

**REVIEW OF ENVIRONMENTAL FACTORS (REF)
ALTERATION OF STORMWATER SYSTEM
LOT CP (7) of SP 75314
2B PARSON STREET, ULLADULLA**

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Document control

Item	Details
Project	Review of Environmental Factors – Alteration of Stormwater System – Lot CP (7) SP 75314 (2B Parson Street) and Princes Highway, Ulladulla
Client	City Services, Shoalhaven City Council
Prepared By	City Services, Shoalhaven City Council

Document status

Version	Author / Reviewer*	Name	Signed	Date
V1.0	Author	Geoff Young		24/01/2023
	Reviewer	Jeff Bryant		02/02/2023

*Review and endorsement statement:

“I 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”.

Assessment and approvals overview

Item	Details
Assessment type	Division 5.1 (EP&A Act) - Review of Environmental Factors (REF)
Proponent	Shoalhaven City Council – City Services
Determining authority / authorities	Shoalhaven City Council – City Services
Required approvals (consents, licences and permits)	Nil
Required publication	Yes – Public Interest (tree removal within the heritage listed Old Ulladulla Cemetery).

1. PROPOSAL AND LOCATION

1.1 Proposed activity

The proposed activity is the diversion of the stormwater management system within Lot 7 SP 75314, 2B Parson Street, Ulladulla (Figure 1).

Note that Lot 7 SP 75314 has also been referred to as Lot CP SP 75314 e.g. in Shoalhaven City Council's GIS and Development Consent DA20/1068 (incorporating DS22/1248 and DS22/1365). It is unclear as to why it is referred to as CP as the Strata Plan notates the area as PA (parking area). In order to alleviate confusion, the property will hereafter be referred to as "Lot CP (7)".

Physical works would involve:

- the demolition of the existing 900 mm reinforced concrete pipe (RCP) – approximately 25 metres in length
- installation of new 1050 mm RCP within a new drainage easement within Lot CP (7) – approximately 25 metres in length
- replacement of RCP with 600 mm RCP – approximately 20 metres in length
- installation and/or reconstruction of stormwater pits to facilitate the proposed diversions
- associated earthworks
- change in use from parking area to parking area and stormwater management
- removal of five trees from the adjacent Shoalhaven City Council managed Crown Land reserve (Lot 7012 DP 1031353).

Works would also involve the implementation of prescribed environmental impact mitigation measures and safeguards listed in Section 7 of this Review of Environmental Factors (REF).

The proposed activity would require modification and acquisition of an easement over Lot CP (7). Easement-related actions are not considered to be an activity as defined in the NSW *Environmental Planning and Assessment Act* (Section 5.1(1) of the Act) and therefore does need to be addressed – only the change of use and the carrying out of the works.

The newly configured stormwater system will connect with the stormwater system under the Bunnings Development over Lots 1 to 5 DP21356 and Lot 23 DP 1082957 approved under development consent DA20/1068 (incorporating DS22/1248 and DS22/1365). The proposed activity is to satisfy the following Deferred Commencement condition of the development consent:

"c) completion of Part 5 stormwater diversion works under the Environmental Planning and Assessment Act 1979 and registration of new stormwater easement on the adjoining land upstream (Lot CP75314¹) in accordance with an executed works agreement between Shoalhaven City Council and Bunnings Properties Pty Ltd."

Shoalhaven City Council (SCC) is the proponent and the determining authority under Part 5 of the EP&A Act. The environmental assessment of the proposed activity and associated environmental

¹ Should read Lot CP in SP75314

impacts has been undertaken in the context of Clause 171 of the *Environmental Planning and Assessment Regulation 2021*. In doing so, this Review of Environmental Factors (REF) helps to fulfil the requirements of Section 5.5 of the Act that SCC examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

Figure 1 Location of the Proposed Activity

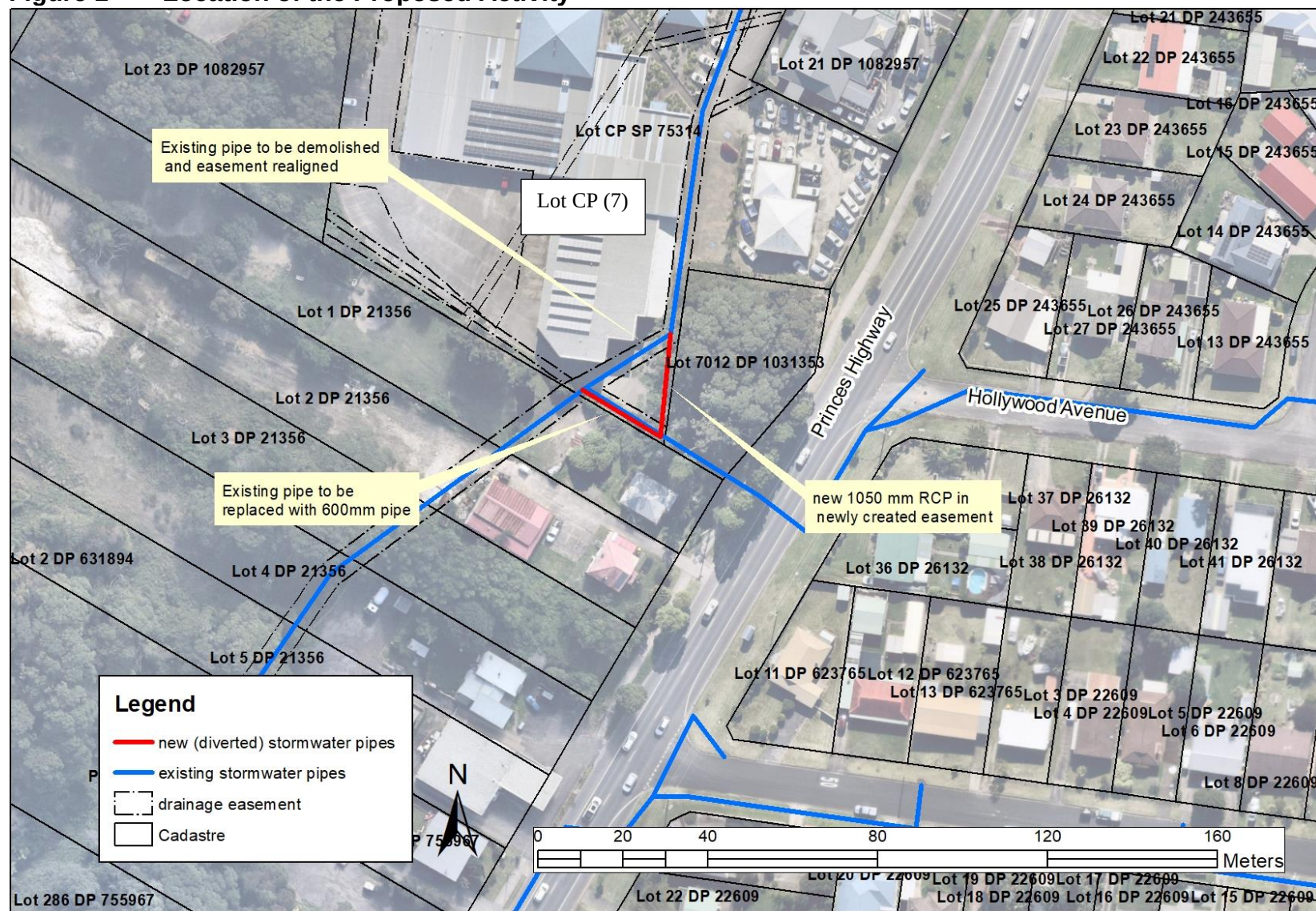
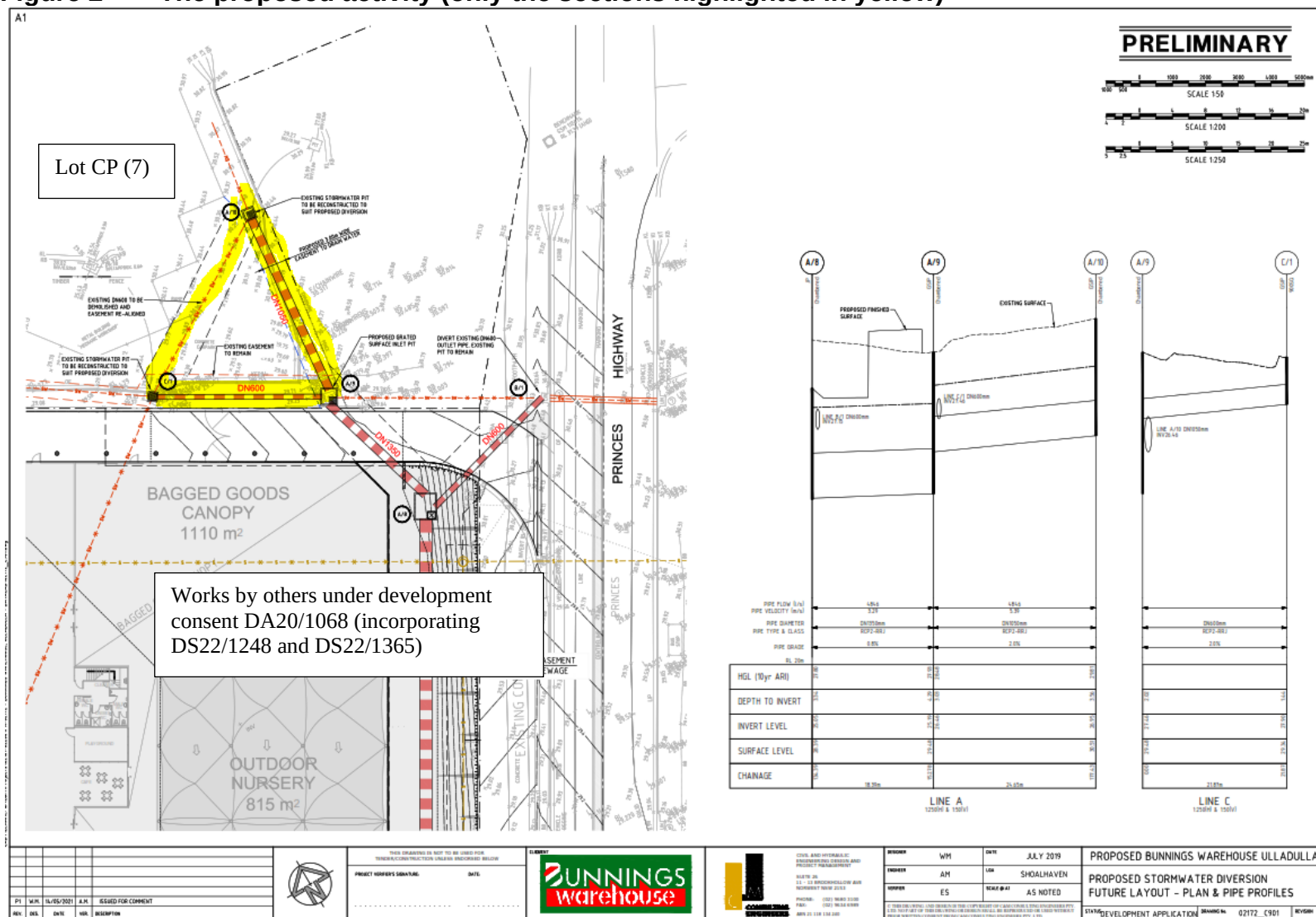


Figure 2 The proposed activity (only the sections highlighted in yellow)



2. EXISTING ENVIRONMENT

The proposed activity would be conducted within a drainage easement (when created) within Lot CP (7) SP 75314 (Figure 1 p.6). Five trees within the adjacent SCC managed crown reserve (Lot 7012 DP 1031353) would also be removed as a result of excavation within the structural root zone and tree protection zone of these trees.

Photographs of the site are provided in Section 2.6 below.

2.1 Habitat and vegetation assessment

Lot CP (7) SP75314, in the area of the proposed activity, comprises predominantly concrete pavement and kerb with a narrow wedge (less than 5 metres) of vegetation (refer to Photos 3 and 4 in Section 2.6 below and Figure 5 p.16). This vegetation comprises mainly of ornamental hedge (*Buxus microphylla*) and environmental weeds such as a Lantana *Lantana camara*, Japanese Honeysuckle *Lonicera japonica*, Moth Plant *Araujia sericifera*, and Milkwort *Polygala myrtifolia*. The native Sweet Pittosporum *Pittosporum undulatum* and Black Wattle *Acacia mearnsii* also occur in low numbers. No hollow-bearing trees or visible nests are present in this area. No threatened flora or suitable habitat for locally occurring threatened flora or endangered ecological community was identified on site during site surveys and none are likely (refer to Section 3.3 of this REF).

The adjacent SCC managed Crown Reserve to the east (Lot 7012 DP 1031353) is the Old Ulladulla Cemetery which was likely to have been managed as a mown park with an overstorey of Bangalay *Eucalyptus botryoides*. Most of the site is no longer mown and Sweet Pittosporum, Black Wattle, Sallow Wattle *Acacia longifolia* and the previously listed weed species now comprise the mid and understorey of the forest. Due to the presence of trees immediately adjacent to the proposed activity, SCC Tree Management Officer (Selma Nebelung) was engaged (via a 20 January 2023 site meeting) to assess the impact of the proposed activity on these trees. Five trees (two Bangalays and three Black Wattles) were identified as likely to be impacted (structural stability and continued viability) by excavation through the structural root zone (SRZ) and/or significantly through the tree protection zone (TPZ) as prescribed in Australian Standard 4970 *Protection of Trees on Development Sites*. Removal of these trees was recommended. The trees did not have hollows that could provide habitat for native fauna species.

Despite the presence of Bangalay, Sallow Wattle and Sweet Pittosporum, the vegetation community on this lot does not comprise the endangered ecological community (EEC) *Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions* as the site is not on coastal sand plains of marine or aeolian origin (refer to Section 2.3 of this REF).

2.2 Heritage

The adjacent SCC managed Crown Reserve is the Old Ulladulla Cemetery (former).

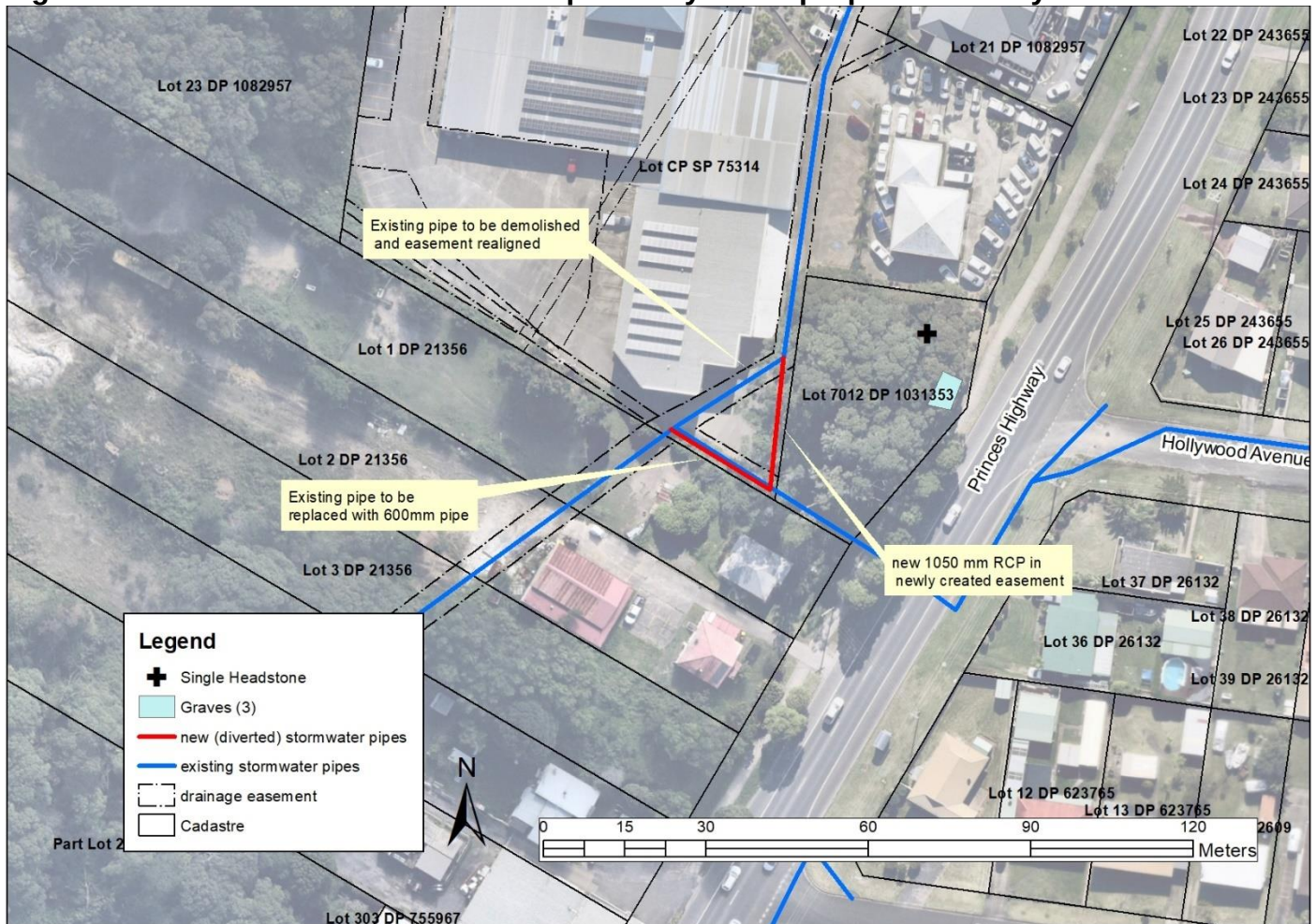
The site is associated with the prominent nineteenth century Millard family. Three graves with sandstone headstones and inscriptions are located in a pebbled chained-off area in the Princes Highway road reserve. A marble headstone is in the bush behind the Millard family headstones (Figure 3 below and Photos 1 and 2 in Section 2.6).

The three graves and headstones on Princes Highway are prominent and would not be harmed (Figure 3 below).

The trees that would be removed are not listed as a component of the heritage significance of the location (Heritage NSW 2023).

Impacts to Aboriginal cultural heritage is assessed in Section 3.5 of this REF.

Figure 3 Graves and headstones in proximity to the proposed activity

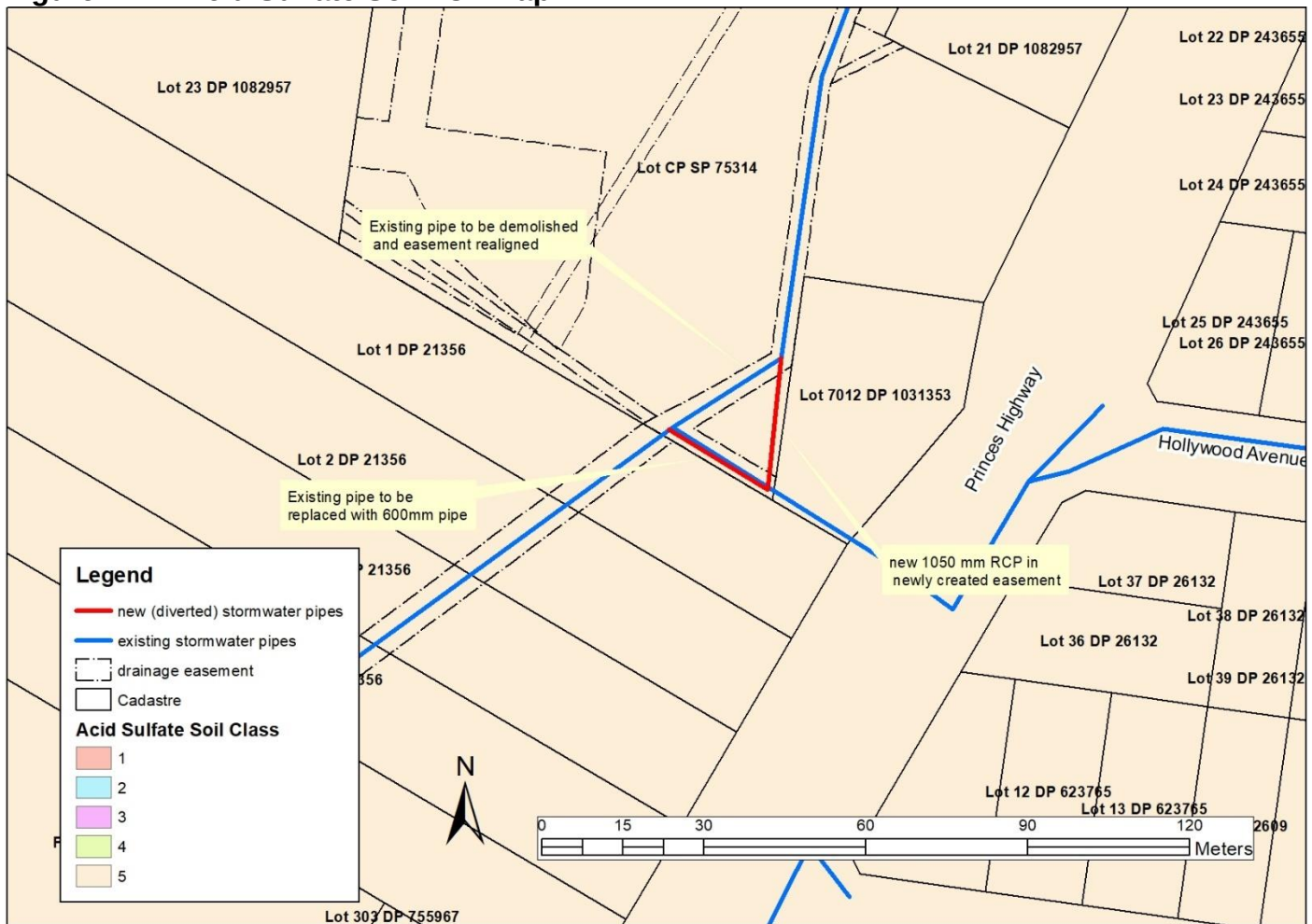


2.3 Geomorphological, subsurface and acid sulfate soils

The geology of the activity site consists of unconsolidated to poorly alluvial gravel, sand and clay deposits which are closely associated with basalts of similar age near Milton and Ulladulla.

The geology and geomorphology of the site would indicate low risk for acid sulfate soils (ASS) and has been mapped as such (Class 5, Figure 4 below). No further consideration is required.

Figure 4 Acid Sulfate Soil risk map



2.4 Land use

The proposed activity area within Lot CP (7) SP 75314 is utilised as carparking and access to the servicing garages of Ulladulla Toyota. The eastern edge comprises vegetation that would have been once managed as landscaping with hedges and garden plans. Environmental weeds have become dominant (refer to Photos 3 and 4 in Section 2.6 of this REF).

Lot 7012 DP 1031353 which is adjacent to, and east of, the proposed new stormwater pipes and easement is a Crown Reserve (R97733); reserved for the preservation of graves. Shoalhaven City Council is appointed Crown Land Manager under the NSW *Crown Land Management Act 2016*. Although zoned SP2 – *Infrastructure (cemetery)* in the Shoalhaven Local Environmental Plan 2014, the cemetery is not in operation. The site is degraded by weed species and appears to have little management other than some mowing and preservation of headstones. Apart from the removal of five trees that would have their stability and viability compromised by the proposed activity, excavation works would not be conducted in this allotment and the common boundary with Lot CP 7) shall be clearly demarcated as a 'no-go area' to prevent inadvertent impact during the construction works for the stormwater system (refer to Section 7 of this REF).

Lot 1 DP 21356 which is adjacent to and south of the proposed activity is part of the future Bunnings development which the proposed activity is directly associated with.

2.5 Other

For the purposes of this REF, the site of the proposed activity:

- is not in flood liable land
- is not identified as being contaminated
- does not contain streams and riparian areas / corridors
- does not contain vegetation mapped as “High Environmental Value” or “Biodiversity Corridor” in the Illawarra Shoalhaven Regional Plan 2041
- Is outside the area covered by the *State Environmental Planning Policy (Resilience and Hazards) 2021*.

2.6 Photos

Photo 1: Nearby graves in the adjacent Old Ulladulla Cemetery – not impacted by the proposed activity



Photo 2: Headstone within the adjacent Old Ulladulla Cemetery - not impacted by the proposed activity.



Photo 3: Lot CP (7) SP75314 looking towards the proposed new easement and stormwater diversion



Photo 4: Vegetation to be removed within Lot CP (7) SP 75314 for the proposed activity – mainly Buxus hedge and exotic, environmental weeds.



Photo 5: Bangalay on the adjacent SCC reserve that will require removal due to significant impact to the TPZ



Photo 6: Black Wattles on the adjacent SCC reserve that will require removal due to the impact to the SRZ



3. ASSESSMENT OF LIKELY IMPACTS ON THE ENVIRONMENT

3.1 Impacts associated with the proposal

The proposal would involve the following disturbance and direct impacts:

- Removal of approximately 90m² of vegetation (Figure 5 p.16) comprising mainly exotic and weed species.
- Removal of five trees on the adjacent SCC reserve (Lot 7012 DP 1031353) due to excavation within the SRZ and/or TPZ (Figure 5 below). These trees include:
 - Two Bangalays – one 15 centimetres diameter breast height (dbh) the other 50 cm dbh.
 - Three Black Wattles – 30 to 40cm dbh - although one of these has fallen over across the boundary fence and should be removed regardless of the proposed activity.
- Access impacts to the servicing garages and carparks particularly for Ulladulla Toyota.

Other potential impacts on the environment, including indirect impacts have been considered, including:

- impact on threatened species and endangered ecological communities
- indigenous heritage.

Each of these is discussed below.

3.2 Vegetation Removal

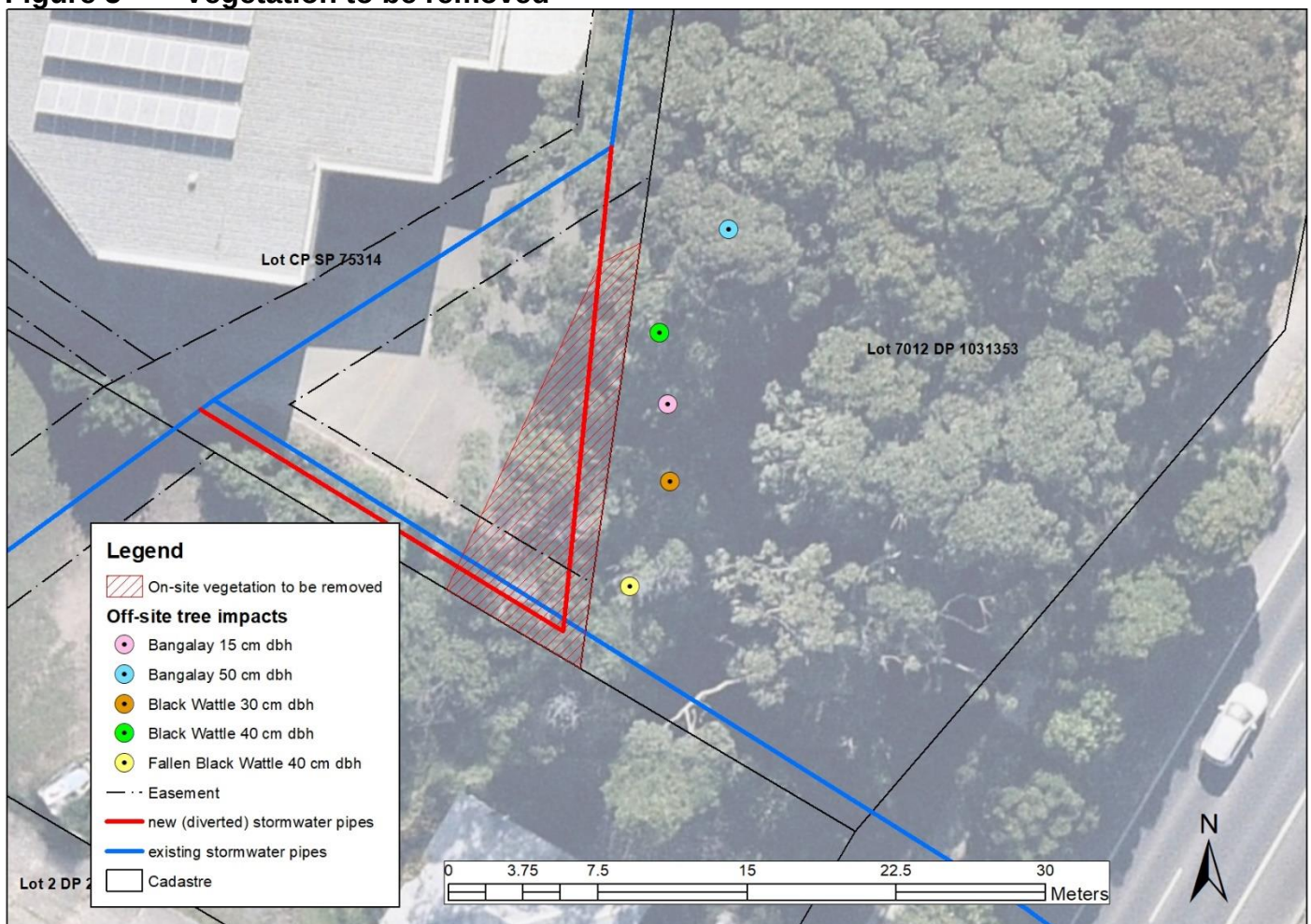
The proposed activity would result in the removal of approximately 90m² of vegetation in Lot CP (7) (Figure 5 below) and five trees on the adjacent SCC managed Crown Reserve (Lot 7012 DP 1031353). The impact caused by the vegetation removal is not significant for the following reasons:

- Except for the two Black Wattles and Sweet Pittosporum, the vegetation on Lot CP (7) comprises non-native garden and hedge species many of which are considered environmental weeds such as Lantana, Japanese Honeysuckle, and Moth Plant.
- The five off-site trees to be removed in the adjacent SCC managed Crown Reserve are common species and do not contain hollows or nests.
- There are no plants in this area listed in the threatened species schedules of the NSW *Biodiversity Conservation Act 2016* (NSW BC Act) or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- Fauna species listed in the threatened species schedules of the NSW BC Act and the EPBC Act are not likely to reside in this location or rely on this vegetation for food, refuge or breeding (refer to Section 3.3 of this REF).
- The vegetation does not comprise an endangered ecological community listed under the NSW BC Act and EPBC Act.
- The vegetation is not within a riparian area of a waterway.
- The vegetation does not appear to provide important food sources for locally occurring threatened species and do not appear to contain nests or hollows.
- Regarding environmental planning instruments, the subject vegetation:

- is not mapped on Terrestrial Biodiversity Map layer in the Shoalhaven Local Environment Plan 2014 (SLEP 2014)
- is not mapped as “Scenic Protection Area” layer in the SLEP 2014
- is not mapped as “High Environmental Value” or “Biodiversity Corridor” in the Illawarra Shoalhaven Regional Plan 2041 (<https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/Plans-for-your-area/Regional-plans/Illawarra-Shoalhaven-Regional-Plan-05-21.pdf>)
- is not mapped on the Biodiversity Values Map administered for the purposes of the NSW *Biodiversity Conservation Act 2016*.

An environmental impact statement (EIS) is therefore not considered warranted.

Figure 5 Vegetation to be removed



3.3 Threatened species impact assessment (NSW)

Section 1.7 of the EP&A Act 1979 applies the provisions of Part 7 of the NSW *Biodiversity Conservation Act 2016* and Part 7A of the NSW *Fisheries Management Act 1994* that relate to the operation of the Act in connection with the terrestrial and aquatic environment. Each are addressed below.

3.3.1 Part 7A Fisheries Management Act 1994

Part 7A relates to threatened species conservation. As the activity is not going to occur in a marine, estuarine, tidal or aquatic environment, no further consideration of Part 7A is required.

3.3.2 Part 7 Biodiversity Conservation Act 2016

An assessment of the potential for NSW threatened flora and fauna species occurring on-site or otherwise being impacted by the proposal was undertaken (refer to Appendix B). The following threatened species or endangered ecological communities are considered to have some potential to occur on-site or be otherwise impacted by the proposal:

- Gang-gang Cockatoo *Callocephalon fimbriatum* – Vulnerable (V)
- Varied Sittella *Daphoenositta chrysoptera* – V
- Dusky Woodswallow *Artamus cyanopterus cyanopterus* – V
- Grey-headed Flying-fox *Pteropus poliocephalus* – V
- Eastern Coastal Free-tailed Bat *Micronomus norfolkensis* – V

Section 7.3 of the Act provides a ‘five-part’ test to determine whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats. Each Part is addressed below:

Part A - In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the lifecycle of the species such that a viable local population of the species is likely to be place at risk of extinction.

Gang-gang Cockatoo

The Gang-gang Cockatoo is distributed from southern Victoria through south- and central-eastern NSW. In spring and summer, the bird is generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. In autumn and winter, the species often moves to lower attitudes in drier more open eucalypt forests and woodlands, particularly box-gum and box-ironbark assemblages, or in dry open forest in coastal areas and often found in urban areas. Favours old grown forest and woodland attributes for nesting and roosting. Nests are located in hollows that are seven centimetres in diameter or larger in eucalypts and three metres or more above the ground (OEH 2022).

Although the species has been recorded within five kilometres, and the proposed activity site contains suitable foraging habitat, the proposed activity is not likely to have an adverse effect on the lifecycle of the species such that a viable local population of the species is likely to be placed at risk of extinction for the following reasons:

- A viable population or records for the species are not known for the site, the site provides only potential foraging and degraded habitat.
- The site does not contain trees with suitable hollows for nesting.
- The removal of 90m² of vegetation comprising predominantly non-native and weeds species is insignificant in comparison to the amount of better quality habitat in the immediate vicinity of the proposed activity.
- If the birds are present during works, they would be expected to fly away and not be directly harmed.

A species impact statement (SIS) or entry into the Biodiversity Offset Scheme (BOS) is therefore not required for this species for this Part.

Varied Sittella and Dusky Woodswallow

The Varied Sittella is sedentary and inhabits most of mainland Australia except the treeless deserts and open grasslands. The species inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland. It builds a cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy, and often re-uses the same fork or tree in successive years (OEH 2017).

The Dusky Woodswallow is widespread in eastern, southern and south western Australia. The species occurs throughout most of New South Wales, but is sparsely scattered in, or largely absent from, much of the upper western region. Most breeding activity occurs on the western slopes of the Great Dividing Range (OEH 2017b). The species primarily inhabits dry, open eucalypt forests and woodlands, including mallee associates, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen debris. Nest sites vary greatly, but generally occur in shrubs or low trees, living or dead, horizontal or upright forks in branches, spouts, hollow stumps or logs, behind loose bark or in a hollow in the top of a wooden fence post (OEH 2017b).

Although the species have been recorded within five kilometres, and the proposed activity site contains suitable (albeit highly degraded) foraging habitat, the proposed activity is not likely to have an adverse effect on the lifecycle of the species such that a viable local population of the species is likely to be placed at risk of extinction for the following reasons:

- A viable population or records for the species are not known for the site, the site provides only potential foraging and degraded habitat.
- The site does not contain visible nests.
- The removal of 90m² of vegetation comprising predominantly non-native and weeds species is insignificant in comparison to the amount of better quality habitat in the immediate vicinity of the proposed activity which would not be impacted by the proposed activity.
- The site is not preferred breeding area for the Dusky Woodswallow with most breeding occurring west of the Great Dividing Range.
- If the birds are present during works, they would be expected to fly away and not be directly harmed.

A SIS or entry into BOS is therefore not required for this species for this Part.

Grey-headed Flying-fox (GHFF)

The GHFF occurs in subtropical and temperate rainforest and woodlands, heath and swamps as well as urban gardens and cultivated fruit crops.

Roosting camps are generally located within 20 kilometres of a regular food source and may contain thousands of animals for mating, and giving birth and rearing young (OEH 2020). The species feeds on nectar and pollen of native trees, including Eucalypts and also in cultivated urban gardens.

Although the proposed activity site and adjacent lands contains suitable foraging habitat, the proposed activity is not likely to have an adverse effect on the lifecycle of the species such that a viable local population of the species is likely to be placed at risk of extinction for the following reasons:

- A viable population or records for the species are not known for the site, the site provides only potential foraging and degraded habitat.
- The site and surrounds is not a roosting camp. The nearest known camp is in the Yatte Yattah Nature Reserve approximately 12 kilometres away.
- The removal of the five off-site trees and 90m² of vegetation comprising predominantly non-native and weeds species is insignificant in comparison to the amount of better quality habitat in the immediate vicinity of the proposed activity.
- The environmental impact mitigation measures and safeguards prescribed in Section 7 of this REF will ensure that a pre-clearing survey is carried out to detect any GHFF. Clearing would be postponed if detected.

A SIS or entry into BOS is therefore not required for this species for this Part.

Eastern Coastal Free-tailed Bat

The Eastern Coastal Free-tailed Bat is found along the east coast from south Queensland to southern NSW. It occurs in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range. Roosts mainly in tree hollows but will also roost under bark or in man-made structures (OEH 2022b).

Although the species have been recorded within five kilometres, and the proposed activity site contains suitable foraging habitat, the proposed activity is not likely to have an adverse effect on the lifecycle of the species such that a viable local population of the species is likely to be placed at risk of extinction for the following reasons:

- Viable population or records for the species are not known for the site, the site provides only potential foraging habitat.
- The site does not contain quality roosting sites for the species.
- The removal of the five off-site trees 90m² of vegetation comprising predominantly non-native and weeds species is insignificant in comparison to the amount of better quality habitat in the immediate vicinity of the proposed activity.

A SIS or entry into BOS is therefore not required for this species for this Part.

Part B - In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

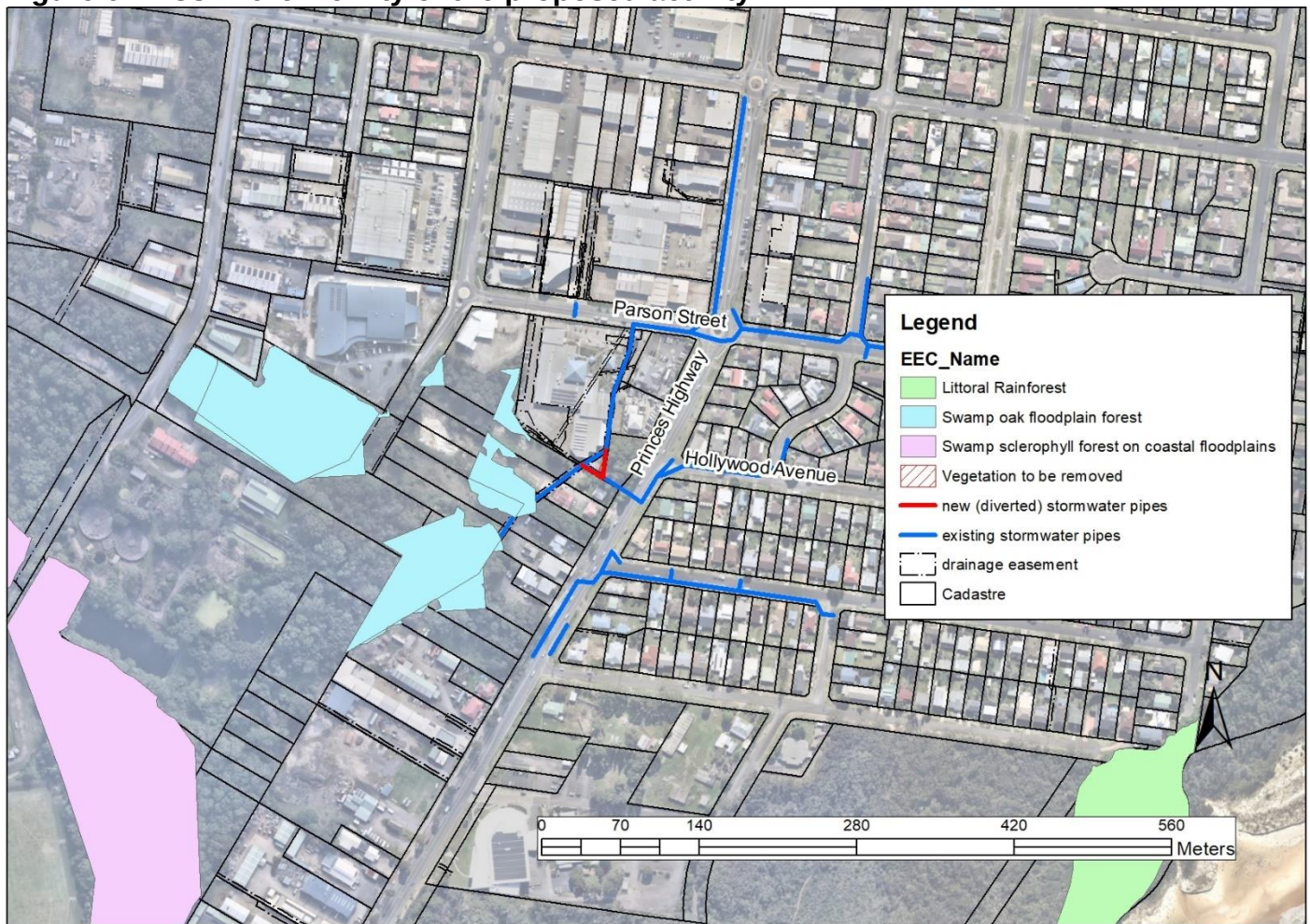
- (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or*
- (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction*

The vegetation that will be impacted by the proposed activity as well as the adjacent forested cemetery does not comprise an endangered ecological community (EEC).

The closest mapped occurrence of an EEC is the Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions approximately 50 metres to the southwest of the proposed activity (Figure 6 below).

The proposal would not result in the fragmentation or isolation of areas of any EEC and is unlikely to adversely affect the extent or composition of any EEC such that a local occurrence of the EEC would be placed at risk of extinction. As species impact statement (SIS) or entry into the Biodiversity Offset Scheme is therefore not required.

Figure 6 EECs in the vicinity of the proposed activity



Part C - In relation to the habitat of a threatened species or ecological community:

- (iii) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity**
- (iv) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and**
- (v) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality.**

No important habitat for threatened species would be removed or otherwise significantly impacted (see Part A).

No EEC would not be fragmented or isolated, nor removed or modified to an extent that would affect the long-term survival of the EEC occurring in the locality (refer to Part B).

The proposal will therefore not affect the long-term survival of any threatened species or endangered ecological community in the locality.

Part D – Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).

No “areas of outstanding biodiversity values” have been declared in the City of Shoalhaven.

Part E – Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

There are no key threatening process listed in the NSW Biodiversity Conservation Act 2016 considered relevant to the proposed activity.

3.4 Threatened species impact assessment (Commonwealth EPBC Act 1999)

A Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters Report was generated on 12 January 2023. An EPBC Protected Matters Report provides general guidance on matters of national significance and other matters protected by the EPBC Act in the area selected. Of those threatened species and endangered ecological communities reported as likely occurring or having habitat within the area of the report, the following were considered to have potential habitat on the site and requiring of further assessment:

- Grey-headed Flying-fox – Vulnerable

Additional highly mobile species including migratory birds may occur occasionally and transiently within the vicinity of the proposed activity but would not be affected by the proposal.

Table 1 EPBC Significant impact assessment

Vulnerable species - Significant impact criteria	
Species to consider: Grey-headed Flying-fox	
Criteria	Assessment
lead to a long-term decrease in the size of an important population of a species	The proposed activity will not directly impact on the Grey-headed Flying-fox, will not affect or disrupt breeding and will not impact on breeding or foraging habitat.
reduce the area of occupancy of an important population	No
fragment an existing important population into two or more populations	No
adversely affect habitat critical to the survival of a species	No important habitat will be impacted by the proposed activity
disrupt the breeding cycle of an important population	The closest camp for the species is 12 kilometres to the north in Yatte Yattah Nature Reserve. The species would not breed at this location
modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	No significant decrease in foraging habitat is anticipated.
result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	No invasive species will be introduced
introduce disease that may cause the species to decline	No disease will be introduced
interfere substantially with the recovery of the species	No

Conclusion of EPBC Significant Impact Assessment

The proposal is therefore unlikely to have an adverse effect on a vulnerable, endangered, critically endangered or migratory species or its habitat, nor on the extent or integrity of an endangered ecological community such that its local occurrence is likely to be placed at risk of extinction. Further assessment and referral to the Commonwealth is therefore not required.

3.5 Indigenous heritage

Under Section 86 of the NSW *National Parks and Wildlife Act 1974* (NPW Act) it is an offence to disturb, damage, or destroy any Aboriginal object without an Aboriginal Heritage Impact Permit (AHIP). The Act, however, provides that if a person who exercises 'due diligence' in determining that their actions will not harm Aboriginal objects has a defence against prosecution if they later unknowingly harm an object without an AHIP (Section 87(2) of the Act). To effect this, the NSW Department of Environment, Climate Change and Water have prepared the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (hereafter referred to as the 'Due Diligence Guidelines') to assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects and to determine whether they should apply for an AHIP.

A search on the Aboriginal Heritage Information Management System (AHIMS) on 9 January 2023 indicated that there are no recorded Aboriginal sites or places in the vicinity of the proposal (refer to AHIMS report in Figure 7 below).

The site of the proposed activity is also not in a landscape with a higher potential for Aboriginal objects, as outlined in the NSW Department of Environment, Climate Change and Water's Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010):

- within 200m of waters, or
- located within a sand dune system, or
- located on a ridge top, ridge line or headland, or
- located within 200m below or above a cliff face, or
- within 20m of or in a cave, rock shelter, or a cave mouth.

The Due Diligence Guidelines define disturbed land as follows:

"Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable. Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks."

The site of the proposed works is highly disturbed through the construction of the development of the site, concrete pavement and kerb, buildings, existing stormwater systems and former garden/landscape area.

The five off-site trees on the old Ulladulla Cemetery do not exhibit scarring of anthropogenic origin.

As the proposal would occur on disturbed land and would not impact any recorded Aboriginal sites or places, the Due Diligence Guidelines requires no further assessment, an AHIP is not required, and the activity can proceed.

Figure 7 Results of AHIMS Aboriginal heritage search



**AHIMS Web Services (AWS)
Search Result**

Your Ref/PO Number : Ulladulla Bunnings

Client Service ID : 743665

Shoalhaven City Council - Nowra

Date: 09 January 2023

PO Box 42 Bridge Rd

Nowra New South Wales 2541

Attention: Geoffrey Young

Email: geoff.young@shoalhaven.nsw.gov.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 7012, DP:DP1031353, Section : - with a Buffer of 50 meters, conducted by Geoffrey Young on 09 January 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. *

3.6 Non-indigenous heritage

The adjacent SCC managed Crown Reserve is the Old Ulladulla Cemetery (former). The site is associated with the prominent nineteenth century Millard family. The three graves and headstones are located on the Princes Highway and are prominent and are unlikely to be harmed.

The trees that would be removed are not listed as a component of the heritage significance of the location.

3.7 Land use impacts

The portion of the activity within Lot CP (7) SP75314 is utilised as carparking and access to the servicing garages of Ulladulla Toyota. The proposed activity could have a direct impact to the servicing operations of the Ulladulla Toyota and consultation with this business must occur to make suitable staging (or other) arrangements.

As the stormwater system would be underground, the area affected by the proposed activity can remain an area for carparking once constructed and pavement surface restored.

3.8 EP&A Regulation – Clause 171 matters of consideration

Section 171(2) of the *Environmental Planning and Assessment Regulation 2021* lists the factors to be taken into account when consideration is being given to the likely impact of an activity on the environment under Part 5 of the EP&A Act. These matters are addressed in Table 2 below.

Table 2 Clause 171(2) Matters of consideration

Does the proposal:	Assessment	Reason
a) Have any environmental impact on a community?	Positive	The proposed activity would meet the deferred commencement conditions of development consent DA20/1068 (incorporating DS22/1248 and DS22/1365) facilitating the commencement of this major development. The proposed activity would not have any impact on other community services and infrastructure such as water, waste management, educational, medical or social services.
b) Cause any transformation of a locality?	Low-adverse	The locality would remain a carparking area with concrete pavement. Despite the removal of five trees in the adjacent SCC cemetery reserve, the reserve would remain a forest.
c) Have any environmental impact on the ecosystem of the locality?	Low-adverse	The five-part test of significance (Section 3.3 of this REF) concludes that the proposed activity would not have a significant impact upon threatened species or endangered ecological communities. No hollow-bearing trees or food resources critical to the survival of a particular species would be removed. Aquatic ecosystems are not likely to be affected by the proposed activity and there is not likely to be any long-term or long-lasting impact through the input of sediment and nutrient into the ecosystem.

Does the proposal:	Assessment	Reason
		Environmental safeguards and mitigation measures prescribed in Section 7 of this REF would be employed to minimise impacts.
d) Cause a diminution of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	negligible	The site does not possess these qualities.
e) Have any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations?	negligible	The site has no historical, social or scientific significance and does not contain, nor is associated with any heritage item listed on the NSW State Heritage Inventory, Commonwealth heritage list or in the Shoalhaven LEP 2014. The graves and headstones would not be impacted in the adjacent SCC cemetery reserve (refer to Section 2.2 of this REF). The five trees to be removed do not contribute to the heritage significance of the site. In accordance with the NSW Department of Environment, Climate Change and Water's Due Diligence Code of Practice, the proposed activity does not require an Aboriginal Heritage Impact Permit as the activity is unlikely to harm an Aboriginal artefact (refer to Section 3.5 of this REF). The site is not within an Aboriginal Place declared under the <i>National Parks and Wildlife Act 1974</i>.
f) Have any impact on the habitat of protected fauna (within the meaning of the Biodiversity Conservation Act 2016)?	Negligible	Vegetation, including native species, would be removed, however: - The five-part test of significance, provided in Section 3.3 above, concludes that the proposed activity would not have a significant impact upon threatened fauna. - As outlined in Section 3.2 of this REF, the impact of the vegetation removal is considered not significant. The prescribed environmental safeguards and mitigation measures (Section 7) would mitigate indirect impacts to fauna and habitat including through pre-clearing surveys, control of sediment and prevention of inadvertent damage beyond what is necessary for the activity.
g) Cause any endangering of any species of animal,	Negligible	No important habitat would be removed or otherwise impacted. The five-part test of significance, provided in Section 3.3 above, concludes that the proposed

Does the proposal:	Assessment	Reason
plant or other form of life, whether living on land, in water or in the air?		activity would not have a significant impact upon threatened fauna. As outlined in Section 3.2 of this REF, the impact of the vegetation removal is considered not significant. There are no species likely to rely on the site of the proposed works to the extent that modification would put them further in danger.
h) Have any long-term effects on the environment?	Negligible / potentially low-adverse	The proposed activity would not use hazardous substances or use or generate chemicals which may build up residues in the environment. Construction works would be relatively short term and the noise generated would occur during normal working hours. The possible impacts have been discussed in detail under Section 3. Refer also to the prescribed environmental safeguards and mitigation measures in Section 7.
i) Cause any degradation of the quality of the environment?	Negligible	Aquatic ecosystems are not likely to be affected by the proposed activity and there is not likely to be any long-term or long-lasting impact through the input of sediment and nutrient into the ecosystem. The proposal would not intentionally introduce noxious weeds, vermin, or feral animals into the area or contaminate the soil. Potential acid sulfate soils are unlikely to occur at the site. Environmental safeguards and mitigation measures (Section 7) would be employed to minimise risk of impacts.
j) Cause any risk to the safety of the environment?	Negligible	The proposed activity would not involve hazardous wastes and would not lead to increased bushfire or landslip risks. The activity is not going to adversely affect flood or tidal regimes or exacerbate flooding risks.
k) Cause any reduction in the range of beneficial uses of the environment?	Low adverse / positive	The proposed activity will allow the commencement of the adjacent Bunnings development. The proposed activity could interrupt the operations of Ulladulla Toyota. Consultation would need to occur to minimise impacts.
l) Cause any pollution of the environment?	Low-adverse	The proposal would involve a temporary and local increase in noise during the construction phase due to the use of machinery. However, this is not

Does the proposal:	Assessment	Reason
		anticipated to negatively affect any sensitive receivers such as schools, childcare centres and hospitals. Sediment and erosion control in accordance with the Blue Book will be implemented to minimise movement of sediment into waterways. It is unlikely that the activity (including the environmental impact mitigation measures prescribed in Section 7 of this REF) would result in water or air pollution, spillages, dust, odours, vibration or radiation. The proposal does not involve the use, storage or transportation of hazardous substances or the generation of chemicals which may build up residues in the environment. With the implementation of the prescribed environmental safeguards and mitigation measures (Section 7), the activity is not expected to result in the oxidation of acid sulfate soils and subsequent leaching back into waterways. The risk of contamination and Spills from machinery including fuel and hydraulic fluids would be minimised through prescribed environmental safeguards and mitigation measures (Section 7).
m) Have any environmental problems associated with the disposal of waste?	Negligible	The waste that would be generated during construction (concrete, soil and vegetation waste) could be re-used in accordance with resource recovery exemptions or taken to a licensed waste facility. There would be no trackable waste, hazardous waste, liquid waste, or restricted solid waste as described in the NSW <i>Protection of the Environment Operations Act 1997</i>.
n) Cause any increased demands on resources (natural or otherwise) which are, or are likely to become, in short supply?	Negligible	The amount of resources that would be used are not considered significant and would not increase demands on current resources such that they would become in short supply.
o) Have any cumulative environmental effect with other existing or likely future activities?	Negligible	The adjacent Bunnings development downstream of the proposed activity has already been assessed and consent has been granted. The assessed impacts of the proposal are not likely to interact.

Does the proposal:	Assessment	Reason
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	Negligible	The proposed activity would have no effect on coastal processes including those projected under climate change conditions. The proposal site is not located in an identified coastal hazard area.
q) Any applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act	Low-adverse	The proposed activity is consistent with the Shoalhaven 2040 planning statement particularly Planning Priority 2 – Delivering Infrastructure (https://doc.shoalhaven.nsw.gov.au/displaydoc.aspx?record=D20/437277). The proposed activity is not inconsistent with the Illawarra Shoalhaven Regional Plan 2041 (https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/Plans-for-your-area/Regional-plans/Illawarra-Shoalhaven-Regional-Plan-05-21.pdf). The proposed activity also does not impact any areas mapped in the plan as “High Environmental Value” or “Biodiversity Corridor”.
R) Any other relevant environmental factors	N/A	Addressed in Section 3 of this REF.

4. PERMISSIBILITY

4.1 *Environmental Planning & Assessment Act 1979*

Section 4.1 (Development that does not need consent) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) states that:

“If an environmental planning instrument provides that specified development may be carried out without the need for development consent, a person may carry the development out, in accordance with the instrument, on land to which the provision applies.”

In this regard, Section 2.137(1) of the NSW State *Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport & Infrastructure SEPP) provides that:

“Development for the purpose of stormwater management systems may be carried out by or on behalf of a public authority without consent on any land”

The proposed activity would be undertaken by Bunnings Group Limited on behalf of SCC under a works agreement within a drainage easement benefiting SCC.

As the proposal does not require development consent, and as it constitutes an ‘activity’ for the purposes of Part 5 of the EP&A Act, being carried out by (or on behalf of) a public authority, environmental assessment under Part 5 of the EP&A Act is required. This REF provides this assessment and ensures that Council as determining authority in consideration of the activity, meets its obligation under s5.5 of the EP&A Act, to examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

4.2 *NSW Biodiversity Conservation Act 2016*

The proposed development complies with the *Biodiversity Conservation Act 2016* for the following reasons:

- The proposed activity is unlikely to have a significant impact on threatened species and/or threatened ecological communities listed in the schedules of the Act. There is, therefore, no requirement to ‘opt in’ to the Biodiversity Offset Scheme.
- The prescribed environmental impact mitigation measures and safeguards (Section 7 of this REF) would ensure that no *serious and irreversible impacts on biodiversity values* (as defined by the BC Act) occur at the site of the proposed activity.
- The proposed activity is not within an area declared to be of “outstanding biodiversity value” as defined in the Act and Regulations.

Because of the above considerations, neither a species impact statement nor a biodiversity development assessment report is required for the proposed activity.

It is also a defence to a prosecution for an offence under Part 2 of the Act (harming animals, picking plants, damaging the habitat of threatened species or ecological communities *etc*) if the work was essential for the carrying out of an activity by a determining authority within the meaning of Part 5 of the *Environmental Planning and Assessment Act 1979* after compliance with that Part. Therefore the activity is considered permissible as this REF has been prepared and determined in accordance with the EP&A Act.

4.3 Other

A summary of other relevant legislation and permissibility is provided in Table 4 below.

Table 3 Summary of other relevant legislation and permissibility

NSW STATE LEGISLATION	
<i>Shoalhaven Local Environmental Plan 2014 (SLEP)</i>	
Permissible	√ Not permissible ☐
Under the SLEP the proposed activity may have required development consent. The provisions of Transport and Infrastructure SEPP, however, prevail over the SLEP where there is an inconsistency by virtue of Section 3.28 of the EP&A Act. Consequently, development consent is not required.	
<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>	
Permissible	√ Not permissible ☐
Justification: The site is not mapped as for the purpose of the SEPP.	
<i>NSW Fisheries Management Act 1994</i>	
Permissible	√ Not permissible ☐
Justification: the proposed activity: - would not involve dredging for reclamation of waterland and or key fish habitat (Section 200 of the Act) - would not affect declared aquatic reserves (Part 7, Division 2 of the Act); - would not involve blocking the passage of fish (s.219); - would not impact mangroves and marine vegetation (Part 7, Division 4); - would not involve disturbance to gravel beds where salmon or trout spawn (s.208 of the Act); - does not involve the release of live fish (Part 7, Division 7); - does not involve the construction of dams and weirs (s.218); - would not result in the blocking of the passage of fish; - would not impact declared threatened species of endangered ecological communities (Part 7A); - does not constitute a declared key threatening process (Part 7A); and - would not use explosives in a watercourse (Clauses 70 and 71 of the <i>Fisheries Management (General) Regulation 2019</i>).	
<i>Aboriginal Land Rights Act 1983</i>	
Permissible	√ Not permissible ☐
Justification: There are no Aboriginal Land Rights claims over Lot CP (7).	

Lot 7012 DP 1031353 (Old Ulladulla Cemetery) is the subject of two Aboriginal Land Claims:

1. ALC 25854 lodged on 8 June 2010
2. 2017 'multiple and blanket claim'

Despite the land claims being unresolved, the removal of the five trees can proceed as there is no provision in the Act that precludes the activity and the activity would have no effect on the assessment of the claim.

Local Land Services Act 2013

Permissible ☒ Not permissible ☐

Justification:

Any clearing of vegetation would be of a kind authorised under Section 60O(b)(ii) of the Local Land Services Act 2016 ("an activity carried out by a determining authority within the meaning of Part 5 of the Act after compliance with that Part."). No separate authorisation under the Act is required.

Local Government Act 1993

Permissible ☒ Not permissible ☐

Justification:

Section 59A prescribes that a council is the owner of all works of stormwater drainage installed in or on land by the council (whether or not the land is owned by the council) and they may operate, repair, replace, maintain, remove, expand, disconnect, improve or do any other things that are necessary or appropriate to any of its works to ensure that, in the opinion of the council, the works are used in an efficient manner for the purposes for which the works were installed.

Crown Land Management Act 2016

Permissible ☒ Not permissible ☐

Justification:

SCC is the appointed manager of Crown Reserve R97733, being the adjacent Old Ulladulla Cemetery. Under Section 3.21 of the Act, a council manager is authorised to classify and manage its dedicated or reserved Crown Land as if it were public community land within the meaning of the *Local Government Act 1993*. The land was assigned a category of "an area of cultural significance" and a purpose of "Preservation of Graves".

Under Section 35 of the *Local Government Act 1993*, Council community land must be used in accordance with the

- Plan of Management applying to the land,
- any law permitting the use of the land for a specified purpose of otherwise regulating the use of the land,
- Division 2 of Part 2 of the Act.

There is currently no plan of management for the reserve. Section 44 of the Local Government Act states that "*pending the adoption of a plan of management for community land, the nature and use of the land must not be changed.*" The removal of the five trees in this reserve would not

change the nature and use of the reserve. The Transport of Infrastructure SEPP permits the activity (with REF) and there is nothing in Division 2 of Part 2 relevant to the activity.

Roads Act 1993

Permissible ☒ Not permissible ☐

Justification: Works would not be conducted on a public road.

Protection of the Environment Operations Act 1997

Permissible ☒ Not permissible ☐

The proposed activity does not constitute scheduled development work or scheduled activities as listed in Schedule 1 of the Act. The proposed activity therefore does not require an environmental protection licence.

National Parks and Wildlife Act 1974 (NP&W Act)

Permissible ☒ Not permissible ☐

- The proposed activity would not encroach into National Park estate.
- The Act provides the basis for the legal protection and management of Aboriginal sites in NSW. Under Sections 86 and 90 of the Act it is an offence to disturb an Aboriginal object or knowingly destroy or damage, or cause the destruction or damage to, an Aboriginal object or place, except in accordance with a permit of consent under section 87 and 90 of the Act.
- As there are no recorded sites or visible objects and as the site is on 'disturbed land', the Due Diligence Guidelines requires no further assessment as it is reasonable to conclude that there is a low probability of objects occurring in the area of the proposed activity and an AHIP is not required. Refer to Section 3.5 for more information.

Heritage Act 1977

Permissible ☒ Not permissible ☐

The proposed activity would not disturb an item of state heritage significance. The proposal would occur in a previously disturbed area and constitutes 'minor works' under 'Relics of local heritage significance: a guide for minor works with limited impact'. The proposal would not result in any direct impacts on heritage items or values. Works can be undertaken with caution under an applicable exception under s139(1) and (2) of the Act.

Water Management Act 2000

Permissible ☒ Not permissible ☐

Local councils are exempt from s.91E(1) of the Act in relation to all controlled activities that they carry out in, on or under waterfront land by virtue of clause 41 of the *Water Management (General) Regulation 2018*. The proposal would not interfere with the aquifer and therefore an interference licence is not required (s.91F).

COMMONWEALTH LEGISLATION

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EP&BC Act)

Permissible ☒ Not permissible ☐

The proposed activity would not be undertaken on Commonwealth land and no matters of National Environmental Significance are likely to be significantly impacted by the proposed activity (Section 3.4 of this REF). The proposed activity is therefore not a controlled action and does not require commonwealth referral.

Commonwealth *Native Title Act 1993*

Permissible ☒ Not permissible ☐

Works on Lot CP (7) would occur on freehold land. It is anticipated that Native Title has been extinguished as a Past Act (Section 228 and 229 of the Act). No procedural rights are applicable. Similarly no procedural rights are applicable to the proposed works (removal of five trees) on the adjacent Crown Reserve Lot 7012 DP 1031353 as Native Title can be assumed to have been extinguished as the lot has been lawfully used as a cemetery since 1858 and a “previous exclusive possession act” (Section 23B of the Act).

5. CONSULTATION WITH GOVERNMENT AGENCIES

5.1 Transport & Infrastructure SEPP

Section 2.10 – Development with impacts on council-related infrastructure or services

The SCC City Services – Works and Services is the asset custodian of stormwater management systems installed by Council. No consultation is required as Works and Services is also the proponent.

Section 2.11 – Development with impacts on local heritage

The proposed activity is not likely to affect the heritage significance of the Old Ulladulla Cemetery (refer to Section 2.2 of this REF) or any other local heritage item or heritage conservation area. Consultation with prescribed entity is therefore not required.

Section 2.12 – Development with impacts on flood liable land

and

Section 2.13 – Consultation with State Emergency Service—development with impacts on flood liable land

The proposed activity would not be undertaken on flood liable land. Consultation with the prescribed entities is not required.

Section 2.14 – Development with impacts on certain land within the coastal zone

The proposal would not occur within a coastal vulnerability area. Consultation with internal SCC staff is therefore not required.

Section 2.15 – Consultation with public authorities other than councils

In consideration of the consultation requirements specified under Section 2.15 of the Infrastructure SEPP, the proposed activity:

- would not be undertaken on adjacent to land reserved under the *National Parks and Wildlife Act 1974* or in Zone E1 or in equivalent zones.
- could not comprise a fixed or floating structure in or over navigable waters
- would not increase the amount of artificial light in the night sky and located on land within the dark sky region as identified on the dark sky region map
- would not be undertaken within Defence communications facility buffer (only relevant to the defence communications facility near Morundah)
- would not be undertaken on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961*

Consultation with the prescribed entities is not required.

Section 2.16 – Consideration of Planning for Bush Fire Protection (PBP)

The proposed activity is not a type applicable to this clause *i.e.* health services facilities, correctional centres and residential accommodation. Consideration of PBP is therefore not required.

6. COMMUNITY ENGAGEMENT

Community engagement is not required as the works primarily would occur on private freehold land without an effect on the community. However, as the works may be of public interest (tree removal in the heritage listed Old Ulladulla Cemetery, this REF shall be published on the NSW Planning Portal in accordance with clause 171(4) of the EP&A Regulation – as soon as practicable and no later than one month after the activity commences.

The proposed activity is to meet the deferred commencement conditions of the adjacent Bunnings development. This development has had extensive community engagement through the development application process and has obtained consent. Further consultation in regard to the proposed activity is unnecessary.

Consultation with Ulladulla Toyota will however need to occur to minimise interruption to their business operations.

7. ENVIRONMENTAL SAFEGUARDS AND MEASURES TO MINIMISE IMPACTS

Note that all environmental safeguards and measures are prescribed unless otherwise stated.

Safeguard / Measure	Responsibility
Detailed Design, works planning, approvals, consultation & notification	
1. A dilapidation report is recommended to document pre-works condition of adjacent buildings, pavement, fences and adjacent stormwater components not involved in the diversion works.	The proponent and Construction Manager
2. The easement and permit to enter Lot CP (7) shall be procured from the Strata Manager (or relevant entity)	SCC Property Unit
3. Ulladulla Toyota shall be consulted with regard to minimise interruptions to their business and access to the servicing garages and carpark.	Construction Manager
Site Establishment	
4. The eastern boundary (with Lot 7012 DP 1031353 the old Ulladulla cemetery) shall be surveyed and demarcated with construction fencing or high-vis bunting and clearly signposted (e.g. "no – go area: environmental protection). Except for the removal of the identified trees, all works for the shall occur outside the boundary of this lot.	Construction Manager
5. The contractor shall keep an emergency spill kit on-site at all times with procedures to contain and collect any leakage or spillage of fuels, oils and greases from plant and equipment.	Construction contractor
6. Erosion and sediment controls consistent with the Blue Book (Landcom 2004) shall be in place and maintained throughout the proposed activity. Erosion and sediment controls shall 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 is minimal.	Construction Contractor
Construction works	
7. A preclearing fauna survey shall be conducted prior to tree felling and vegetation clearing. This is to include identifying and locating any occupied bird nest and presence of grey-headed Flying-fox. Clearing shall be postponed if Grey-headed Flying-fox and nests of threatened species are detected or suspected.	SCC Environmental Operations Officer and Construction Manager
8. Unless otherwise advised by a consultant arborist, the five trees within Lot 7012 DP 1031353 (Old Ulladulla Cemetery) adjacent to the proposed activity shall be removed (refer to Section 2.1 of this REF).	Construction contractor

Safeguard / Measure	Responsibility
9. In the event that any wildlife be significantly disturbed or injured during works, Council's Environmental Officers are to be contacted on 4429 3405, or if unavailable, Wildlife Rescue – South Coast should be contacted on 0418 427 214, to rescue and relocate the animal(s).	Construction Manager
10. If engineering fill is imported to the site, all conditions prescribed in the applicable Resource Recovery Exemptions shall be complied with, including: - ensuring the producer of the waste has complied with the applicable Order such as testing and validation - ensuring the material has met all chemical and other material requirements specified in the applicable Order - keeping a written record of the following for a period of six years: - the quantity of material received - the name and address of the supplier	Construction Manager
11. If Virgin Excavated Natural Material (VENM) is taken to the site (i.e. without chemical testing and validation): - the material must meet the definition of VENM (http://www.epa.nsw.gov.au/waste/virgin-material.htm) - the supplier must fill out and complete the <i>VENM Certificate</i> The completed <i>VENM Certificate</i> shall be kept for at least six years and provided to the EPA upon any request.	Construction Manager
12. Any waste generated on site shall be reused in accordance with relevant Resource Recovery Orders and Exemptions, or otherwise disposed of at a licenced waste facility.	Construction Manager
13. Staff working at the site will be instructed to stop work immediately on identification of any suspected Aboriginal heritage artefact. If any objects are found, NSW Department of Planning, Industry and Environment (ph:131 555) shall be contacted.	Construction Manager
Post construction	
14. An asset form shall be trimmed to file 44574E on commissioning of the assets in Accordance with POL15/8 Asset Accounting Policy section 3.1.4 and POL16/79 Asset Management Policy section 3.3.	SCC Works and Services

8. SIGNIFICANCE EVALUATION & DECISION STATEMENT

This Review of Environmental Factors has assessed the likely environmental impacts, in the context of Part 5 of the Environmental Planning and Assessment Act 1979, of a proposal by Shoalhaven City Council for the alteration of stormwater drainage system in Lot CP (7) SP 75314.

In consideration of the proposal as described in Section 1, in accordance with any design plans referred to in this report, and assuming the implementation of all proposed safeguards and mitigation measures (Section 7), it is determined that:

1. It is unlikely that there will be any significant environmental impact as a result of the proposed activity and an Environmental Impact Statement is not required.
2. The proposed activity will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats, and a Species Impact Statement / BDAR is not required.
3. No statutory approvals, licences, permits or further external government consultations are required.
4. The proposed activity may proceed.

In accepting and adopting this REF, Shoalhaven City Council commits to ensuring the implementation of the proposed safeguards and mitigation measures identified in this report (Section 7) to minimise and/or prevent detrimental environmental impacts.

Determined by:



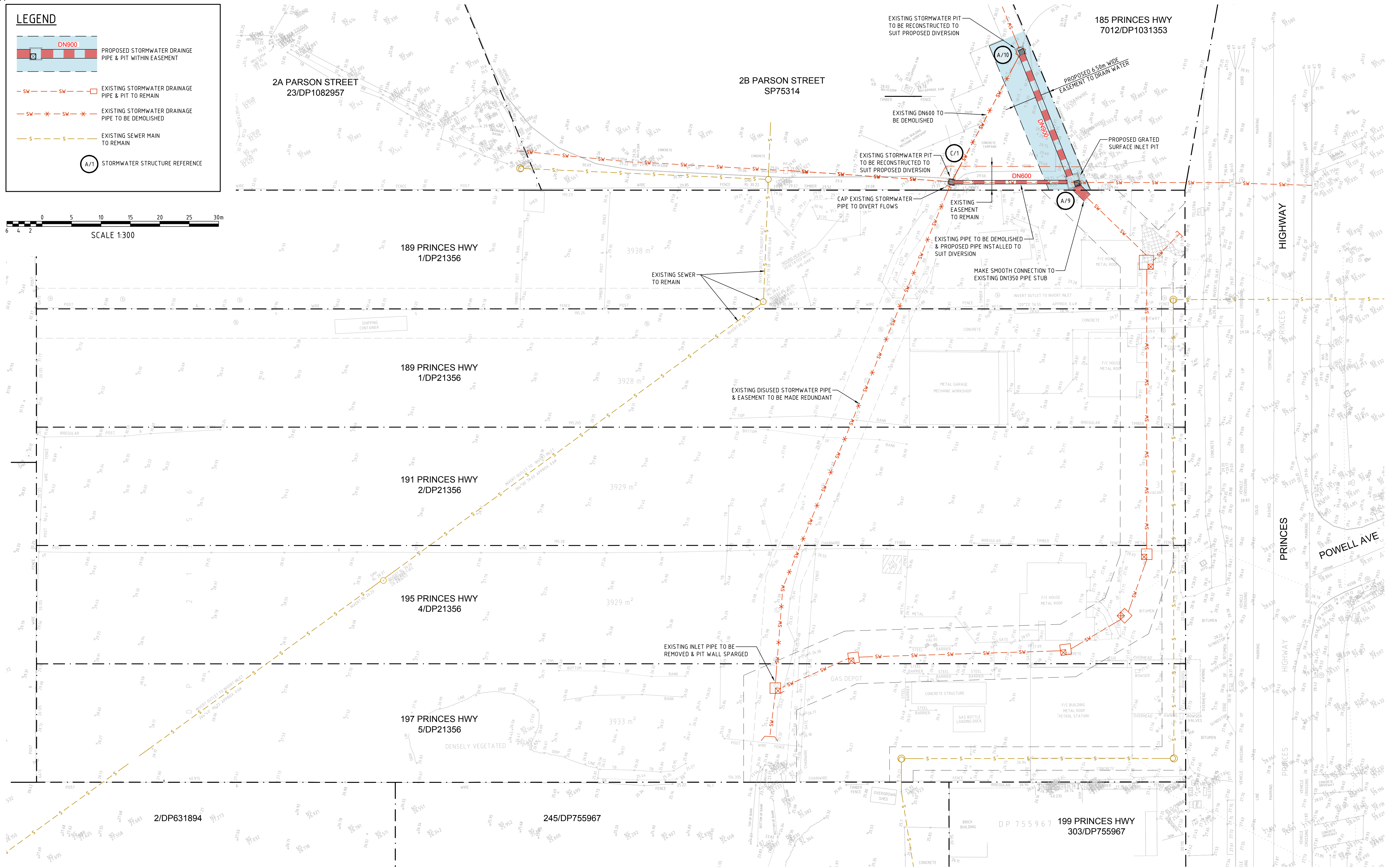
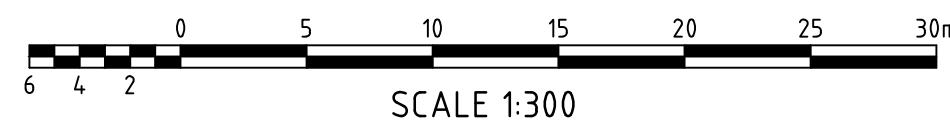
Trevor Dando
Section Manager – Works and Services
Shoalhaven City Council

Date: 13.03.2023

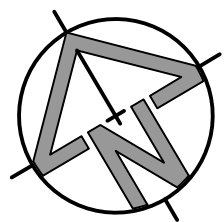
9. REFERENCES

- DAWE (Department of Agriculture, Water and the Environment, Australian Government). 2021. *Species Profiles and Threats Database* (online database). Available at <https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>
- DECCW (Department of Environment, Climate Change and Water, NSW) 2010 Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales. <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Aboriginal-cultural-heritage/due-diligence-code-of-practice-aboriginal-objects-protection-100798.pdf>
- DoE (Department of Environment, Commonwealth of Australia). 2013. *Matters of National Environmental Significance Significant Impact Guidelines 1.1*. Available at: <https://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance>
- Heritage NSW 2023 *State Heritage Inventory – Old Ulladulla Cemetery (former)* <https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=2390652>
- Landcom 2004 *Managing Urban Stormwater: Soils and Construction Volume 1*. <https://www.landcom.com.au/assets/Uploads/managing-urban-stormwater-soils-construction-volume-1-fourth-edition-compressed.pdf>
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- OEH (NSW Office of Environment and Heritage) 2022b. Eastern Coastal Free-tailed Bat - profile. Available at: <https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10544>

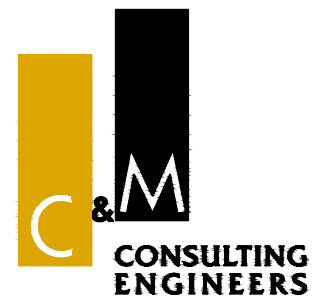
APPENDIX A – The Proposed Activity



-	W.M.	-	A.M.	DRAFT FOR COMMENT
REV.	DES.	DATE	VER.	DESCRIPTION



NOT FOR CONSTRUCTION



**CIVIL AND HYDRAULIC
ENGINEERING DESIGN AND
PROJECT MANAGEMENT**

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DESIGNER	WM	DATE	AUGUST 2022
ENGINEER	AM	LGA	SHOALHAVEN
VERIFIER	ES	SCALE @ A1	1:300

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2B PARSON STREET, ULLADULLA

STAGE 2- RELOCATION OF 2B PARSON STREET EASEMENT

STATUS	INFORMATION	DRAWING No. 02172_C803	REVISION
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APPENDIX B – Threatened Species Likelihood of Occurrence

NSW Threatened Species Likelihood of Occurrence Table

The table of likelihood of occurrence evaluates the likelihood of threatened species to occur on the subject site. This list is derived from previously recorded species within a 5 km radius (taken from NSW BioNet Atlas) around the subject site searched on the 11 January 2023. Ecology information unless otherwise stated, has been obtained from the *Threatened Biodiversity Profile Search* on the NSW OEH (Office of Environment & Heritage) online database (<https://www.environment.nsw.gov.au/threatenedspeciesapp/>).

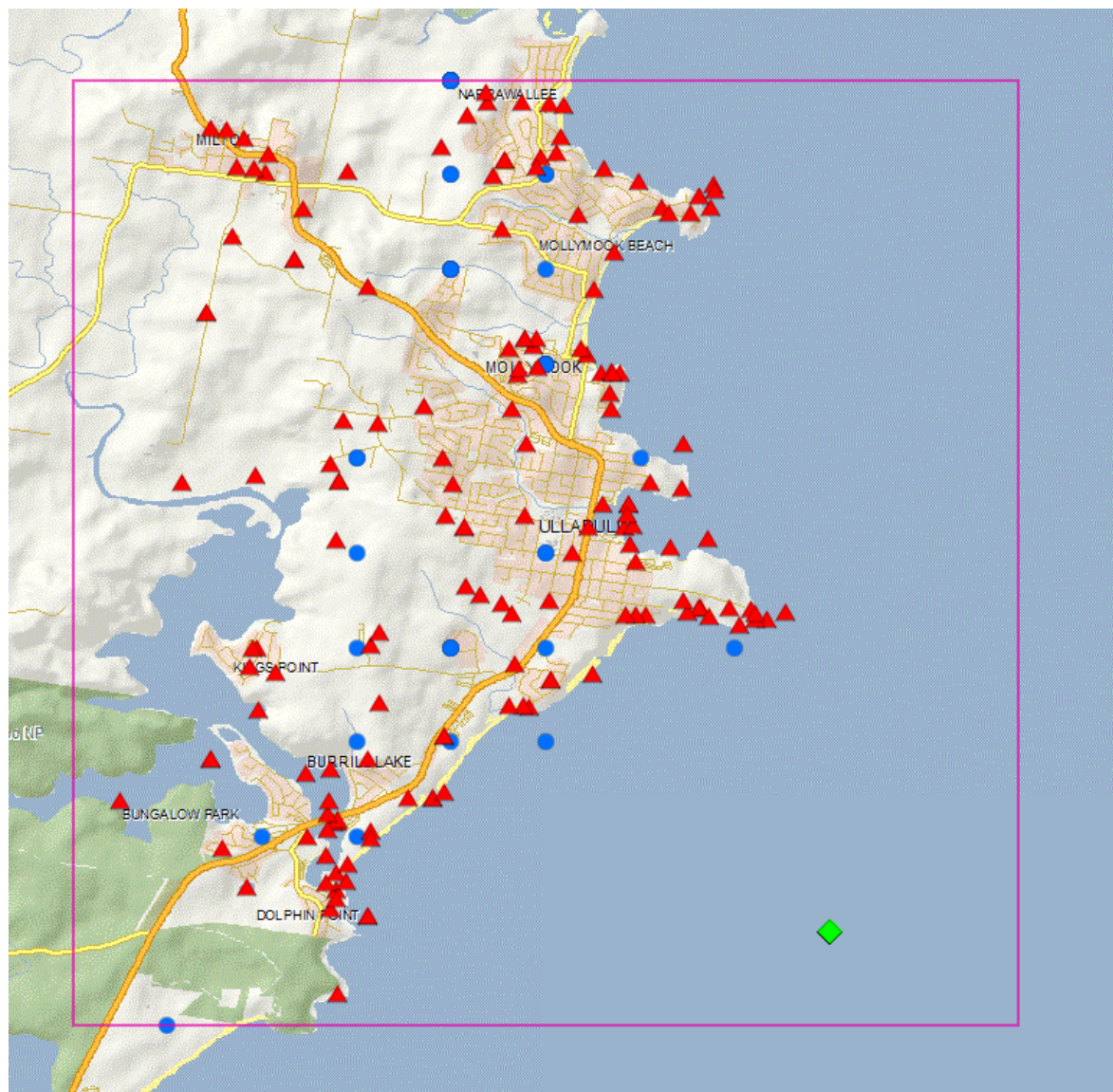
Likelihood of occurrence in study area

1. Unlikely – Species, population or ecological community is not likely to occur. Lack of previous recent (<25 years) records and suitable potential habitat limited or not available in the study area.
2. Likely – Species, population or ecological community could occur and study area is likely to provide suitable habitat. Previous records in the locality and/or suitable potential habitat in the study area.
3. Present – Species, population or ecological community was recorded during the field investigations.

Possibility of impact

1. Unlikely – The proposal would be unlikely to impact this species or its habitats. No NSW *Biodiversity Conservation Act 2016* “Test of Significance” or EPBC Act significance assessment is necessary for this species.
2. Likely – The proposal could impact this species, population or ecological community or its habitats. A NSW *Biodiversity Conservation Act 2016* “Test of Significance” and/or EPBC Act significance assessment is required for this species, population or ecological community.

Note that where further assessment is deemed required, this is undertaken within the REF as a Test of Significance (in the case of NSW listed species) or an EPBC Significant Impact Assessment (in the case of Commonwealth listed species).



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<i>Endangered Ecological Community name</i>	<i>Status</i>	<i>Likelihood of presence within areas impacted by the activity</i>
Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions	Endangered - <i>NSW BC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Coastal Saltmarsh in the NSW North Coast, Sydney Basin and South East Corner Bioregions	Endangered - <i>NSW BC Act</i> Vulnerable - Commonwealth <i>EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions	Endangered - <i>NSW BC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	Endangered - <i>NSW BC Act</i> Critically Endangered - Commonwealth <i>EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Illawarra Subtropical Rainforest in the Sydney Basin Bioregion	Endangered - <i>NSW BC Act</i> Critically Endangered - Commonwealth <i>EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Endangered - <i>NSW BC Act</i> Critically Endangered - Commonwealth <i>EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.

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Swamp oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions		Endangered - <i>NSW BC Act</i> Endangered - Commonwealth <i>EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions		Endangered - NSW BC Act	Does not occur on-site and is not mapped as occurring in close proximity to the site.
<i>Species name</i>	<i>Status</i>	<i>Habitat requirements (www.environment.nsw.gov.au)</i>	<i>Likelihood of presence within areas impacted by the activity</i>
FLORA			
Scrub Turpentine <i>Rhodamnia rubescens</i>	Endangered NSW BC Act and Critically Endangered EPBC Act	Species is found in littoral, warm temperate and subtropical and wet sclerophyll forest usually on volcanic and sedimentary soils.	No suitable habitat present within the site. Not observed during site inspections.
Magenta Lily Pilly <i>Syzgium paniculatum</i>	Endangered NSW BC Act and Vulnerable EPBC Act	The species occurs on grey soils over sandstone, restricted mainly to remnant stands of Littoral (coastal) rainforest.	No suitable habitat present within the site. Not observed during site inspections.
Thick Lip Spider Orchid <i>Caledenia tessellata</i>	Endangered NSW BC Act and Vulnerable EPBC Act	The species is found in grassy sclerophyll woodland on clay loam or sandy soils.	No suitable habitat present within the site. Unlikely to occur in a weed dominated garden bed / landscaped area.

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Leafless Tongue Orchid <i>Cryptostylis hunteriana</i>	Vulnerable NSW BC Act and Vulnerable EPBC Act	The larger populations typically occur in woodland dominated by Scribbly Gum, Silvertop Ash, Red Bloodwood, and Black Sheoak.	No suitable habitat present within the site. Unlikely to occur in a weed dominated garden bed / landscaped area.
Austral Toadflax <i>Thesium australe</i>	Vulnerable NSW BC Act and Vulnerable EPBC Act	The species occurs in grassland on coastal headlands or grassland and grassy woodland away from the coast. Often found in association with Kangaroo Grass <i>Themeda australis</i>	No suitable habitat present within the site. Unlikely to occur in a weed dominated garden bed / landscaped area.
AMPHIBIANS			
Stuttering Frog <i>Mixophyes balbus</i>	Endangered NSW BC Act and Vulnerable EPBC Act	Found in rainforest and wet, tall open forest. Outside of breeding season adults live in deep leaf litter and thick understorey vegetation on forest floor.	Unlikely to occur. No suitable habitat present within the site.
Giant Burrowing Frog <i>Heleioporus australiacus</i>	Vulnerable NSW BC Act and Vulnerable EPBC Act	The species is found in heath, woodland and open dry sclerophyll forest on a variety of soil types except those that are clay-based. Spends more than 95% of its time in non-breeding habitat in areas up to 300 metres from breeding sites. Breeding habitat is generally soaks or pools within first or second order streams. They are also commonly recorded from 'hanging swamp' seepage lines and where small pools form from the collected water. Whilst in non-breeding habitat, it burrows below the soil surface or in leaf litter.	Unlikely to occur. No suitable habitat present within the site.
Green and Golden Bell Frog <i>Litoria aurea</i>	Vulnerable EPBC Act Endangered NSW BC Act	Marshes, dams and stream-sides, particularly those containing bullrushes (<i>Typha</i> spp.) or spikerushes (<i>Eleocharis</i> spp.). Optimum habitat for the species includes water-bodies that are unshaded, free of predatory fish such as Plague Minnow (<i>Gambusia holbrooki</i>), with a grassy area nearby and diurnal sheltering sites available.	Unlikely to occur. No suitable habitat present within the site.

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BIRDS			
Freckled Duck <i>Stictonetta naevosa</i>	Vulnerable NSW BC Act	Prefer permanent freshwater swamps and creeks with heavy growth of Cumbungi, Lignum or Tea-tree. During drier times they move from ephemeral breeding swamps to more permanent waters such as lake, reservoirs, farm dams and sewage ponds.	Unlikely to occur. No suitable habitat present within the site.
Superb Fruit-Dove <i>Ptilinopus superbus</i>	Vulnerable NSW BC Act	Inhabits rainforest and similar closed forests where it forages high in the canopy, eating the fruit of many tree species such as figs and palms.	Unlikely to occur. No suitable habitat present within the site.
White-throated Needletail <i>Hirundapus caudacutus</i>	Vulnerable and Migratory EPBC Act	Almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground. Because they are aerial, it has been stated that conventional habitat descriptions are inapplicable, but there are, nevertheless, certain preferences exhibited by the species. Although they occur over most types of habitat, they are probably recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy, but they are less commonly recorded flying above woodland. They also commonly occur over heathland, but less often over treeless areas, such as grassland or swamps. When flying above farmland, they are more often recorded above partly cleared pasture, plantations or remnant vegetation at the edge of paddocks. In coastal areas, they are sometimes seen flying over sandy beaches or mudflats, and often around coastal cliffs and other areas with prominent updraughts, such as ridges and sand-dunes. They are sometimes recorded above islands well out to sea.	Possibly occurring over or in proximity to the site, but unlikely to utilise or rely on available habitat within the site.
Shy Albatross <i>Thalassarche cauta</i>	Vulnerable EPBC Act and Vulnerable NSW BC Act	This pelagic or ocean-going species inhabits subantarctic and subtropical marine waters, spending the majority of its time at sea.	Unlikely to occur. No suitable habitat present within the site.
Black-browed Albatross <i>Thalassarche melanophris</i>	Vulnerable EPBC Act and Vulnerable NSW BC Act	Inhabits antarctic, subantarctic, subtropical marine and coastal waters over upwellings and boundaries of currents.	Unlikely to occur. No suitable habitat present within the site.

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White-bellied Sea-Eagle <i>Haliaeetus leucogaster</i>	NSW BC Act Vulnerable Migratory EPBC Act	Found in coastal habitats (especially those close to the sea-shore) and around terrestrial wetlands in tropical and temperate regions of mainland Australia and its offshore islands. The habitats occupied by the sea-eagle are characterized by the presence of large areas of open water (larger rivers, swamps, lakes, the sea). Birds have been recorded in (or flying over) a variety of terrestrial habitats. The species is mostly recorded in coastal lowlands, but can occupy habitats up to 1400 m above sea level on the Northern Tablelands of NSW and up to 800 m above sea level in Tasmania and South Australia. Birds have been recorded at or in the vicinity of freshwater swamps, lakes, reservoirs, billabongs, saltmarsh and sewage ponds. They also occur at sites near the sea or sea-shore, such as around bays and inlets, beaches, reefs, lagoons, estuaries and mangroves.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No breeding habitat. No further assessment is warranted.
Square-Tailed Kite <i>Lophoictinia isura</i>	Vulnerable NSW BC Act	Summer breeding migrant to the south-east, including the NSW south coast, arriving in September and leaving by March. Found in a variety of timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses large hunting ranges of more than 100km ² . Breeding is from July to February, with nest sites generally located along or within 200m of riparian areas, near watercourses, in a fork or on large horizontal limbs.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No further assessment is warranted.
Eastern Osprey <i>Pandion cristatus</i>	Vulnerable NSW BC Act	Favour coastal areas, especially the mouths of large rivers, lagoons and lakes. Feed on fish over clear, open water. Breed from July to September in NSW. Nests are made high up in dead trees or in dead crowns of live trees, usually within one kilometre of the sea.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No stick nests in proposed works site. No further assessment is warranted.
Sooty Oystercatcher <i>Haematopus fuliginosus</i>	Vulnerable NSW BC Act	Shore bird. Found around the entire Australian coast, including offshore islands, being most common in Bass Strait. Small numbers of the species are evenly distributed along the NSW coast. The availability of suitable nesting sites may limit populations. Favours rocky headlands, rocky shelves, exposed reefs with rock pools, beaches and muddy estuaries. Forages on	Unlikely to occur. No suitable habitat present within the site.

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		exposed rock or coral at low tide for foods such as limpets and mussels. Breeds in spring and summer, almost exclusively on offshore islands, and occasionally on isolated promontories. The nest is a shallow scrape on the ground, or small mounds of pebbles, shells or seaweed when nesting among rocks.	
Pied Oystercatcher <i>Haematopus longirostris</i>	Endangered <i>NSW BC Act</i>	Favours intertidal flats of inlets and bays, open beaches and sandbanks. Forages on exposed sand, mud and rock at low tide, for molluscs, worms, crabs and small fish. Nests mostly on coastal or estuarine beaches although occasionally they use saltmarsh or grassy areas. Nests are shallow scrapes in sand above the high tide mark, often amongst seaweed, shells and small stones.	Unlikely to occur. No suitable habitat present within the site.
Eastern Hooded Dotteral (Hooded Plover) <i>Thinornis cucullatus</i> <i>cucullatus</i>	<i>NSW BC Act</i> : Critically Endangered <i>EPBC Act</i> : Vulnerable	In south-eastern Australia Hooded Plovers prefer sandy ocean beaches, especially those that are broad and flat, with a wide wave-wash zone for feeding, much beachcast seaweed, and backed by sparsely vegetated sand-dunes for shelter and nesting. Occasionally Hooded Plovers are found on tidal bays and estuaries, rock platforms and rocky or sand-covered reefs near sandy beaches, and small beaches in lines of cliffs. They regularly use near-coastal saline and freshwater lakes and lagoons, often with saltmarsh. Hooded Plovers forage in sand at all levels of the zone of wave wash during low and mid-tide or among seaweed at high-tide, and occasionally in dune blowouts after rain. At night they favour the upper zones of beaches for roosting. When on rocks they forage in crevices in the wave-wash or spray zone, avoiding elevated rocky areas and boulder fields. In coastal lagoons they forage in damp or dry substrates and in shallow water, depending on the season and water levels. In eastern Australia, Hooded Plovers usually breed from August to March on sandy ocean beaches strewn with beachcast seaweed, in a narrow strip between the high-water mark and the base of the fore-dunes. They often nest within 6 m of the fore-dune, mostly within 5 m of the high-water mark, but occasionally among or behind dunes.	Unlikely to occur. No suitable habitat present within the site.

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Eastern Curlew <i>Numenius madagascariensis</i>	Critically Endangered EPBC Act	Most commonly associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass. Occasionally, the species occurs on ocean beaches (often near estuaries), and coral reefs, rock platforms, or rocky islets. The birds are often recorded among saltmarsh and on mudflats fringed by mangroves, and sometimes use the mangroves. The birds are also found in saltworks and sewage farms (Marchant & Higgins 1993). The numbers of Eastern Curlew recorded during one study were correlated with wetland areas. Mainly forages on soft sheltered intertidal sandflats or mudflats, open and without vegetation or covered with seagrass, often near mangroves, on saltflats and in saltmarsh, rockpools and among rubble on coral reefs, and on ocean beaches near the tideline. The birds are rarely seen on near-coastal lakes and in grassy areas. Roosts on sandy spits and islets, especially on dry beach sand near the high-water mark, and among coastal vegetation including low saltmarsh or mangroves. It occasionally roosts on reef-flats, in the shallow water of lagoons and other near-coastal wetlands. Eastern Curlews are also recorded roosting in trees and on the upright stakes of oyster-racks.	Unlikely to occur within the site. No suitable habitat present.
Little Tern <i>Sternula albifrons</i>	Endangered NSW BC Act Migratory EPBC Act	Mostly exclusively coastal, preferring sheltered environments; however may occur several kilometres from the sea in harbours, inlets and rivers (with occasional offshore islands or coral cay records). Nests in small, scattered colonies in low dunes or on sandy beaches just above the high tide mark near estuary mouths or adjacent to coastal lakes and islands. Nests in a scrape in the sand, which may be lined with shell grit, seaweed or small pebbles.	Unlikely to occur within the site. No suitable habitat present.
Gang-gang Cockatoo <i>Callocephalon fimbriatum</i>	Vulnerable NSW BC Act	Tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. In winter, may occur at lower altitudes in drier more open eucalypt forests and woodlands, and often found in urban areas. preferring	Suitable foraging habitat present. Species has potential to occur in the activity area. Impact

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		more open eucalypt forests and woodlands, particularly in box-ironbark assemblages, or in dry forest in coastal areas. Favours old growth attributes for nesting and roosting	assessment is provided in Section 3.3.2
Glossy Black-cockatoo <i>Calyptorhynchus lathami</i>	Vulnerable NSW BC Act	The species inhabits open forest and woodlands of the coast where stands of she-oak occur. In the locality the species feed almost exclusively on the seeds of the black she-oak <i>Allocasuarina littoralis</i> shredding the cones with their bill.	Unlikely to occur within the site. No suitable habitat present. No breeding or foraging habitat present.
Swift Parrot <i>Lathamus discolor</i>	Endangered EPBC Act Endangered NSW BC Act	Migrates to the Australian south-east mainland between March and October. On the mainland they occur in areas where eucalypts are flowering profusely or where there are abundant lerp (from sap-sucking bugs) infestations. Favoured feed trees include winter flowering species such as Swamp Mahogany <i>Eucalyptus robusta</i> , Spotted Gum <i>Corymbia maculata</i> , Red Bloodwood <i>C. gummifera</i> , Mugga Ironbark <i>E. sideroxylon</i> , and White Box <i>E. albens</i> . Commonly used lerp infested trees include Inland Grey Box <i>E. microcarpa</i> , Grey Box <i>E. moluccana</i> and Blackbutt <i>E. pilularis</i> . Return to some foraging sites on a cyclic basis depending on food availability. Following winter they return to Tasmania where they breed from September to January, nesting in old trees with hollows and feeding in forests dominated by Tasmanian Blue Gum <i>Eucalyptus globulus</i> .	Unlikely to occur within the site. No suitable habitat present. No breeding or foraging habitat present.
Eastern Ground Parrot <i>Pezoporus wallicus wallicus</i>	Vulnerable NSW BC Act	The species occurs in high rainfall coastal and near coastal low heathlands and sedgeland, generally below one metre in eight and very dense (up to 90% project foliage cover).	Unlikely to occur within the site. No suitable habitat present.
Powerful Owl <i>Ninox strenua</i>	Vulnerable NSW BC Act	Coastal Woodland, Dry Sclerophyll Forest, wet sclerophyll forest and rainforest- Can occur in fragmented landscapes Roosts in dense vegetation comprising species such as Turpentine <i>Syncarpia glomulifera</i> , Black She-oak <i>Allocasuarina littoralis</i> , Blackwood <i>Acacia melanoxylon</i> , Rough-barked Apple <i>Angophora floribunda</i> , Cherry Ballart <i>Exocarpus cupressiformis</i> and a number of eucalypt species. requires old growth elements-hollow bearing tree resources for nesting and prey	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No breeding habitat (hollow-bearing trees).

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		resource. Nests in large tree hollows in large eucalypts that are at least 150yrs old. Often in riparian areas. Large home range.	
Masked Owl <i>Tyto novaehollandiae</i>	Vulnerable NSW BC Act	Lives in dry eucalypt forests and woodlands from sea level to 1100 m. A forest owl, but often hunts along the edges of forests, including roadsides. The typical diet consists of tree-dwelling and ground mammals, especially rats. Pairs have a large home-range of 1000 hectares or more, depending on prey availability. Roosts and breeds in moist eucalypt forested gullies, using large tree hollows or sometimes caves for nesting.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No breeding habitat (hollow-bearing trees).
Sooty Owl <i>Tyto tenebricosa</i>	Vulnerable NSW BC Act	Occurs in rainforest, including dry rainforest, subtropical and warm temperate rainforest, as well as moist eucalypt forest.	Unlikely to occur within the site. No suitable habitat present.
White-fronted Chat <i>Epthianura albifrons</i>	Vulnerable NSW BC Act	Usually found foraging on bare or grassy ground in wetland areas, singly or in pairs.	Unlikely to occur within the site. No suitable habitat present.
Varied Sittella <i>Daphoenositta chrysoptera</i>	Vulnerable NSW BC Act	Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland	Suitable foraging habitat present. Species has potential to occur in the activity area. Impact assessment is provided in Section 3.3.2.
Dusky Woodswallow <i>Artamus cyanopterus cyanopterus</i>	Vulnerable NSW BC Act	Primarily inhabit dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris. It has also been recorded in shrublands, heathlands and very occasionally in moist forest or rainforest. Also found in farmland, usually at the edges of forest or woodland.	Suitable foraging habitat present. Species has potential to occur in the activity area. Impact assessment is provided in Section 3.3.2.

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Scarlet Robin <i>Petroica boodang</i>	Vulnerable NSW BC Act	The Scarlet Robin is primarily a resident in dry forests and woodlands. The understorey is usually open and grassy with few scattered shrubs. Scarlet Robin habitat usually contains abundant logs and fallen timber: these are important components of its habitat.	Unlikely to occur within the site. No suitable habitat present.
MAMMALS			
Spotted-tailed Quoll <i>Dasyurus maculatus</i>	Vulnerable NSW BC Act and Endangered EPBC Act	The species has been recorded across a range of habitat types, including rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline. Quolls use hollow-bearing trees, fallen logs, other animal burrows, small caves and rock outcrops as den sites.	Unlikely to occur within the site. No suitable habitat present.
Southern Brown Bandicoot (eastern) <i>Isodon obesulus obesulus</i>	Endangered NSW BC Act and EPBC Act	They are generally only found in heath or open forest with a heathy understorey on sandy or friable soils.	Unlikely to occur within the site. No suitable habitat present.
Koala <i>Phascolarctos cinereus</i>	Endangered NSW BC Act and EPBC Act	The koala inhabits eucalypt woodland and forests.	Unlikely to occur within the site. No suitable habitat present. Insufficient area of habitat disjunct from other areas of potential habitat. No suitable feed trees in or near the site.
Greater Glider <i>Petauroides Volans</i>	Endangered EPBC Act	The greater glider is an arboreal nocturnal marsupial, predominantly solitary and largely restricted to eucalypt forests and woodlands of eastern Australia. It is typically found in highest abundance in taller, montane eucalypt forests of fertile soils with relatively old trees and abundant hollows.	Unlikely to occur within the site. No suitable habitat present.
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	Vulnerable NSW BC Act and EPBC Act	Occurs in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 kilometres of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy. The species feeds on the nectar and pollen of	Suitable foraging habitat present nearby. Species has potential to occur in the activity area. Impact assessment is provided in Section 3.3.2

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		native trees, in particular <i>Eucalyptus</i> , <i>Melaleuca</i> and <i>Banksia</i> , and fruits of rainforest trees and vines	
Eastern Coastal Free-tailed Bat <i>Micronomus norfolkensis</i>	Vulnerable NSW BC Act	Occur in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range. Roosts mainly in tree hollows but will also roost under bark on in man-made structures.	Suitable foraging habitat present nearby. Species has potential to occur in the activity area. Impact assessment is provided in Section 3.3.2
Large-eared Pied Bat <i>Miconomus norfolkensis</i>	Vulnerable NSW BC Act	Roosts in caves (near their entrances), crevices in cliffs, old mine workings and in the disused, bottle-shaped mud nests of the Fairy Martin (<i>Petrochelidon ariel</i>), frequenting low to mid-elevation dry open forest and woodland close to these features. Females have been recorded raising young in maternity roosts (c. 20-40 females) from November through to January in roof domes in sandstone caves and overhangs. They remain loyal to the same cave over many years. Found in well-timbered areas containing gullies	Unlikely to occur within the site. No suitable habitat present.
Eastern False Pipistrelle <i>Falsistrellus tasmaniensis</i>	Vulnerable NSW BC Act	Prefers moist habitats, with trees taller than 20m. Generally roosts in eucalypt hollows, but has also been found under loose bark on trees or in buildings.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No roosting habitat or food resources affected.
Southern Myotis <i>Myotis macropus</i>	Vulnerable NSW BC Act	Generally roost in groups of 10 to 15 close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No roosting habitat or food resources affected.
Golden-tipped Bat <i>Phoniscus papuensis</i>	Vulnerable NSW BC Act	Found in rainforest and adjacent wet and dry sclerophyll forest up to 1000m. Also recorded in tall open forest, Casuarina-dominated riparian forest and coastal Melaleuca forests.	Unlikely to occur within the site. No suitable habitat present.
Greater Broad-nosed Bat <i>Scoteanax rueppellii</i>	Vulnerable NSW BC Act	The Greater Broad-nosed Bat is found mainly in the gullies and river systems that drain the Great Dividing Range. The species utilises a variety of habitats from woodland to moist and dry eucalypt forest and rainforest, though it is most commonly found	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the

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		in tall wet forests. Although this species usually roosts in tree hollows, it has been found in buildings.	site. No roosting habitat or food resources affected.
Large Bent-winged Bat <i>Miniopterus orianae oceanensis</i>	Vulnerable NSW BC Act	Caves are the primary roosting habitat, but also use derelict mines, stormwater tunnels, buildings and other man-made structures. The species form discrete populations centred on a maternity cave that is used annually. At other times of the year, populations disperse within about 300 km range of maternity caves.	Possibly occurring over or in proximity to the site, but unlikely to utilise available habitat within the site. No roosting habitat or food resources affected.
Australian Fur-seal <i>Arctocephalus pusillus doriferus</i>	Vulnerable NSW BC Act	Prefers rocky parts of islands with flat open terrain.	Unlikely to occur within the site. No suitable habitat present.