

QMS Fm 121

REVIEW OF ENVIRONMENTAL FACTORS: REF04053

CONCLUSIONS AND SIGN-OFF OF CHARCOAL CREEK BANK STABILISATION

This report documents the outcomes of the Review of Environmental Factors (REF) undertaken for proposed works comprising of bank stabilisation at Charcoal Creek, Unanderra.

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.

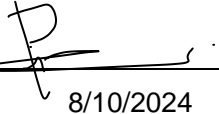

REF Preparation Sign Off:

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:	Louise Hickson	REF Review:	Jo Glynn
Position:	Environment Strategy Officer	Position:	Environment Strategy Officer
Signature:		Signature:	
Date:	8 October 2024	Date:	08-10-2024

Review of Environmental Factors
REF04053

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:	Nay Saraken	Name:	Ray Piatek
Position:	Project Coordinator	Position:	Designer Coordinator/Manager
Signature		Signature:	
Date	8/10/2024	Date:	11/10/2024

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

Name:		Name:	
Position:	<i>Council Officer responsible for Site Management</i>	Position:	<i>One up Supervisor</i>
Signature		Signature:	
Date		Date:	

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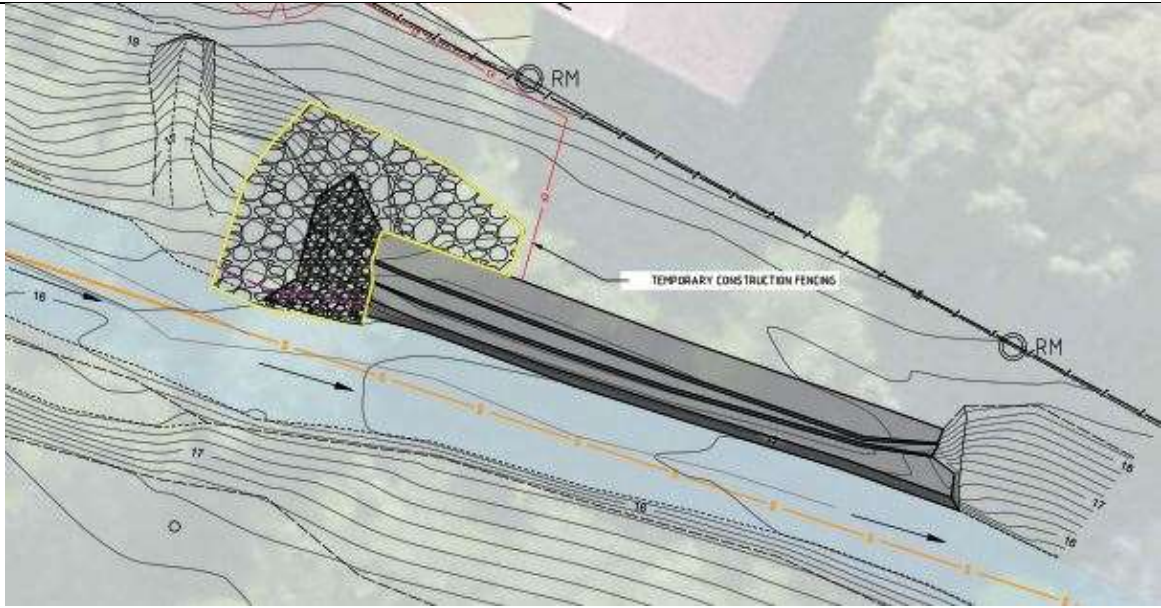
1. INTRODUCTION

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 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	Charcoal Creek Bank Stabilisation
Location	Beveles Avenue, Unanderra NSW 2526 Lot 61 DP 201764 South of 35 Beveles Avenue Unanderra (Lot 33 DP 201764)
Land Ownership	Wollongong City Council
Land Classification	Vacant Land
Project Description/Activity	<p>Repair work on existing rock lining with the larger rocks and attach back to the existing bank to prevent scour behind the wall.</p> <p>Construction includes an approximately 0.3m deep excavation of the creek bed at the toe of the proposed rock armour. During the construction, the proposed access will be on the northern side of the bank via Beveles Avenue. This access track will require some clearing and grubbing and removal of two trees (one on private land – owners' consent and tree permit have been obtained).</p> <p>Works to take place from top of bank on the northern side of Charcoal Creek.</p> <p>Rock lining or rock rip-rap is proposed. It will be approximately 6m long x 4.6m wide x 0.8 high) + (2.7m wide x 3.7m long x 0.8 high).</p> <p>Construction works cannot begin without an approved Fisheries Permit.</p>

	
Proposed Start Date & Work Period	2024/25 FY
Work Equipment & Machinery	Excavator, lifting equipment, trucks, hand tools
Proposed work hours	Between 7.00 am and 6.00 pm Monday to Friday 8.00am and 1.00pm Saturday (Refer to Safeguards section)
Alternative proposals considered	The only alternative proposal is not to proceed which could impact on adjacent private property and road assets. Therefore, it is concluded that the proposal should proceed.

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
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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 (PN24/425)

- 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.

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

Indicative tree removal in pink



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.

<ul style="list-style-type: none"> Where possible compounds will be located on previously disturbed areas away from waterways
Work in Waters
<ul style="list-style-type: none"> 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 PN24/425. Conditions of the Section 200 Permit must be included in the Construction Environmental Management Plan (CEMP).
In-Situ Waste Classification Summary
<p>The desktop investigation has not identified any potential contamination (IntraMaps – Contaminated Land; Landfill; Aerial Photographs; Previous Land Use).</p> <p>All works are to be carried out in accordance with the following procedures (or equivalent if works being undertaken by a contractor):</p> <ul style="list-style-type: none"> City Works & Services Procedure for Waste Classification & Transportation Unexpected Finds Procedure – Council Owned Land/Worksites <p>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.</p>
Material Removed Off-site / Waste Generation
<p>In addition to the requirements of the Materials Handling Process, the following specific controls are applicable:</p> <ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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.

<ul style="list-style-type: none"> 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
N/A
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
<ul style="list-style-type: none"> 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. <p>Recommended Office of Environment and Heritage standard hours for construction work:</p> <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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 dredging work or reclamation work 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 public authority (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 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.

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 Does the proposal:	Impact L/M/H	Extent, Duration, Type Comment
Have any environmental impact on a community?	Low	Some nearby community members (particularly residents of Beveles Avenue) may be affected by temporary noise and increased traffic flow, however 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 an extension to the altered environment, i.e. existing 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,	Low	The site of the proposed activity has no significant aesthetic, anthropological, architectural, cultural, historical, scientific or social values. The site does not

ENVIRONMENTAL FACTOR Does the proposal:	Impact L/M/H	Extent, Duration, Type Comment
scientific or social significance or other special value for present or future generations?		contain any known European or 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

ENVIRONMENTAL FACTOR Does the proposal:	Impact L/M/H	Extent, Duration, Type Comment
		erosion control, water and air pollution, 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. <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>
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 – Low	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		Yes – within 200m of water

ENVIRONMENTAL FACTOR Does the proposal:	Impact L/M/H	Extent, Duration, Type Comment
<ul style="list-style-type: none"> 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 		
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/Demand on Resources/Waste Disposal		
Are the works likely to disturb any acid sulfate soils listed on the Current LEP?	Overall impact – Medium	No
Are the works to be conducted within 40m of watercourses or any other type of natural water body?		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 <i>Wollongong Coastal Zone Management Plan 2017</i> ?		No – expired 31/12/2023
Flora & Fauna/Tree Protection/Access/Community Environmental Impacts		

ENVIRONMENTAL FACTOR Does the proposal:	Impact L/M/H	Extent, Duration, Type Comment
Is any vegetation required to be removed?	Overall impact – Low	Yes – minor ground vegetation clearing for access track and to undertake 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. <u>Chapter 6 – Water catchments</u>		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 – MU56a Acacia Scrub
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)		No
Is the area within a Habitat Model in WCC IntraMaps Constraints?		Yes – Powerful Owl
Do the works occur within Key Fish Habitat? Refer to Threatened Fish Species List .		Yes – Fisheries Permit PN24/425 must be obtained. All conditions of the Section 200 Permit must be included in the Construction Environmental Management Plan (CEMP). 
Are the works to be conducted within a Natural Area Asset? (Refer to the WCC IntraMaps Environmental Restoration layer)		Yes – ID 222 Park

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 – Charcoal Creek Natural Areas to be notified before works commence and provide opportunity to revegetate upon completion.
Is the worksite listed as Bushfire Prone Land under the WCC IntraMaps Planning DCP layer?		Yes – Vegetation Category 1
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?		Yes – Grey-headed Flying-fox, Powerful Owl, Platypus. Assessments in Appendix C concluded no adverse impacts are expected. Refer to safeguards in Section 3.
Amenity / Noise		
Are the works located on land identified as Community Land, on the WCC IntraMaps LEP Community Land Maps?	Overall impact – Low	Yes – Lindsay Maynes Park
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/spatial/viewer/#/find-a-property/address		No
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 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:

- 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.



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : REF04053

Client Service ID : 883523

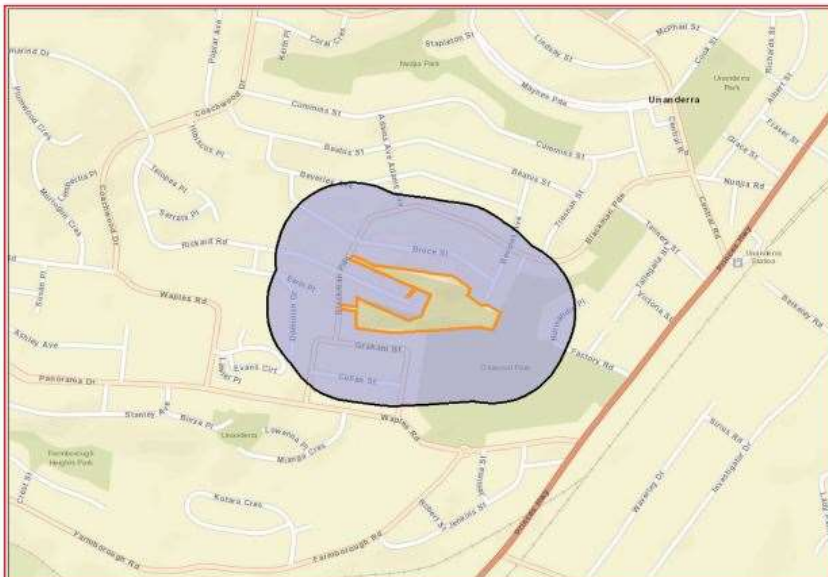
Wollongong City Council
Locked Bag 8821
Wollongong DC New South Wales 2500
Attention: Louise Hickson
Email: lhickson@wollongong.nsw.gov.au

Date: 15 April 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 61, DP:DP201764, Section : - with a Buffer of 200 meters, conducted by Louise Hickson on 15 April 2024.

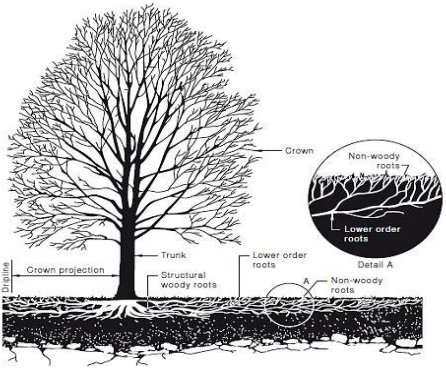
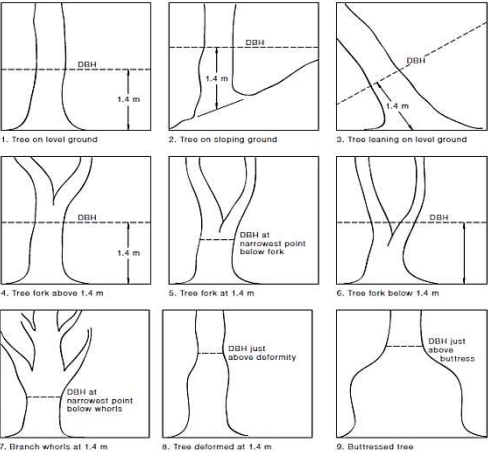
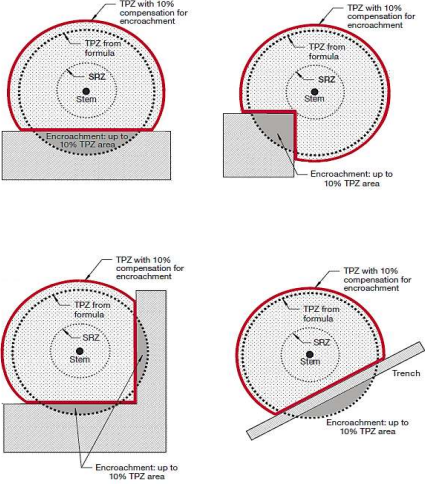
The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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

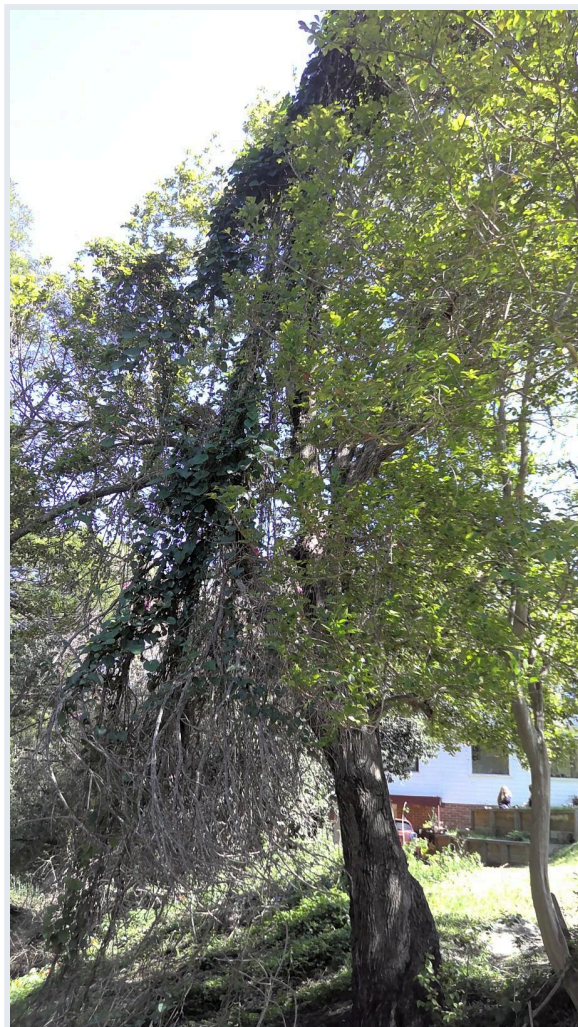
 <p>FIGURE B1 STRUCTURE OF A TREE IN A NORMAL GROWING ENVIRONMENT</p> <p>www.standards.org.au © Standards Australia</p>	<p>A Tree Protection Zone (TPZ) is an important area around the trunk of a tree in which key feeder and stabilising roots can be found just beyond the tree canopy. This area must be 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.</p> <p>TPZ standard should be:</p> <ul style="list-style-type: none"> ▪ $TPZ = DBH \times 12$ (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
	<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"> ▪ 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. <p>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).</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"> ▪ $SRZ \text{ radius} = (D \times 50)^{0.42} \times 0.64$ (Where D = trunk diameter in metres measured above the root buttress) <p>Note: The SRZ for trees with trunk diameter less than 0.15m will be 1.5m</p> <p>Encroachment into TPZ is sometimes unavoidable:</p> <ul style="list-style-type: none"> ▪ 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) <p>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.</p>

Tree Assessment – Public Land

Tree

Primary ID:	62021
Asset ID:	
Status:	Removal/Replanting
Common Name:	Cheese Tree
Botanical Name:	Glochidion ferdinandi
Origin:	
Code:	
Family:	
Genus:	Glochidion
Cultivar:	
Number of Stems:	Multiple Stems
DBH [in]:	21
DBH [cm]:	52.44
DBH [cm] Stem 1:	30
DBH [cm] Stem 2:	35
DBH [cm] Stem 3:	25
DBH [cm] Stem 4:	
DBH [cm] Stem 5:	
DBH [cm] Stem 6:	
DBH Range:	46-60cm
Tree Height (Estimated) [m]:	7
Height Range:	5-10 Metres
Width:	6
Health:	Poor
Useful Life Expectancy:	5-9 years
Condition (Leaf):	Fair
Canopy Structure:	Very Poor
Age Class:	Mature
Homewood ID:	
Observations:	tlean, tincludedbark, tcodominant, cwoundpreviousfailure, cincludedbark, cdeadwood, ccdominant,

Photos



WIN_20240923_10_27_03_Pro.jpg
23/09/2024

	cbrokenbranch, Previous Branch Failures, Included Bark, Broken Branches/ Hangers, Vines, Crown Dieback
Tree Comments:	Tree presents poor condition and habit not typical of taxa, unbalanced tree crown and growing on a lean, vine in crown with dead broken branch hanger Remove tree to allow required civil construction creek bank stabilisation works. Arborist Public tree management to be contacted to arrange for 2 x local native replacement trees required to be planted after completion of works
Stock Type:	
City Managed:	True
Botanic Gardens ID:	1
Crown Light Exposure:	
Archived:	No
null:	
New Data Field:	
Has Ecobenefits:	No

Location	
Address:	35 Beveles Avenue UNANDERRA
Address Number:	35
Address Street:	Beveles Avenue
Street Planted:	
Suburb:	
Postcode:	
Organization:	Wollongong City Council
City:	Unanderra
Tree Type:	Street
Growing Space:	

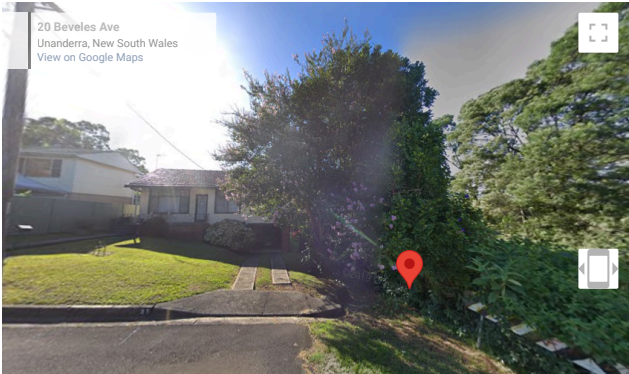


WIN_20240923_10_25_45_Pro.jpg
23/09/2024



WIN_20240923_10_26_25_Pro.jpg
23/09/2024

Street View



Land Use:	Park/ Vacant/ Other
Location on Site:	
Planting Site Width:	
Pit Size:	
Park Name:	
Longitude:	150.83810750864
Latitude:	-34.455748129118
Easting:	
Northing:	

Management	
Verified?:	
Tree Works:	Remove
Works Priority:	Moderate
Maintenance Comments:	Remove tree to allow required civil construction creek bank stabilisation works.
Clearance Conflicts:	
Wires:	
Landscape Significance Rating Method:	
Name of Landscape Significance rating method (if other):	
Landscape Significance Rating:	
Retention Value:	Low - Consider for removal
Percent Dieback (%):	
Watch This Tree? :	No
User:	mdellapina
Last Modified:	23/09/2024
Date Added:	23/09/2024
Last Modified User:	mdellapina

Report Prepared: September 23, 2024

Map



Tree Permit - Private Land

Nay Sarakan

APPLICATION

TP-2024/596

Date

08 October 2024

Dear Sir/Madam

TREE PERMIT – NOTICE OF DETERMINATION

Issued under Part 4 Environmental Planning & Assessment Act 1979 and State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 2 Vegetation in Non-Rural Areas

Location Lot 33 DP 201764

35 Beveles Avenue UNANDERRA NSW 2526

This application for a Tree Permit has been determined in accordance with the State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 2 Vegetation in Non-Rural Areas. Details of the determination are provided below and as shown on the attached plan. Any works undertaken to implement the determination are subject to the conditions specified in this notice of determination.

ASSESSMENT AND DECISION

Tree 1

Tree Name - Lagerstroemia sp.

Determination - Consent to Remove

GENERAL CONDITIONS

1. Removal/pruning work in addition to that hereby authorised is not permitted.
2. This determination is effective and operates from the date shown on this notice and is valid for one year.
3. This permit must be kept on site at all times whilst undertaking the works approved within this notice
4. To reduce the impact on native fauna it is suggested that tree works are not carried out if fauna has been noted inhabiting the tree. Tree owners and/or tree contractors should ensure that all care and due diligence is undertaken to minimise any impacts when carrying out any tree works.
5. Compensatory planting of **one** (1) native tree species must be carried out. Trees planted must have a minimum mature growth height of four (4) metres and be planted within the subject property.

NOTES

- 1 The following process should be followed if you are not satisfied with Council's determination:
 - a. Lodge an application for a review of determination on the prescribed form to Council within three (3) months from the original date of determination. Any review of determination application must be supported by relevant documentation including any reason as to why the application should be approved. The application must be accompanied by the prescribed fee as per Council's adopted fees and charges;
 - b. Or you can appeal to the Land and Environment Court within 3 months after having received notice of the refusal.
- 2 You are advised that this consent does not constitute Council's consent to carry out any of the following activities, for which a separate consent is required pursuant to Section 138 of the Roads Act 1993, from Council's Development Assessment & Certification Division:
 - a. To erect a structure or carry out a work in, on or over a public road;
 - b. To dig up or disturb the surface of a public road;
 - c. To remove or interfere with a structure, work or tree on a public road;
 - d. To occupy a public road by the placement of plant, equipment, materials or personnel; or
 - e. The entry or exit of construction vehicles to private land from a public road.
- 3 Failure to comply with this consent and conditions may result in the issuing of an infringement notice (\$3000 Individual or \$6000 Corporation).
- 4 This permit can be taken to a Wollongong Botanic Garden Greenplan Sale day (3rd Friday of the month) to get free replacement trees as conditioned on your Tree Permit. The permit can only be used once for the replacement trees. Please present your permit at the Greenplan Sale on arrival so that staff can assist you to redeem your free trees

For more information please visit <https://wollongongbotanicgarden.com.au/plantsales> or via this QR Code:

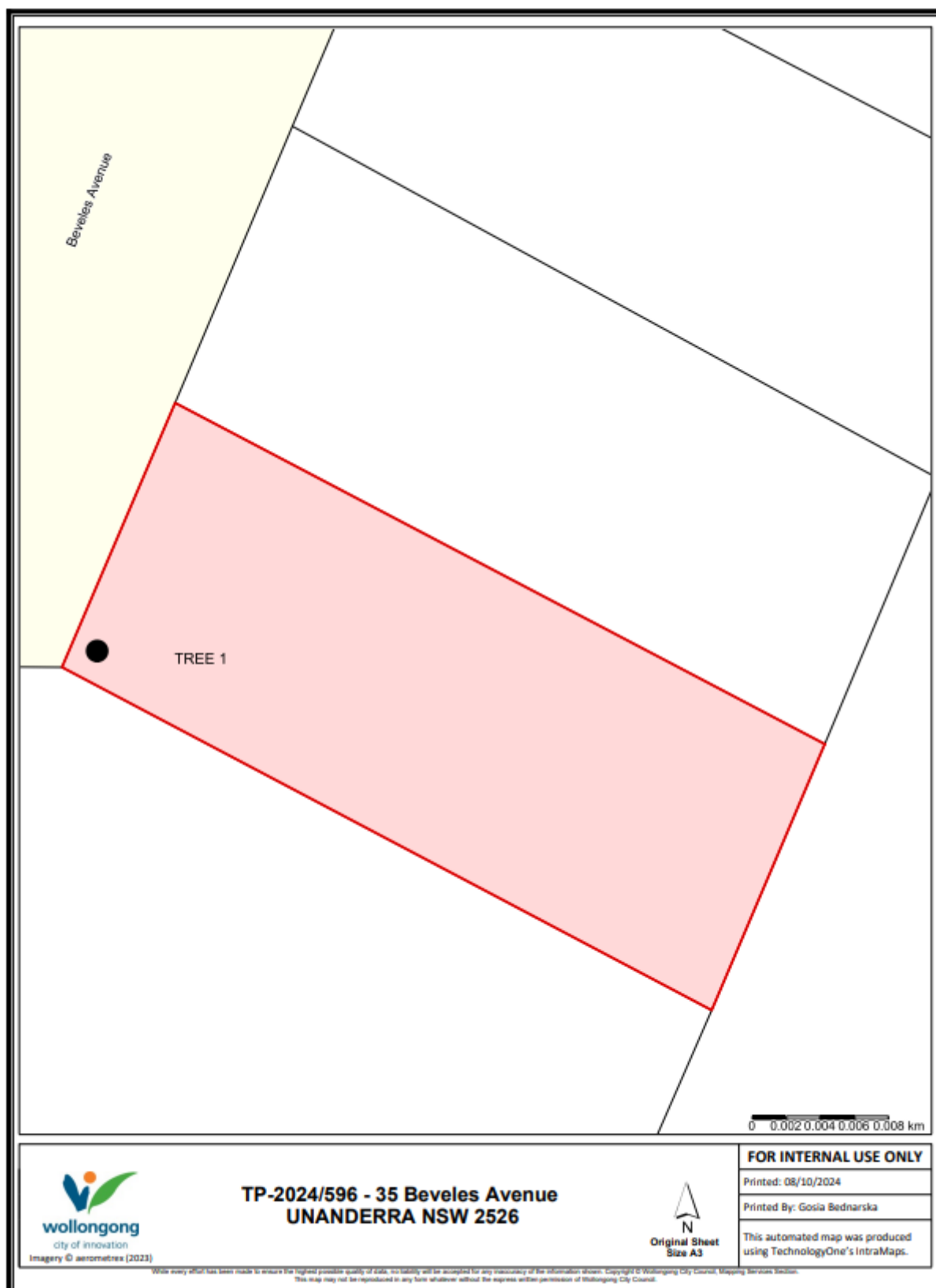


This letter is authorised by

Keiran Bartle




Tree Management Officer
Wollongong City Council
Telephone (02) 4227 7111

enc



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
 <i>Pteropus poliocephalus</i>	Grey-headed flying-fox	VP	V	The Grey-Headed Flying-Fox has a variety of habitats including rainforests, tall sclerophyll forests and woodlands, heaths and swamps. Urban gardens with cultivated fruit crops also provide habitat for this species. The species feeds on flowers from the <i>Eucalyptus</i> , <i>gummifera</i> , <i>E. muellerana</i> , <i>E. globoidea</i> and <i>E. botryoides</i> , and fruits from a wide range of rainforest trees, including Fig.	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.
 <i>Ninox strenua</i>	Powerful Owl	VP		Habitat preference may be a result of distribution of prey (common Ringtail Possums and Greater Gliders). Usually breeds and roosts in closed forest, including rainforests and wet sclerophylls. It roosts by day in dense vegetation comprising species such as <i>Syncarpia glomulifera</i> , <i>Allocasuarina littoralis</i> , <i>Acacia melanoxylon</i> , <i>Angophora floribunda</i> , <i>Exocarpus cupressiformis</i> and a number of eucalypt species.	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.
 <i>Ornithorhynchus anatinus</i>	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 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.

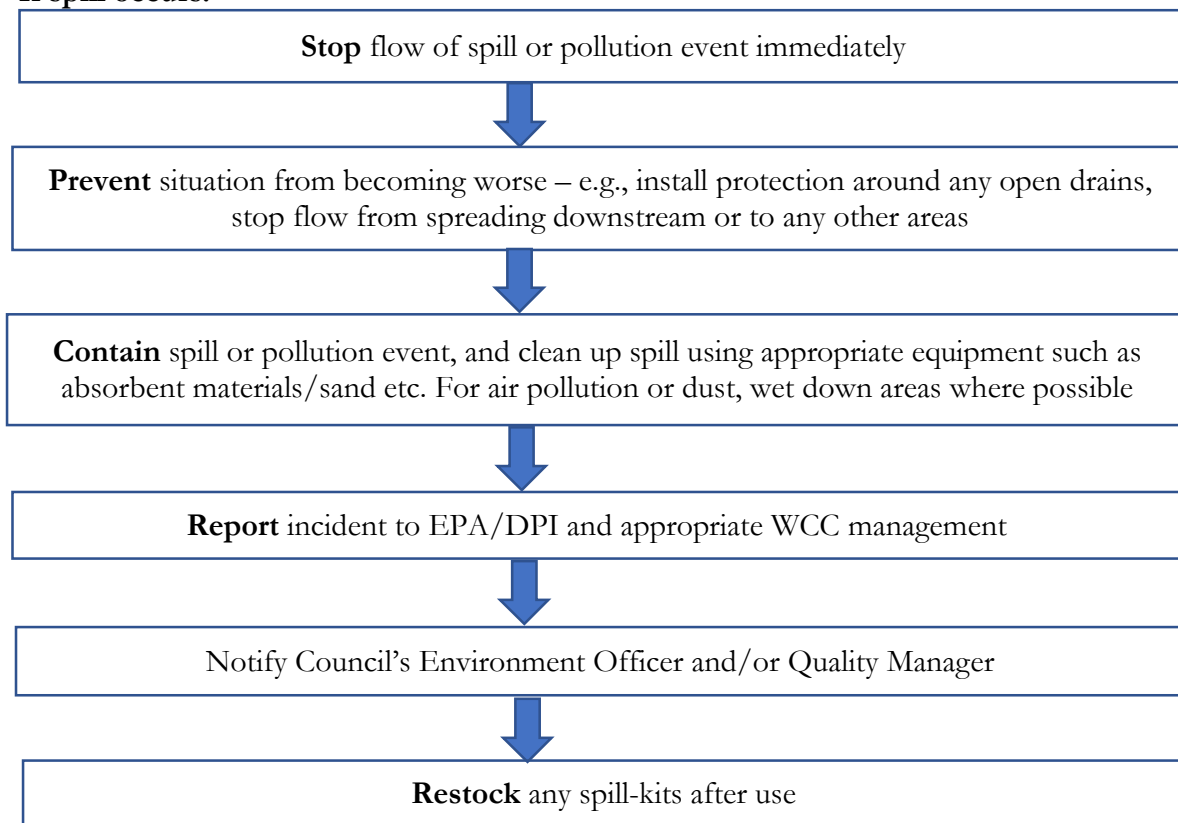
APPLICATION

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

If spill occurs:



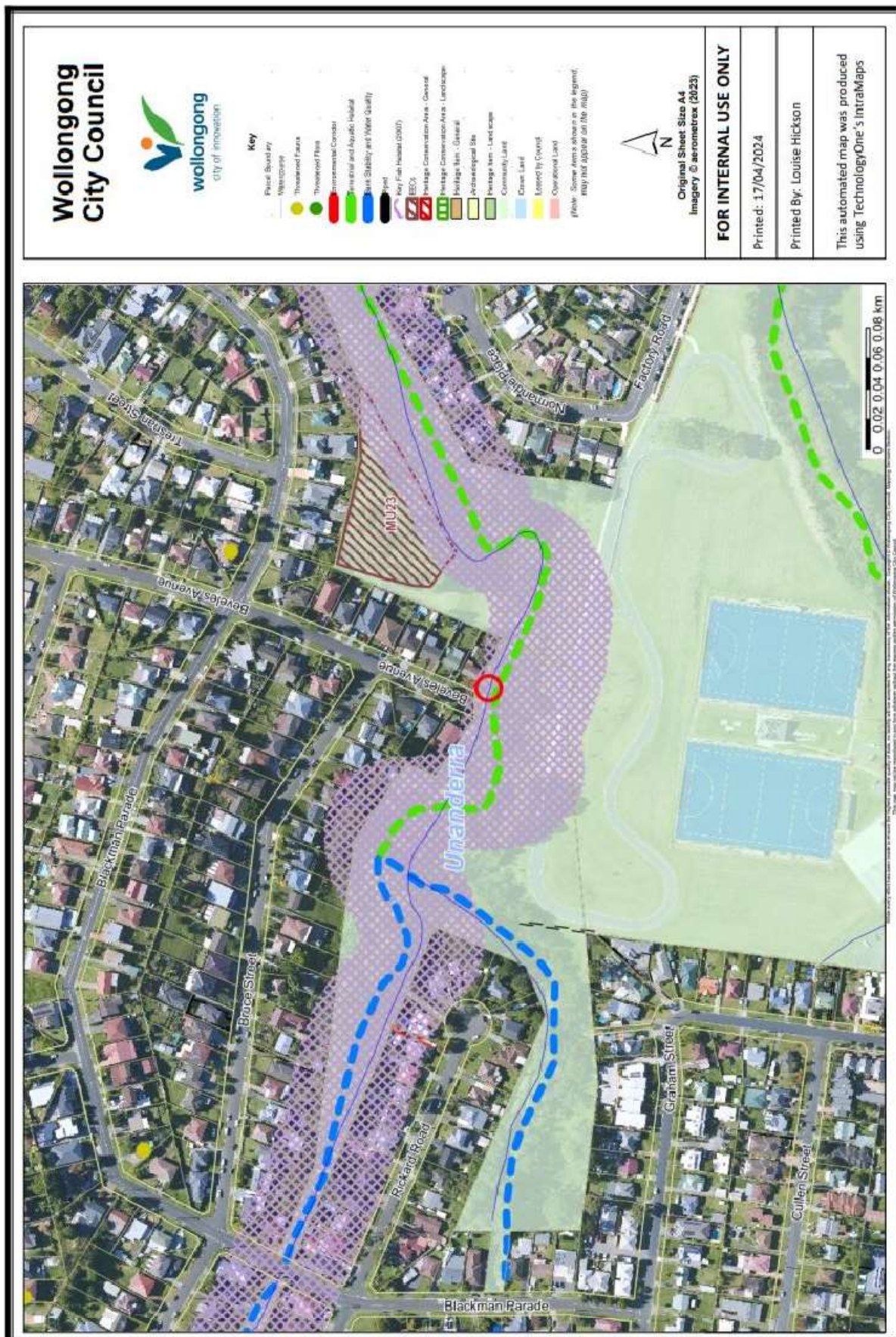
CHECKLIST

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

CORRESPONDANCE AND NOTIFICATION

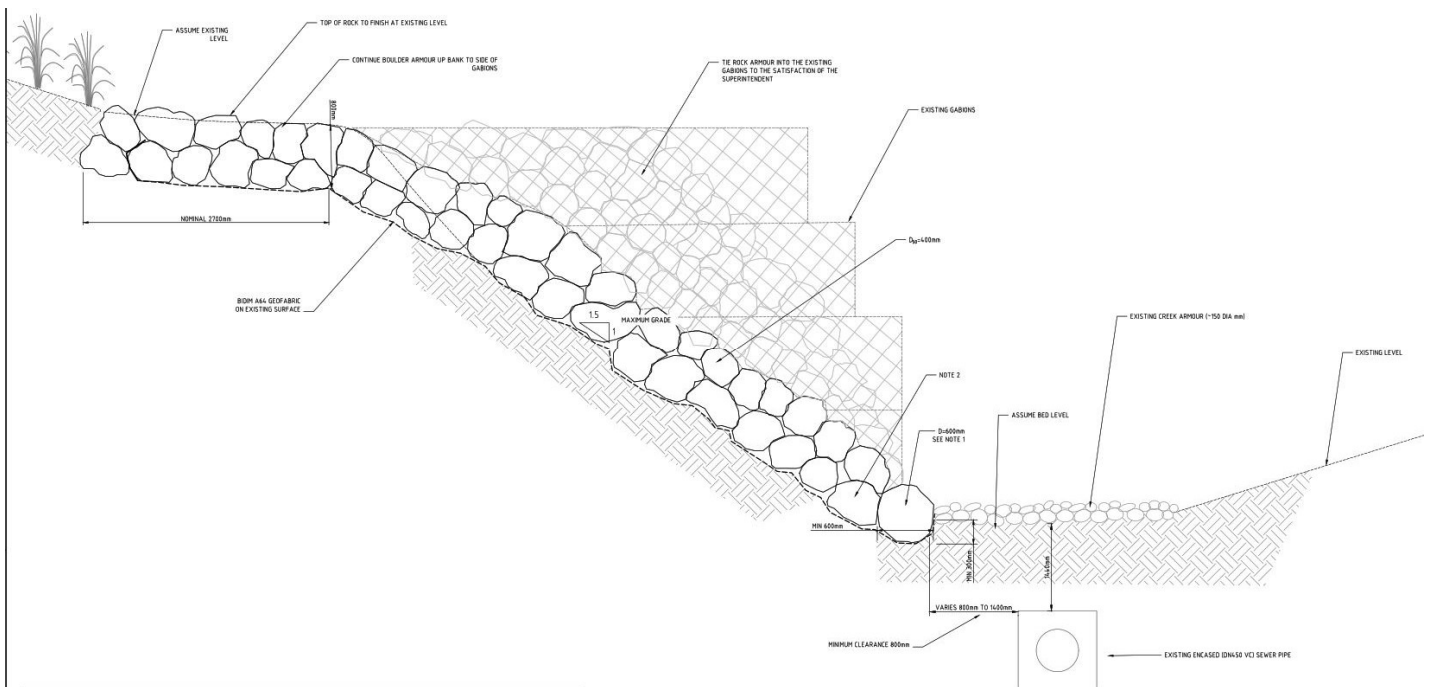
- For all spills in any waterways, air pollution, or land pollution, notify the EPA first and follow all instructions. Notify Environment Officer, and either Manager Project Delivery or Manager City Works.
- For any spills where there is the potential to impact on Key Fish Habitat, or there is a Permit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



Section view of proposed works



Proposed works to the west of the existing rock wall



Proposed works to the west of the existing rock wall



Proposed works to the west of the existing rock wall including minor veg removal



Access via northern creek bank

GENERAL NOTES

1. IN THESE NOTES THE FOLLOWING GENERIC TERMS ARE USED TO DESCRIBE PARTIES INVOLVED IN THE CONSTRUCTION. THE CONSTRUCTOR/CONTRACTOR/BUILDER EITHER OR ALL OF THESE TERMS REFERS TO THE PARTY WITH CHARGE TO CONSTRUCT OR OTHERWISE EXECUTE THE WORKS SHOWN IN THESE DRAWINGS. THE SUPERINTENDENT/CONSTRUCTION SUPERINTENDENT EITHER OR BOTH OF THESE TERMS REFERS TO THE PARTY REPRESENTING THE PRINCIPAL FOR WHOM THE WORKS ARE BEING EXECUTED. THIS WILL GENERALLY MEAN THE COUNCIL REPRESENTATIVE OVERSEEING WORKS ON SITE.
2. IF THE CONSTRUCTOR REQUIRES CLARIFICATION OF ANY NOTATION ON THESE DRAWINGS OR OF THE INTENT OF A PARTICULAR DESIGN CONCEPT OR IF ANY DISCREPANCY IS NOTED ON THESE DRAWINGS, THE CONSTRUCTOR SHALL CONSULT THE CONSTRUCTION SUPERINTENDENT BEFORE PROCEEDING.
3. ALL SET OUT DIMENSIONS SHOWN SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORKS. ENGINEERING OR DETAILED DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS
4. UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AHD AND ALL DIMENSIONS ARE IN MILLIMETRES
5. THE CONSTRUCTOR SHALL GIVE 24 HOURS NOTICE FOR ALL ENGINEERING INSPECTIONS
6. THE EXTENT AND DEPTH OF ANY EXISTING FOOTING TO STRUCTURES ON SITE SHALL BE DETERMINED BY THE CONSTRUCTOR. NO EXCAVATION SHOULD BE UNDERTAKEN IN THE VICINITY OF EXISTING STRUCTURES WITHOUT THE APPROVAL OF THE CONSTRUCTION SUPERINTENDENT
7. ALL CONSTRUCTION WORKS SHOULD BE CARRIED OUT SUCH THAT AT ANY TIME ADJOINING PROPERTY OWNERS ARE NOT DEPRIVED OF AN ALL-WEATHER ACCESS OR SUBJECTED TO ADDITIONAL OR POLLUTED STORMWATER RUNOFF DURING THE PERIOD OF CONSTRUCTION
8. PROVISION FOR TRAFFIC SHALL BE MADE IN ACCORDANCE WITH AS1742.3, THE RMS PUBLICATION 'TRAFFIC CONTROL AT WORK SITES' AND THE SITE SPECIFIC TRAFFIC MANAGEMENT PLAN (TO BE PREPARED BY THE CONSTRUCTOR)
9. THE CONSTRUCTOR SHALL MAINTAIN EXISTING STORMWATER FLOWS THROUGH THE WORKS AREA AND MAKE DUE ALLOWANCE FOR SEVERE WEATHER EVENTS.
10. THE CONSTRUCTOR SHALL ENSURE THAT ALL WORKS ARE SECURED FOR WET WEATHER AND THAT THE WORKS ARE ADEQUATELY PROTECTED AND DRAINED SO AS TO MINIMISE ANY ADVERSE EFFECTS OF STORMWATER RUNOFF.
11. ALL WORKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH WOLLONGONG CITY COUNCIL SUBDIVISION CODE UNLESS NOTED OTHERWISE ON CONSTRUCTION DRAWINGS.
12. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED REVIEW OF ENVIRONMENTAL FACTORS/STATEMENT OF ENVIRONMENTAL EFFECTS/DEVELOPMENT APPROVAL DOCUMENT: REF04.053

QUALITY	GENERAL
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1. THE CONSTRUCTOR SHALL IMPLEMENT AND MAINTAIN A QA SYSTEM MEETING THE REQUIREMENTS OF AS9001:2000. THE QUALITY SYSTEM SHALL BE SUCH THAT RECORDS ARE KEPT OF ALL ASPECTS OF THE WORK.
2. DURING THE COURSE OF CONSTRUCTION, THE CONSTRUCTOR SHALL MAINTAIN ACCURATE AND UP TO DATE RECORDS AND SHALL MAKE SUCH RECORDS AVAILABLE TO THE SUPERINTENDENT IF REQUESTED. FAILURE TO MAINTAIN RECORDS AS SPECIFIED WILL RESULT IN THE CONSTRUCTOR RE-INSPECTING COMPLETED WORKS IF INSTRUCTED TO DO SO BY THE SUPERINTENDENT.
3. AT THE COMPLETION OF EACH STAGE OF THE WORKS THE CONSTRUCTOR SHALL CERTIFY THAT THOSE WORKS HAVE BEEN UNDERTAKEN AND COMPLETED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATION AND INSTRUCTIONS ISSUED DURING THE COURSE OF THE CONTRACT.

SAFETY GENERAL

1. CONSTRUCTOR TO ERECT SIGNAGE ADVISING OF CONSTRUCTION ACTIVITIES PRIOR TO COMMENCEMENT OF WORKS ON SITE. SIGNAGE SHALL BE PLACED AS NECESSARY TO ENSURE CLEAR VISIBILITY TO SIGNAGE FROM ANY ROUTE BY WHICH MOTORISTS, CYCLISTS, OR PEDESTRIANS MAY APPROACH THE WORK SITE.
2. WH&S PRECAUTIONS SHALL BE OBSERVED IN ACCORDANCE WITH THE WH&S ACT 2011 AND RELEVANT ACCOMPANYING REGULATIONS. SAFETY SYSTEMS AND DOCUMENTATION SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTOR AND SHALL COMPLY WITH SPECIFIC REQUIREMENTS AS DETAILED IN RELEVANT PROJECT DOCUMENTATION.
3. SITE FACILITIES AND ACCESS TO BE MAINTAINED IN A NEAT AND TIDY CONDITION AT ALL TIMES.
4. THE CONSTRUCTOR SHALL OBTAIN AND KEEP ON SITE ALL RELEVANT MATERIAL SAFETY DATA SHEETS (MSDS) FOR ANY MATERIALS THAT ARE USED IN THE WORKS. ALL TRANSPORTATION, STORAGE AND USE OF THESE MATERIALS SHALL BE IN ACCORDANCE WITH MSDS.
5. THE CONSTRUCTOR IS TO PREPARE A SITE SPECIFIC RISK MANAGEMENT PLAN TAKING INTO ACCOUNT ALL FORSEEABLE RISKS INCLUDING, BUT NOT LIMITED TO, MANAGEMENT OF ALL RESIDUAL RISKS IDENTIFIED IN THE SAFETY IN DESIGN REPORT.

EARTHWORKS GENERAL

1. EARTHWORKS SHALL BE IN ADHERENCE TO AS3798 AND WOLLONGONG CITY COUNCIL SUBDIVISION CODE
2. THE CONSTRUCTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF WORKS. THE SURFACE SHALL BE GRADED AND SEALED TO REMOVE DEPRESSIONS WHICH COULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONSTRUCTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED AT THE CONSTRUCTOR'S COST
3. EXCAVATION SHALL BE CARRIED OUT IN LOCATIONS AND TO LEVELS SHOWN IN ENGINEERING DRAWINGS. BATTER SLOPES MUST BE APPROVED BY THE SUPERINTENDENT WHERE NOT SPECIFIED IN THE DRAWINGS.
4. THE CONSTRUCTOR SHALL BE RESPONSIBLE TO KEEP EXCAVATIONS AND TRENCHES FREE OF WATER WHILE WORKS ARE IN PROGRESS, AND TO PREVENT ANY DAMAGE TO THE WORKS BY WATER DUE TO FLOODS OR OTHER CAUSES. THE CONSTRUCTOR SHALL HAVE PUMPING EQUIPMENT FOR KEEPING EXCAVATIONS DE-WATERED CONSTANTLY DURING THE PERIOD OF WORKS. ANY WORKS OR MATERIAL DAMAGED BY WATER MUST BE MADE GOOD BY THE CONSTRUCTOR.
5. WHERE DIRECTED BY THE SUPERINTENDENT THE BOTTOM OF TRENCHES OR EXCAVATIONS SHALL BE COMPACTED PRIOR TO PLACEMENT OF ANY BEDDING OR CONCRETE MATERIALS. SHOULD, IN THE OPINION OF THE SUPERINTENDENT, THE MATERIAL BE UNSATISFACTORY, IT SHALL BE REMOVED AND REPLACED WITH APPROPRIATE MATERIAL

COMPACTION GENERAL

1. CONSTRUCTOR SHALL LIAISE WITH GEOTECHNICAL ENGINEER IN REGARD TO COMPACTION CONTROL, REMOVAL OF UNSUITABLE MATERIAL AND SELECTIVE STOCKPILING OF SPOIL. GEOTECHNICAL ENGINEER TO BE PROVIDED BY CONSTRUCTOR.
2. WHERE GEOTECHNICAL INVESTIGATIONS TO ESTABLISH SITE SOIL PARAMETERS IS BEYOND THE REASONABLE SCOPE OF INVESTIGATION ASSOCIATED WITH A PROJECT, COMPACTION SHALL BE TO THE APPROVAL OF THE CONSTRUCTION SUPERINTENDENT.
3. COMPACTION CONTROL TESTING WHERE REQUIRED BY THE SUPERINTENDENT SHALL BE CARRIED OUT AT THE COST OF THE CONSTRUCTOR AND TO CONFORM WITH LEVEL 1 AS DEFINED IN A53798

EXISTING SERVICES GENERAL

EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE ACCURACY IS NOT GUARANTEED. IT SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTOR TO CONFIRM LOCATION AND LEVELS OF ALL SERVICES PRIOR TO COMMENCING WORK. ALL CLEARANCES AND APPROVALS SHALL BE OBTAINED (BY THE CONSTRUCTOR) FROM THE RELEVANT SERVICE AUTHORITY PRIOR TO THE COMMENCEMENT OF WORK

EROSION & SEDIMENT CONTROL

1. ALL EROSION AND SEDIMENT CONTROL TO BE IN ACCORDANCE WITH THE NSW DEPARTMENT OF LANDS 'MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION' HANDBOOK ALSO KNOWN AS 'THE BLUE BOOK'
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ALL SUB-CONTRACTORS OF THEIR OBLIGATIONS UNDER THE EROSION AND SEDIMENT CONTROL PLAN IMPLEMENTED BY THE CONTRACTOR
3. THE CONTRACTOR SHALL CONSTRUCT OR INSTALL SOIL AND SEDIMENT CONTROL MEASURES TO THE SATISFACTION OF THE SUPERINTENDENT PRIOR TO ANY DISTURBANCE TO THE SITE. SOIL AND SEDIMENT CONTROL DEVICES SHALL BE AS SHOWN IN THESE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT TEMPORARY CONTROLS DO NOT DAMAGE EXISTING STRUCTURES
4. THE CONSTRUCTOR SHALL REGULARLY MAINTAIN ALL SEDIMENT AND EROSION CONTROL DEVICES AND REMOVE ACCUMULATED MATERIAL FROM SUCH DEVICES BEFORE 50% CAPACITY IS USED. ALL ACCUMULATED SEDIMENT SHALL BE RE-SPREAD OR REMOVED IN ACCORDANCE WITH THE SUPERINTENDENTS INSTRUCTIONS.
5. NO EXISTING CULVERTS OR PIPES ARE TO BE BLOCKED BY CONSTRUCTION OR SEDIMENT CONTROL MEASURES ESPECIALLY WHERE THIS MAY CAUSE ADVERSE FLOODING IMPACTS
6. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED AND MAINTAINED BY THE CONTRACTOR/BUILDER UNTIL SUCH TIME AS THE DISTURBED AREAS HAVE BEEN REHABILITATED TO A CONDITION SATISFACTORY TO THE SUPERINTENDENT. AN INSPECTION SHALL BE CONDUCTED WHEN RAIN IS FORECAST AND AFTER EACH RAIN EVENT.
7. TWO TREES DEEMED TO BE REMOVED SHALL BE CHIPPED AND STOCKPILED ON SITE. SELECTIVE CLEARING OF VEGETATION TO BE RESTRICTED TO THE NOMINATED AREAS WITH CLEARED VEGETATION TO BE WINDROWED ON THE CONTOURS.
8. PUBLIC ROADS SHALL BE SWEEP FREE OF DEBRIS RESULTING FROM CONSTRUCTION ACTIVITIES. SWEEPING SHALL BE UNDERTAKEN AT A MINIMUM TWICE WEEKLY. HOSING OF DEBRIS IS NOT AN ACCEPTABLE METHOD OF DEBRIS REMOVAL.
9. SEDIMENT FENCES TO BE PROVIDED AS DIRECTED BY SUPERINTENDENT OR AS INDICATED ON PLAN BY THE SYMBOL:

— sf — sf — sf — sf — sf — sf — sf — sf — sf —

10. EXCAVATED MATERIAL WHICH IS NOT TO BE REUSED SHALL BE TAKEN OFF SITE AND DISPOSED OF PROPERLY.
11. A SINGLE ENTRY AND EXIT POINT SHOULD BE USED AND CONSTRUCTED SO AS TO PREVENT SOIL REACHING THE ROAD AND TO PREVENT VEHICLES BECOMING BOGGED. ANY DEPRESSIONS LEFT BY VEHICLES TRAFFICKING THE SITE SHOULD BE REFILLED TO SURROUNDING LEVELS AS SOON AS POSSIBLE.
12. ALL TEMPORARY EARTH STRUCTURES, INCLUDING SOIL STOCKPILES, TO BE TRACK ROLLED AND SEEDED WITHIN 14 DAYS OF THEIR CONSTRUCTION, WITH A CROP / FERTILISER MIXTURE TO BE APPROVED BY SUPERINTENDENT (SUBJECT TO SOIL TESTING IF REQUIRED)

HOLD POINT SCHEDULE

1. THE CONSTRUCTOR IS TO REFER TO THE HOLD AND WITNESS POINT SCHEDULE FOR ALL MANDATORY HOLD POINT REQUIREMENTS.

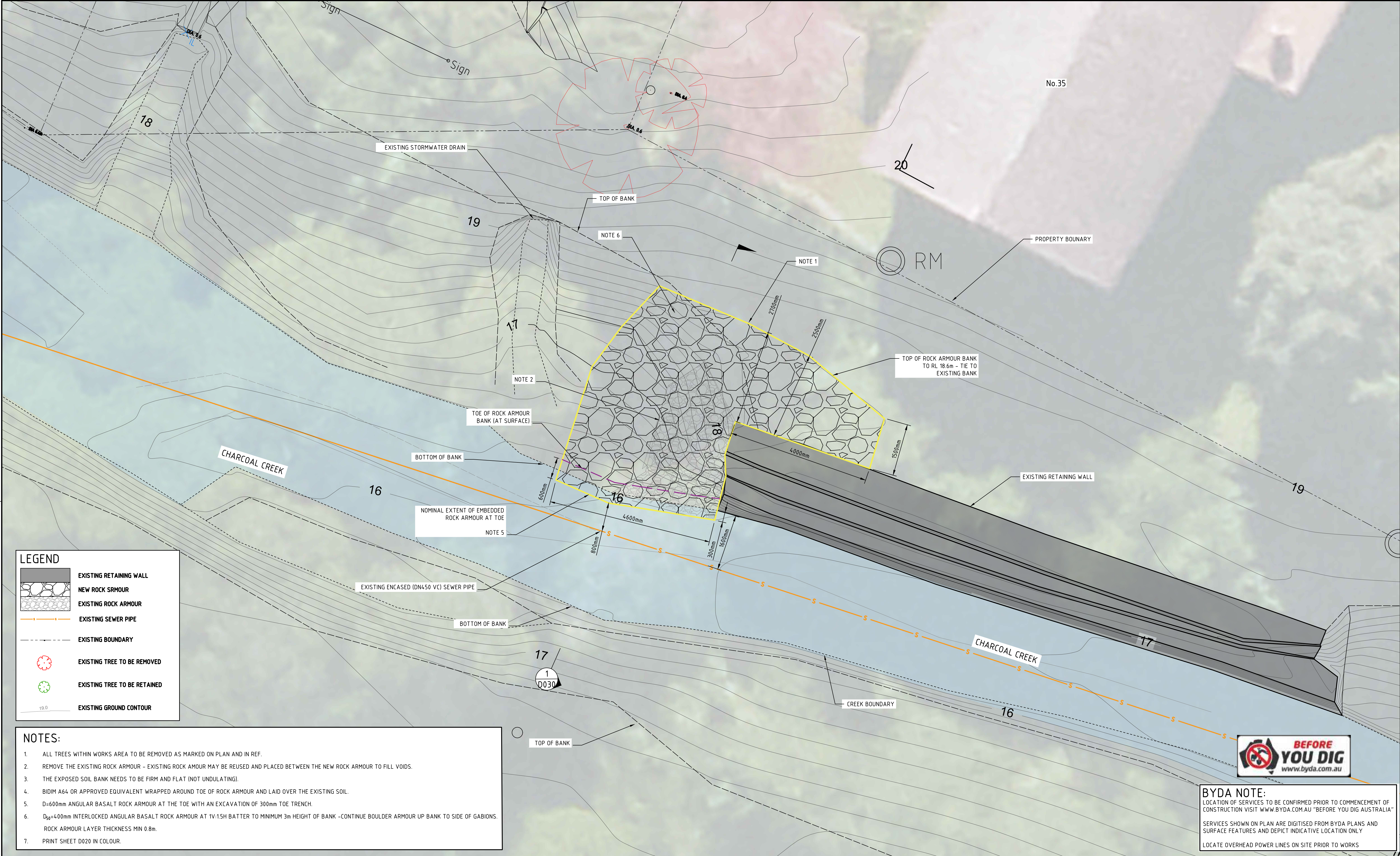
FISHERIES PERMIT




1. THE CONSTRUCTOR IS TO REFER TO THE FISHERIES PERMIT AND REF04053 FOR REQUIREMENTS

FOR CONSTRUCTION

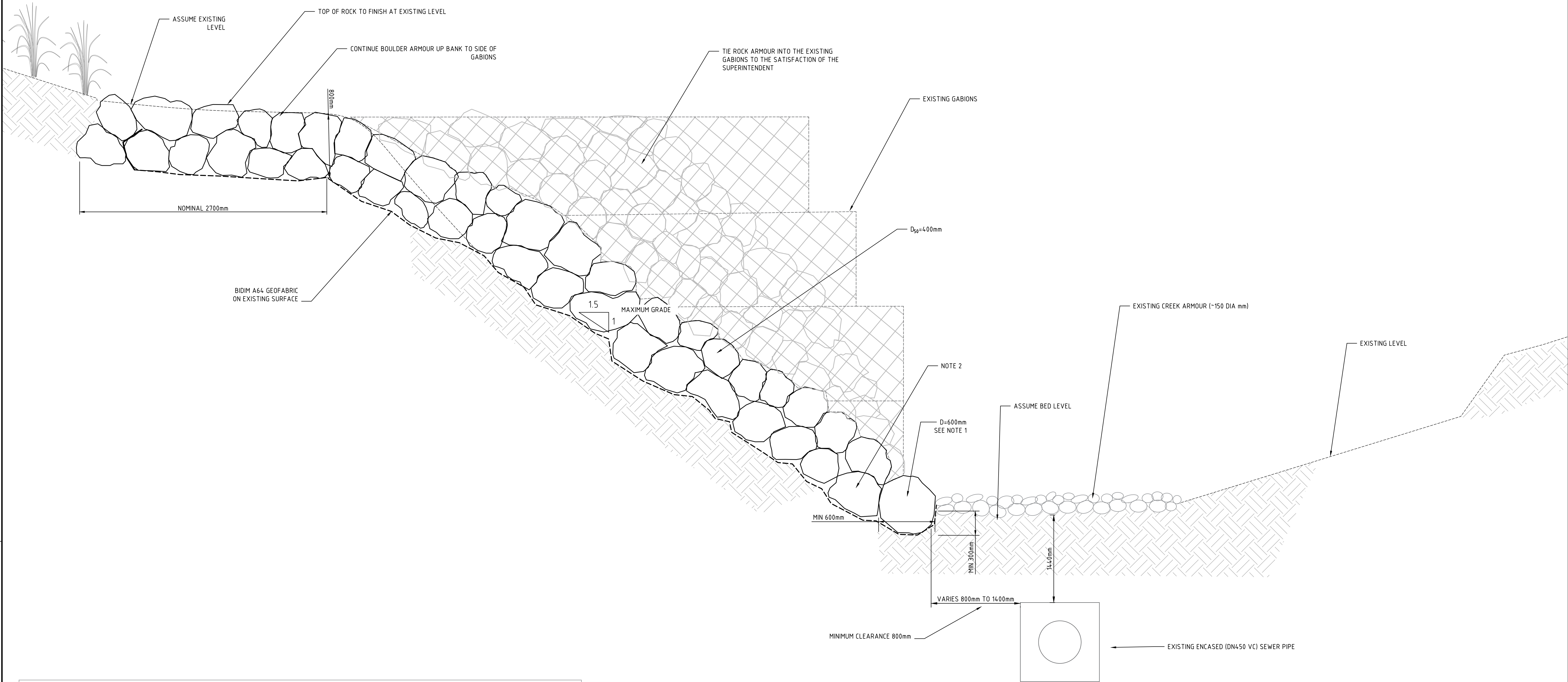
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FOR CONSTRUCTION																		
					DATUM AHD	SURVEYOR	DRAWN NS	DATE Sep-24	APPROVED (FOR COUNCIL USE ONLY)		SCALES	NORTH POINT	CITY OF WOLLONGONG		 wollongong city of innovation DESIGN & TECHNICAL SERVICES Ph 02 42277111	PJ/OCN or TR No. PJ-4389		A1
					AZIMUTH MGA	FIELD BOOK	DESIGNED NS	DATE Sep-24	SENIOR DESIGN ENGINEER - STORMWATER AND FLOODPLAIN		1:50		BEVELES AVENUE BANK STABILISATION BEVELES AVENUE, UNANDERRA GENERAL LAYOUT & UTILITIES			SHEET 3 OF 5 SHEETS	ORIGINAL	
					RELATED PLANS		CHECKED RP	DATE	7487_D020_A							DRAWING No. 7487	SHEET No. D020	ISSUE A
A	ISSUED FOR CONSTRUCTION			NS	RP	Sep-24												
ISSUE	DESCRIPTION			DRAWN	APPR'D	DATE												

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1 TYPICAL SECTION
D020 NTS

PROPOSED METHODOLOGY:

- INSTALLATION OF ESCP DEVICES AS PER BLUE BOOK.
- PREPARATION AND GRUBBING OUT SITE.

ROCK ARMOUR CONSTRUCTION

××THE CONSTRUCTION OF THE ROCK ARMOUR LAYER IS TO BE UNDERTAKEN INCREMENTALLY WORKING FROM THE EXISTING GABION WALL TO UPSTREAM AND FROM THE TOE TO THE TOP OF BANK××

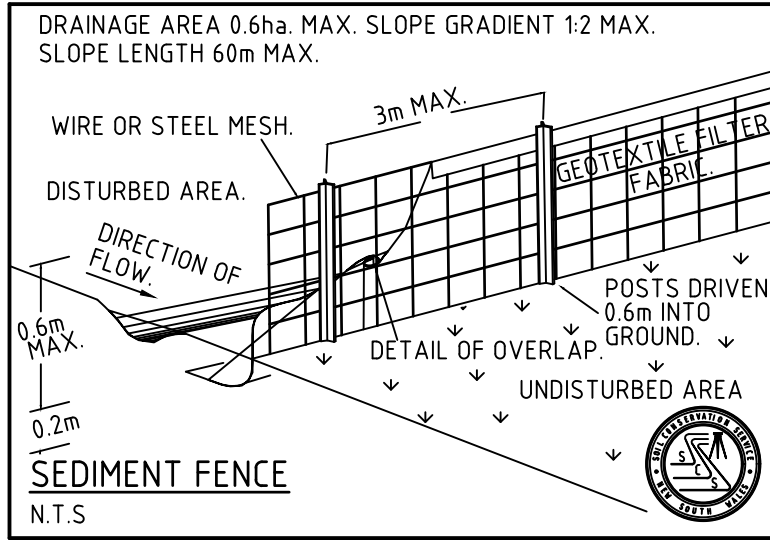
WORKING INCREMENTALLY:

- INCREMENTAL EXCAVATION/DREDGING OF CREEK BED FOR ROCK ARMOUR TOE EMBEDMENT. ROCK ARMOUR TOE EMBEDMENT TO BE MINIMUM 300mm (DEEP) X 600mm (WIDE).
- LAY BIDIM A64 SHEET DOWN THE BANK UP TO THE EXTENT OF EXCAVATION OF THE CREEK BED.
- PLACE ROCK ARMOUR (SEE SECTION VIEW ON THIS SHEET):

- PLACE 600mm (NOMINAL) FIRST ROCK (SINGLE ROW) TO BE EMBEDDED FOR TOE SUPPORT INTO THE 300mm TRENCH EXCAVATION (300mm BELOW CREEK BED LEVEL). EMBEDMENT TO BE TO SATISFACTION OF THE DESIGNER AND SUPERINTENDENT.
- PLACE SECOND ROCK. ROCK TO BE 400mm (NOMINAL) IN SIZE.
- INDIVIDUALLY PLACE ROCKS FROM THE BOTTOM UP AS WORKS PROGRESS UPSTREAM.
- ENSURE ROCKS ARE WELL INTERLOCKED TO SATISFACTION OF DESIGNER AND SUPERINTENDENT
- EXISTING ROCK AMOUR SPOIL CAN BE PLACED BETWEEN THE NEW ROCK ARMOUR TO FILL VOIDS.

							DATUM AHD	SURVEYOR	DRAWN NS	DATE Sep-24	APPROVED (FOR COUNCIL USE ONLY)		SCALES	NORTH POINT	CITY OF WOLLONGONG		PJ/OCNP or TR No. PJ-4 389		A1		
							AZIMUTH MGA	FIELD BOOK	DESIGNED NS	DATE Sep-24	SENIOR DESIGN ENGINEER – STORMWATER AND FLOODPLAIN						SHEET 4 OF 5 SHEETS	ORIGINAL			
							RELATED PLANS		CHECKED RP	DATE	7487_D030_A						DRAWING No.	SHEET No.	ISSUE		
											DATE										
A	ISSUED FOR CONSTRUCTION				NS	RP	Sep-24						AS NOTED		BEVELES AVENUE BANK STABILISATION BEVELES AVENUE, UNANDERRA CROSS SECTION & CONSTRUCTION METHODOLOGY			DESIGN & TECHNICAL SERVICES Ph 02 42277111	7487	D030	A
ISSUE				DESCRIPTION				DRAWN	APPR'D	DATE											

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- NOTES:**
1. THIS SHEET D040 - SITE MANAGEMENT PLAN MUST BE PRINTED IN COLOUR
 2. ALL SERVICES TO BE LOCATED AND MARKED ON SITE PRIOR TO CONSTRUCTION
 3. THE CONTRACTOR IS TO REFER TO THE FISHERIES PERMIT AND REF04053 FOR REQUIREMENTS
 4. SUITABLE SITE COMPOUND AND CONSTRUCTION SITE AMENITIES LOCATION TO BE DETERMINED BY CONTRACTOR AND APPROVED BY SUPERINTENDENT
 5. APPROVED TRAFFIC MANAGEMENT PLAN TO BE DEVELOPED AND IMPLEMENTED BY CONTRACTOR TO SUPERINTENDENTS SATISFACTION


- LEGEND**
- CF PROPOSED SITE SECURITY FENCING
 - SF PROPOSED SITE SEDIMENT FENCING
 - PROPOSED SITE SHED
 - PROPOSED STOCKPILE AREA
 - PROPOSED STORAGE COMPOUND
 - PROPOSED ACCESS
 - EXISTING RETAINING WALL
 - NEW ROCK ARMOUR
 - EXISTING ROCK ARMOUR
 - EXISTING SEWER PIPE
 - EXISTING BOUNDARY
 - EXISTING TREE TO BE REMOVED
 - EXISTING POWER POLE
 - EXISTING GROUND CONTOUR



BYDA NOTE:
LOCATION OF SERVICES TO BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION VISIT [WWW.BYDA.COM.AU](http://www.byda.com.au) "BEFORE YOU DIG AUSTRALIA"
SERVICES SHOWN ON PLAN ARE DIGITISED FROM BYDA PLANS AND SURFACE FEATURES AND DEPICT INDICATIVE LOCATION ONLY
LOCATE OVERHEAD POWER LINES ON SITE PRIOR TO WORKS

								DATUM AHD		SURVEYOR		DRAWN NS		DATE Sep-24		APPROVED (FOR COUNCIL USE ONLY)				SCALES		NORTH POINT		CITY OF WOLLONGONG						PJ/OCPN or TR No. PJ-4389		A1			
								AZIMUTH MGA		FIELD BOOK		DESIGNED NS		DATE Sep-24		SENIOR DESIGN ENGINEER - STORMWATER AND FLOODPLAIN						1:100				BEVELES AVENUE BANK STABILISATION BEVELES AVENUE, UNANDERRA ESCP & SITE MANAGEMENT PLAN						SHEET 5 OF 5 SHEETS		ORIGINAL	
								RELATED PLANS				CHECKED RP		DATE		7487_D040_A										DRAWING No. 7487				SHEET No. D040		ISSUE			
A ISSUED FOR CONSTRUCTION				NS RP		Sep-24																													
ISSUE				DESCRIPTION				DRAWN		APPR'D		DATE																							

Appendix F: Standard Operating Procedures-Unexpected Finds Protocols

Description of Work:		Unexpected Find Procedure – Council Owned Land/Worksites	
<p>This procedure has been developed to outline the process to be followed in the event that an unexpected find (hazard) is identified.</p> <p>Hazards that may be encountered could be Asbestos material, contaminated soils, or archaeology/heritage finds.</p> <p>In most cases the finds would occur during excavation operations on a worksite</p> <p>In some instances ACM may be left by MOP's or work its way up through the ground</p>		<p>Main Hazards:</p> <ul style="list-style-type: none">▪ Exposure to Contaminated soils (Asbestos Containing Materials (ACM), chemicals, Acid Sulphate)▪ Exposure to ACM or chemicals to public▪ Damage to archaeology/heritage artefacts	
<p>PPE REQUIRED – <i>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</i></p> <div></div> <p>* If unexpected find is ACM</p> <p>Note: P2 masks not suitable if employee has a beard – prevents sealing</p> <p>SAFETY RULES</p> <ul style="list-style-type: none">▪ In event of unexpected find – cease work immediately▪ Isolate the worksite▪ Keep public away▪ Contact Supervisor/Coordinator			
<p>Permits: (associated with task)</p> <ul style="list-style-type: none">▪ Asbestos Removal Control Plan if asbestos material identified as Friable and is to be removed by licenced contractor		<p>Checklists: (associated with task)</p> <ul style="list-style-type: none">▪ Waste Classification Docket as reference	
<p>Team Training / Skills Required:</p> <ul style="list-style-type: none">▪ Asbestos Awareness▪ Waste Classification Docket▪ Collection and disposal of Asbestos Containing Material (ACM) under 10Sq mtrs (optional for nominated staff)		<p>References:</p> <ul style="list-style-type: none">▪ 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 (Wkcvr 2014)	
<p>Relevant Documentation:</p> <p>Asbestos and Hazardous Materials Guidelines – Corporate</p> <p>Sampling materials request form</p> <p>Clearance certificate - Asbestos or Contaminated soils</p> <p>SOP Collection & Disposal of Bonded Asbestos Containing Material (ACM) under 10SQ mtrs</p>			

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



Contaminated soils (Sulphates)

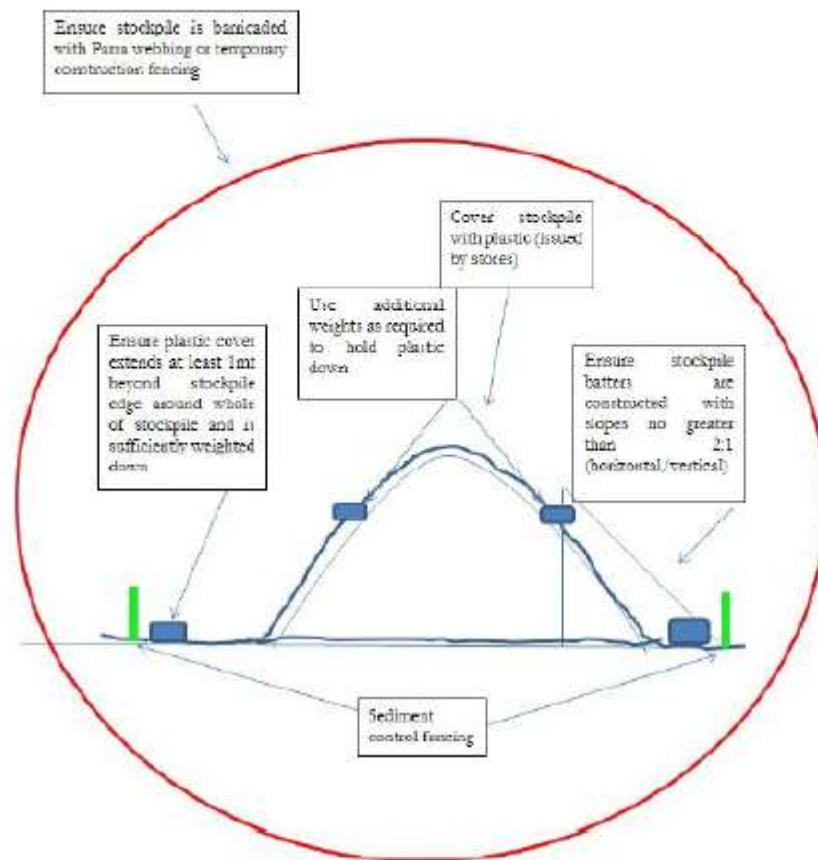


Archaeological & heritage finds



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 suspected or confirmed asbestos contaminated stockpiles awaiting removal by a licensed contractor

Responsibility	Action	Documents (Output)
Workers	In the event of an unexpected find Stop work immediately	
Site Supervisor / Team Leader	Isolate the site using barriers or hazard tape	
	Contact supervisor to provide details of material	
	Determine corrective action based on material	
Team Leader and Crew	<div> <div>ACM non-friable <10sq m</div> <div>Yes</div> <div>Apply PPE and remove as per SOP Collection and Disposal of ACM <10sq m</div> </div>	
	No	
Contractor/ Assessor	<div> <div>ACM friable or non-friable >10sq m</div> <div>Yes</div> <div>Contact buildings & facilities sustainability planner</div> </div>	Action Plan
	No	
Contractor/ Assessor	<div> <div>Contaminated soil</div> <div>Yes</div> <div>Contact environment planning manager</div> </div>	Action Plan
	No	
Contractor/ Assessor	<div> <div>Archaeological / heritage artefact</div> <div>Yes</div> <div>Contact heritage coordinator</div> </div>	Action Plan
	No	
Project Manager / Co-ordinator	Update relevant documentation and Council management systems	