

31-33QMS Fm 121

REVIEW OF ENVIRONMENTAL FACTORS: REF04375

CONCLUSIONS AND SIGN-OFF OF CABBAGE TREE CREEK EMBANKMENT STABILISATION

This report documents the outcomes of the Review of Environmental Factors (REF) undertaken for proposed works comprising of repair of failed/scoured creek bank at Cabbage Tree Creek, Fairy Meadow.

The proposed activity has been assessed against the SEPP (Transport and Infrastructure) 2021, and does not require consent under Chapter 2 Division 25 Waterway or foreshore management activities.

As the proposed activity does not require development consent, the environmental impacts have been considered in accordance with the environmental assessment requirements of Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). In accordance with the requirements of Part 5 of the EP&A Act, the factors listed in Clauses 170 and 171 of the *Environmental Planning and Assessment Regulation 2021* have been taken into account in the consideration of the likely impacts of the proposed activity on the environment.

The results of the REF indicate that the proposed activity will have no significant environmental impacts, provided the safeguards identified in this report are strictly implemented.

If the scope of works or work methods described in this report change significantly, additional environmental assessment must be undertaken by an Environment Strategy Officer. If construction begins more than 1 year after the AHIMs, then the project manager needs to seek an updated AHIMs search prior to the commencement of works.

Works are to commence, and be substantially completed, within 2 years of the REF preparation sign off date. Any substantial works to be undertaken outside this period will require a review of the REF.

Publication Requirements:

The application did not require publication in accordance with EP&A Regulation (clause 171(4)).

The EP&A Regulation (clause 171(4)) requires the REF to be **published** (on the Portal) prior to works commencing (if possible, otherwise within a month) if the activity involves:

- a capital investment value of more than \$5 million or,
- an approval or permit for activity that requires approval under:
 - o FM Act sections 144, 200, 205 or 219, or
 - o Heritage Act 1977 section 57, or
 - o National Parks and Wildlife Act 1974 section 90 or
 - o Protection of the Environment operations Act 1997 sections 47-49 or 122, or
- if the determining authority considers it to be in the public interest.

REF Preparation Sign Off:

I, the undersigned, certify that I have reviewed and endorsed the contents of this REF document and, to the best of my knowledge, it is in accordance with the EP&A Act, the EP&A Regulation and the Guidelines approved under clause 170 of the EP&A Regulation, and the information it contains is neither false nor misleading.

REF Preparation:	Brigit Mathai	REF Review:	Jo Glynn
Position:	Environment Strategy Officer	Position:	Environment Strategy Officer
Signature:		Signature:	
Date:	22 April 2025	Date:	22-04-2025

Client accepts that this REF is for the environmental assessment component only, and is responsible for all other project risks associated with the project management components. The information in this document is not considered sufficient to address any other project management requirements and safety/risk approvals, such as services investigations; consultation; cost estimate; traffic and site management; project risk assessment (etc):

Name:	Ray Piatek	Name:	
Position:	Project Coordinator	Position:	Designer Coordinator/Manager
Signature		Signature:	
Date		Date:	

Construction certifies that the project will be carried out in accordance with this REF document:

_	Solistitution tertines that the project will be carried out in accordance with this REF document.					
	Name:		Name:			
	Position:	Council Officer responsible for Site Management	Position:	One up Supervisor		
	Signature		Signature:			
	Date		Date:			

INTRODUCTION4

Table of Contents

Appendix H:

1.

2.	PROJECT DE'	TAILS	4
3.	ENVIRONME	TAILS ENTAL SAFEGUARDS	6
4.		E REQUIREMENTS	
5.	ENVIRONME	ENTAL FACTORS IDENTIFIED AND EVALUATED	15
Ap	pendix A:	Aboriginal Heritage Due Diligence Assessment	
Ap	pendix B:	Tree Protection Procedure	
Ap	pendix C:	Flora and Fauna Assessment	
Ap	pendix D:	Incident Management Procedure	
Ap	pendix E:	Environmental Constraints Aerial, Photographs, Plans	
Ap	pendix F:	Coastal Management Assessment	
Ap	pendix G:	Standard Operating Procedures: Unexpected Finds Protocols	

Fisheries Permit

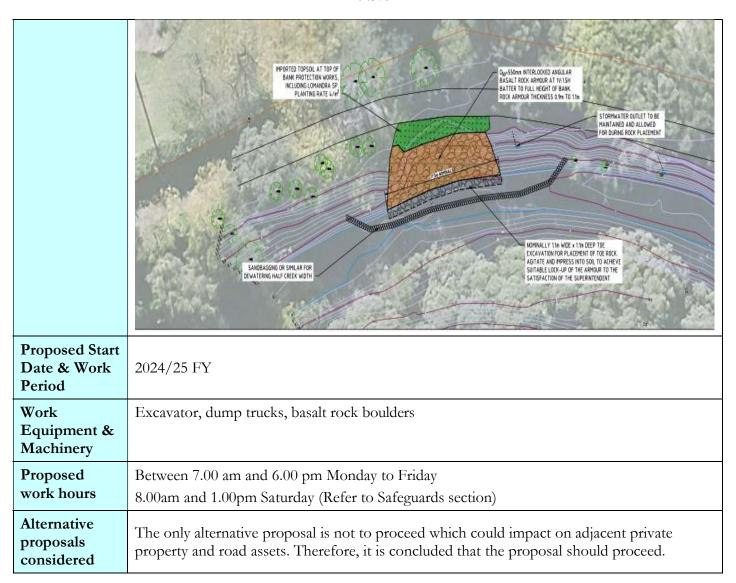
1. INTRODUCTION

As the proposed activity does not require development consent, the environmental impacts have been considered in accordance with the environmental assessment requirements of Part 5 of the EP&A Act. In accordance with the requirements of Part 5 of the EP&A Act, the factors listed in Clause 170 of the Environmental Planning and Assessment Regulation 2021 have been taken into account in the consideration of the likely impacts of the proposed activity on the environment.

The assessment has been undertaken through impact identification and a risk management assessment. This report documents the outcomes of the assessment and identifies the environmental safeguards that must be implemented in conjunction with the proposal.

2. PROJECT DETAILS

Project Name	Cabbage Tree Creek Embankment - Cowper St			
Location	Montague Street FAIRY MEADOW NSW 2519 (next to 31-33 Montague Street NORTH WOLLONGONG)			
Land Ownership	Wollongong City Council			
Land Classification and Zoning	Vacant Land RE1 Public Recreation			
Project Description/ Activity	Repair the failed/scoured creek bank; Construct rock revetment protection for failed section of creek. Minor bank trimming. Construction works cannot begin without an approved Fisheries Permit.			



If the scope of works or works methods described in this report change significantly following the awarding of the works contract, additional EIA must be undertaken. Any revised EIA must be approved by Council's Strategy Environment Officer.

3. ENVIRONMENTAL SAFEGUARDS

Ensure at induction that the work crew are informed of the following site-specific environmental controls and monitor controls throughout the works.

Project Manager

Prior to construction, notification to Environment Strategy Officer of exact start date and finish date

Environmental Awareness

- The work crew or contractor must have a copy of the REF on-site, and be fully aware of the REF safeguards to be implemented.
- The work crew or contractor will undergo an induction prior to work commencing and complete the induction checklist. The induction may cover environmental constraints and incident responses. A register of inductions and induction checklist will be maintained and provided if requested.
- Before You Dig Australia (BYDA) as part of this scope preparation. It is expected that the contractor will organise their own BYDA.
- Site meetings may be frequently conducted to identify issues that arise during the works regarding environment, safety, community and production. A register of attendees will be maintained.
- An Environmental Audit may be conducted to assess compliance with the REF and provide feedback on ways to improve work practices.

Erosion & Sediment Control

The proposed works have the potential to create soil erosion and sediment pollution. Prior to works commencing, erosion and sediment controls should be implemented for the duration of the works. The basic principles of erosion and sediment control are summarised below:

- Assess likely soil and water implications at planning stage.
- Plan for erosion and sediment control concurrently with engineering and landscaping design.
- Install erosion and sediment control measures as a first step in the works program and maintain these in an effective condition throughout the construction phase.
- Concentrate on source controls.
- Control water flow. Divert upslope waters around works and limit slope length to 80m on disturbed lands if rainfall is expected.
- Minimise onsite traffic movements.
- Rehabilitate disturbed lands quickly.

Flora & Fauna

- Where possible site compounds will be located on previously disturbed areas away from vegetation.
- Minimal vegetation/natural habitat to be disturbed. Consider ground cover/bush regeneration sites/proposed future use of the site.
- All native birds, reptiles, amphibians and mammals, except the dingo, are protected in NSW. All hollow bearing trees are to be retained.
- If fauna is present on site and there is the need to assess animal condition, obtain advice from Wires on 1300 094 737 or call a licensed wildlife operator.

- If a trench/pit remain open overnight, check for fauna prior to commencing machinery the next morning to prevent injury.
- Check hollow logs, rock crevices and burrows within the work site to prevent injury to fauna.
- Ensure when trimming vegetation that fauna is not injured.

Fish Habitat – refer to conditions in Fisheries Permit (PN25/181:Appendix H)

• If a fish kill or sick fish are observed, the site manager should immediately contact the Fishers Watch Hotline on 1800 043 536 to initiate a fish kill investigation by Fisheries NSW.

Tree Protection

- Refer to the Tree Protection Plan Appendix B and/or below to prevent tree trunk and root damage (refer to any Arborist Report for specific detail). If impact occurs, contact a Level 5 AQF Arborist as soon as possible. Adopt the Arborist remedial recommendation so as to reduce any long-term adverse effect on the tree's health. Tree root systems are essential for the health and stability of the tree.
- All relevant trees must be protected using the provision of temporary fencing, barricades or No-Go Zones. These controls must be installed to prevent damage to the trunk or root system from materials; equipment and soil build up around tree base.
- The tree protection fencing post should not involve the severance of any roots greater than 50mm in diameter without the prior approval of the Level 5 AQF Arborist.
- Use hand excavation in and around the roots of trees, when encountered. Under the guidance of a Level 5 AQF Arborist, any roots 50mm or less in diameter may be pruned cleanly with a sharp saw. In general roots extend outward from the trunk and occupy irregularly shaped areas 4 to 7 times larger than the projected crown area with an average diameter of two or more times the height of the tree.
- If any tree pruning is required Council's Level 3 Arborist must complete A Tree Environmental Assessment Form prior to the works.
- Pruning must be undertaken in accordance with 'AS4373-2007 Pruning of Amenity Trees'.
- Tree protection must be undertaken in accordance with 'AS4970-2009 Protection of Trees on Development Sites'.

Tree Protection Plan

Indicative work zone and access track in red

Indicative tree protection zones in green



Traffic & Access

Appropriate traffic management plan should be implemented and available for audit, including:

- A traffic route for all site vehicles is to be nominated to **ensure no impacts to vegetation (including tree roots) or soils**.
- Public safety for access around the site is to be ensured.
- Well-defined work compound must be secured to prevent public access. **Works site shed/portaloos to** be located on hard-stand areas.
- Refer to the Tree Protection Plan for specific access requirements into the park.

Water Quality

As the works are immediately adjacent to a waterway, specific attention must be given to protection of water quality, and an Emergency Response Procedure must be in place for any spills that enter the waterway.

- Any waste water is to be contained and removed off site for disposal at an approved facility.
- Waste water is not allowed to enter any stormwater drain or waterway.
- At no time shall any material, soluble or non-soluble, be allowed to enter the waterway.
- A fully equipped spill kit is to be kept on site at all times and, if used, restock spill kit. (Refer to Incident Management Procedure in Appendix D)
- All chemicals and fuels will be stored in suitable bunded areas away from waterways and stormwater pits
- Bunded area capacity will be at least 120% of the largest container within the storage area.
- The stored containers will be identified with appropriate labels.
- The relevant Material Safety Data Sheets (MSDS) will also be kept on site.
- Where possible compounds will be located on previously disturbed areas away from waterways

Work in Waters

- Prior to use at the site and/or entry into the waterway, machinery is to be appropriately cleaned, degreased and serviced.
- Consider the use of bio-oils and bio-fuels if machinery is to be used within the riparian zone or waterway. Spill kits are to be available on site at all times during the works.
- No sediment plumes are to be caused in the waterway outside the immediate works area.
- At the end of each work period, ensure the site is clean so no materials will enter the watercourse.

Fisheries Permit Requirements

Refer to Fisheries Permit PN25/181 in Appendix H. Conditions of the Section 200 Permit must be included in the Construction Environmental Management Plan (CEMP).

In-Situ Waste Classification Summary

The desktop investigation has not identified any potential contamination (IntraMaps – Contaminated Land; Landfill; Aerial Photographs; Previous Land Use).

All works are to be carried out in accordance with the following procedures (or equivalent if works being undertaken by a contractor):

- City Works & Services Procedure for Waste Classification & Transportation
- Unexpected Finds Procedure Council Owned Land/Worksites

Potential contaminants or contamination indicators that should be monitored and reported include asbestos containing material; coal tar; oils; and other chemicals causing discolouration and/or emitting strong odours.

Material Removed Off-site / Waste Generation

In addition to the requirements of the Materials Handling Process, the following specific controls are applicable:

- After dewatering is completed, classify the materials and treat/remove as per classification.
- Any waste generated, including excavated materials, should be removed from the site and disposed of appropriately, according to waste classification.
- General waste (rubbish) is not to be allowed to lie or accumulate on the site. Provide appropriate receptacles (bins) to store all general wastes generated from the works. The receptacles are to be emptied immediately at works completion. Consideration is to be given to the source separation of recyclable and re-useable materials.
- All dockets/receipts for waste management/disposal are to be kept and copies forwarded to the project manager and/or site coordinator as proof of disposal for environmental audit purposes.
- Material/waste is not to be stored in any transit locations.

Imported Fill Material and Reuse on Site

- Only Virgin Excavated Natural Material (VENM) can be imported on site. VENM is natural material (clay, gravel, sand, soil or rock fines) that has been excavated or quarried from areas that are not contaminated. A Classification Docket with chemical assessment should be undertaken or requested from the supplier prior to importing the fill.
- Where excavated material cannot be classified as VENM it may be eligible for reuse on site if it is accompanied by appropriate documentation (from a qualified technician) confirming it does not contain any acid sulphate soils, asbestos and/or other potential contaminants.
- Documents/records of the transport and use of material imported onto site must be kept and submitted to the project manager and/or site coordinator as proof of correct waste management practices and for environmental auditing purposes.

Acid Sulfate Soils

Implement Best Practice Guidelines.

Refer to: Acid sulfate soils

The Wollongong Local Environment Plan 2009 Acid Sulfate Soils Map has identified that the work site may be affected by Class 1 or 5 Acid Sulfate Soils (ASSs).

<u>Class 1</u>: Acid sulfate soils in a class 1 area are likely to be found on and below the natural ground surface. **Any** works will trigger the requirement for assessment and may require management.

Class 5: Acid sulfate soils are not typically found in Class 5 areas. Areas classified as Class 5 are located within 500 metres on adjacent class 1, 2, 3 or 4 land. Works in a class 5 area that are likely to lower the water table below 1 metre AHD on adjacent class 1, 2, 3 or 4 land will trigger the requirement for assessment and may require management.

ASSs form when soils naturally containing iron oxides are exposed, become oxidised and form sulphuric acid. The high acid levels can then contaminate water which results in poor water quality and fish kills.

Site personnel need to be aware of this risk and implement the following safeguards. The basic principles for the management of acid sulphate soils are summarised below:

- Minimise the disturbance of acid sulphate soils.
- If soil needs to be excavated and stockpiled, manage the material so as to minimise the generation of acid sulphate soils. This may include covering of the stockpile and bunding around the stockpile.

- Runoff control measures to be implemented, no runoff from stockpiled material is to escape to the stormwater system;
- For any excavation on the site greater than 500mm below natural ground level an assessment of the presence of acid sulphate soils is required. In this case, a qualified Environmental Consultant is to collect soil samples and have them analysed by a NATA certified laboratory to determine its acid generation and acid neutralisation capacity. A copy of the report must be provided to Council's Environment and Health Division for review, prior to works continuing.
- Any spoil material extracted or excavated from the foundation must be neutralized with commercial lime (calcium bicarbonate) by the addition of 10 kilograms of lime per 1 cubic metre of spoil material before it is disposed of or re-used on-site.
- Lime is to be added by evenly distributing over all exposed surface areas, any drilled piers and footing trenches on the site, prior to the pouring of any concrete.

Techniques for the management of acid sulphate soils should be detailed in the Erosion and Sediment Control Plan.

The machinery chosen is to have been well maintained and is to be operated in a proper and efficient manner to minimise fumes and energy consumption.

Visual Environment

During the work period, the work site and site compound should be maintained in a neat and tidy condition.

Noise & Vibration

- If there is to be any significant noise impacts, neighbouring residents are to be notified.
- The machinery chosen is to have been well maintained and is to be operated in a proper and efficient manner to minimise noise.

Recommended Office of Environment and Heritage standard hours for construction work:

- Normal construction Monday to Friday 7 am to 6 pm, Saturday 8 am to 1 pm.
- No work on Sundays or public holidays.
- Blasting Monday to Friday 9 am to 5 pm, Saturday 9 am to 1 pm
- No blasting on Sundays or public holidays.
- Works that may be undertaken outside the recommended standard hours are:
 - The delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads
 - Emergency work to avoid the loss of life or damage to property, or to prevent environmental harm
 - Maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours
 - Public infrastructure works that shorten the length of the project and are supported by the affected community
 - Works where a proponent demonstrates and justifies a need to operate outside the recommended standard hours.

European Heritage

• Work is not to impact upon heritage items; in particular, no work shall occur within the boundary or the curtilage of any heritage item or property, until all necessary consultations and approvals have been undertaken / obtained.

Aboriginal Heritage

If any previously undetected archaeological site, object or artefact is uncovered or unearthed during the course of any works or activities associated with the proposal, works should cease in the vicinity of that site, object or artefact. Council's Heritage Advisor should be contacted immediately.

Heritage Unexpected Finds

What's an unexpected heritage find? - An 'unexpected heritage finds' can be defined as any unanticipated archaeological discovery that has not been identified during a previous assessment or is not covered by an existing permit under relevant legislation such as the NPW Act or Heritage Act. The find may have potential cultural heritage value, which may require some type of statutory cultural heritage permit or notification if any interference of the heritage item is proposed or anticipated.

The range of potential archaeological discoveries can include but are not limited to:

- Aboriginal stone artefacts, shell middens, burial sites, engraved rock art, scarred trees
- remains of rail infrastructure including buildings, footings, stations, signal boxes, rail lines, bridges and culverts
- remains of other infrastructure including sandstone or brick buildings, wells, cisterns, drainage services, conduits, old kerbing and pavement, former road surfaces, timber and stone culverts, bridge footings and retaining walls
- artefact scatters including clustering of broken and complete bottles, glass, ceramics, animal bones and clay pipes archaeological human skeletal remains.

In the event that an unexpected heritage finds (the 'find') is encountered on site, contact the following:

- The Contractor/Supervisor will Stop Work Immediately when an unexpected heritage find is encountered.
- The Contractor/Supervisor will cordon off area until Council's Heritage Officer advises that work can recommence.
- The Contractor's Environment Manager will:
 - Manage the process of identifying, protecting and mitigating impacts on the 'find'.
 - Liaise with Council Heritage Officer/Heritage advisor and maybe the relevant authorities on significance of the find, mitigation and regulatory requirements.
 - Complete incident report and review CEMP for any changes required. Propose amendments to the CEMP if any changes are required.
 - Advise Contractor/Supervisor to recommence work.
- Council's Heritage Officer/Heritage advisor will provide expert advice to the Contractor's Environment Manager on 'find' identification, significance, mitigation, legislative procedures and regulatory requirements.
- Contractor's Environment Manager will notify Council's ESO of 'find' and manage incident reporting once completed by Contractor's Environment Manager.
- The Department of Planning and Environment Heritage NSW (for Aboriginal objects) will regulate the care, protection and management of Aboriginal objects and will issue Aboriginal heritage impact permits.
- The Department of Planning and Environment Heritage NSW (for relics) will regulate the care, protection and management of relics and will issue excavation permits.

4. LEGISLATIVE REQUIREMENTS

The following legislative requirements have been assessed against the proposed works and under the SEPP (Transport and Infrastructure) 2021 the works do not require consent under Chapter 2 **Division 25 Waterway or foreshore management activities.**

SEPP (Transport and Infrastructure) 2021 Chapter 2

Division 25 Waterway or foreshore management activities

2.164 Definition

In this Division—

waterway or foreshore management activities means—

- (a) riparian corridor and bank management, including erosion control, bank stabilisation, resnagging, weed management, revegetation and the creation of foreshore access ways, and
- (b) instream management or dredging to rehabilitate aquatic habitat or to maintain or restore environmental flows or tidal flows for ecological purposes, and
- (c) coastal management and beach nourishment, including erosion control, dune or foreshore stabilisation works, headland management, weed management, revegetation activities and foreshore access ways, and
- (d) salt interception schemes to improve water quality in surface freshwater systems, and
- (e) installation or upgrade of waterway gauging stations for water accounting purposes.

2.165 Development permitted without consent

- (1) Development for the purpose of waterway or foreshore management activities may be carried out by or on behalf of a public authority without consent on any land.
- (2) To avoid doubt, subsection (1) does not permit the subdivision of any land.
- (3) In this section, a reference to development for the purpose of waterway or foreshore management activities includes a reference to development for any of the following purposes if the development is in connection with waterway or foreshore management activities—

(a) construction works,

- (b) routine maintenance works,
- (c) emergency works, including works required as a result of flooding, storms or erosion,
- (d) environmental management works.
- (4) Development for the purpose of temporary works for or associated with drought relief may be carried out by or on behalf of a public authority without consent, but only if the development is—
 - (a) carried out on land publicly identified by the Minister for Primary Industries as being in drought, and
 - (b) removed, and the area rehabilitated, within 4 months after the date on which the area is no longer so identified.

Note—

Areas of NSW that are in drought are identified on the website of the Department of Primary Industries.

Biodiversity Conservation Act 2016 (BC Act)

The BC Act seeks to conserve biological diversity, to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change; to assess the extinction risk of species and ecological communities and identify key threatening processes; and to establish a framework to avoid, minimise and offset the impacts of proposed development and land use change on biodiversity.

The test for significant impact is described in section 7.3 of the Act. A significant impact also occurs if the activity is carried out in an area of outstanding biodiversity value. If a significant impact is likely to occur, the proponent of the activity must prepare a Species Impact Statement in accordance with section 7.20 or a Biodiversity Development Assessment Report.

Comment:

A BioNet atlas search, within the study area, identified threatened species see the Flora and Fauna Assessment in Appendix C. Provided the safeguards identified are implemented, the proposed works are not likely to significantly

affect any threatened species, populations or ecological communities listed under the *BC Act* and the preparation of a Species Impact Statement is not warranted.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The EPBC Act protects matters of National Environmental Significance (NES), such as threatened species and ecological communities, migratory species (protected under international agreements), and National Heritage places (among others). Any actions that will or are likely to have a significant impact on the matters of NES require referral and approval from the Australian Government Environment Minister. Significant impacts are defined by the Commonwealth (ref: http://www.environment.gov.au/epbc/guidelines-policies.html) for matters of NES.

Comment:

Matters of NES have been reviewed within the study area. The works are not likely to impact on any of the matters identified, therefore no significance assessments were undertaken for these works and no referral to the Commonwealth Department of the Environment is required.

National Parks and Wildlife Act 1974 (NPW Act) – Not Applicable

The NPW Act is administered by the Director-General of the National Parks and Wildlife Services (NPWS), who is responsible for the control and management of all national parks, historic sites, nature reserves, and Aboriginal areas (among others). The Act aims to conserve the natural and cultural heritage of NSW.

If there is known impact to Aboriginal heritage, Wollongong City Council must apply to Heritage NSW under section 90A of the *National Parks and Wildlife Act 1974* (NPW Act) for an Aboriginal Heritage Impact Permit (AHIP). Aboriginal community consultation must also be conducted in accordance with clause 60 of the *National Parks and Wildlife Regulation 2019* and the relevant Heritage NSW guidelines.

A search of the AHIMS database identified no items of Aboriginal Heritage in the region surrounding the study area (Appendix A).

Fisheries Management Act 1994 (NSW)

Charcoal Creek is mapped as Key Fish Habitat for the purposes of the Fisheries Management Act 1994. The proposed activity would involve dredging and reclamation which is regulated under Part 7 Division 3 of the Act and will require a Section 200 Permit to be issued by the NSW Department of Primary Industries (Fisheries) before any work can commence.

Section 200 Circumstances in which a local government authority may carry out dredging or reclamation

- (1) A local government authority must not carry out <u>dredging work</u> or <u>reclamation work</u> except under the authority of a permit issued by the Minister.
- (2) This section does not apply to--
 - (a) work authorised under the Crown Land Management Act 2016, or
 - (b) work authorised by a relevant <u>public authority</u> (other than a local government authority).
- (3) This section has effect irrespective of any other Act to the contrary.

All endangered, vulnerable and endangered and vulnerable ecological communities or populations have been considered on the Department of Primary Industries website for <u>Threatened Fish</u>.

Protection of the Environment Operations Act 1997 (POEO)

Is the principal environmental protection legislation for NSW that defines 'waste' for regulatory purposes and establishes management and licensing requirements for waste. It defines offences relating to waste and sets penalties. The POEO Act also establishes the ability to set various waste management requirements via the POEO (Waste) Regulation.

Should it be necessary to remove any material from the work site (including sediment), it is considered waste, and must be classified by an appropriate officer, as per *Division 1 Waste Classifications of the* NSW *Protection of the Environment Operations Act 1997* (POEO). Waste may be classified as:

- Special waste
- Liquid waste
- Hazardous waste
- Restricted solid waste
- General solid waste (putrescible)
- General solid waste (non-putrescible)

If it's not possible to separate wastes, the whole waste must be classified according to the highest class of waste. All Waste must be disposed of at an appropriately licenced waste facility as landfill.

The Act 1997 defines VENM as: 'natural material (such as clay, gravel, sand, soil or rock fines):

- that has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities, and
- that does not contain any sulfidic ores or soils or any other waste.'

No other criteria for VENM have been approved. **VENM cannot be 'made' from processed soils. Excavated** material that has been stored or processed in any way cannot be classified as **VENM**.

Part 7.3 of the Protection of the Environment Operations Act 1997

Appropriate documentation is to be maintained on the type and transport of material / waste.

Waste Avoidance and Resource Recovery Act 2001 (WARR Act)

The Act promotes waste reduction and better use of our resources in NSW and the NSW Waste and Resource Recovery Strategy 2014-21 was released in December 2014. Reducing waste generation and keeping materials circulating within the economy are priorities for NSW. To meet this challenge, the EPA prepares a new WARR Strategy every five years.

Protection of the Environment Operations (Waste) Regulation 2014

Provides for contributions to be paid by occupiers of scheduled waste facilities for each tonne of waste received at the facility or generated in a particular area; exempts certain occupiers or types of waste from these contributions; and allows deductions to be claimed in relation to certain types of waste. It also sets out provisions covering:

- the proximity principle
- record-keeping requirements, measurement of waste and monitoring for waste facilities
- tracking of certain waste
- reporting
- transportation of waste
- transportation and management of asbestos waste
- recycling of consumer packaging
- classification of waste containing immobilised contaminants
- miscellaneous topics.

Department of Environment & Climate Change NSW Fact Sheet: Virgin Excavated Natural Material

Only material excavated from site and classified as VENM may be stored on site for re-use or taken to another construction site for reuse.

Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 – The Excavated Natural Material Order 2014

Where material cannot be classified as VENM and is proposed for re-use on a site, it must be accompanied by appropriate documentation confirming it does not contain acid sulphate soils or other contaminants.

5. ENVIRONMENTAL FACTORS IDENTIFIED AND EVALUATED

The following table has been completed following an interrogation of Council's IntraMaps system.

ENVIRONMENTAL FACTOR	Impact	Extent, Duration, Type
Does the proposal:	L/M/H	Comment
Have any environmental impact on a community?	Low	No. The works are carried out on the creek bank located not very close to residential developments. In fact the proposed activity will benefit the community beyond construction by providing stability to the creek and reassurance that future flood events will not impact on residential or road assets. No other services such as power, water, sewerage, waste etc will be impacted.
Cause any transformation of a locality?	Low	The locality will not change however the proposed activity would make improvements to repair damage caused by previous flood events and provide protection for future events.
Have any environmental impact on the ecosystem of the locality?	Low	No significant habitat features or food resources would be impacted or removed as part of the proposed works. Aquatic ecosystems are not likely to be affected by the proposed activity. Safeguards (Section 3) are in place to reduce the risk of impacts. Further assessments (Appendix C) concluded that the proposed activity would not have a significant impact upon threatened species or endangered ecological communities.
Cause any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	Low	In the context of the locality, the visual impact of the activity would be minimal. The proposed activity is to reinstate the failed creek bank with rock revetment works. There would be minimal removal of vegetation. The area affected by the proposed activity has no significant value in terms of science or other environmental qualities. Safeguards in Section 3 reduce the risks beyond the immediate footprint.
Have any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?	Low	The site of the proposed activity has no significant aesthetic, anthropological, architectural, cultural, historical, scientific or social values. The site does not contain any known European or

ENVIRONMENTAL FACTOR	Impact	Extent, Duration, Type
Does the proposal:	L/M/H	Comment
		Aboriginal Heritage and as such no further assessments or approvals are required. Safeguards in Section 3 are in place for any unexpected finds.
Have any impact on the habitat of protected animals (within the meaning of the Biodiversity Conservation Act 2016)?	Low	No known fauna habitat will be removed by the activity. The proposed activity would not have a significant impact upon threatened fauna (concluded in Assessment - Appendix C). Safeguards in Section 3 would mitigate indirect impacts to fauna and habitat.
Cause any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	Low	There are no species likely to rely on the site of the proposed works to the extent that the proposed works would put them further in danger. Safeguards in Section 3 would minimise the risk of impact on resident fauna, fish, and flora.
Have any long-term effects on the environment?	Low	Proposed works are short-term and the noise generated will occur during normal working hours. The proposed activity would not use hazardous substances or chemicals which may cause cumulative impacts on the environment. Safeguards in Section 3 are in place to minimise short and long-term impacts.
Have any degradation of the quality of the environment?	Low	The proposed activity aims to improve the quality of the environment by reducing ongoing erosion caused by flooding. It is unlikely to trigger any long-term impacts through the input of sediment, contamination, weed dispersal, or introduction of feral animals. Safeguards in Section 3 are in place to mitigate impacts to the environment.
Cause any risk to the safety of the environment?	Low	The activity has been proposed to reduce the risk to adjacent residential and road assets from flood events.
Cause any reduction in the range of beneficial uses of the environment?	Low	The use of the site will remain unchanged.
Cause any pollution of the environment?	Medium	The proposal would involve a short-term increase in noise during the construction due to the use of machinery. Safeguards in Section 3 address sediment and erosion control, water and air pollution,

ENVIRONMENTAL FACTOR	Impact	Extent, Duration, Type	
Does the proposal:	L/M/H	Comment	
		spillages, dust, odours and vibration. The proposal does not involve the use, storage or transportation of hazardous substances. Acid Sulfate Soils have not been identified at this site however excavated material will be tested before leaving the site.	
Have any environmental problems associated with the disposal of waste?	Low	The excavated material shall be tested and disposed of according to the relevant waste classification.	
Cause any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	Low	The resources used would not be considered significant or likely to increase demands on current resources such that they would become in short supply.	
Have any cumulative environmental effect with other existing or likely future activities?	Low	Safeguards in Section 3 will be implemented to minimise the risk of cumulative environmental effects. There is no further construction activities proposed for this location.	
Have any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	Low	The proposed activity would have no effect on coastal processes including those projected under climate change conditions.	
Any applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act?	Low	Yes - the proposal is consistent with the objectives and vision of 'Our Wollongong Our Future 2032: Community Strategic Plan' for the LGA. From the mountains to the sea, we value and protect our natural environment and we will be leaders in building an educated, creative and connected community.'	
Include any other relevant environmental factors?	N/A	See below	
Heritage			
Is there any Aboriginal Heritage within or close proximity to the worksite? (Refer to AHIMS)	Overall impact –	No - refer to AHIMS in Appendix A	
Does the site have landscape features that are likely to indicate presence of Aboriginal objects? If the proposed activity is: i. within 200m of waters ii. located within a sand dune system	Low	Yes – within 200m of water	

ENVIRONMENTAL FACTOR	Impact	Extent, Duration, Type
Does the proposal:	L/M/H	Comment
iii. located on a ridge top		
iv. ridge line or headland		
v. located within 200m below or above a cliff face		
vi. within 20m of or in a cave, rock shelter, or a cave mouth		
vii. is on land that is not disturbed land particularly at any of the above locations		
Is there any European Heritage listed on the current LEP?		No
Will these Heritage Items be impacted by the project?		No provided safeguards in Section 3 are implemented
Water Quality/Erosion & Sedimentation/De	mand on R	esources/Waste Disposal
Are the works likely to disturb any acid sulfate soils listed on the Current LEP?	Overall impact –	No
Are the works to be conducted within 40m of watercourses or any other type of natural water body?	Medium	Yes – Category 2 riparian corridor
Will the works result in changes to water flow in any way?		No
Are the works within a flood affected zone?		Yes – however the proposal does not represent an increased risk to life or property in regard to flooding
Will the works create areas of unprotected soil or loose surface for more than 24 hours?		Unknown – refer to safeguards in Section 3
Could the works result in disturbance of contaminated land or contaminated material listed under WCC IntraMaps?		No
Will the waste generated by the works include hazardous substances (such as lead, asbestos or other substances designated as hazardous by the National Occupational Health and Safety Commission)? Refer to Council's ARO		Unlikely – refer to safeguards in Section 3
Are the works a Coastal Geotechnical risk under Coastal Zone Study under WCC IntraMaps?		No
Are the works subject to the Wollongong Coastal Zone Management Plan 2017?		No – expired 31/12/2023
Flora & Fauna/Tree Protection/Access/Con	nmunity Er	nvironmental Impacts
Is any vegetation required to be removed?		Yes – minor ground vegetation clearing for access track and to undertake

ENVIRONMENTAL FACTOR	Impact	Extent, Duration, Type
Does the proposal:	L/M/H	Comment
	Overall impact – Low	proposed works. Two trees for removal including one on private land. See Appendix B for further assessments.
SEPP (Biodiversity and Conservation) 2021. Chapters 3 and 4 relate to development assessment which require consent from Council. Chapter 6 – Water catchments		No Wollongong LGA is mapped under the Koala Management Area; however, there are no trees for removal. As such, no assessment for koalas under the EPBC Act is required. The site is not within the Sydney Water
		Catchment area.
Is the area within a Vegetation Community identified in NP-PCT Vegetation Layer under WCC IntraMaps Constraints?		Yes – PCTID 4049 South Coast Floodplain Grassy Swamp Forest
Are the works located on land identified as the Escarpment Management Plan Area under WCC IntraMaps Constraints? Illawarra Escarpment State Conservation Area plan of management (nsw.gov.au)		Yes, MU56c Weeds and Exotics. Some ground cover clearance involved. Refer to safeguards in Section 3
Is the area within a Habitat Model in WCC IntraMaps Constraints?		Yes – Large-footed Myotis
Do the works occur within Key Fish Habitat? Refer to Threatened Fish Species List.		Yes – Fisheries Permit PN25/181 must be obtained. Any conditions recommended under Section 200 of the Permit must be included in the Construction Environmental Management Plan (CEMP). North Research
Are the works to be conducted within a Natural Area Asset? (Refer to the WCC IntraMaps Environmental Restoration layer)		Yes – ID 439 Riparian

ENVIRONMENTAL FACTOR Does the proposal:	Impact L/M/H	Extent, Duration, Type Comment
Are the works near a seed collection point on the WCC IntraMaps Environmental Restoration layer?		No
Is there any Bush Care or other Environmental Restoration undertaken at the site?		Yes – Montague Street Bush Restoration Site Small scale revegetation proposed on top of the affected creek bank upon completion.
Is the worksite listed as Bushfire Prone Land under the WCC IntraMaps Planning DCP layer?		No
Are there any Endangered Ecological Communities or potential habitat for threatened species as listed on the Planning DCP layer or on the BC Act BioNet or the EPBC Act SPRAT on or adjacent to the work site?		No
Amenity / Noise		
Are the works located on land identified as Community Land, on the WCC IntraMaps LEP Community Land Maps?	Overall impact – Low	Yes – Natural Area Watercourse
Will the works cause excess noise?		Potentially during construction – refer to safeguards in Section 3
Are the works within the management areas defined by SEPP (Resilience and Hazards) 2021. Chapter 2 - Coastal Management? Refer to https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address		Yes- Coastal Proximity Area, Coastal Environment Area & Coastal Use Area Refer Coastal Management Assessment in Appendix F which concluded no impacts are expected provided safeguards in Section 3 are implemented and adhered to.
Does the works fall under SEPP (Transport and Infrastructure) 2021?		Yes

Wollongong City Council's requirements are considered to have been satisfied through the identification and assessment of environmental issues and risks undertaken in this report. Provided there are no changes to the scope of works identified in this report, no further EIA is required.

Appendix A: Aboriginal Heritage Due Diligence Assessment

Council's IntraMaps records indicated that there was not a possible presence of an Aboriginal heritage item within the vicinity of the proposed works. A NSW Heritage (former OEH) Aboriginal Heritage Information Management System (AHIMS) search was undertaken to confirm the presence of Aboriginal heritage within or close to the works site. The <u>AHIMS</u> search identifies 0 Aboriginal sites or places recorded in within 200m of the proposed works.

It was determined that the proposed activity would not harm any Aboriginal heritage due to the following:

- Although the proposed works will disturb the ground surface, the works are a low impact activity on land that has already been disturbed;
- Vegetation will need to be removed and all other trees will be protected on site;
- There are no Aboriginal objects located within or close to the site (AHIMS confirmation);
- A REF has been prepared and identifies that if during the course of the works any unknown Aboriginal objects are found, works must cease immediately.

As such, an Aboriginal Heritage Impact Permit (AHIP) is not required.



Your Ref/PO Number : Cabbage Tree Creek

Client Service ID: 993703 Date: 08 April 2025

Wollongong City Council

Locked Bag 8821

Wollongong DC New South Wales 2500

Attention: Brigit Mathai

Email: bmathai@wollongong.nsw.gov.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot: 103, DP:DP706798, Section: - with a Buffer of 50 meters, conducted by Brigit Mathai on 08 April 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.

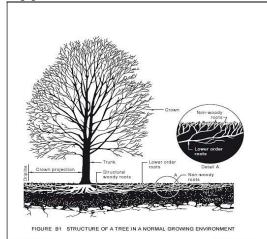


A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0 Aboriginal sites are recorded in or near the above location

0 Aboriginal places have been declared in or near the above location. *

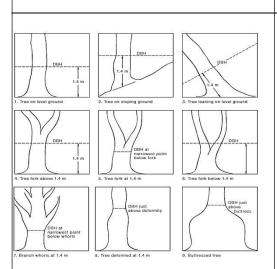
Appendix B: Tree Protection Procedure



A Tree Protection Zone (TPZ) is an important area around the trunk of a tree in which key feeder and stabilising roots can be found just beyond the tree canopy. This area must be protected to prevent instability and minimise loss of health of the woody root system of the tree. Restricted activities include excavation, storage, dumping of waste and parking of vehicles/plant.

TPZ standard should be:

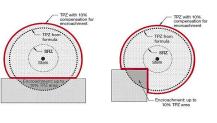
- ■TPZ = DBH x 12 (Where DBH is the trunk diameter measured at 1.4m above ground).
- Not greater than 15m.
- TPZ should not be less than 2m nor greater than 15m (Except where crown protection is required).
- TPZ of palms, tree ferns, other monocots and cycads should not be less than 1m outside the crown projection.
- Refer to the Arborist Report for dimensions for the TPZ / Buffers



Due to a range of growing environments the Tree DBH is measured using a range of methods to suit the situation. See adjacent image or Australian Standard AS 4970-2009. Delineate an area with the use of appropriate signage for:

- Protective fencing installed or no-go zones will be created and maintained for the duration of works
- Ground protection (e.g. mulch) if temporary access for machinery is required.

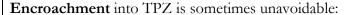
The Structural Root Zone (SRZ) is an area within the TPZ that is particularly significant for stability. A larger area is required to maintain a viable tree. The SRZ only needs to be calculated when major encroachment into a TPZ is proposed. Many factors affect the size of the SRZ (e.g. tree height, crown area, soil type, soil moisture, rocks, footings etc).



The indicative SRZ radius can be determined from the trunk diameter measured immediately above the root buttress using the following formula:

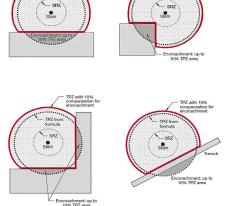
■ SRZ radius = $(D \times 50)0.42 \times 0.64$ (Where D = trunk diameter in metres measured above the root buttress)

Note: The SRZ for trees with trunk diameter less than 0.15m will be



- Minor encroachment is possible without root investigations. (Must be under 10% of the TPZ area and outside the SRZ)
- Major encroachment is possible if an arborist can prove the tree will be sustained. (Refer to AS 4790 for recommended considerations)

Any additional Encroachment must be reviewed by the Level 5 AQF Arborist for works within the TPZ (E.g. excavation) is possible with variation to the above standards.



Appendix C: Flora and Fauna Assessment

Table of all threatened species and endangered ecological communities listed under the NSW *Biodiversity Conservation Act* 2016 and Commonwealth *Environmental Protection & Biodiversity Conservation (EPBC) Act 1999*, within a 2 km radius, has been searched as identified by the threatened fauna & flora and EECs layers in IntraMaps. The table also considers the potential habitat at the site for native fauna by using the Habitat Model layer and Key Fish Habitat layer.

Scientific Name	Common Name	BC Act	EPBC Act	Habitat Requirements	Likelihood of Impact
Myotis macropus (formally Myotis adversus)	Southern myotis (formerly Large footed myotis)	VP		The Large-footed myotis tend to roost in caves, tree hollows, under bridges, in mines, road culverts and stormwater drains near permanent water. They prefer vegetated low lying, undulating land. Colonies are usually less than 15 in number. This species feed on small fish, prawns and aquatic macro-invertebrates like water boatman, backswimmers and whirligig beetles. They fly 15-100 cm above the water and trawl through the water with their feet. They will also hunt flying insects that congregate around water. Dominant males form a harem in the colony with 1 male and up to 12 females. Known to born up to two young per year, one in October and the other in January.	Unlikely It is unlikely that this species will be impacted due to the nature and isolation of the works. Refer to safeguards in Section 3 for any sitings.

Appendix D: Incident Management Procedure

TITLE

Accidental spills in waterways, marine environments, and constructed drains, plus other air/noise/land pollution events.

PURPOSE

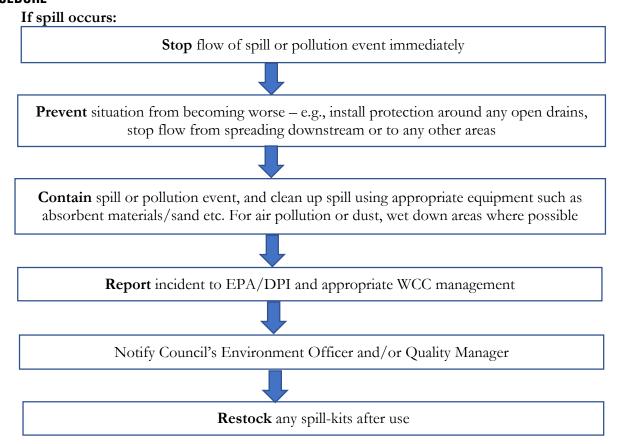
To ensure all practicable means are used to prevent spillage or other pollution during construction or maintenance works near any types of watercourses.

APPLICATION

This procedure applies to all watercourses including coastal water, rivers, lakes, dams, natural watercourses, artificial channels, ditches and gullies, and stormwater drains. It also applies to all air and land pollution incidents.

Project Managers and Works Co-ordinators are to ensure all operators working near water courses are trained in this procedure. Contractors undertaking works should also be aware of the requirements in this procedure.

PROCEDURE



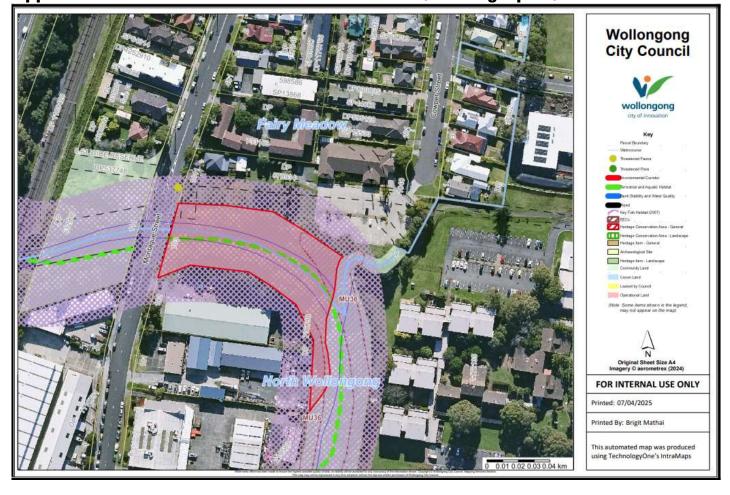
CHECKLIST

- Spill kit kept at site and kept in order.
- All relevant staff at the work site are aware of this Procedure.

CORRESPONDANCE AND NOTIFICATION

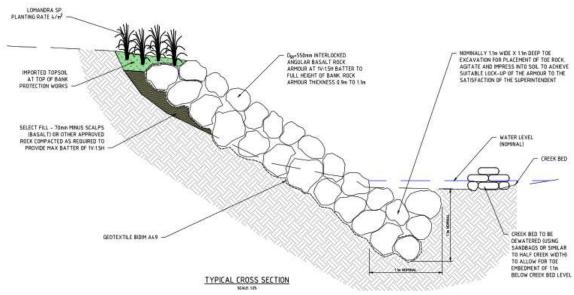
- For all spills in any waterways, air pollution, or land pollution, notify the EPA first and follow all instructions. Notify Environment Officer, and either Manager Project Delivery or Manager City Works.
- For any spills where there is the potential to impact on Key Fish Habitat, or there is a Permit in place from DPI, notify both DPI and EPA and follow any instructions. Notify Environment Officer and either Manager Project Delivery or Manager City Works.

Appendix E: Environmental Constraints Aerial / Photographs / Plans





Proposed work area includes minor vegetation clearing



Section view of proposed works



Existing rock wall to the east of proposed works

Appendix F: Coastal Management Assessment

Matters for Consideration and an deal Consideration	
Matters for Consideration under the State	Yes/No/Comments
Environmental Planning Policy	
(Resilience and Hazards) 2021	
Division 1 cl. 2.7	No, the works are outside the Coastal Wetlands
Is the proposal within the Coastal Wetlands and Littoral Rainforests Area?	Troy the works are outside the doubtar wettained
development for the purpose of environmental protection works on land identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map may be carried out by or on behalf of a public authority without development consent if the development is identified in— (a) the relevant certified coastal management program, or (b) a plan of management prepared and adopted under Division 2 of Part 2 of Chapter 6 of the Local Government Act 1993, or (c) a plan of management under Division 3.6 of the	
Crown Land Management Act 2016.	
Division 1 cl. 2.8	Yes
Is the proposal within the Proximity to Coastal Wetlands and Littoral Rainforests Area? Development consent must not be granted to development on land identified as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on: • the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or • the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest	The site is within the Coastal wetlands proximity area; however, the works are considered not to adversely affect the coastal wetlands buffer area due to the extent of the minor works In this regard, the development is considered not to have an adverse impact on the biophysical, hydrological or ecological integrity of the adjacent coastal wetland, nor the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.
Division 1 cl. 2.9 Is the proposal within the Coastal Vulnerability Area?	Not yet mapped.
Division 1 cl. 2.10	
Is the proposal within the Coastal Environment Area?	Yes
(1) Development consent must not be granted to development on land that is within the coastal	The works are not expected to result in adverse impacts on the integrity and resilience of the ecological environment, the coastal

environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following:

- (a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,
- (b) coastal environmental values and natural coastal processes,
- (c) the water quality of the marine estate (within the meaning of the <u>Marine Estate Management Act 2014</u>), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,
- (d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,
- (e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,
- (f) Aboriginal cultural heritage, practices and places, the use of the surf zone.
- (2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:
 - (a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or
 - (b) if that impact cannot be reasonably avoided the development is designed, sited and will be managed to minimise that impact, or

if that impact cannot be minimised—the development will be managed to mitigate that impact.

environmental values, natural processes, water quality, marine vegetation, habitats or headlands or rock platforms, public open space and access to that public open space, Aboriginal cultural heritage or the use of the surf zone in this location.

Refer to Safeguards

Division 1 cl. 2.11

Is the proposal within the Coastal Use Area?

Development consent must not be granted to development on land that is within the coastal use area unless the consent authority:

- (a) has considered whether the proposed development is likely to cause an adverse impact on the following:
 - (i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,
 - (ii) overshadowing, wind funnelling and the loss of views from public places to foreshores,
 - (iii) the visual amenity and scenic qualities of the coast, including coastal headlands,
 - (iv) Aboriginal cultural heritage, practices and places.
 - (v) cultural and built environment heritage, and
- (b) is satisfied that:

Ye

The work is unlikely to cause an adverse impact on access to the foreshore area, any overshadowing of the foreshore area, impacts on the visual amenity of the coast, Aboriginal cultural heritage or cultural or built environmental heritage.

Refer to Safeguards

- (i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or
- (ii) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or
- (iii) if that impact cannot be minimised—the development will be managed to mitigate that impact, and
- (c) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.
- (d) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development

Division 5 General

2.12 Development in coastal zone generally—development not to increase risk of coastal hazards

Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.

2.13 Development in coastal zone generally—coastal management programs to be considered

Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land.

The NSW Coastal Management Act 2016 came into force on 3 April 2018. A new Wollongong Coastal Management Program is yet to be adopted.

Minimal adverse impacts on either the coastal environment/processes, and/or the proposal are expected as a result of the proposed works.

Appendix G: Standard Operating Procedures-Unexpected Finds Protocols

Description of Work:

Unexpected Find Procedure - Council Owned Land/Worksites

This procedure has been developed to outline the process to be followed in the event that an unexpected find (hazard) is identified.

Hazards that may be encountered could be Asbestos material, contaminated soils, or archaeology/heritage finds.

In most cases the finds would occur during excavation operations on a worksite

In some instances ACM may be left by MOP's or work its way up through the ground

Main Hazards:

- Exposure to Contaminated soils (Asbestos Containing Materials (ACM), chemicals, Acid Sulphate)
- Exposure to ACM or chemicals to public
- Damage to archaeology/heritage artefacts

PPE REQUIRED — Standard PPE for daily tasks, in event of unexpected find for ACM or substances, will require P2 disposable mask & hazard tape to provide barrier to prevent access by staff/public or to isolate area if archaeological/Heritage find





* If unexpected find is ACM

Note: P2 masks not suitable if employee has a beard - prevents sealing

SAFETY RULES

- In event of unexpected find cease work immediately
- Isolate the worksite
- Keep public away
- Contact Supervisor/Coordinator

Permits: (associated with task)

 Asbestos Removal Control Plan if asbestos material identified as Friable and is to be removed by licenced contractor

Checklists: (associated with task)

Waste Classification Docket as reference

Team Training / Skills Required:

- Asbestos Awareness
- Waste Classification Docket
- Collection and disposal of Asbestos Containing Material (ACM) under 10Sq mtrs (optional for nominated staff)

References:

- WHS Regulations 2011 Chapter 8
- COP How to Safely Remove Asbestos
- COP How to Manage & Control Asbestos in the Workplace
- Managing Asbestos in or on soil (Wkevr 2014)

Relevant Documentation:

Asbestos and Hazardous Materials Guidelines - Corporate

Sampling materials request form

Clearance certificate - Asbestos or Contaminated soils

SOP Collection & Disposal of Bonded Asbestos Containing Material (ACM) under 10SQ mtrs

1. PRE-Operation (must include environmental controls)

- If site is a construction site (K&G, Road, Drainage etc.) Waste Classification process and/or CEMP/REF to be checked/recorded
- Do a visual inspection of site prior to works commencing looking for loose ACM, soil discoloration/smell.

2. Operation

- In the event of an unexpected find of contaminated material or archaeological/heritage artefacts (through excavations), cease work immediately
- If the find is considered to be illegal dumping which may contain asbestos or hazardous material, contact the
 customer service team (42277111) and provide details of the location, size and type of material do not attempt to
 remove or "sift" through the material
- In the event excavated material is loaded onto truck and then material is suspected ACM:_
 - If on site, tip the load back onto the site and go through assessment process,
 - If the load has been transported to another site and suspected ACM is identified prior to tipping the load, contact the Coordinator/Supervisor who will assess the load and determine if a qualified person is required to provide advice on management of the load.
 - If the material has been unloaded offsite and suspected material found Coordinator/Supervisor to assess if ACM, type and amount, option to collect & remove if bonded and under 10sqmtrs or contact qualified person to provide advice.

Note: Depending on the condition of the material, the load may require wetting down to minimise dust/contamination until a management plan has been developed

- Isolate the immediate work area (barriers or Hazard tape)
- Where required contact the Supervisor and/or Coordinator, provide details to determine if they need to attend the site
- An assessment of the find is to be undertaken if potential ACM identify if bonded or friable
- If contaminated soil contact Environment Planning Manager (ESP) 42277574 to attend and assess
- If Archaeological or Heritage find contact Strategic Project Officer (ESP) 42277524 to attend and assess the find.
- Based on the find and assessment a suitably qualified person may be required to attend the site and advise what
 action should be taken
- Where required a sampling materials request is to be completed and issued to the qualified person
- Keep the area isolated until a determination is made qualified person will provide advice on best option(s)
- In the event the unexpected find is confirmed as contaminated material or heritage artefact, record the details in Pathways (Action Request generated)
- Qualified person provides results of testing or assessment and develops an action plan
- If identified as Bonded ACM and is under 10sq Mtrs in content, trained WCC personnel can collect and bag as per SOP (Collection & Removal of Bonded ACM under 10sq mtrs)
- If after all tests and searches have been completed and the material is not ACM or archaeological then continue
 works as normal & file the survey report on the project file
- If material is identified as ACM or Archaeological then the Action Request is updated through Pathways via Coordinator/project manager, record details of the find in the project file
- If the Asbestos material is considered to be a potentially significant hazard to employees or the public the supervisor/coordinator is to contact their manager and provide details and through consultation with council officers determine how to manage
- For Friable ACM, Archaeological, Heritage or other contaminated soil, an action plan is to be developed by the
 qualified person to manage the site. This may include temporary measure of barricades, tape, Geo Textile or plastic
 sheeting
- Works to be undertaken as per Action Plan, this may be by WCC personnel or specialist contractors depending on the action plan developed by the qualified person

- Where required a clearance certificate (ACM/Soil) is to be issued by a competent person and a copy sent to Land
 Use Planning for recording on the 149 Contaminated Land Register, a copy of the clearance certificate to be placed
 on the project file
- Advise crew/staff of the clearance certificate
- Update the Action Request information
- Planned Works to then continue
- For Archaeological or Heritage finds, an action plan to be implemented by qualified person which will include any
 references to clearances or other permits that may be required.
- Refer to "management of suspected or known asbestos contaminated stockpiles (short term storage only) for management of all unexpected finds requiring stockpiling

3. POST-Operation

Pathways request to be closed off

•

Supervisor Name:	Date:	
Print Name:	Signature of worker:	

Record of induction/training to be recorded in Divisional HPE container **-925.09. *** and in site diary if applicable





Bonded ACM

One Council Reference: 25732028





Contaminated soils (Sulphates)



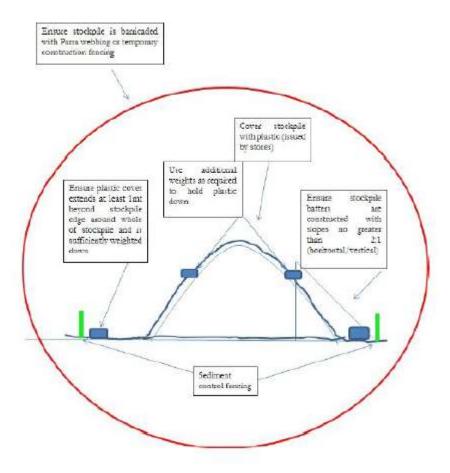


Archaeological & heritage finds

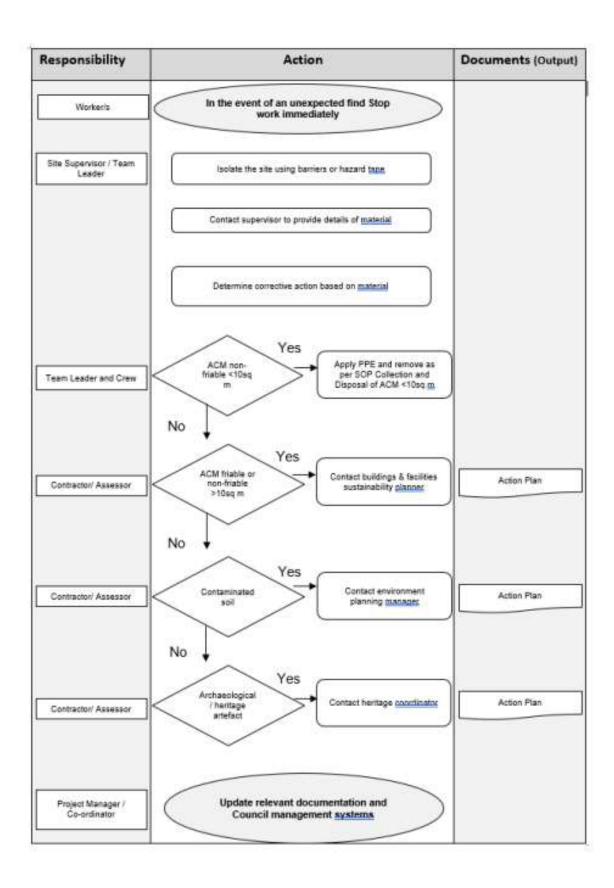


Friable Asbestos - in no circumstances is this material to be touched - must be a licenced removalist

Management of Suspected or Known Asbestos Contaminated Stockpiles (Short-term Storage Only)



This diagram applies to surported or confirmed asbestus contaminated stackpiles associting removal by a licenced contractor



Appendix H: Fisheries Permit

Department of Primary Industries And Regional Development



PN25/181 5 May 2025

General Manager Wollongong City Council 41 Burelli St WOLLONGONG NSW 2500 via email: bmathai@wollongong.nsw.gov.au

Attn: Ray Piatek

Re: Fisheries Permit PN25/181 – Dredging and reclamation – Bank protection works – Cabbage Tree Creek – Next to 31-33 Montague St, Fairy Meadow

Dear Mr Piatek,

I refer to your application dated 22 April 2025 for a permit under Part 7 of the Fisheries Management Act 1994 (FM Act). Department of Primary Industries and Regional Development (DPIRD) Fisheries, assesses applications for dredging and reclamation works, harm marine vegetation and obstruction of fish passage in accordance with Part 7 of the FM Act, Part 14 of the Fisheries Management (General) Regulation 2019 and the Policy and Guidelines for Fish Habitat Conservation and Management (2013).

This application attracts a minimum fee of \$358.00. The fee comprises a \$179.00 application fee plus \$179.00 for the first three hours of assessment. An invoice of \$358.00 has been raised and will be emailed separately.

The environmental assessment has been completed and it has been determined that a permit can be issued. The permit is attached and takes effect on receipt of payment.

Please note that the attached permit providing authorisation under the Fisheries Management Act 1994, to undertake dredging and/or reclamation (s.200 or s.201), and/or harm marine vegetation (s.205) does not provide authorisation under any Act or planning instrument. It is the applicant's responsibility to ensure they have all appropriate approvals and landowner consents before the works occur. This may include, but is not restricted to, development consent under the Environmental Planning & Assessment Act 1979, landowners' consent and/or a licence under the

PN25/181 ahp.central@dpird.nsw.gov.au

dpird.nsw.gov.au

Crown Lands Management Act 2016, and a controlled activity approval under the Water Management Act 2000.

Please carefully read and note the conditions included in the permit. If you agree that all the conditions are reasonable, appropriate, and achievable, you must sign and date the attached form (Acceptance of Conditions) and return it to the Departmental Contact Officer as soon as possible. If you believe that you cannot comply with all the Conditions, then you must not commence work. Instead, you should contact the Departmental Contact Officer listed on the first page of the permit so that your concerns can be considered.

If you intend to have the work undertaken by a contractor, please ensure that the contractor receives a full copy of the permit and understands the importance of abiding by the conditions. As the permit holder, you are responsible for ensuring compliance with all conditions therein and with any other legislative obligations. Breaching a condition of a permit can incur an on-the-spot penalty notice of \$500 or up to \$11,000 through the courts in accordance with clause 225 of the Fisheries Management (General) Regulation 2019.

The extent of work is to be restricted to that outlined in the application and plans submitted to the Department. If for any reason, other works are required, or the works need to be extended to other areas, you must seek specific approval beforehand. DPIRD Fisheries will require justification for these variations and may charge additional assessment fees as outlined in the permit application. Similarly, please note the expiry date on the permit. If the works are not completed by the expiry date you will need to obtain an extension. Requests to renew a permit before the expiry date will not incur a fee. Requests to renew a permit that has expired within the last 3 month will incur a \$179 fee. Permits that have expired more than 3 months previously will need to be reapplied for.

DPIRD Fisheries places particular importance upon the need to minimise the harm to the natural environment both at the work site and in downstream/adjacent waters. The Department expects implementation of Best Management Practice with respect to erosion and sediment control as outlined in the publication "Managing Urban Stormwater: Soils and Construction" (4th Edition Landcom, 2004), commonly referred to as "The Blue Book" (see Managing Urban Stormwater: Soils and Construction Volume 1 Fourth edition).

If you have any queries regarding this permit, please contact Carla Ganassin at carla.ganassin@dpird.nsw.gov.au or 0447 644 357.

PN25/181 ahp.central@dpird.nsw.gov.au

dpird.nsw.gov.au

Sincerely

Carla Ganassin

Senior Fisheries Manager, Aquatic Ecosystems Assessments

DPIRD Fisheries

Authorised delegate of the Minister of Primary Industries

PN25/181 ahp.central@dpird.nsw.gov.au

dpird.nsw.gov.au

Permit under Part 7 of the FISHERIES MANAGEMENT ACT 1994

Permit	Permit Number	PN25/181
	Expiry Date	Unless cancelled or suspended sooner, this permit shall remain in force until 5 May 2027
Permit H	older:	Wollongong City Council
		Error! Reference source not found.: 41 Burelli Street, WOLLONGONG SW
		Contact person: Brigid Mathai
		Phone: 4227 8847 Email: bmathai@wollongong.nsw.gov.au
Permit Area:		Cabbage Tree Creek, next to 31-33 Montagues St, Fairy Meadow (Refer to Attachment 1)
Permit Activity:		Dredging and reclamation for bank protection works as described in permit application dated 22 April 2025
Departmental Contact Officer:		Carla Ganassin
		Ph: 0447 644 357
		Email: carla.ganassin@dpird.nsw.gov.au
District F	isheries Officer:	Daniel Minter
		Ph: 4220 8499
		Email: daniel.minter@dpird.nsw.gov.au

This permit is subject to the following Conditions:

ADMINISTRATIVE CONDITIONS

 The Acceptance of Conditions form (attached) must be completed and returned to <u>ahp.central@dpi.nsw.gov.au</u> and <u>fisheries.compliance@dpi.nsw.gov.au</u> before commencing any works authorised by this permit.

Reason – To remove any doubt that the Permit Holder understands and accepts the Conditions before work commences.

PN25/181 ahp.central@dpird.nsw.gov.au

dpird.nsw.gov.au

- 2) The Commence Works Notification form (attached) must be completed and sent to ahp.central@dpird.nsw.gov.au and fisheries.compliance@dpird.nsw.gov.au BEFORE the commencement of works authorised by this permit AND (if required under this permit) after erosion and sediment control measures have been installed. Photographs clearly showing all aspects of the works site and (if required under this permit) deployed erosion and sediment control measures at this stage must be attached to this email.
 - Reason To ensure that local DPIRD Fisheries staff are aware that the works authorised by this permit are about to commence.
- 3) The Active Works Notification form (attached) must be completed and sent to <u>ahp.central@dpird.nsw.gov.au</u> and <u>fisheries.compliance@dpird.nsw.gov.au</u> at least 3-5 days BEFORE construction works are complete and machinery is removed from the site. Photographs clearly showing the status of construction works and the works site and (if required under this permit) deployed erosion and sediment control measures at this stage must be attached to this email.
 - Reason To provide an opportunity for local DPIRD Fisheries staff to inspect the site whilst machinery is still on site and available to do any remedial work that may be necessary.
- 4) The Post Works Notification form (attached), must be completed and sent to ahp.central@dpird.nsw.gov.au and <a href="mailto:fisheries.compliance@dpird.nsw.gov.au within 21 days of completion of works at the site. Photographs clearly showing the completed construction works and any revegetation works required under this permit must be attached to this email.
 - Reason To provide an opportunity for DPIRD Fisheries staff to review the revegetation works.
- This permit (or a true copy) must be carried by the permit holder or sub-contractor operating on-site at all times during works activity in the permit area.
 - Reason DPIRD Fisheries staff may wish to check compliance of works with imposed conditions.

NATURE AND EXTENT OF WORKS

- 6) The permit holder must ensure that all works authorised by this permit are restricted to the permit area and are undertaken in a manner consistent with those described in the: permit application dated 22 April 2025; and Review of Environmental Factors for the works (Wollongong City Council, REF04375, 22 April 2025). Other works, which have not been described, except those activities required by this permit, are not to be undertaken.
 - Reason This permit has been granted following an assessment of the potential impacts of the described works upon the aquatic and neighbouring environments. Other works, which were not described in the application have not been assessed and may have significant adverse impacts.

SEDIMENT AND EROSION CONTROL

 Erosion and sediment mitigation devices are to be erected in a manner consistent with currently accepted Best Management Practice (i.e., Managing Urban Stormwater: Soils and

-		
PN25/181		
ahp.central@dpird.nsw.gov.au	dpird.nsw.gov.au	5

Construction 4th Edition, Landcom, 2004) to prevent the entry of sediment into the waterway prior to any earthworks being undertaken. These are to be maintained in good working order for the duration of the works under PN25/181 and subsequently, until the site has been stabilised and the risk of erosion and sediment movement from the site is minimal.

Reason – To ensure that sediment generated by the exposure of soil is not transported into the main water body.

DEWATERING

8) The site shall not be dewatered unless a Dewatering Management Plan is prepared and approved by the contact officer. Any Dewatering Management Plan shall specifically consider any potential off-site impacts as a result of the dewatering operations and contain mitigation controls to effectively treat any discharge water to prevent off site pollution of any receiving waters.

Reason – Dewatering poses a significant risk to aquatic animals and needs to be carefully managed.

WORK IN WATERS

- Machinery is not to enter or work from the waterway unless in accordance with works proposed in your application for the permit and the requirements of this permit.
 - Reason To ensure minimal risk of water pollution from oil or petroleum products and to minimise disturbance to the streambed substrate.
- 10) Only clean rock (no fines) is to be used in construction of works authorised by this permit.
 - Reason To avoid fines, clay, and other sediment unnecessarily entering the waterway and potentially impacting on aquatic habitats.
- Prior to use at the site and / or entry into the waterway, machinery is to be appropriately cleaned, degreased, and serviced. Spill kits are to be always available on-site during works.
 - Reason To reduce the threat of an unintended pollution incident impacting upon the aquatic environment.

TIMING OF WORKS FOR LOW FLOWS

12) Works are to be undertaken during low flows in Cabbage Tree Creek (and when the Bureau of Meteorological forecast for the Wollongong Region indicates several days of dry weather.

Reason – Timing the works for appropriate conditions can reduce delays and minimise impacts on the aquatic environments.

AVOIDING HARM TO SNAGS AND RIPARIAN VEGETATION

13) Material storage and stockpiling are not to be undertaken on water land, marine vegetation (saltmarsh, mangroves, seagrass) or riparian vegetation. Stockpiling must be undertaken in a

PN25/181		
ahp.central@dpird.nsw.gov.au	dpird.nsw.gov.au	

manner to avoid harm to these types of vegetation or water land. Stockpiles should also be located 20 metres away from adjacent water land. Stockpiles and/or dewatering areas should be appropriately controlled by sediment fencing or other materials prescribed in the "Blue Book" to ensure sediments do not enter the waterway.

Reason – To ensure that impacts on aquatic habitats, the riparian zone and threatened saltmarsh communities are minimised. "Degradation of native riparian vegetation along NSW water courses" (excluding estuarine and marine waters) is listed as a Key Threatening Process (KTP) under the provisions of the FM Act.

14) No snags or large woody debris from trees and shrubs are to be removed, realigned, or relocated without first obtaining the written authority of the Contact Officer.

Reason – "Removal of large woody debris from NSW rivers and streams" is listed as a KTP under the provisions of the FM Act. This approval has been granted on the basis that snags are not to be removed.

- 15) On completion of the works, the site is to be rehabilitated and stabilised including:
 - Surplus construction materials and temporary structures (other than silt fences and other erosion and sediment control devices) installed during the course of the works are to be removed.
 - b) On completion of works all disturbed soil is to be levelled and smoothed and sown with a mixture of sterile grass seeds to encourage rapid revegetation and/or planted out with native indigenous riparian vegetation. Replanting must be completed within 21 days of completion of works at the site.
 - Appropriate maintenance of erosion and sediment control devices is to be undertaken until the vegetation has successfully established and the site has stabilised.

Reason – To ensure that habitats are restored as quickly as possible, public safety is not compromised, aesthetic values are not degraded and sediment inputs into the waterway are reduced.

FISH KILL CONTINGENCY

16) A visual inspection of the waterway for dead or distressed fish (indicated by fish gasping at the water surface, fish crowding in pools or at the creek's banks) is to be undertaken daily during the works. Observations of dead or distressed fish are to be immediately reported to the Contact Officer by the Permit Holder. In such a case all works are to cease until the issue is rectified and approval is given to proceed. If requested, the Permit Holder is to commit resources to the satisfaction of the Contact Officer for an effective fish rescue, if in the view of that officer, a fish kill event is imminent and likely to occur within or adjacent to the works area due to conditions associated with weather, water quality and other parameters.

PN25/181	
ahp.central@dpird.nsw.gov	au

dpird.nsw.gov.au

Reason – DPIRD Fisheries needs to be aware of fish kills so that it can assess the cause and mitigate further incidents in consultation with relevant authorities. They are also potentially contentious incidents from the public perspective. Work practices may need to be modified to reduce the impacts upon the aquatic environment.

IMPORTANT NOTE:

In the event of any inconsistency between the conditions of this approval and:

- the drawings / documents referred to above, the conditions of this approval prevail to the extent of the inconsistency.
- any Government publication referred to in this permit, the most recent document shall prevail to the extent of the inconsistency; and
- the proponent's mitigation measures outlined in the application; the conditions of this
 approval prevail to the extent of the inconsistency.

STOP WORK ORDERS

A Fisheries Officer or other appropriate delegate, who has reasonable cause to suspect that the conditions of this permit have not been complied with, may order the work to stop immediately. The order may be given to the permit holder or any person who informs the officer that they are acting in any capacity on behalf of the permit holder. Any damage caused to the habitat outside the specified permit area, or the carrying out of works not in accordance with the conditions specified in this permit and/or the application and that were accepted by the permit holder, could result in a breach of the Fisheries Management Act 1994 or Regulations, and penalties of up to \$220,000 may apply. Orders may also be made requiring work to rectify any damage caused by unauthorised works. Breaching a condition of a permit can incur an on-the-spot penalty notice of \$500 or up to \$11,000 through the courts pursuant to clause 225 of the Fisheries Management (General) Regulation 2019.

Sincerely

Carla Ganassin

Senior Fisheries Manager, Aquatic Ecosystems Assessments

DPIRD Fisheries

Authorised delegate of the Minister of Primary Industries

5 May 2025

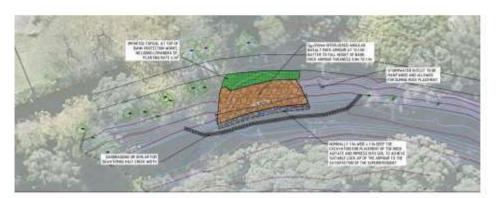
PN25/181

ahp.central@dpird.nsw.gov.au

dpird.nsw.gov.au

Attachment 1 - Location diagram of works authorised under PN25/181





PN25/181 ahp.central@dpird.nsw.gov.au

dpirdnsw.gov.au

Permit No. PN25/181 issued under Part 7 of the Fisheries Management Act 1994

PLEASE COMPLETE THIS PAGE AND RETURN TO DPIRD FISHERIES

In reference to Permit No. PN25/181 associated with dredging and reclamation – bank protection works – Cabbage Tree Creek – Next to 31-33 Montague St, Fairy Meadow:

Acceptance of Conditions Form

I the undersigned, acknowledge that I have read and understood and agree to comply with the conditions specified. I understand that penalties can be imposed for non-compliance with conditions.

Permit Holder's name:
Permit Holder's signature:
Date:
 Please SIGN this page and email it (with permit number in the subject line) to: ahp.central@dpird.nsw.gov.au AND fisheries.compliance@dpird.nsw.gov.au Save a COPY of this signed form for your records.
PN25/181

dpird.nsw.gov.au

ahp.central@dpird.nsw.gov.au

Permit No. PN25/181 issued under Part 7 of the Fisheries Management Act 1994

PLEASE COMPLETE THIS PAGE AND RETURN TO DPIRD FISHERIES

In reference to Permit No. PN25/181 associated with dredging and reclamation – bank protection works – Cabbage Tree Creek – Next to 31-33 Montague St, Fairy Meadow:

Commence Works Notification Form

Note: to be completed and returned BEFORE commencement of works AND (if required under this permit) after erosion and sediment controls have been installed.

Permit	Holder's name:
Expect	ed commencement date:
Permit	Holder's signature: Date:
Comme	ents:
. 1	Please SIGN this page and email it (with permit number in the subject line) to:
	ahp.central@dpird.nsw.gov.au AND fisheries.compliance@dpird.nsw.gov.au
• 19	ATTACH at least five photographs showing
13	all aspects of the works site, and
10	deployed erosion and sediment control measures (if required under this permit).
	PHOTOGRAPHS must be clearly labelled (e.g. looking upstream at work site from downstream left bank; looking downstream from work site; overview of work site from XX) and show:
10	site overview and close ups, and
	upstream and downstream perspectives (where relevant).
Save a C	COPY of this notification and attached photographs for your records.
PN25/18	

dpird.nsw.gov.au

ahp.central@dpird.nsw.gov.au

Permit No. PN25/181 issued under Part 7 of the Fisheries Management Act 1994

PLEASE COMPLETE THIS PAGE AND RETURN TO DPIRD FISHERIES

In reference to Permit No. PN25/181 associated with dredging and reclamation – bank protection works – Cabbage Tree Creek – Next to 31-33 Montague St, Fairy Meadow:

Active Works Notification Form

Note: to be completed and returned at least 3-5 days BEFORE construction works are complete and machinery is removed from the site.

Permit Holder's name:

Perm	it Holder's signature:Date:
Comi	ments:
	Please SIGN this page and email it (with permit number in the subject line) to:
	ahp.central@dpird.nsw.gov.au AND fisheries.compliance@dpird.nsw.gov.au
•	ATTACHat least five photographs showing
	 status of all aspects of the construction works and work site, and
	 deployed erosion and sediment control measures (if required under this permit).
٠	PHOTOGRAPHS must be clearly labelled (e.g. looking upstream at works from downstream left bank; looking downstream from works site; overview of works from XX) and show.
	 site overview and close ups, and
	 upstream and downstream perspectives (where relevant).
	Save a COPY of this notification and attached photographs for your records.

Permit No. PN25/181 issued under Part 7 of the Fisheries Management Act 1994

PLEASE COMPLETE THIS PAGE AND RETURN TO DPIRD FISHERIES

In reference to Permit No. PN25/181 associated with dredging and reclamation – bank protection works – Cabbage Tree Creek – Next to 31-33 Montague St, Fairy Meadow.

Post Works Notification Form

Note: to be completed and returned within 21 days of completion of all works authorised under this permit.
Permit Holder's name:
Date completed:
Permit Holder's signature: Date:
Assessment of works: (e.g. were there any complications (e.g. weather, unforeseen geological conditions etc.) that made it difficult to comply with permit conditions)
 Please SIGN this page and email it (with permit number in the subject line) to: ahp.central@dpird.nsw.gov.au AND fisheries.compliance@dpird.nsw.gov.au
ATTACHat least five photographs showing
 all aspects of the completed construction work, and
 completed revegetation works (if required under this permit).
 PHOTOGRAPHS must be clearly labelled (e.g. looking upstream at works from downstream left bank; looking downstream at left bank revegetation from works site; overview of works from XX) and show:
 site overview and close ups,
 upstream and downstream perspectives (where relevant).
 Save a COPY of this notification and attached photographs for your records.
PN25/181 aho central@dpird.nsw.gov.au dpird.nsw.gov.au 13