brief all personnel on early works requirements and heritage site protections during induction and prestart meetings.	At all times	Project Manager / Site Supervisor	Condition C1;	Induction, prestart records
G2	Accidental encroachment on protected Aboriginal sites	Install and maintain buffers, fencing, flagging and bollards around protected heritage sites. Verify buffers with RAP + Heritage Advisor at Hold Point P1.	Pre-works; ongoing	Site Supervisor; Heritage Advisor; RAPs	Condition E25;	Photos
G3	Vegetation disturbance and track widening	Use existing access tracks only; no new disturbance; keep speed ≤ 15 km/h; use spotter at pinch points and when manoeuvring near vegetation or heritage features.	During works	Site Supervisor	Identified for this EMP	Prestart records
G4	Noise impacts on Sensitive Receivers during site establishment	Notify sensitive receivers in Wanganella township.	During works	Site Supervisor	Condition C1(e)	Noise check notes; prestart records.
G5	Dust affecting RAP monitors, vegetation and visibility	Apply dust suppression (water/misting) if required, cover loads, maintain tidy work areas, and pause operations if dust becomes excessive.	During works	Site Supervisor	CEMP Appendix C – mitigation measures	Site diary; photos
G6	Soil or water contamination from spills/refuelling	Refuel >50 m from waterways; use drip trays; maintain stocked spill kits; implement	During works	Site Supervisor	POEO Act obligations;	Spill kit checklists

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence
		immediate clean-up and lawful disposal procedures.				
G7	Sedimentation and erosion impacts	Install sediment and erosion controls based upon the Blue Book where required	During works	Site Supervisor	Condition E36	Daily checklists

Table 4: Aboriginal cultural heritage – management measures

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence
AH2	Loss of cultural detail if the two scarred trees are not fully recorded before removal	LiDAR + high res photos + GPS + casting of scar surfaces prior to any cutting. Chainsaw use only away from culturally modified surfaces. RAP + Heritage Advisor present at HP ST1 (recording) and HP ST2 (lift).	Pre-construction,	Water Group Heritage Adviser	ACHAR	LiDAR files; photo set; HP-ST1/-ST2 forms
AH4	Documentation gaps; non compliance with AHIMS/CoA	Complete ASIRFs for each impacted site; lodge AHIMS updates (including any relocation/reburial site cards); maintain salvage logs, RAP attendance, and chain of custody; provide inputs for the Salvage Report (E28).	During & post site establishment works	Water Group Heritage Adviser	ACHAR	ASIRFs; AHIMS receipts; registers
AH5	Cultural protocol breaches	Confirm with RAPs any required cultural protocols (ceremonies, gender roles, photography permissions) before works	Pre & during site establishment works	Water Group Heritage Adviser	ACHAR	Prestart notes; RAP sign-ins
AH6	Unexpected finds / human remains	Stop work immediately; secure area; notify Heritage Advisor and RAPs; follow the Unexpected Finds Protocol (and NSW Police for human remains). Do not restart until written clearance is issued. Register new objects in AHIMS as required.	If triggered.	Water Group Heritage Adviser	ACHMSP Appendix B	UFP records; AHIMS new site card(s)
AH7	Long term storage of Hartwood ST4 (cultural value loss; reputational risk)	Implement a long term management program: (i) Interim preservation & secure storage (treatments; locked container; monthly condition checks); (ii) Approvals pathway (DA; condition checks);	Post salvage → display	Water Group	ACHMSP	Monthly condition log; milestone tracker; DA/AHIP correspondence;

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence
		AHIP check for final display beyond project area); (iii) RAP endorsed interpretation;				

Table 5: Biodiversity (land) - management measures

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence	Comment
BL1	Vegetation damage	Use existing access tracks only; avoid new disturbance; speed limit ≤15 km/h	During site establishment works	Site Supervisor	E2-E3	Prestart record;	NA
BL2	Threatened species encounter	If a fauna or unknown flora is encountered implement the Unexpected Threatened Species Finds Protocol	If triggered	Site Supervisor	E7	UTP record	NA
BL3	Loss of salvage value of native timber	Maximise reuse of timber; consult Council/LLS/Landcare/CPA; check pathogen free before reuse. CWD would not be placed in Plains Wanderer Habitat.	Prior to works, during works and rehabilitation	Site Supervisor Arborist	E11	Emails; reuse record	The BMP for the project commits to developing a Rehabilitation Plan in consultation with CHPR and other stakeholders. This plan would include the placement of CWD
BL4	Untrained workers not understanding biodiversity issues	All workers will be provided with an environmental induction prior to starting work on site. This will include information on the biodiversity values of the site, protection measures to be implemented to protect native biota and penalties for breaches.	Prior to tree removal and heritage salvage	Environmental Manager Project Ecologist	B03	Induction records	NA
BL5	Damage to vegetation outside clearing limits	The Project boundary, clearing limits, biodiversity exclusion zones and Tree Protection Zones (TPZs) will be clearly delineated with fencing and signage to restrict access and protect vegetation to be retained.	Prior to tree removal and heritage salvage	Environmental Manager Representative	B08	Hold point checklist for site delimitation	This would be undertaken by the contractor as part the Low impact works

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence	Comment
				Site Engineer Site Supervisor			which would precede the works associated with this EMP.
BL6	Damage to vegetation outside clearing limits	Exclusion zones (no-go zones) will be marked out by a qualified surveyor and then fenced with highly visible and durable product (e.g. high visibility string of bunting or plastic mesh (not transparent) attached to star pickets with plastic caps (or weighted posts that avoid ground penetration in culturally sensitive areas)). No barbed or razor wire will be used.	Prior to tree removal and heritage salvage	Environmental Manager Site Engineer Site Supervisor	SWQ13 B08	Hold point checklist for site delimitation	This would be undertaken by the contractor as part the Low impact works which would precede the works associated with this EMP.
BL7	Fauna capture	Fencing will be temporary to exclude wildlife (e.g. from open trenches): Fencing stays located inside the exclusion area, or with high visibility mesh to guide wildlife away from obstructions and potential traps. Shade cloth or other suitable deterrent will be attached to the lower 50 cm of the outside of the exclusion zone and weighted to the ground.	Prior to tree removal and heritage salvage	Environmental Manager Project Ecologist	SWQ13	Hold point checklist for site delimitation	This would be undertaken by the contractor as part the Low impact works which would precede the works associated with this EMP.
BL8	Threatened species encounter	Prior to the commencement of construction, additional survey/s will be undertaken to confirm the extent of threatened species within the Project site. Surveys will include an assessment of the local <i>Swainsona murrayana</i> and Southern Bell Frog populations, as well as threatened bird breeding habitat. Should additional threatened species be identified during the survey/s, this Ancillary Facility Site Establishment Management Plan will be updated accordingly. A pre-clearing threatened species	Prior to tree removal and heritage salvage	Environmental Manager Project Ecologist	B05 B06 B07	Pre-clearing survey reports	This would be undertaken by the contractor as part the Low impact works which would precede the EMP. It should be noted the proposed activities are not located in an area where <i>Swainsona</i>

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence	Comment
		survey report will be prepared, following completion of the survey/s.					<i>murrayana</i> has been recorded.
BL9	Fauna relocation	A pre-clearing inspection of the scarred trees and their immediate surrounds will be undertaken 24 hours prior to any native vegetation clearing by a suitably qualified ecologist and the Site Environmental Representative (or delegate). The pre-clearing inspection will include, as a minimum: • Identification of trees that are just outside the marked clearing boundary that require protection to avoid unintended damage during the clearing • Identification of hollow bearing trees that need to be removed in accordance with the hollow- bearing tree removal procedure • Identification of other habitat features that need to be relocated outside the clearing boundary • Identification of any threatened flora and fauna	Prior to tree removal and heritage salvage	Environmental Manager Project Ecologist	SWQ12 B11	Ecologist report	None
BL10	Fauna relocation	Fauna encounters within the Project sites will be managed in accordance with the Fauna Handling and Rescue Procedure (Appendix I).	Before and during tree removal and heritage salvage	Environmental Manager Project Ecologist	SWQ12	Ecologist report	None
BL11	Spread of weeds or pathogens	Declared priority weeds and pathogens will be managed according to requirements of the NSW <i>Biosecurity Act 2015</i> and the Weed and Pathogen Control Plan in	Before and during tree removal and	Environmental Manager	SWQ08 B14 B15 LU1 WR5	Site diary	None

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence	Comment
		Appendix G. All machinery entering the site will be appropriately washed down and disinfected prior to work on site to prevent the potential spread of weeds and disease in accordance with the NSW best practice Protocols to protect priority biodiversity areas (DPIE 2020). Protocols to prevent introduction or spread of chytrid fungus will be implemented following the NSW hygiene guidelines for wildlife (DPIE 2020f).	heritage salvage	Project Ecologist Site Supervisor			
BL12	Damage to trees	Materials, plant, equipment, work vehicles and stockpiles will be stored, parked or placed as applicable away from the driplines of trees that are outside the clearing boundaries or that are within the clearing boundaries but proposed for retention.	Before and during tree removal and heritage salvage	Environmental Manager Site Supervisor	Best Practice	Site inspection report	None
BL13	Clearing of native vegetation	The clearing of native vegetation will be minimised to the greatest extent practicable with the objective of reducing impacts to threatened ecological communities and threatened species habitat.	Before and during tree removal and heritage salvage	Environmental Manager Site Supervisor	Condition E2	Photographs	Noting only two trees and a small patch of grass would be removed
BL14	Harm to fauna	Native vegetation clearing will only occur in the presence of a suitably qualified, licensed and trained ecologist/ fauna spotter catcher	Before and during tree removal and heritage salvage	Environmental Manager Project Ecologist Site Supervisor	B10 B12	Clearing records; report by ecologist	None

No.	Impact	Environmental management measure	Timing	Responsibility	Source	Evidence	Comment
BL15	Loss of habitat features	Significant habitat resources (fallen timber, hollow logs and embedded rock) will be temporarily stored on site before being relocated in consultation with relevant stakeholders to provide supplementary habitat for displaced fauna.	During and after tree removal	Supervisor	Biodiversity Management Plan – B13	Rehabilitation Plan	None
BL16	Clearing of hollow trees	Clearing would be undertaken in compliance with the two stage clearing protocol presented in Appendix H.	Before and during tree removal and heritage salvage	Environmental Manager Project Ecologist Site Supervisor	Biodiversity Management Pla	Clearing records; report by ecologist	None
BL17	Illegal vegetation clearing	Biodiversity offsets credits would be retired before clearing of vegetation	Before vegetation removal	Environmental Manager	Conditions E5 and E6	Biodiversity certificates	None

3.3. Hold points

Environmental hold points that must be implemented are summarised in Table 6.

An environmental hold point is where work must stop until environmental management requirements under the contract have been assessed to have been met by DCCEEW.

Table 6: Environmental hold points

Project phase	When	Environmental hold point	Responsibility
Plan endorsement	Before any works	ER to endorse and DPHI to approve this EMP	Water Group
All works	All works	Discovery of threatened species potentially impacted by works	Water Group; Ecologist
Scar tree removal	Before tree removal	Pre-clearance survey. Identify if any threatened species present	Ecologist
Scar tree removal	Before tree removal	Completion of the recordings of scar trees	Archaeologist
Scar tree removal	Before lift commences	Lift plan briefing; arborist + rigger present; RAP & Advisor at tree	Water Group
Demobilisation	Before removing controls	[HP-D1] Post-works inspection; photo/GPS evidence complete; ASIRF lodged (as applicable)	Archaeologist; Water Group

Work will also be stopped in response to triggers under environmental laws and regulations and unexpected finds of threatened flora or fauna species e.g. NPW Act 1974 requirement to stop work on discovery of unexpected heritage find, and the POEO Act 1997 requirement to notify material harm pollution incidents.

4. Implementation

4.1. Roles and responsibilities

Key roles and responsibilities for the project are provided in Table 7.

Table 7: Key roles and responsibilities

Role	Responsibility
Project Manager	· Overall responsibility for the implementation of the EMP · Ensuring health, safety and environmental management systems are implemented · Ensuring appropriate consultation is undertaken with RAPs and Tos · Ensuring appropriate resources available
Site Supervisor	· Enforce buffers and access control; coordinate hold points; maintain daily records; stop work on unexpected finds; ensure incident escalation
Cultural Advisor & Aboriginal Engagement Officer	· • Lead RAP engagement and cultural protocol management. · • Ensure RAP monitors are present at required hold points. · • Support culturally safe practices onsite and in decision -making. · • Verify that cultural protocols are met before LiDAR, casting, removal and hearth salvage. · • Assist with cultural interpretation for ASIRFs and Salvage Report inputs.
Environmental Manager	· Develop and review the EMP. · Conduct induction training, in accordance with this and ensure that induction training is attended by all project personnel. · Audit site activities against the requirements of this EMP. · Conduct prestart meetings to discuss environmental issues with employees and identify areas for improvement. · Manage the environmental incident escalation process and immediately report all incidents. · Review and approve sub-contractor environmental management plans.
All employees	· Report all environmental incidents to the Site Supervisor. · Attend the site induction · Co-operate site management to comply with the CEMP. · Where applicable, complete pre-start checks correctly for plant and equipment prior to operation and reports any damages or repairs immediately to the site supervisor. · Actively participate in prestart meetings.

Role	Responsibility
Sub-contractors (if applicable)	· Report all environmental incidents to the Site Supervisor. · Attend the site induction · Co-operate with site management to comply with the CEMP. · Where applicable, complete pre-start checks correctly for plant and equipment prior to operation and reports any damages or repairs immediately to the site supervisor. · Actively participate in prestart meetings.
Archaeologist	· Define no-go areas; approve cut/trim locations away from culturally modified surfaces; supervise LiDAR, casting, removal, trimming, and salvage; complete ASIRF and AHIMS registrations; compile salvage log and photo/GPS evidence; advise on storage & chain-of-custody
RAP Monitors	· Attend all early-works activities; confirm cultural considerations and supervise proximity to scars; co-witness photography and labels; co-sign attendance and hold-point forms (A8, C11, E25).
Environmental Representative (ER)	· Endorse this EMP prior to submission; monitor implementation; provide monthly reports to the Planning Secretary per A23(k).
Ecologist	· Undertake pre-clearance survey · Reporting if any threatened flora or fauna species are identified

4.2. Training

4.2.1. Site specific induction

All personnel working on the project must attend a site induction.

The Site Supervisor and Environmental Manager are responsible for running the site induction. The Site Supervisor must keep a record of all onsite inductions including the topic, name of attendees and the date of the training.

Information that will be discussed at the site induction must include:

- Environmental responsibilities / obligations
- Environmental control map(s) including sensitive receptors and associated management measures.
- Key aspects of the erosion and sediment control plan(s)
- Unexpected finds procedure for threatened species and heritage items
- No go areas, areas with biodiversity constraints and threatened species locations
- Approved impact area
- No-go areas, locations of biodiversity constraints/threatened species locations, unexpected finds procedure for threatened flora and fauna
- Relevant environmental legislation, environmental impact assessment and Planning Approval
- Incident and emergency response
- Discovery, reporting and protection of Aboriginal cultural heritage and historic heritage material
- Implementation of management measures for key environmental risks identified in the environmental risk assessment
- Response to severe weather events

4.2.2. Prestart meetings

Prestart Meetings must be conducted daily or as the need arises due to new or environmental impacts. Prestart Meetings may be run by the Site Supervisor or Project Manager.

The Site Supervisor must record topics discussed and persons responsible for any actions and a suitable date by which actions must be completed. Minutes of the previous meeting shall be reviewed at each prestart meeting including the completion of outstanding actions.

Examples of environmental topics that may be included in inductions and/or standalone training:

- Identifying sensitive environmental areas e.g., banks, instream, phragmites, native vegetation, hollow and nest bearing trees, Plains Wanderer habitat etc
- Environmental incident and emergency response
- Corrective actions from inspections

- Unexpected item process for the discovery, reporting and protection of Aboriginal cultural heritage (Appendix B) and historic heritage material
- Unexpected item process for the discovery, reporting and protection of threatened species (Appendix E)
- Management measures for key environmental risks identified in the CEMP
- Response to key weather events
- Importance of being a good neighbour e.g., use of existing access roads, avoid noise disturbance, minimise dust etc

4.2.3. Training records

Induction and training records will be stored electronically on relevant databases.

4.3. Emergency management

The Site Supervisor must have an Emergency Response Plan for the project available on site that includes:

- Potential environmental incidents and response
- The location of muster points
- Location of firefighting equipment, spill response kits and emergency contact details
- Emergency contacts
- Reporting.

4.4. Incident management and non-compliance

Incident and non-compliance notification will be in accordance with Conditions A33, A34 and A35.

Response to an environmental incident is described in DCCEEW's environmental incident management procedure (2024 02 EMF-PCD – Environmental incident management procedure) which is provided in Appendix C.

As well as the measures contained in the environmental incident management procedure, DCCEEW would notify the ER and DPHI within 24 hours of becoming aware of an incident. The notification would be made via the NSW planning portal (Major Projects) and address details of the incident including:

- (a) date, time and location;
- (b) a brief description of what occurred and why it has been classified as an incident;
- (c) a description of what immediate steps were taken in relation to the incident; and
- (d) identifying a contact person for further communication regarding the incident.

DCCEEW would also provide the ER and DPHI with a subsequent incident report in accordance with Incident Notification and Reporting Requirements below.

INCIDENT NOTIFICATION REQUIREMENTS

1. All incident notifications and reports must be submitted via the NSW planning portal (Major Projects).
 2. The Proponent must provide notification as required under these requirements, even if the Proponent fails to give the notification required under **Condition A32** or, having given such notification, subsequently forms the view that an incident has not occurred.
 3. Within **7 days** (or as otherwise agreed by the Planning Secretary) of the Proponent making the immediate incident notification (in accordance with **Condition A32**), the Proponent is required to submit a subsequent incident report that:
 - (a) identifies how the incident was detected;
 - (b) identifies when the Proponent became aware of the incident;
 - (c) identifies any actual or potential non-compliance with conditions of consent;
 - (d) identifies further action(s) that will be taken in relation to the incident;
 - (e) a summary of the incident;
 - (f) outcomes of an incident investigation, including identification of the cause of the incident;
 - (g) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, including the period for implementing any corrective and/or preventative actions; and
 - (h) details of any communication with other stakeholders regarding the incident.
 4. The Proponent must submit any further reports as directed by the Planning Secretary.
 5. Council shall be notified in any incidents impact on Council's assets as soon as practicable.
- Within seven days of becoming aware of a non-compliance, DCCEEW would notify the ER and DPHI.

5. Monitoring

5.1. Inspections

The Site Supervisor will conduct daily environmental inspections of each work area, and pre-start equipment inspections, to identify potential and actual, environmental impacts. The daily environmental inspection will be conducted to assess if environmental management measures as described in the EMP are

in place. Findings of the daily environmental inspection, including corrective actions, will be tracked in the site diary.

5.2. Monitoring

The monitoring plan for the activities in this EMP is provided in Table 8. Corrective actions resulting from monitoring must be recorded in the site diary.

Table 8: Project monitoring plan

Potential environmental impact	Monitoring	Timing	Responsibility
Biodiversity	<i>Assess construction activities have been conducted within the approved work area and using existing access tracks</i>	<i>Daily environmental inspection</i>	<i>Site Supervisor</i>
	<i>Assess if fauna has been trapped in works area overnight. Seek advice from ecologist if fauna is trapped.</i>	<i>Daily environmental inspection</i>	<i>Site Supervisor</i>
Heritage protection	Visual check of buffers/no-go zones against ECM; photo/GPS evidence at hold points.	Daily; at each HP	Site Supervisor; Heritage Advisor
Recording quality (trees)	Verify LiDAR files saved; casting cured and labelled; photos/GPS completed.	At HP-ST1/-ST2	Heritage Advisor
Hearth stratigraphy	Check quadrant layout, section photos/drawings, labelling & custody.	At HP-H1 and during excavation	Heritage Advisor
Dust	Visual checks; water/misting as required; record actions.	Daily / weather-driven	Site Supervisor
Traffic	Speed adherence; spotter at pinch points; neighbour notifications (if needed).	Daily	Site Supervisor
Spills readiness	Spill kits stocked; refuelling locations confirmed >50 m from waterways.	Daily	Site Supervisor

Potential environmental impact	Monitoring	Timing	Responsibility
Documentation	Daily collation of ASIRFs, RAP sign ins, chain of custody, photo/GPS logs; AHIMS lodgement tracker.	Daily / post-works	Heritage Advisor; Project Manager
Noise monitoring	Not proposed to be undertaken for the activity due to the short duration and to located near sensitive noise receivers	Not applicable	Not applicable

6. Improve

6.1. Complaint management

Any complaints would be managed in accordance with the Complaints Management System detailed in the Community Communication Strategy.

6.2. Environmental management records

EMP and environmental management records must be kept in the Site Supervisor office and include:

- Site diary: daily and weekly environmental inspection results, corrective actions, weather conditions and fire rating, waste volume and disposal destination, complaints.
- Induction and training records
- Environmental incident reports and investigations
- Safety data sheets
- Prestart meeting records.

Appendix A – Environmental risk assessment

A qualitative environmental risk assessment is provided as an example in Tables A1 to A4. The methodology is based on the:

- NSW Government Environmental Management Plan Guideline (Guideline for Infrastructure projects) (NSW Department of Planning, Housing and Infrastructure - Planning, 2020); and
- Risk Management Procedures (NSW Department of Planning, Housing and Infrastructure – Planning, November 2023)

The EMP project environmental risk assessment is provided in Table A 4. Each risk was assessed in terms of the risk matrix in Table A 1 using the likelihood in Table A 2 and consequences (Table A 3) for:

- Compliance
- Environment, conservation and heritage
- Reputation and trust

Table A 1: Risk Matrix

RISK MATRIX	CONSEQUENCE				
LIKELIHOOD	Insignificant	Minor	Moderate	Major	Extreme
Almost Certain	MEDIUM 11	HIGH 17	HIGH 20	VERY HIGH 23	VERY HIGH 25
Likely	LOW 7	MEDIUM 12	HIGH 18	HIGH 21	VERY HIGH 24
Possible	LOW 4	MEDIUM 9	MEDIUM 13	HIGH 19	HIGH 22
Unlikely	LOW 2	LOW 5	MEDIUM 10	MEDIUM 14	HIGH 16
Rare	LOW 1*	LOW 3	LOW 6	MEDIUM 8	HIGH 15

Table A 2: Likelihood

Likelihood	General description		
Almost certain	Expected to occur in most circumstances involving normal operations	Large number of known incidents within the department. Occurs regularly in the industry.	Predicted to occur in almost every operation of this kind (>90%)
Likely	Considerable opportunity and means to occur. Could happen at any time.	Regular incidents known within the department. Has occurred many times in the industry	Likely to occur in more than 1-in-2 operations of this kind (50%-90%)
Possible	Some opportunity and means to occur	Few infrequent, random occurrences recorded within the department. Has occurred several times in the industry.	Likely to occur between 1-in-2 and 1-in-4 operations of this kind (25-50%)
Unlikely	Little opportunity or means to occur. Might happen, but not expected to occur	No known incidents recorded or experienced within the department. Has occurred once or twice in the industry	Likely to occur between 1-in-4 and 1-in-20 operations of this kind (5%-25%)
Rare	Almost no opportunity to occur. Might happen, but probably never will.	Not known or reported to have ever occurred in the industry.	Highly unlikely to occur (<5%)

Table A 3: Consequence

Insignificant (level 1)	Minor (level 2)	Moderate (level 3)	Major (level 4)	Extreme (level5)
Compliance				
Isolated, low-level noncompliance with standards and policy with negligible impact on local business activities	Minor non-compliance with legislation, regulation or policy with minimal impact on branch-wide activities.	Repeated non-compliance with legislation, regulation or policy; reportable noncompliance requiring rapid remediation.	Significant non-compliance with legislation, regulation or policy resulting in substantial regulatory responses issued against the agency.	Systemic and substantial noncompliance with legislation, regulation or policy. Prosecution with referral to external agencies such as Police or ICAC.
Environment, Conservation & Heritage				
Negligible and temporary impact on the environment, including flora, fauna, ecosystems or heritage sites (including buildings). Will recover naturally with no remedial works required	Minor, localised, short-term environmental impacts such as damage to flora, fauna, ecosystems or heritage sites (including buildings). Will recover with minor/short-term site-based remedial action.	Moderate, short term environmental impacts. Damage to flora, fauna, ecosystems or heritage sites (including buildings). Will recover in a medium to long-term period with moderate & sustained remedial action.	Significant environmental harm requiring comprehensive and sustained remedial action. Loss of local populations of particular flora, fauna or heritage sites (including buildings).	Severe and unrecoverable environmental harm. Extinction, loss of species diversity, ecosystem collapse or total loss of heritage sites (including buildings).
Reputation & Trust				
Barely noticeable impact on goodwill or trust recoverable with little effort or cost	Some community and stakeholder complaints. Confidence and trust dented but satisfactorily resolved with consultation and negotiation. Modest cost within existing budget and resources.	Large volume of community or stakeholder complaints, short-term negative media coverage. Confidence and trust diminished but recoverable. Written advice to Deputy Secretary or Secretary.	Extensive negative media coverage. Confidence and trust damaged but recoverable at considerable cost, time and employee's effort. Written advice and follow up with Minister's Office.	Sustained media coverage. Potential removal of political/department leadership. Total breakdown of trust in the department, with full recovery questionable and costly.

Table A 4: Environmental risk assessment

Activity / Aspect	Potential environmental impact	Before management measure			Environmental management measure	After management measures implemented		
		Consequence	Likelihood	Risk ranking		Consequence	Likelihood	Risk rating
Pre salvage activities								
RAP engagement & monitoring	Inadequate engagement; cultural harm; reputational risk; A8/E25 non-compliance	Moderate	Possible	Medium	• RAPs to be consulted on EMP • RAP to attend all hold points; • Cultural protocol briefing; • RAP co-witness labels/CoC/photos; • Maintain sign-ins, engagement/consultation log.	Minor	Unlikely	Low
Cultural protocols & RAP cultural safety	Protocol breach; cultural distress; reputational risk	Moderate	Possible	Medium	• Pre-works cultural protocol meeting (ceremony, gender roles, image permissions); • Prestart meeting inclusion; • rest/time-out options	Minor	Unlikely	Low
Pre-clearance (heritage + ecology)	Unobserved impacts to flora/fauna/heritage; UFP triggers	Moderate	Possible	Medium	• Archaeologist +RAPs verify buffers, fencing • Ecologist undertake pre-clearance survey & clearance; • Relocate fauna if found; record outcome • Use existing tracks only; brief crew on access limits • Unexpected Finds protocols	Minor	Unlikely	Low
Scar tree recording (LiDAR, casting)	Incomplete/poor record; casting failure	Major	Possible	High	• Complete LiDAR & WA checks before any cutting; • Prepare and test agreed casting method; shade cover as needed • Hold HP-ST1 with RAP + Advisor; save files to dual media • Label, photograph and document tree features	Moderate	Unlikely	Medium
Salvage								
Scar tree removal (2 sites)	Damage to culturally modified surfaces; collapse risk	Major	Possible	High	• Follow engineered lift plan; protect scars with padding • Use hand tools first and approved cult locations; • Hold HP-ST2 with RAP + Advisor; complete condition photos • Record ASIRF details and transport logs	Moderate	Unlikely	Medium
Hearth salvage (AHIMS 54-3-0061)	Stratigraphic loss; sample loss; reporting gaps	Moderate	Possible	Medium	• Establish quadrant layout and hold HP-H1; • Excavate in stratigraphic layers • Bag /label samples • Complete chain-of-custody; • Record sections; • Secure temporary storage • Submit ASIRF; • Salvage Report per E28	Minor	Unlikely	Low
Long-term management and display	Prolonged storage; cultural value loss; reputational risks	Moderate	Possible	Medium	• Clear milestones • Planning for final display	Minor	Unlikely	Low

Activity / Aspect	Potential environmental impact	Before management measure			Environmental management measure	After management measures implemented		
		Consequence	Likelihood	Risk ranking		Consequence	Likelihood	Risk rating
					- RAP-endorsed interpretation; - Secured preserved storage at Deniliquin			
Transport of materials								
Transport of Hartwood scarred tree	Mechanical/vibration damage; WHS risk	Major	Possible	High	- Apply lift/haul plan with padded restraints. - Control vibration and speed; - Complete pre-and post- transport condition photos - Log handling steps in custody record.	Moderate	Unlikely	Medium
Interim storage (Hartwood)	Deterioration; pests; unauthorised access	Moderate	Possible	Medium	- Treat the trees with insecticide and fungicide; - Cap ends of cut limbs to contain moisture - Tree to be stored in locked container (Deniliquin Depot); - Restrict access to the container - Place signs on the container about the tree storage - Undertake periodic condition checks	Minor	Unlikely	Low
Documentation & chain-of-custody integrity	Mislabelled/lost items; AHIMS/ASIRF errors; E28 gaps	Moderate	Possible	Medium	- Assign unique IDs to objects / samples. - Co-witness labelling with RAP - Reconcile photos, GPS logs, ASIRFs daily - Lodge AHIMS updates and prepare Salvage Report inputs	Minor	Unlikely	Low
Weather, exposure & delay deterioration	Casting failure; water damage; warp/crack pre-haul	Major	Possible	High	- Weather monitoring; Apply weather hold points if needed; - Cure casts under shade/cover; protect timber from heat/wind - Use breathable wraps to avoid moisture traps;	Moderate	Unlikely	Medium
Security & conservation during storage	Vandalism/theft; pest ingress; moisture	Moderate	Possible	Medium	- Maintain locked, weather-proof container with access log; - Conduct periodic pest/moisture checks; - Maintain condition log until display	Minor	Unlikely	Low
EMP → ACHMSP/CEMP integration gap	Site establishment-works outputs not captured; future C9/C11 gap	Moderate	Possible	Medium	- Maintain handover checklist (LiDAR, casts, photos/GPS, ASIRFs, RAP sign-ins); - Append EMP outputs to ACHMSP; - ER confirms capture at endorsement.	Minor	Unlikely	Low
Fauna in trees (clearance failure)	Fauna injury/mortality; non-compliance	Moderate	Possible	Medium	- Ecologist pre-clearance & clearance; - Stop and relocate fauna if encountered; - Record species, actions and outcomes	Minor	Unlikely	Low
Weed / pathogen spread	Biosecurity impacts onsite/offsite (spread of weeds)	Moderate	Possible	Medium	- Clean down plant/equipment on arrival/departure. - Manage priority weeds; keep clean-down logs. - Confirm timber pathogen-free before reuse.	Minor	Unlikely	Low
Noise at Sensitive Receivers (C1(e))	Amenity impact at Wanganella (~600 m); none near Hartwood (~10 km to Conargo)	Minor	Possible	Medium	Standard hours; site-establishment noise monitoring;	Minor	Unlikely	Low

Activity / Aspect	Potential environmental impact	Before management measure			Environmental management measure	After management measures implemented		
		Consequence	Likelihood	Risk ranking		Consequence	Likelihood	Risk rating
					Notify landholders in accordance with the community engagement plan			
Traffic on access tracks	Conflicts with public/stock; dust; visibility	Moderate	Possible	Medium	- Use existing tracks; - Adhere to speed limits; - Notify landholders in accordance with the community engagement plan	Minor	Unlikely	Low

Appendix B – 2024 09 EMF – TOO - Unexpected heritage finds protocol

Appendix C – 2024 02 EMF-PCD - Environmental incident management procedure

Appendix D – Original Justification for AFSEMP#2

Note: this justification has been retained for the purpose of this EMP. AS the CEMP and sub-plans have now been approved the Condition C1 is no longer applicable. This EMP will now form an attachment to the ACHMSP.

The following provides supporting information for the justification for the heritage tree removal and hearth salvage to occur under an Ancillary Facility Site Establishment Management Plan.

The areas containing Sites 54-2-0259, 54-3-0059 and 54-3-0061 will be required for temporary construction and demolition activities associated with delivery of the regulator works.

While they sit outside the permanent footprint, they are operationally required as construction compound and access areas within the approved Construction Activity Zone.

Please see below a breakdown of the types of activities that will be undertaken in these areas.

1. 54-2-0259 – Norther Bank (Wanganella Weir) and 54-3-0059 – Western Bank (Hartwood Weir)

These areas will function as temporary construction compound zones to support regulator construction and associated earthworks.

Activities include:

- Excavation box-outs for regulator wall construction
- Batter back of excavation faces to achieve safe and compliant profiles
- Placement of select clay backfill in accordance with design requirements
- Establishment of temporary hardstand and working platforms
- Stockpiling and handling of excavated and imported materials
- Processing of site-won material, including in-situ mixing and treatment with gypsum prior to placement
- Laydown and staging areas for plant, formwork, reinforcement and construction materials

The spatial extent required exceeds the permanent footprint due to engineering requirements for batters, plant operation, material processing, and safe working areas.

2. **54-3-0061 – Access & Demolition Area (Wanganella Weir)**

This area is required to facilitate access and demolition works associated with removal of the existing Wanganella Weir and will operate as a temporary access road and construction compound area.

Activities include:

- Construction of temporary access tracks and entry points
- Establishment of vehicle turnaround areas for heavy plant
- Provision of sufficient working room for crane operations
- Operation of large excavators and haulage vehicles
- Establishment of hardstand areas to support demolition plant and heavy machinery
- Temporary stockpiling and handling of demolition material

- Batter back following removal of the existing structure to achieve safe and compliant batters
- Essential backfill activities following demolition
- Laydown and manoeuvring space for plant and materials

The disturbance footprint reflects the operational requirements for safe demolition, cramage, heavy machinery access, haulage, batter stabilisation, and backfilling.

3. **54-2-0264 – Additional Impact Area**

Although not previously listed, Site 54-2-0264 will also be impacted due to similar construction requirements as Site 54-2-0259.

Activities include:

- Regulator excavation box-outs
- Batter back of excavation faces
- Establishment of hardstand areas for plant access
- Material stockpiling and handling
- Placement of select clay and associated backfilling works

The disturbance arises from temporary construction compound and earthworks activities necessary to safely deliver the regulator works and does not relate to the permanent footprint of the completed structure.

Collectively, these areas will function as temporary construction compounds, access roads, hardstand areas, material processing zones, and demolition/work areas within the approved Construction Activity Zone. On that basis, they are consistent with the definition of an Ancillary Facility under the Conditions of Approval.

Appendix E – Unexpected threatened species procedure

Appendix F – Heritage Display at Conargo

Appendix G – Weed and pathogen management procedure

Appendix H – Two stage clearing procedure

The following two staged clearing procedure will be followed. The procedure is from the Billabong Creek Environmental Water Regulators Biodiversity Management Plan prepared by NGH. The Biodiversity Management Plan is a sub plan of the Construction Environmental Management Plan.

Clearing (Stage One)

Before vegetation is removed from the site, the following will be undertaken:

- A qualified ecologist or fauna spotter catcher with experience in fauna handling must be present on site during the clearing of vegetation to supervise the works
- Machine operators are to be informed of:
 - The clearing boundary and exclusion zones
 - Habitat features to be relocated, how to remove them and where to relocate them to (i.e. bush rock, fallen logs)
 - Hollow bearing trees to be cleared in Stage 2.
- During clearing, bush rocks and suitable logs (as determined by ecologist or fauna spotter catcher, in accordance with bushfire management requirements) will be relocated to the adjacent retained vegetation areas for habitat enhancement
- Details on fauna rescue and release (such as relocation of nests) is provided in Appendix I.
- In the event that an unexpected threatened species is observed/ recorded (i.e. a species not predicted or known to occur within the site) during the native vegetation removal process, an Unexpected Threatened Species Finds Procedure is to be followed (refer to Appendix E)
- Pruning of mature trees, if required, is to be in accordance with Part 5 of the Australian Standard 4373-2007 Pruning of amenity trees and completed by an AQF Level 3 Arborist
- Hollow-bearing trees shall not be cleared during this stage (Stage one). Hollow-bearing trees must only be cleared during Stage Two (refer below).

Clearing (Stage Two) Hollow-bearing trees

At the completion of Stage one, only HBTs (marked with 'H') will remain within the clearing area. Stage two clearing will involve:

- An Ecologist/ fauna spotter catcher will undertake a survey to confirm clearing boundaries, trees marked to be cleared and relocate any fauna or nests identified in the tree in accordance with procedure provided in Stage One above
- Using an excavator, the machine operator shall gently shake/tap the HBT to encourage any resident fauna to vacate the tree. The tree is then to be left overnight (at a minimum) before being removed. Any HBT that has been left for longer than 48 hours since being shaken/tapped, is to be re-shaken/tapped at least the day prior to removal

- When removing HBTs, the ecologist/ fauna spotter catcher must be present at each tree to be removed, to look for signs of animal movement in the tree to be cleared. The ecologist / fauna spotter-catcher must be able to communicate directly with plant operators
- Prior to clearing hollow-bearing trees, use an excavator or loader to hit the trunk as high up the tree as possible several times. Wait at least 30 seconds. Repeat this process several times
- The tree will be felled in a controlled manner with an excavator to minimise break up of tree and impact/crushing risk to fauna
- • If taking the tree down in stages, remove non-hollow-bearing limbs first. Then remove hollow-bearing limbs
- Once the hollow-bearing limbs or hollow-bearing tree are on the ground, the fauna spotter catcher must check each hollow for signs of wildlife before the next limb/tree is removed
- Records of any animals removed or injured must be recorded
- The salvaged fallen hollows have the potential to support fauna and should be placed in adjacent habitat until the following day for further inspection by an ecologist or fauna spotter catcher to verify no fauna is present
- Ecologist or fauna spotter catcher shall select appropriate hollows to be attached to younger trees to be retained or placed in adjacent areas to provide habitat
- A GPS coordinate and a photo record of where each of the salvaged fallen hollows are relocated to will be taken.

Appendix I – Fauna handling, rescue and release procedure (from Billabong Creek Water Regulators Biodiversity Management)