

## QMS Fm 121

## REVIEW OF ENVIRONMENTAL FACTORS: REF03839

## CONCLUSIONS AND SIGN-OFF OF ALUKEA ROAD CORDEAUX HEIGHTS STORMWATER MAINTENANCE

This report documents the outcomes of the Review of Environmental Factors (REF) undertaken for proposed works comprising of removing sediment in American Creek at Cordeaux Heights.



**The proposed activity has been assessed against the SEPP (Transport and Infrastructure) 2021 and does not require consent under Chapter 2 Division 20 Stormwater management systems.** 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). 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. ***Works are to commence, and be substantially completed, within 2 years of the REF sign off date. Any substantial works to be undertaken outside this period will require a review of the REF.***

**Publication Requirements:** The EP&A Regulation ([clause 171\(4\)](#)) requires the REF to be published prior to works commencing (if possible, otherwise within a month) if the activity involves an approval or permit for activity that requires approval under the FM Act sections 144, 201, 205 or 219.

**Community Consultation** was not required. Matters have been satisfactorily addressed and are not relevant to the proposed works.

### 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:	Annette Williams	REF Review:	Jo Glynn
Position:	Environment Strategy Officer	Position:	Environment Strategy Officer
Signature:		Signature:	
Date:	7 March 2023	Date:	7 March 2023

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:	Luke McKenzie	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

Name:		Name:	
Position:	Site Manager	Position:	One up Supervisor
Signature		Signature:	
Date		Date:	

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## 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 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 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

<b>Project Name</b>	<b>Stormwater Maintenance</b>
<b>Location</b>	Alukea Road Cordeaux Heights
<b>Land Ownership</b>	Wollongong City Council
<b>Land Classification</b>	Land on which works are being undertaken is Community/Road Reserve.
<b>Project Description</b>	<p>The open channel has excessive build-up of sediment reducing the capacity of the stormwater system causing flooding of local roads. (50m long x 4m wide x 0.5m deep)</p> <p>Remove excess sediment in the open channel from the southern bank:</p> <ul style="list-style-type: none"><li>• Engage Natural Areas Officers to remove weeds and minor vegetation to allow safe access on the southern bank above the gabion walls</li><li>• Remove excess sediment using a combination of a grab truck, excavator and sucker truck for final clearing of the culverts.</li><li>• Temporary stockpiling of material on the southern bank before transferring to the bogie trucks or Grab Trucks.</li><li>• Disposal at Sydney EPA licenced recycling facility</li></ul> <p>No removal of any large trees is required. Natural Areas officer Alice McDowell will be engage to reduce excess weeds and small self-seeded shrubs to allow access to the channel</p>
<b>Proposed Start Date &amp; Work Period</b>	March 2023 – March 2025
<b>Work Equipment &amp; Machinery</b>	EXCAVATION: Excavator, Backhoe, skid steer, TRUCKS: Bogie, 10 wheeler truck, Combo-unit, Grab Truck, 6t 4WD dumper
<b>Proposed work hours</b>	Between 7.00 am and 6.00 pm Monday to Friday 8.00am and 1.00pm Saturday (Refer to Safeguards section in this REF)
<b>Alternative proposals considered</b>	<p>There is no alternative proposal for routine stormwater maintenance. This work is minor with minimal impact but a Fisheries Permit is required within key fish habitat.</p> <p>The alternative is to do nothing which would create flooding to surrounding residents and roads. Therefore, it is concluded that the proposal should proceed.</p>

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, so that an audit of works may be undertaken.
<b>Environmental Awareness</b>	
<ul style="list-style-type: none"> <li>▪ The work crew or contractor must have a copy of the REF in the site truck and be fully aware of the REF safeguards to be implemented.</li> <li>▪ 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.</li> <li>▪ Dial Before you Dig (DBYD) as part of this scope preparation. It is expected that the contractor will organise their own DBYD.</li> <li>▪ 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.</li> <li>▪ An Environmental Audit may be conducted to assess compliance with the REF and provide feedback on ways to improve work practices.</li> </ul>	
<b>Erosion &amp; Sediment Control</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>▪ Assess likely soil and water implications at planning stage.</li> <li>▪ Plan for erosion and sediment control concurrently with engineering and landscaping design.</li> <li>▪ 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.</li> <li>▪ Concentrate on source controls.</li> <li>▪ Control water flow. Divert upslope waters around works and limit slope length to 80m on disturbed lands if rainfall is expected.</li> <li>▪ Minimise onsite traffic movements.</li> <li>▪ Rehabilitate disturbed lands quickly.</li> </ul>	
<b>Flora &amp; Fauna</b>	

- 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.

#### **Fish Habitat**

- If the works are within key fish habitat and the removal of large woody debris is required, then a Fisheries Permit may be required. Seek advice from the Environment Officer.
- 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.

#### **Platypus**

- A strong positive relationship exists between the amount of cover provided by shrubs, trees and low-growing plants on creek or river banks and the quality of platypus foraging and burrow habitats. Once works is finished, consider re-planting the area with riparian vegetation to provide habitat and overhanging vegetation.
- Particular attention must be given to ensuring sediment plumes and contamination of water does not occur. Do not use sediment fences and boom within the watercourse, as platypus can get trapped and drown. Utilise erosion control mechanisms outside of the water course, before any sediment enters the waterway.
- Inspect for any platypus burrows upstream and downstream of the works for at least 20m in the embankment, prior to works. If a burrow is located, avoid the area, stop works and notify an Environment Officer immediately.
- To avoid damaging platypus burrows, use of heavy machinery within about 10-15 metres of the water's edge should be avoided whenever possible in platypus habitats. Special care should be taken not to disrupt banks or cause them to become compacted in spring and summer when females are raising their young.
- Herbicides used to control riparian weeds should never be allowed to enter the water, either directly or through storm run-off. Areas of bare soil caused by herbicide use should be planted (or reseeded) as soon as possible with appropriate indigenous species.

#### **Fisheries Permit Requirements**

A Fisheries Permit has been issued for these works – **PN23/102** – and is attached in **Appendix F**. The following administrative conditions and on-site conditions must be completed or implemented.

#### **ADMINISTRATIVE CONDITIONS**

1. The Acceptance of Conditions form (attached) must be completed and returned to the Officers listed at the bottom of the form before commencing any works authorised by this permit.
2. The Commence Works Notification form (attached) must be completed and sent to the Officers listed at the bottom of the form at least three to five (3-5) days BEFORE the commencement of works authorised by this permit.
3. The Active Works Notification form (attached) must be completed and sent to the Officers listed at the bottom of the form at least three to five (3-5) days BEFORE works are complete or machinery is removed from the site. Several colour photographs showing the work site and works completed to date must be included.
4. This permit (or a true copy) and a copy of the finalised Construction Environmental Management Plan (CEMP) must be carried by the permit holder or sub-contractor operating on-site at all times during work activity in the permit area.

## **NATURE AND EXTENT OF WORKS**

5. 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 1 March 2023, and Review of Environmental Factors for the works (Wollongong City Council, REF03839). Other works, which have not been described, excepting those activities required by this permit, are not to be undertaken.

## **SEDIMENT AND EROSION CONTROL**

6. 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 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 and subsequently until the site has been stabilised and the risk of erosion and sediment movement from the site is minimal.

## **WORK IN WATERS**

7. 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.
8. 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.

## **TIMING OF WORKS FOR LOW FLOWS**

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

## **AVOIDING HARM TO SNAGS AND RIPARIAN VEGETATION**

10. When working near riparian vegetation or water land these areas need to be identified and appropriately delineated as “No Go” areas (with the aim of avoiding harm to these areas). Harm to marine vegetation, riparian vegetation or water land outside the work footprint approved under the authority of this permit is not permitted and any harm caused is to be documented and reported to the contact officer. Any harm caused is to be restored in accordance with directions provided by the contact officer.
11. Material storage and stockpiling is not to be undertaken on water land, marine vegetation (saltmarsh, mangroves, seagrass) or riparian vegetation. Stockpiling must be undertaken in a 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.

## **FISH KILL CONTINGENCY**

12. 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.

## **Tree Protection**



- Refer to the **Tree Protection Plan** below to prevent tree trunk and root damage. 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'.



#### Hold Points for Arborist inspections:

There are several trees adjacent to the proposed maintenance works. There will likely be encroachment within some Tree Protection Zones of these trees. As such, a **construction hold point must be in place. The hold points must be adhered to as per Australian Standard AS 4970-2009 Protection of Trees on Development Sites.**

#### Tree Removal

- Trees proposed to be removed should be clearly identified and confirmed prior to removal to reduce risk of erroneous removal of tree.
- Any proposal of additional trees to be removed must be assessed by a Level 5 AQF Arborist and appropriate Tree Assessment completed.
- Any tree removal must be undertaken by a Level 3 AQF Arborist.

- Trees to be removed must be felled to avoid any impact to other vegetation or trees.
  - To reduce potential impact to fauna sheltering in the tree/accidental removal of native vegetation, keep the impact footprint to a minimum to avoid unnecessary impacts to surrounding vegetation.
  - Ensure that the appropriate protocols are carried out to minimise the spread of weed material during works and when travelling to/from site
  - Prior to work, inspect the tree for fauna and if present, prevent injury or contact WIRES 1300094737.

### **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.
- Public safety for access around the site is to be ensured.
- Well-defined work compound must be secured to prevent public access.
- Refer to the Tree Protection Plan for specific access requirements into the park.

### **Water Quality**

- 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

### **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.**

#### **Fill Material Managed within the Road Reserve**

##### **When working within the road reserve the following is applicable:**

- Material excavated from within the road reserve must be classified.
- Excavated public road material includes rock; soil; sand; bitumen; asphalt pavement; gravel; slag; fly and bottom ash; concrete; brick and ceramics.
- If the excavated material contains coal tar or asbestos; or any waste that is classified as hazardous; restricted solid; special or liquid waste, it cannot be reused on the road reserve.
- This excavated material that is not classified as hazardous can be stored and re-used within the road corridor.
- Excavated public road material cannot be applied to private land.

**Acid Sulfate Soils** - Best Practice Guidelines must be adhered to. For sampling and identification on site refer to: [https://www.waterquality.gov.au/sites/default/files/documents/sampling-identification-methods\\_1.pdf](https://www.waterquality.gov.au/sites/default/files/documents/sampling-identification-methods_1.pdf)

The *Wollongong Local Environmental Plan 2009* Acid Sulfate Soils Map has identified that the site may be affected by Classes 4 or 5 Acid Sulfate Soils. Acid Sulfate Soils contain iron sulfides which, when exposed to air due to drainage or disturbance, may produce sulfuric acid and release toxic quantities of iron, aluminium and heavy metals. The Acid Sulfate Soils Map is an indication only and acid sulfate soils may be encountered during the excavation for the proposed development.

Class 4: Acid sulfate soils in a class 4 area are likely to be found beyond 2 metres below the natural ground surface. Any works that extend beyond 2 metres below the natural ground surface, or works which are likely to lower the water table beyond 2 metres below the natural ground surface, 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.

#### **Air Quality & Energy**

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 Premier and Cabinet (OEH for Aboriginal objects) will regulate the care, protection and management of Aboriginal objects and will issue Aboriginal heritage impact permits.
- Department of Premier and Cabinet (Heritage Division 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 20**

### SEPP (Transport and Infrastructure) 2021

#### Chapter 2

##### 2.3 Interpretation - general

(4) If this Chapter provides that development for a particular purpose that may be carried out without consent includes **routine maintenance works**, the following works or activities are (subject to and without limiting that provision) taken to be routine maintenance works if they are carried out for that purpose:

- (a) routine repairs to or replacement of equipment or assets,
- (b) temporary construction yards,
- (c) clearing of vegetation (including any necessary cutting, lopping, ringbarking or removal of trees) and associated rectification and landscaping.**

#### Division 20 Stormwater management systems

##### 2.136 Definition

In this Division—*stormwater management system* means—

- (a) works for the collection, detention, harvesting, distribution or discharge of stormwater (such as channels, aqueducts, pipes, drainage works, embankments, detention basins and pumping stations), and
- (b) stormwater quality control systems (such as waste entrapment facilities, artificial wetlands, sediment ponds and riparian management), and
- (c) stormwater reuse schemes.

##### 2.139 Exempt development

- (1) Development for any of the following purposes carried out by or on behalf of a public authority is exempt development if the development is in connection with a stormwater management system—
- (a) emergency works or emergency maintenance to protect a stormwater management system,
  - (b) routine maintenance or associated landscaping works, including the following—**
    - (i) removal of litter, silt or debris from any part of the stormwater management system,**
    - (ii) harvesting of macrophytes associated with a treatment system,
    - (iii) excavations to expose a pipeline for inspection or testing and temporary stockpiles associated with pipeline maintenance or repair,
    - (iv) flushing or relining of a pipeline where access is by a manhole,
    - (v) maintenance of access tracks along corridors, pipelines and other infrastructure,
    - (vi) painting, servicing or minor alteration of existing equipment,
    - (vii) alterations to existing enclosures or buildings,

#### *Local Government Act 1993*

##### 48 Responsibility for certain public reserves

- (1) Except as provided by section 2.22 of the *Crown Land Management Act 2016*, a council has the control of:
- (a) public reserves that are not under the control of any other body or lease from the Crown,
  - (b) public reserves that the Governor, places under the control of the council.**

#### State Environmental Planning Policy (Biodiversity and Conservation) 2021 incorporates:

- State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 (Chapter 2)
- State Environmental Planning Policy (Koala Habitat Protection) 2020
- State Environmental Planning Policy (Koala Habitat Protection) 2021 (Chapters 3 and 4 and relates to land use planning and development assessment framework for koala habitat)
- State Environmental Planning Policy No 19 – Bushland in Urban Areas (Chapter 6)

### ***Biodiversity Conservation Act 2016 (BC Act)***

All vulnerable and endangered species and endangered ecological communities listed under the *BC Act* within Wollongong City Council LGA have been identified using BioNet.

The results of the **BioNet** search for biodiversity data if required are included within the Flora & Fauna Assessment and / or Assessment of Significance. **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 Act provides for the listing of nationally threatened native species and ecological communities, native migratory species and marine species.

**Significant Impact** is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impact. Refer to **SPRAT** the Australian Government EPBC Act Database for species profile and threats.

### ***Fisheries Management Act 1994 (NSW)***

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

### ***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.

### ***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.

### ***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.

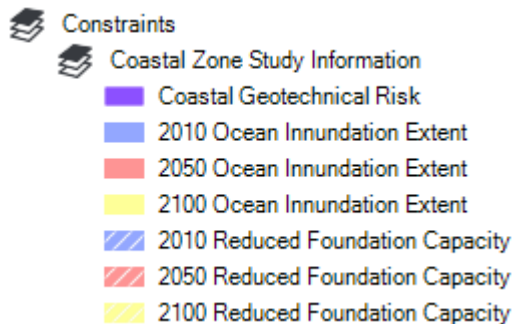
***Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 – The Excavated Public Road Material Exemption 2014***

Applies to excavated public road material that will be applied/reused to land within the road corridor for road related activities such as construction; maintenance and installation of road infrastructure facilities.

## 5. ENVIRONMENTAL FACTORS IDENTIFIED AND EVALUATED

The following table has been completed following a site inspection carried out on 15 February 2023 and interrogation of Council's Intramap system.

ENVIRONMENTAL FACTOR	Impact L/M/H	Extent, Duration, Type Comment <a href="#">Refer to Attachment A below</a>
Heritage		
Is there any Aboriginal Heritage within or close proximity to the worksite? (Refer to <a href="#">AHIMS</a> )	Overall impact – LOW	No
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 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		Yes. Works are within American Creek but the open channel has been greatly disturbed.
Is there any European Heritage listed on the current LEP?		No
Will these Heritage Items be impacted by the project?		No
Water Quality/Erosion & Sedimentation/Demand on Resources/Waste Disposal		
Are the works likely to disturb any acid sulfate soils listed on the Current LEP?	Overall impact – LOW	No
Are the works to be conducted within 40m of watercourses or any other type of natural water body?		Yes. American Creek will need to be maintained to prevent flooding
Will the works result in changes to water flow in any way?		Yes. Improved water flow
Are the works within a flood affected zone?		Yes. Section 10.7 Codings The proposal does not represent an increased risk to life or property in regard to flooding
Do the works involve the use or storage within the work areas of fuels or other chemicals (other than fuels contained within the work vehicles)?		No. There will be no storage container on site for these works.
Will the works create areas of unprotected soil or loose surface for more than 24 hours?		No. The works will remove loose sediment material deposited in the creek since the recent storm events.

ENVIRONMENTAL FACTOR	Impact L/M/H	Extent, Duration, Type Comment <a href="#">Refer to Attachment A below</a>
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 <a href="#">Council's ARO</a>		No
Are the works a Coastal Geotechnical risk under Coastal Zone Study under WCC IntraMaps? 		No
Are the works subject to the <i>Wollongong Coastal Zone Management Plan 2017</i> ?		No
<b>Flora &amp; Fauna/Tree Protection/Access/Community Environmental Impacts</b>		
Is any vegetation required to be removed?	<b>Overall impact – LOW</b>	Yes. Exotics and weeds within the creek embankment.
Will the work occur within a regulated category listed under Part 5A of <i>Local Land Services Act 2013</i> ? Refer to the <a href="#">Native Vegetation Regulatory Map</a> .		No
Are the works relevant to the SEPP (Biodiversity and Conservation) 2021. Chapter 2. Refer to <a href="#">Biodiversity Values Map</a>		No
Are the works relevant to SEPP (Biodiversity and Conservation) 2021. Chapters 3 and 4 where relevant. Refer to <a href="#">Koala Habitat Protection Map</a>		Wollongong LGA is mapped under the Koala Management Area. However, in this case there are no trees for removal.
Is the area within a Vegetation Community identified in NP Vegetation Layer under WCC IntraMaps Constraints?		Yes. MU56a Weeds and Exotics

ENVIRONMENTAL FACTOR	Impact L/M/H	Extent, Duration, Type Comment <a href="#">Refer to Attachment A below</a>
Are the works located on land identified as the Escarpment Management Plan Area under WCC IntraMaps Constraints?		No
Is the area within a Habitat Model in WCC IntraMaps Constraints?		Yes. There is potential Platypus habitat with American Creek. There was no evidence of the Platypus during the site inspection.
Do the works occur within Key Fish Habitat? Refer to <a href="#">Threatened Fish Species List</a> .		Yes. A Fisheries Permit was required. See Appendix F.
Are the works to be conducted within a Natural Area Asset? (Refer to the WCC IntraMaps Environmental Restoration layer)		Yes. Small Urban Reserve
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. A bush restoration contract is located on the downstream side of the road culvert. The Natural Area Officers will provide access to the creek for the grab truck using Bush Regeneration methods.
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 <a href="#">BioNet</a> or the EPBC Act <a href="#">SPRAT</a> 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. Either side of the road reserve is Community Land
Will the works result in a reduction of the aesthetic and/or recreational qualities of the area or restrict the beneficial uses of the area in the future? Refer to Point of Interest in features on the Base Map Information		No
Will the works cause excess noise?		Not excessive but the routine maintenance work will generate noise more than usual.
Are the works within the management areas defined by SEPP (Resilience and Hazards) 2021.Chapter 2 - Coastal Management? Refer to		

ENVIRONMENTAL FACTOR	Impact L/M/H	Extent, Duration, Type Comment <a href="#">Refer to Attachment A below</a>
<a href="#">Department of Planning Coastal Management Map</a>		
Any transformation of a locality? Human and non-human environment?		
Does the works fall under SEPP (Transport and Infrastructure) 2021 Exempt Developments?		
<b>Cumulative Impact Assessment - existing or future?</b>		minor
<p><b>Any applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act</b></p> <p>Issues, objectives, policies and actions identified in local, district and regional plans</p>		<p>Yes</p> <p>The proposal is consistent with the objectives and vision of ‘Our Wollongong 2028: Community Strategic Plan (2019)’ for the LGA.</p> <p><i>‘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.’</i></p>

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 Intramap 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 AHIMS 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:

- The proposed works will remove deposited sediment but will not excavate into the creeks bed;
- Minor exotic weed vegetation will be removed but all 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.



### AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : REF03839

Client Service ID : 758280

Wollongong City Council

Date: 01 March 2023

Locked Bag 8821

Wollongong DC New South Wales 2500

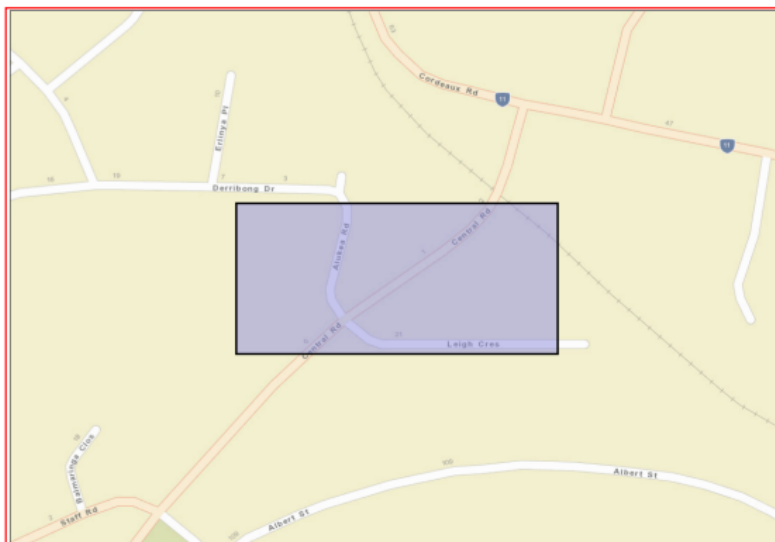
Attention: Annette Williams

Email: awilliams@wollongong.nsw.gov.au

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 301678.0 - 301905.0, Northings : 6186318.0 - 6186423.0 with a Buffer of 0 meters, conducted by Annette Williams on 01 March 2023.**

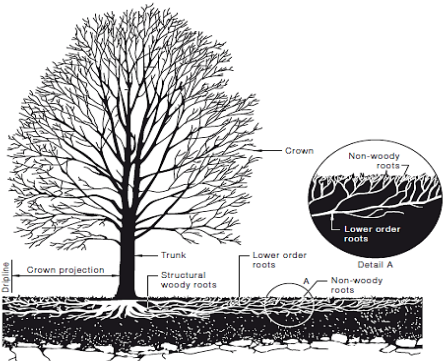
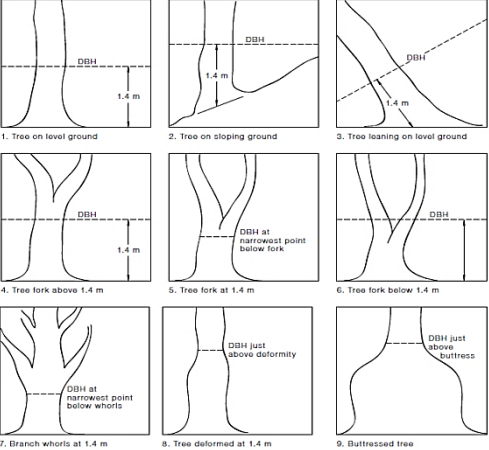
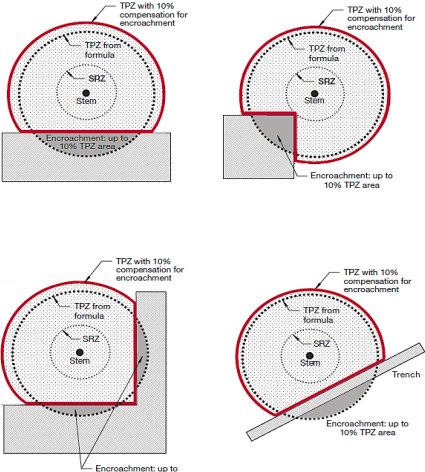
The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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

 <p>FIGURE B1 STRUCTURE OF A TREE IN A NORMAL GROWING ENVIRONMENT</p> <p>www.standards.org.au © Standards Australia</p>	<p><b>A Tree Protection Zone (TPZ)</b> 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. <b>Restricted activities include excavation, storage, dumping of waste and parking of vehicles/plant.</b></p> <p><b>TPZ standard should be:</b></p> <ul style="list-style-type: none"> <li>TPZ = DBH x 12 (Where DBH is the trunk diameter measured at 1.4m above ground).</li> <li>Not greater than 15m.</li> <li><b>TPZ should not be less than 2m nor greater than 15m</b> (Except where crown protection is required).</li> <li><b>TPZ of palms, tree ferns, other monocots and cycads should not be less than 1m outside the crown projection.</b></li> <li>Refer to the Arborist Report for dimensions for the TPZ / Buffers</li> </ul>
 <p>1. Tree on level ground 2. Tree on sloping ground 3. Tree leaning on level ground</p> <p>4. Tree fork above 1.4 m 5. Tree fork at 1.4 m 6. Tree fork below 1.4 m</p> <p>7. Branch whorls at 1.4 m 8. Tree deformed at 1.4 m 9. Buttressed tree</p>	<p>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:</p> <ul style="list-style-type: none"> <li>Protective fencing installed or no-go zones will be created and maintained for the duration of works</li> <li>Ground protection (e.g. mulch) if temporary access for machinery is required.</li> </ul> <p><b>The Structural Root Zone (SRZ)</b> 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).</p>
 <p>TPZ with 10% compensation for encroachment</p> <p>TPZ with 10% compensation for encroachment</p> <p>TPZ with 10% compensation for encroachment</p> <p>TPZ with 10% compensation for encroachment</p> <p>En encroachment: up to 10% TPZ area</p> <p>En encroachment: up to 10% TPZ area</p> <p>En encroachment: up to 10% TPZ area</p> <p>En encroachment: up to 10% TPZ area</p>	<p>The indicative SRZ radius can be determined from the trunk diameter measured immediately above the root buttress using the following formula:</p> <ul style="list-style-type: none"> <li>SRZ radius = <math>(D \times 50)0.42 \times 0.64</math> (Where D = trunk diameter in metres measured above the root buttress)</li> </ul> <p>Note: The SRZ for trees with trunk diameter less than 0.15m will be 1.5m</p> <p><b>Encroachment</b> into TPZ is sometimes unavoidable:</p> <ul style="list-style-type: none"> <li>Minor encroachment is possible without root investigations. (Must be under 10% of the TPZ area and outside the SRZ)</li> <li>Major encroachment is possible if an arborist can prove the tree will be sustained. (Refer to AS 4790 for recommended considerations)</li> </ul> <p><b>Any additional Encroachment</b> 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.</p>

## 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 on 15 February 2023. 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
Ornithorhynchus anatinus 	Platypus	P		Platypuses are generally solitary, spending their lives either feeding along the bottoms of rivers, streams, and lakes or resting in burrows dug into the banks. Generally, most active around dawn and dusk (crepuscular), platypuses can also be active during the day depending on the season, cloud cover, stream productivity, and even individual preference. Platypuses range in length from 38 to 60 cm (15 to 24 inches); males are generally larger than females. Mating take place in the water from late winter through spring (Aug-Oct). Females construct specially built nursery burrows, where they usually lay two small leathery eggs. Gestation is at least two weeks (possibly up to a month).(Britannica 2021)	Unlikely. During the site inspection there was no evidence of platypus being on site or evidence of their habitat.

## Appendix D: Incident Management Procedure

### TITLE

Accidental oil spill in watercourses and drains

### PURPOSE

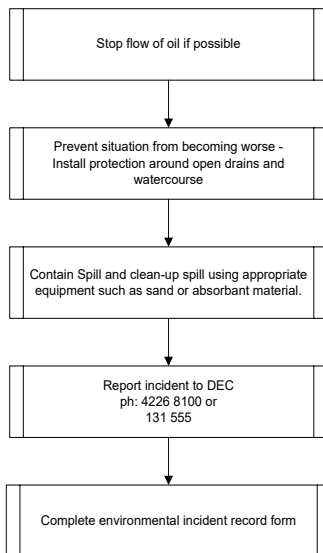
To ensure all practicable means are used to prevent oil spillage during construction or maintenance works near watercourses and drains.

### APPLICATION

This procedure applies to all watercourses including coastal water, rivers, lakes, dams, watercourses, artificial channels, ditches and gullies, and stormwater drains.

Depot Co-ordinators to ensure all operators working near watercourses are trained in this procedure.

### PROCEDURE



#### OPERATING CRITERIA

- Spill kit to be onsite at all times during operation
- Refuelling and storage to be undertaken at Depot
- Machinery not in use to be parked away from drains and watercourse banks in case of natural disaster or vandalism
- All staff and contractors to be trained in oil spillage response

### REFERENCE

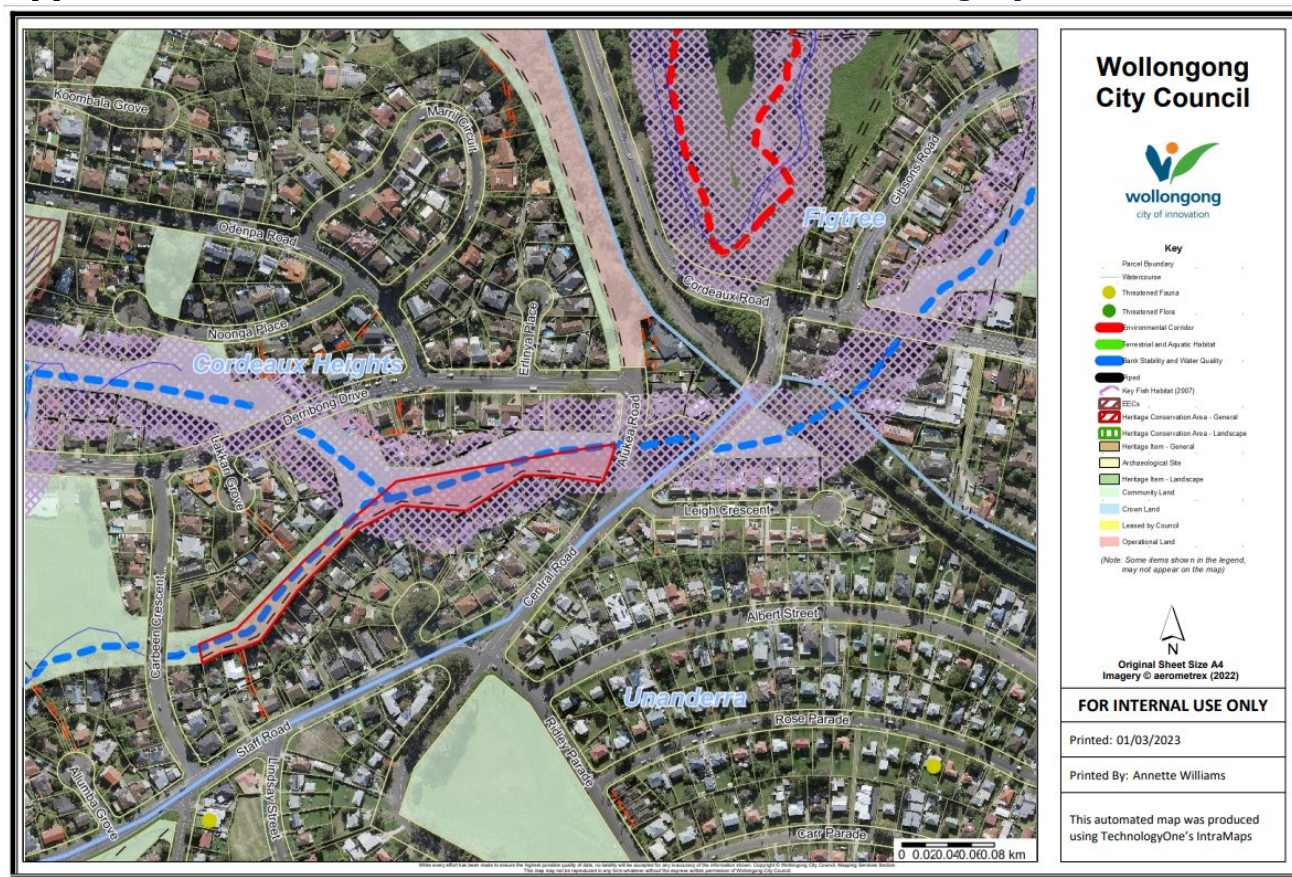
Incident database

### AUDIT CHECKLIST

Spill kit kept at site and kept in order  
All staff is aware of procedure



## Appendix E: Environmental Constraints Aerial / Photographs / Sketch



### Downstream





## Road Reserve

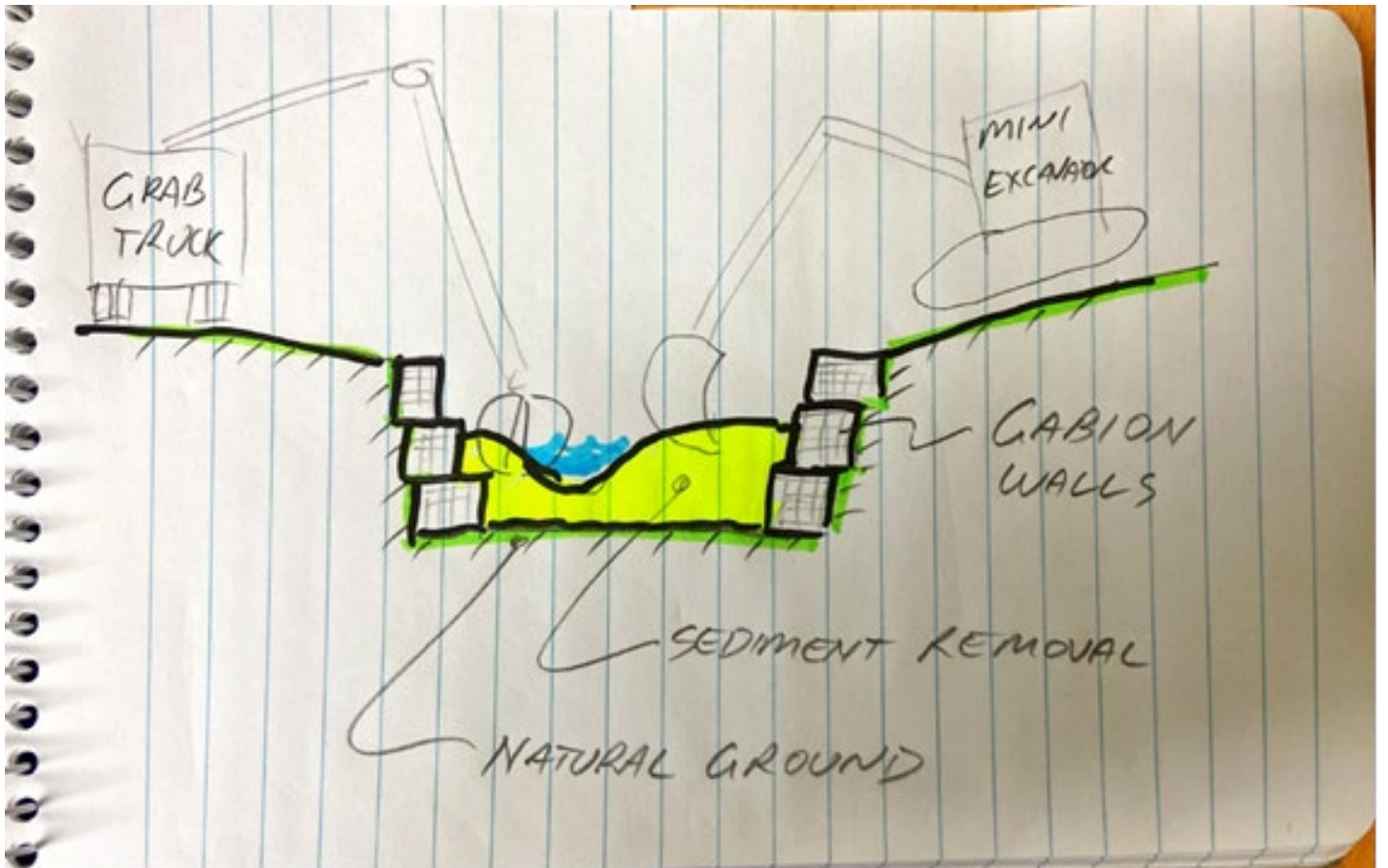




## Upstream



## Sketch



## **Appendix F: DPI NSW Fisheries Permit PN23/102**

PN23/102  
2 March 2023

General Manager  
Wollongong City Council  
41 Burelli Street  
WOLLONGONG NSW 2500

Attn: Luke McKenzie

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Re: Fisheries Permit PN23/102 – Dredging and reclamation – channel maintenance – American Creek  
– near Alukea Road, Cordeaux Heights

Dear Mr McKenzie,

I refer to your application dated 1 March 2023 for a permit under Part 7 of the *Fisheries Management Act 1994* (FM Act). DPI Fisheries, a division of NSW Department of Primary Industries, assesses applications for dredging and reclamation 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 \$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*, landowners' consent and/or a licence under the *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.



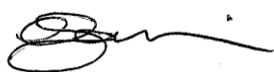
If you intend to have the work undertaken by a contractor, please ensure that the contractor receives a full copy of the permit and understands the importance of abiding by the conditions. As the permit holder, you are responsible for ensuring compliance with all conditions therein and with any other legislative obligations. **Breaching a condition of a permit can incur an on-the-spot penalty notice of \$500 of 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.** DPI Fisheries will require a 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 for an extension after the expiry date will incur the \$179.00 permit application fee. Requests for an extension before the expiry date will not incur an application fee.**

DPI 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" (4<sup>th</sup> Edition Landcom, 2004), commonly referred to as "The Blue Book" (see <https://www.environment.nsw.gov.au/research-and-publications/managing-urban-stormwater-soils-and-construction-volume-1-4th-edition> ).

If you have any queries regarding this permit, please contact Carla Ganassin on 4222 8342 or [carla.ganassin@dpi.nsw.gov.au](mailto:carla.ganassin@dpi.nsw.gov.au).

Sincerely



**Carla Ganassin**

Senior Fisheries Manager, Coastal Systems

DPI Fisheries

Authorised delegate of the Minister of Primary Industries



## Permit under Part 7 of the *FISHERIES MANAGEMENT ACT 1994*

Permit	Permit Number	PN23/102
	Expiry Date	Unless cancelled or suspended sooner, this permit shall remain in force until <b>2 March 2025</b>
Permit Holder:		Wollongong City Council 41 Burelli St (Locked Bag 8821), Wollongong DC, NSW 2500 Contact person: Annette Williams Phone: 4227 7193 Email: <a href="mailto:awilliams@wollongong.nsw.gov.au">awilliams@wollongong.nsw.gov.au</a>
Permit Area:		American Creek, Creek Reserve 42 DP 261905 & Lot 339 DP 263444 and Road Reserve Lot 339 263444, Near Alukea Road, Cordeaux Heights <b>(Refer to Attachment 1)</b>
Permit Activity:		Dredging and reclamation in association with or in relation to channel maintenance works
Departmental Contact Officer:		Carla Ganassin Ph: 4222 8342 Email: <a href="mailto:carla.ganassin@dpi.nsw.gov.au">carla.ganassin@dpi.nsw.gov.au</a>
District Fisheries Officer:		Daniel Minter Ph: 4220 8499 Email: <a href="mailto:daniel.minter@dpi.nsw.gov.au">daniel.minter@dpi.nsw.gov.au</a>

This permit is subject to the following Conditions:

### ADMINISTRATIVE CONDITIONS

- 1) The **Acceptance of Conditions** form (attached) must be completed and returned to [ahp.central@dpi.nsw.gov.au](mailto:ahp.central@dpi.nsw.gov.au) and [fisheries.compliance@dpi.nsw.gov.au](mailto:fisheries.compliance@dpi.nsw.gov.au) 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.*
- 2) The **Commence Works Notification** form (attached) must be completed and sent to [ahp.central@dpi.nsw.gov.au](mailto:ahp.central@dpi.nsw.gov.au) and [fisheries.compliance@dpi.nsw.gov.au](mailto:fisheries.compliance@dpi.nsw.gov.au) at least three to five (3-5) days BEFORE the commencement of works authorised by this permit.  
*Reason - To ensure that local DPI 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 [ahp.central@dpi.nsw.gov.au](mailto:ahp.central@dpi.nsw.gov.au) and [fisheries.compliance@dpi.nsw.gov.au](mailto:fisheries.compliance@dpi.nsw.gov.au) at least three to five (3-5) days BEFORE works are complete or machinery is removed from the site. Several colour photographs showing the work site and works completed to date must be included.

*Reason – To provide an opportunity for local DPI Fisheries staff to inspect the site whilst machinery is still on site and available to do any remedial work that may be necessary.*

- 4) 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 – DPI Fisheries staff may wish to check compliance of works with imposed conditions.*

#### NATURE AND EXTENT OF WORKS

- 5) 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 1 March 2023, and Review of Environmental Factors for the works (Wollongong City Council, REF03839). Other works, which have not been described, excepting 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

- 6) 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 Construction* 4<sup>th</sup> 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 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.*

#### WORK IN WATERS

- 7) 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.*

- 8) 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

- 9) Works are to be undertaken during low flows in American 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

- 10) When working near riparian vegetation or water land these areas need to be identified and appropriately delineated as “No Go” areas (with the aim of avoiding harm to these areas). Harm to marine vegetation, riparian vegetation or water land outside the work footprint approved under the authority of this permit is not permitted and any harm caused is to be documented and reported to the contact officer. Any harm caused is to be restored in accordance with directions provided by the contact officer.

*Reason – To ensure that impacts on aquatic habitat and the riparian zone are minimised.*

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

#### FISH KILL CONTINGENCY

- 12) 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.

*Reason – DPI 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:

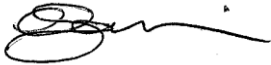
In the event of any inconsistency between the conditions of this approval and:

- 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, Coastal Systems

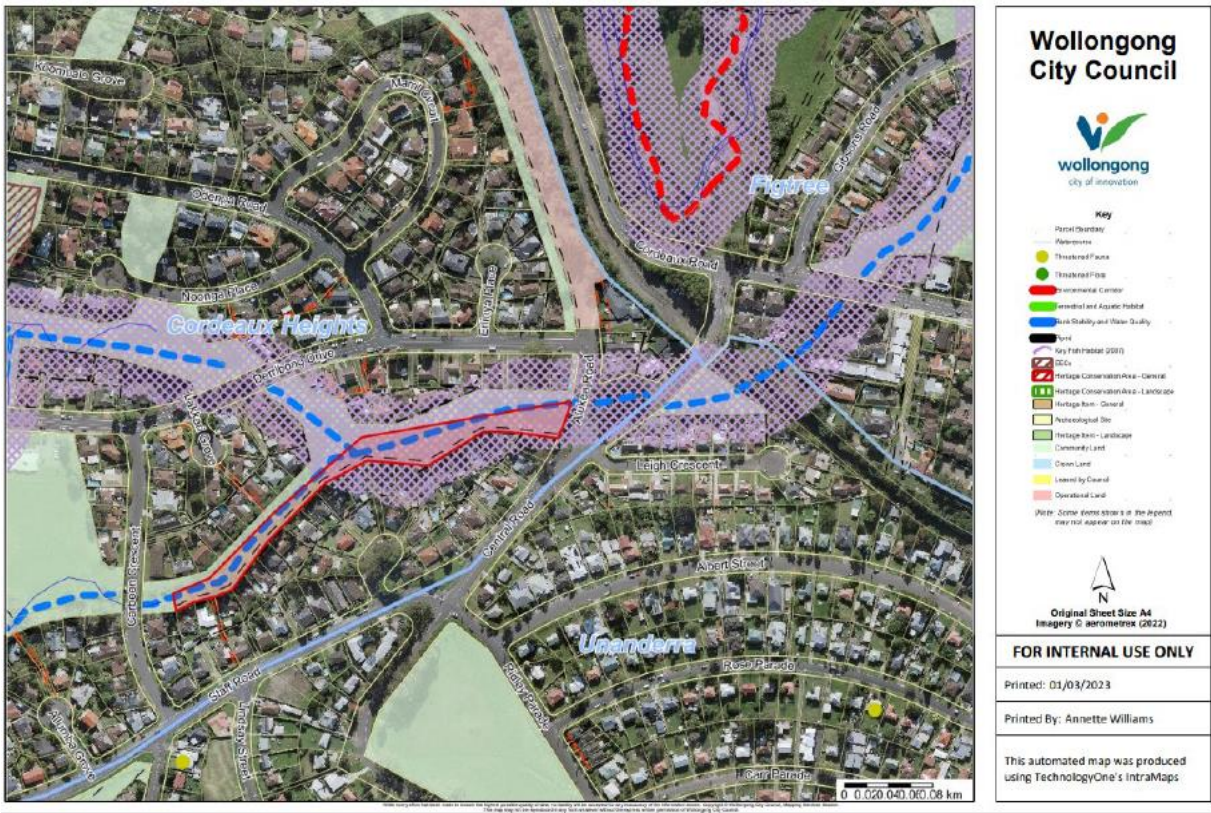
DPI Fisheries

Authorised delegate of the Minister of Primary Industries

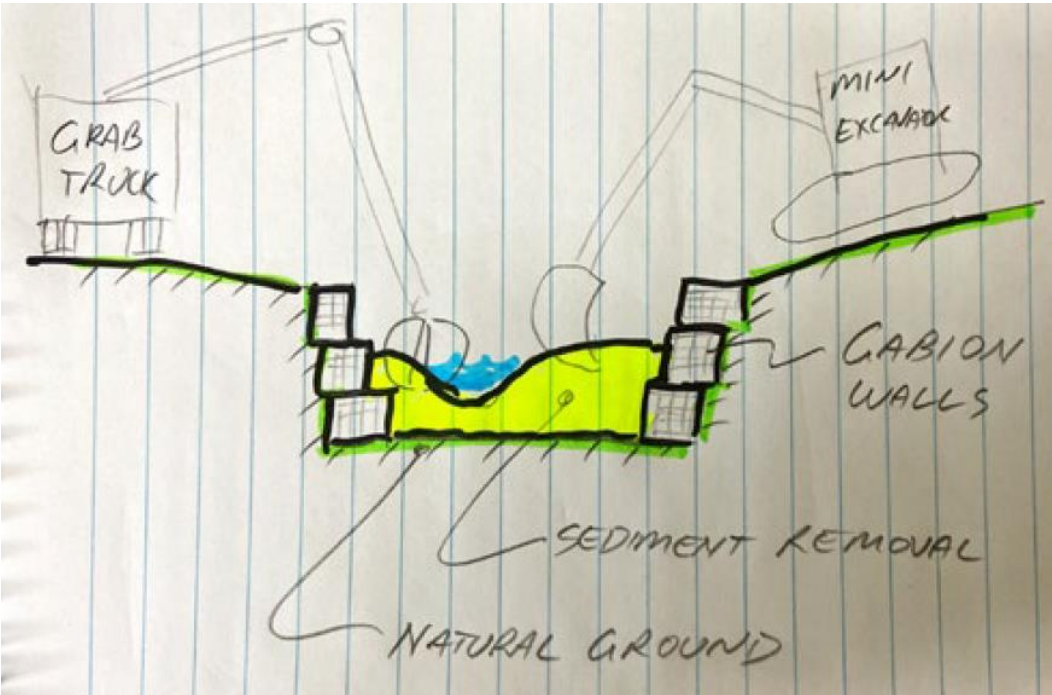
2 March 2023



Attachment 1 – Location diagram of works authorised under PN23/102



Sketch of channel maintenance works





**Permit No. PN23/102 issued under Part 7 of the  
*Fisheries Management Act 1994***

PLEASE COMPLETE THIS PAGE AND RETURN TO DPI FISHERIES

In reference to Permit No. PN23/102 associated with channel maintenance to be undertaken at near  
Alukea Road, Cordeaux Heights:

**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 ensure you have SIGNED this page and RETAINED a copy for  
your records before you email it to:**

[ahp.central@dpi.nsw.gov.au](mailto:ahp.central@dpi.nsw.gov.au)

[fisheries.compliance@dpi.nsw.gov.au](mailto:fisheries.compliance@dpi.nsw.gov.au)

**Permit No. PN23/102 issued under Part 7 of the  
*Fisheries Management Act 1994***

PLEASE COMPLETE THIS PAGE AND RETURN TO DPI FISHERIES

In reference to Permit No. PN23/102 associated with channel maintenance to be undertaken at near  
Alukea Road, Cordeaux Heights:

**Commence Works Notification Form**

(Note: to be completed and returned 3 – 5 working days before commencement of works)

Permit Holder's name: \_\_\_\_\_

Expected commencement date: \_\_\_\_\_

Permit Holder's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Comments:

**Please ensure you have SIGNED this page and RETAINED a copy for  
your records before you email it to:**

[ahp.central@dpi.nsw.gov.au](mailto:ahp.central@dpi.nsw.gov.au)

[fisheries.compliance@dpi.nsw.gov.au](mailto:fisheries.compliance@dpi.nsw.gov.au)

**Permit No. PN23/102 issued under Part 7 of the  
*Fisheries Management Act 1994***

PLEASE COMPLETE THIS PAGE AND RETURN TO DPI FISHERIES

In reference to Permit No. PN23/102 associated with channel maintenance to be undertaken at near  
Alukea Road, Cordeaux Heights:

**Active Works Notification Form**

(Note: to be completed and returned 3 – 5 working days before completion of works or before  
machinery is removed from the site)

Permit Holder's name: \_\_\_\_\_

Anticipated completion date: \_\_\_\_\_

Permit Holder's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Comments:

**Please ensure you have SIGNED this page and RETAINED a copy for  
your records before you email it to:**

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