Catherine McAuley Catholic College, Medowie

Biodiversity Management Sub Plan

Prepared for North Construction and Building Pty Ltd

FINAL REPORT

29 October 2019

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- Anne Murray (mapping)

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1 Introduction

1.1 Project background

North Construction and Building Pty Ltd, on behalf of the Trustees of the Roman Catholic Diocese Maitland – Newcastle, proposes the development of Catherine McAuley Catholic College (the development, Medowie (hereafter referred to as 'study area') (Figure 1). The development will involve the demolition of an existing dwelling, shed and out buildings, the construction of a primary school for up to 630 students, a high school for up to 1190 students, a Chapel and an early learning centre. Associated works will include earthworks, drainage with subsequent remediation and establishment of car parking, landscaping, road and footpath access. It will also involve the implementation and ongoing maintenance of Asset Protection Zones (APZs) necessary to meet bushfire protection requirements outlined in the VMP (Biosis 2018a). The extent of direct impacts of the development is contained within the development footprint hereby referred to as the 'subject site' (Figure 1).

The study area is located at 2 Kingfisher Close Medowie, NSW within the Port Stephens Local Government Area (LGA) and the Hunter Local Land Services Region. It is located approximately four kilometres south west of the township of Medowie and approximately 32 kilometres by road north east of Newcastle. The study area is located within Lot 412 and 413 DP 1063902 and covers an area of 25 hectares. The subject site is located within the study area and is defined as the total area of disturbance; including both the construction and operational footprints. The subject site covers a total area of 7.49 hectares and is zoned Large Lot Residential (R5), Low Density Residential (R2) and Rural Landscape (RU2).

The subject site is predominately covered by non-native Slash Pine *Pinus elliottii* and exotic pasture, with native vegetation restricted to small patches of remnant canopy trees over exotic pasture and the edges of larger remnant patches. Shrub and mid layer vegetation strata are mostly absent in the subject site. The planned location of the high school, primary school, early learning centre and chapel has been restricted to a small, low quality portion of the study area containing a high establishment of exotic species with sparse scattered remnant native trees. Finalisation of the development footprint was based on the principles of avoiding native vegetation removal where possible, or where avoidance could not be achieved, minimising impacts through proposing sensitive clearing and construction techniques. The final development footprint for the subject site was successful in avoiding and minimising impacts to native vegetation, threatened ecological communities and threatened species habitat. Impacts to native vegetation and associated threatened species habitat have been restricted to an area of approximately 1.56 hectares (Biosis 2018a).

The subject site currently contains a single story residential dwelling, shed, tennis court, lawns and scattered landscape plantings, as well as native and exotic vegetation (Figure 2) There is a mapped watercourse running east to west 400 metres from the western boundary of the study area. The footprint has a gentle slope with a western aspect that leads to the flat swampy vegetation along the south western boundary of the study area which is mapped as coastal wetlands under the Coastal Management SEPP (Biosis 2018a).

This plan includes recommendations, management and mitigation measures that will ensure the retained biodiversity values in the study area, shown in Figure 2, are appropriately protected and managed during construction. This plan will ensure that the construction workforce responsible for the development are aware of the biodiversity values that are to be retained and protected within the study area.

1.2 Approval conditions

Approval conditions were issued 26 July 2019 for the Catherine McAuley Catholic College (SSD 8989). The Environmental Conditions that relate to the Biodiversity Management Sub-Plan (Conditions 10 and 18) are presented in Appendix 1 Condition compliance The conditions require the provision of a number of management plans including a Fauna Management Plan (Biosis 2019a), Vegetation Management Sub-Plan (Biosis 2019b) and a Koala Management Sub-Plan (Biosis 2019c). The relationship of this Biodiversity Management Sub-Plan to the associated management plans are outlined further in Section 1.3.

Responses to conditions and how they have been met across all the plans pertaining to biodiversity can be found in Appendix 1 Condition compliance and also in the Site Integrated Management Plan (SIMP) (North 2019), which contains the Construction Environmental Management Plan (CEMP).

1.3 Relationship to other documents

This document addresses the management activities associated with the construction of the Catherine McAuley Catholic College. In addition, it provides input into the SIMP (North 2019), particularly in relation to impact to biodiversity during construction works. The purpose of this document is to incorporate the recommendations, methods, actions, monitoring and reporting identified within the EIS (de Witt Consulting 2018) and the Biodiversity Development Assessment Report (BDAR) (Biosis 2018a) into a cohesive document. In particular, it will detail the implementation activities for the:

- Vegetation Management Sub-Plan (VMSP) (Biosis 2019b).
- Fauna Management Plan (FMP) (Biosis 2019a).
- A standalone Koala Management Sub-Plan (KMSP) (Biosis 2019c).

This allows for a unified approach to on-ground monitoring and management of biodiversity during construction of the Catherine McAuley Catholic College. This Biodiversity Management Sub-Plan is to be read in conjunction with the VMSP, FMP, KMSP and SIMP.

The KMSP is a stand-alone document that aims to ensure the construction and operation does not have a significant impact on the Koala. The KMSP provides a plan for impact minimisation and management.

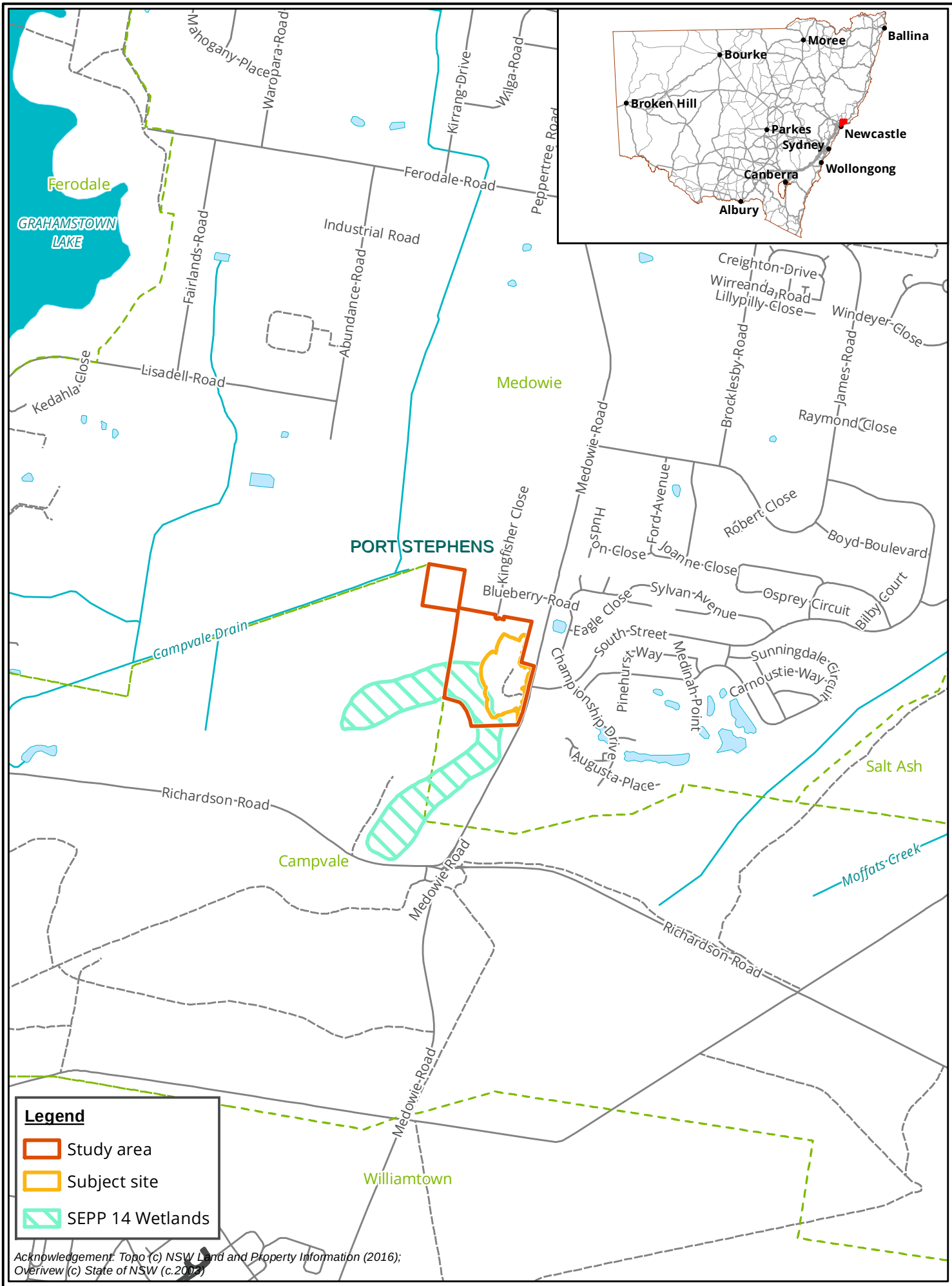

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Figure 1 Location map - Catherine McAuley Catholic College

Matter: 30449
Date: 06 August 2019,
Checked by: TPS, Drawn by: AEDM, Last edited by: amurray
Location:P:\30400s\30449\Mapping\

0 250 500 750 1,000
Metres

N

Scale 1:25,000 @ A4, GDA 1994 MGA Zone 56

2 Habitat management

2.1 Site biodiversity values

The subject site is predominately covered by exotic pasture and non-native Slash Pine *Pinus elliottii,* with native vegetation restricted to small patches of remnant canopy trees (Figure 2). Shrub and mid layer vegetation strata are mostly absent in the subject site except where the subject site intersects the edge of larger, more intact remnant vegetation patches. Native vegetation and fauna habitats have been modified by past disturbances associated with land clearing, livestock grazing and weed invasion. Larger continuous stands of Swamp Sclerophyll Forest extend to the south and west of the subject site, providing important habitat and corridors for native fauna.

Native vegetation within the subject site is considered to be of marginal or low value to threatened species due to the effects of current and historic disturbance, such as clearing and regular mowing of the grassy groundcover. These practices have resulted in substantially modified vegetation composition and structure within the subject site and have likely lead to an increase in introduced predator (e.g. European Fox *Vulpes vulpes,* Cat *Felis catus*) pressure.

The vegetation adjoining the subject site (within the study area) to the west is contiguous with surrounding larger areas of bushland considered to provide higher quality habitat for all threatened species with potential to occur within the subject site.

Through the iterative design process and collaborative work between project designers, ecologists and archaeologists, the final impacts for the project have been restricted to areas of exotic pasture and small, low quality stands of remnant vegetation. The following direct impacts will arise from the Catherine McAuley Catholic College in the subject site (development footprint) (Biosis 2018a):

- Removal of 0.97 hectares of disturbed PCT 1564 Blackbutt - Rough-barked Apple - Turpentine - ferny tall open forest of the Central Coast.
- Removal of 0.11 hectares of moderate condition PCT 1619 Smooth-barked Apple - Red Bloodwood - Brown Stringybark - Hairpin Banksia heathy open forest of coastal lowlands.
- Removal of 0.11 hectares of moderate condition PCT 1598 Forest Red Gum grassy open forest on floodplains of the lower Hunter consistent with Hunter Lowland Redgum forest EEC listed under the BC Act.
- Removal of 0.04 hectares of moderate to good condition PCT 1718 Swamp Mahogany – Flax leaved Paperbark swamp forest on coastal lowlands of the Central Coast consistent with Swamp Sclerophyll forest on coastal floodplains EEC listed under the BC Act.
- Reduction of canopy cover through trimming of canopy tree crowns to achieve APZ objectives across:
  - 0.05 hectares of PCT 1598 Forest Red Gum grassy open forest on floodplains of the lower Hunter consistent with Hunter Lowland Redgum forest EEC listed under the BC Act (VZ1).
  - 0.17 hectares of PCT 1718 Swamp Mahogany – Flax leaved Paperbark swamp forest on coastal lowlands of the Central Coast consistent with Swamp Sclerophyll forest on coastal floodplains EEC listed under the BC Act (VZ3 and VZ4).
  - 0.09 hectares of PCT 1619 Smooth-barked Apple - Red Bloodwood - Brown Stringybark - Hairpin Banksia heathy open forest of coastal lowlands (VZ9 and VZ10).

- Disturbance to understorey and groundcover strata during installation of stormwater outlet pipes across:
  - 0.01 hectares of PCT 1718 Swamp Mahogany – Flax leaved Paperbark swamp forest on coastal lowlands of the Central Coast consistent with Swamp Sclerophyll forest on coastal floodplains EEC listed under the BC Act.
  - 0.01 hectares of PCT 1598 Forest Red Gum grassy open forest on floodplains of the lower Hunter consistent with Hunter Lowland Redgum forest EEC listed under the BC Act.
- Disturbance of 0.34 hectares of land within the mapped boundary of a SEPP 14 Coastal Wetland and 2.1 hectares of land within the buffer to the SEPP 14 Coastal Wetland.
- Removal of ten Hollow-bearing Trees providing potential roosting for threatened ecosystem credit microbats.
- Removal of a total of 1.55 hectares of native vegetation providing limited foraging resources for threatened fauna.
- Removal of 0.43 hectares of koala habitat, predominately mapped as the 100 metres koala habitat buffer within the Port Stephens CKPoM, which provides dispersal and shelter habitat. The calculated extent of affected Koala habitat includes all patches of vegetation which contain Koala feed trees and that will be removed as a result of the proposed development.

Within the subject site there are ten hollow-bearing trees which may be removed by the development. These trees provide hollows potentially suitable for roosting for threatened microbats but are considered unsuitable for breeding by other threatened species due to a variety of factors including aspect, size, position within the tree and position within the landscape.

Fauna habitat features such as remnant woodlands, wet sclerophyll forests, seasonal wetlands, watercourses and riparian corridors in the study area may provide nesting, roosting, feeding or shelter opportunities for large mammals, resident avifauna and reptiles, and mobile fauna capable of disbursing across the landscape. The subject site also contains ten scattered hollow bearing trees proposed to be removed.

In particular, habitat within the subject site may provide foraging resources for some threatened species in the form of large flowering eucalypts including Swamp Mahogany *Eucalyptus robusta*, Blackbutt *Eucalyptus pilularis* and Rough-barked Apple *Angophora floribunda* within PCT 1564 and Forest Red Gum *Eucalyptus tereticornis* within PCT 1598 (Figure 2). Swamp Mahogany and Forest Red Gum are winter-flowering species and therefore individuals within the subject site likely provide resources for nectivorous birds, including threatened species such as Swift Parrot *Lathamus discolor* and Regent Honeyeater *Anthochaera phrygia*. The subject site and broader study area are not, however, considered 'important habitat' (as per the BAM) for either the Swift Parrot or Regent Honeyeater (Biosis 2018a).

The design response for the site has put a strong emphasis on avoiding areas of native woodland and wetlands. This has resulted in large areas of native vegetation being retained adjacent to the development footprint and these areas are in higher condition to the vegetation to be cleared for development.

A VMSP and FMP have been prepared for this project and have been included in Appendix 3 and Appendix 4. These reports should be read in conjunction with this BMSP.

3 Management actions

Construction management activities for the development are discussed briefly below. A description of the mitigation measures to be implemented is provided in Section 4. Direct and indirect impacts to biodiversity values retained within the subject site and adjoining vegetation may occur if adequate mitigation and management measures are not in place during construction of the proposed development.

3.1 Recommendations endorsed within the BDAR, EIS and Response to Submissions

Mitigation and management measures endorsed by the BDAR, EIS and Response to Submissions are outlined below in Section 3 and Section 4. Project compliance with biodiversity conditions is summarised in the statement of commitments table provided in Appendix 1 Condition compliance, Table 5.

3.2 Site inductions

The Project Manager and Construction Site Supervisor are to undertake a biodiversity induction prior to commencing construction. Supervisors are required to brief construction staff on all potential environmental impacts and implement and maintain control measures, procedures and constraints accordingly. In particular, inductions must include:

- Information on vegetation communities detailed in the VMSP. This will include general vegetation descriptions.
- Environmental protection areas and no-go zones.
- Information on the presence and localities of threatened species habitat and significant vegetation communities as detailed in the VMSP, FMP and KMSP.
- Fact sheets highlighting NSW DPI priority weed species.
- Information on the need for strict hygiene protocols to reduce the potential introduction and/or spread of invasive flora and fauna species (detailed further in section 4.4 of the VMSP (Biosis 2019b)).
- An example site induction checklist is included as Appendix 2.
- A provision that food scraps and other organic waste that may attract introduced predators (e.g. fox, cats) or other pests (e.g. rats) is not stored for prolonged periods within the construction site.

The site inductions will be prepared and delivered by a suitably qualified environmental advisor.

All North Building and Construction Pty Ltd contract and subcontractor staff are responsible for working in accordance with this BMSP and are required to identify potential environmental impacts and implement and maintain control measures, procedures and constraints accordingly. These will be documented in accordance with Table 1.

3.3 Exclusion fencing

Areas of vegetation to be retained (no-go-zones) are shown on Figure 2. These include intact native sclerophyll forests and wetlands located to the west and south of the subject site. Prior to the commencement of earthworks, exclusion fencing that is capable of excluding Koala will be installed in accordance with the VMSP and KMSP (Biosis 2019b, c) along the perimeter of the subject site (Figure 2). Signage will be placed along these boundaries and all personnel will be briefed on the no-go status of these areas. All material stockpiles, vehicle parking and machinery storage should be located within the areas proposed for clearing (subject site), and not in areas of native vegetation that are to be retained (no-go-zones).

All trees to be retained during construction need to be identified by North Constructions and Building prior to the commencement of construction activities. Retention trees will be surrounded by tree protection fencing that is installed will be in accordance with the Australian Standard *Protection of Trees on Development Sites (AS4970-2009)* and incorporate the relevant tree protection zones for trees and vegetation to be retained. Tree protection zones will be clearly marked and labelled on design drawings issued for construction, will be displayed in prominent places (e.g. site offices) and provided in site inductions of all contracted and sub contracted persons working on Catherine McAuley Catholic College.

The fencing will be constructed of, as a minimum, capped star pickets with high visibility para webbing or rope. Appropriate signage will state that it is an environmentally sensitive area to alert construction personnel to avoid the area. Tree protection fencing and the calculations required to ascertain the appropriate area for the tree protection zone is provided in Table 1, mitigation measure 1.4.

3.4 Erosion and sediment control

Earthworks are not to commence until sediment and erosion controls have been installed as per standards outlined in the Soil and Erosion "Blue Book" (Landcom 2004). Erosion and sediment control will be observed and monitored for the entire construction phase of the development by the construction contractor. All objectives and measures outlined within Landcom Managing Urban Stormwater: Soils and Construction (2004) and this Plan will be enforced. North Construction and Building Pty Ltd will ensure that all sediment and erosion controls are in place and maintained in accordance with the approved Sedimentation and Erosion Control Plan prepared by MPC (2018) for the development.

In accordance with the VMSP (Biosis 2019b), silt fencing is to be installed along the perimeter of the subject site. Silt fencing is to be inspected weekly along the southern subject site boundary to ensure compliance and protect the watercourse and associated riparian corridor from sedimentation. Maintenance or repair activities will be conducted in accordance with Section 6.1.4 of the VMSP.

3.5 SEPP No. 14 Coastal Wetlands

The aim of SEPP 14 Coastal Wetland is to ensure that the coastal wetlands of NSW are preserved and protected in the environmental and economic interests of the State. In order to preserve and protect wetlands, the SEPP restricts clearing and other activities within land mapped as SEPP 14 Coastal Wetland where the clearing will be at odds with the stated SEPP objectives.

The subject site contains 0.34 hectares of land mapped SEPP 14 Coastal Wetland including approximately:

- 0.14 hectares of PCT 1718 and PCT 1598 vegetation, and
- 0.20 hectares of non-native, highly disturbed vegetation.

The proposed development will therefore require removal or modification of approximately 0.14 hectares of native vegetation within the mapped extent of the SEPP 14 Coastal Wetland. The proposed development footprint has been sited to avoid and minimise direct impacts to the mapped wetland. Mitigation measures are to be implemented during construction and operation of the proposed College and associated infrastructure such that the environmental effects of the proposed development are likely to be negligible (Biosis 2018a).

Taking in to consideration the small area of mapped wetland to be impacted, the predominance of non-native vegetation within the mapped extent of SEPP 14 wetland in the subject site and the measures proposed to mitigate potential indirect impacts outlined in section 4, the proposed development is not considered to be inconsistent with the aims and objectives of SEPP 14 Coastal Wetlands.

The areas mapped under SEPP 14 Coastal wetlands will be safeguarded during construction by the installation and management of soil and erosion controls specified in Section 6.1.4 of the VMSP. Additionally these areas will be protected through fencing and identified as no-go-zones within Figure 2, which will be included within all induction material for contracted and sub contracted staff working on the project.

Legend

- Study area
- Subject site
- Exclusion fencing (including silt fencing)
- No-Go area
- Riparian corridor
- HydroLine (Biosis 2018)
- Hollow bearing tree

Vegetation

- Riparian corridor - planted and intact
- Hunter Lowland Redgum Forest – PCT 1598 – moderate condition
- Swamp Sclerophyll Forest – PCT 1718 poor condition
- Swamp Sclerophyll Forest – PCT 1718 moderate condition
- Open Woodland / recreation area

Figure 2 BMSP features

0 50 100 150

Metres
Scale: 1:3,000 @ A3
Coordinate System: GDA 1994 MGA Zone 56

N

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Matter: 30449
Date: 06 August 2019,
Checked by: TPS, Drawn by: AEDM, Last edited by: amurray
Location:P:\30400s\30449\Mapping
30449_BMSP_F2_BMSP_Features

4 Environmental mitigation measures

This section outlines the biodiversity risks and impact mitigation measures associated with construction of Catherine McAuley Catholic College. Figure 2 shows areas of vegetation to be retained or removed for the project, as well as the locations of no-go-zones and exclusion fencing. Management practices and mitigation measures to be implemented to reduce the risk of potential direct and indirect impacts on biodiversity are outlined in Table 1. The monitoring requirements and responsibilities are specified in Section 5 and Table 3. Management protocols and actions for vegetation clearance and fauna salvage during tree removal are also detailed in the FMP (Biosis 2019a).

Table 1, Figure 2 and Appendix 1 Condition compliance-4 will be provided to construction and operational staff during site induction and will guide implementation of biodiversity protection controls.

The intent of , Table 1 and Appendix 1-4 is to describe the measures to be implemented for biodiversity protection in the development site and protect retained areas in broader study area.

Table 1 Site environmental risks, mitigation measures and monitoring responses

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
1. **Native vegetation removal, retention and disturbance**	**Managing vegetation removal, retention and disturbance:** 1.1 The principle of minimising removal of native vegetation will be applied to all approved clearing activities in the development site. Vegetation removal will be restricted to impacts assessed within the BDAR (Biosis 2018a). 1.2 Access (ingress)/egress to the development site will be via existing roads and vehicle access tracks. 1.3 Vegetation to be removed in the development site will be clearly marked under the supervision of the project environmental advisor prior to construction works to ensure only the approved vegetation is removed. A spray-painted 'X' or marker will be placed on trees and patches to be removed. 1.4 All areas of retained vegetation in or near the development site will be clearly marked by means of high visibility temporary fencing and/or signage to be installed under the supervision of the project environmental advisor. The fencing will need to comply with the Koala exclusion standard provided in the KPMS (Biosis 2019c). Internal retention trees will be marked and surrounded with the appropriate clearance listed below for root protection. The fenced areas will be treated as no-go-zones and installed using the following principles: – The radius of the tree protection zone (TPZ) is calculated for each tree by multiplying its diameter at breast	• Daily visual inspection of pre- and post-construction clearing. • Regular inspection and maintenance of exclusion fencing (check for wind damage etc.) • Maintain a diary and photo-log of any issues and actions taken to remedy breaches of exclusion areas. • Include inspection results in regular reporting to DPIE.	Site Supervisor Project Environmental Advisor	Inspection results to be included in annual report to DPIE Pre-clearance inspection report and letter detailing relocation of hollows is to be prepared with consultation from PSC for DPIE after vegetation clearing has occurred.

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
	height (DBH) by 12 (i.e. TPZ = DBH x 12) in accordance with the Standards Australia Committee (2009). – A TPZ will not be less than 2 metres or greater than 15 metres, except where crown protection is required (Standards Australia Committee 2009). – Appropriate signage such as 'No-Go-Zone' or 'Environmental Protection Area' must be installed. – Identify the location of any 'No-Go-Zones' in site inductions and on site plans. 1.5 Vegetation removal protocols and fauna salvage will be discussed in detail at the site induction.			
2. *Direct* impacts on flora, fauna and ecological communities as a result of clearing activities	**Managing direct impacts on flora and fauna, especially threatened biota:** 2.1 No threatened ecological communities (TECs) have been mapped in the subject site/ development footprint. The TECs identified in the BDAR (Biosis 2018a) are outside of the subject site and are to be established using fencing detailed within the KMSP (Biosis 2019c) (Figure 2). These areas will be treated as no-go-zones. As such, no impacts to any endangered ecological community will result from the proposed development. 2.2 Environmental Advisor to undertake pre-clearance surveys of all ten hollow-bearing trees before clearing	• Visual inspections to ensure vegetation removal is carried out in accordance with development consent. Inspections will be carried out as required at construction area mark out and when construction / vegetation clearing commences. • Maintain a log of salvaged animals and actions taken to relocate them. • Maintain a log of daily visual inspections during construction where footings have been left open over-night and prior to re-commencing or back filling. • Include inspection and salvage results	Project Manager Site Supervisor Environmental Advisor (Project Ecologist) Wildlife Handler	Inspection results to be included in annual report to DPIE Pre-clearance inspection report and letter detailing relocation of hollows is to be prepared with consultation from PSC for DPIE after vegetation clearing has occurred.

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
	is undertaken to identify the presence of nesting and native fauna. The FMP (Biosis 2019a) includes details of the best practice staged clearing approach to be applied when clearing native vegetation within the subject site. 2.3 A licenced wildlife salvage team will be on-site during vegetation removal to catch and relocate (if appropriate) any wildlife encountered in vegetation or hollow-bearing trees. 2.4 If any footings or trenches are required to be left open overnight, they must be inspected (daily) prior to the commencement of construction or pouring concrete. 2.5 If injured wildlife is encountered the project manager will be immediately notified by the site supervisor and a licenced wildlife handler/carer or local veterinarian will be consulted (phone WIRES on 1300 094 737, NSW rescue line) 2.6 All hollows within the subject site are to be salvaged and retained under the guidance of the project ecologist. After salvage a report shall be prepared in consultation with port Stephens Council (PSC) detailing the number of hollows, condition, target species, relocation area and methods to install the hollows up into surrounding vegetation. 2.7 Security fence construction and associated materials storage must be located within the subject site.	in regular reporting to DPIE. • PSC to be consulted in relocation of hollows.		
3. ***Indirect*** **impacts on biodiversity values outside the**	**Managing impacts outside the development site:** 3.1 The infrastructure area will be fenced or sign-posted in accordance with the KMSP (Biosis 2019c) to	• Visual inspections to ensure vegetation removal is in accordance with development consent and no impacts	Project Manager Site Supervisor	Inspection results to be included in annual report to DPIE

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
development site.	contain all works. Areas of adjacent native vegetation or fauna habitat will be treated as no-go-zones as per the principles for exclusion areas outlined in this table. 3.2 All material stockpiles, vehicle parking and machinery storage will be located within cleared areas or areas proposed for clearing in the subject site, and not in areas of adjacent retained native vegetation. 3.3 Sediment and erosion control measures will be implemented as outlined in this plan and the project specific sediment and erosion control management plans (MPC 2018). 3.4 Any stockpiled soil generated during earthworks and vegetation clearing is to be covered by geofabric material or equivalent and surrounded by appropriate soil erosion controls (silt fencing) consistent with measures outlined within *Landcom Managing Urban Stormwater: Soils and Construction* (Landcom 2004) to minimise the germination and spread of weeds, soil loss and potential dust pollution during high wind and rainfall events. 3.5 Strict hygiene protocols implemented to reduce the potential introduction or spread of invasive flora and fauna species as per Section 6.1.7 of the VMSP (Biosis 2019b) 3.6 Construction contractor is to ensure food scraps and other organic waste that may attract introduced predators (e.g. fox, cats) or other pests (e.g. rats) is not stored for prolonged periods within the construction site. Construction contractor to provide ample waste bins with closing lids to deter predators.	occur outside the development site/subject site. Inspections will be carried out at construction area mark out and when construction / vegetation clearing commences. • Daily visual inspections of stockpiles and storage areas to ensure areas outside the development site are not impacted. • Include results in regular reporting to DPIE. • Hygiene checklist from Appendix 2 of VMSP to be completed and details of hygiene protocol to be included in all inductions and circulated induction materials. • If food waste or scraps seen during opportunistic inspections it should be reported to Site Supervisor or Project Manager.		
4. Soil erosion,	**Managing soils and rehabilitation of temporary**	• Sediment control measures and	Site Supervisor	Inspection results to be

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
sedimentation and rehabilitation of temporarily disturbed areas	**disturbance:** 4.1 Where appropriate native vegetation cleared from the development site will be mulched for re-use on the site in accordance with the VMSP (Biosis 2019b). This mulch will not be placed in areas of retained vegetation outside the subject site. 4.2 Dust suppression measures will be implemented during construction including use of a water truck, where appropriate. Refer to sediment and erosion controls standards outlined in the "Blue Book" (Landcom 2004). 4.3 Implementation of temporary stormwater controls during construction is necessary to ensure that discharge to local drainage lines are consistent with existing conditions. Refer to sediment and erosion controls standards outlined in the "Blue Book" (Landcom 2004). 4.4 Sediment and erosion control measures will be implemented prior to construction works commencing (e.g. install silt fences, sediment traps), to protect the drainage system through the site. These should conform to relevant guidelines, will be maintained throughout the construction period and will be carefully removed following the completion of works. Refer to sediment and erosion controls standards outlined in the "Blue Book" (Landcom 2004). 4.5 If topsoil is required to be stockpiled for more than a week, stockpiles will be bunded and sprayed / wetted down with water and covered with jute matting (geofabric) or equivalent to maintain soil microbe viability and reduce mass movement of materials	rehabilitation areas will be checked and maintained at regular intervals (daily or after rainfall events greater than 10 mm in a 24 hour period) and logged in a daily compliance database or diary. • Daily visual inspections of construction progress including maintaining the construction area, stockpile/lay down areas and installation/maintenance of sediment control devices. • Weekly follow up visual inspections of rehabilitation works during construction to assess the success of soil and vegetation stabilisation. • Quarterly inspections of rehabilitated areas for two years after works and implement appropriate responses if rehabilitation fails. • Include monitoring results in regular reporting to DPIE.	Environmental Advisor	included in annual report to DPIE

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
	during high wind or rainfall events. 4.6 Soil stripped from areas to be temporarily disturbed will be stockpiled in the development site for reinstatement over disturbed ground. The top 100-200 mm of soil will be stockpiled and re-instated as soon as practicable. This will enhance site rehabilitation. 4.7 Temporarily disturbed areas will be left to naturally regenerate after reinstatement of top soil. If there is a risk of wind or water erosion, high risk parts of these areas will be covered with an organic weed free material (e.g. straw or jute/coir matting) for stabilisation. 4.8 All monitoring and inspection to be implemented as per timing outlined in monitoring response column.			
5. **Weeds, feral pests and soil pathogens**	**Managing weeds, pathogens and pests:** 5.1 Prior to works commencing any machinery, equipment and PPE will be washed down in a defined off-site to remove soil and weed seeds in accordance with the VMSP hygiene protocols .Section 6.1.7. 5.2 Ensure any imported construction materials area weed and pathogen free. 5.3 Weed control will be undertaken in temporarily disturbed areas with aim of eliminating annual/short-lived herbaceous species or high threat weed that inhibit natural regeneration, target weed species recorded within the study area during field investigation BDAR (Biosis 2018a) and VMP (Biosis 2018a) include: – Lesser Joyweed *Alternanthera denticulate, Hydrocotyle bonariensis,* Crofton Weed *Ageratina adenophora*,	• Follow up visual inspections to detect weed germination and signs of soil pathogen infection – weekly during construction and monthly for 1 year after construction completion. • On-going weekly inspections to detect presence of feral pests. • Include results in regular report to DPIE during construction period.	Project Manager	Inspection results to be included in annual report to DPIE

Risk to be managed	Mitigation measures	Monitoring response	Responsibility	Timing
	Fleabane *Conyza bonariensis,* Smooth Catsear *Hypochaeris glabra,* Catsear *Hypochaeris radicata,* Water Primrose *Ludwigia peploides* subsp. *montevidensis,* Slash Pine *Pinus elliotii,* Lamb's Tongues *Plantago lanceolate,* Whisky Grass *Andropogon virginicus,* Narrow-leafed Carpet Grass *Axonopus fissifolius,* African Lovegrass *Eragrostis curvula,* Paspalum *Paspalum dilatatum*, *Setaria parviflora,* Parramatta Grass *Sporobolus africanus,* Buffalo Grass *Stenotaphrum secundatum* and Blackberry complex *Rubus fruticosus*. 5.4 Weed control methods must be selected to ensure that retained native vegetation is not subjected to off-target impacts			

5 Compliance management

The environmental risks associated with construction will be monitored on a regular basis. The Project Manager and Site Supervisor will be responsible for undertaking regular assessments (daily to weekly) of positive and negative impacts during the construction program and appropriate written and photographic records will be kept. Specialist advice on environmental issues will be sought as required from a suitably qualified environmental professional during the construction period (e.g. a project Environmental Advisor).

5.1 Roles and responsibilities

The Project Manager is responsible for ensuring all activities in this Plan are carried out prior to and during construction, along with reporting any incidents to DPIE and formulating responses to incidents. The Project Manager is responsible for ensuring that other construction and operational management plans align with the BMSP and that actions in other plans do not contradict those listed in the BMSP. The Project Manager will also identify actions that are likely to overlap with other construction management plans and ensure consistency with responsibilities and reporting.

The Construction Site Supervisor must comply with the activities outlined in this Plan and any deviation to activities outlined must be reported to the DPIE.

Prior to the commencement of construction, the Project Manager and Site Supervisor must conduct an induction with the Environmental Advisor that will include the following:

- All induction items outlined in Section 3.2 and;
- A description of the biodiversity values of the site, including the presence of threatened species habitat and locally significant vegetation communities.
- A description of the biodiversity to be retained and the vegetation to be removed.
- The mitigation measures included in this Plan (Section 4).
- Appropriately scaled maps and GPS data as appropriate.

Supervisors are required to identify all potential environmental impacts to construction staff, as well as implement and maintain control measures, procedures and constraints accordingly (Table 1).

Written incident notification and reporting requirements have been included in Section

Table 2 Roles and contact details

Name	Role	Contact details
TBA	Project Manager	TBA
TBA	Construction Site Supervisor	TBA
TBA	Operational Site Supervisor	TBA
TBA	Environmental Advisor	TBA

5.2 Monitoring program

The Project Manager, Site Supervisor and Environmental Advisor will all be responsible for various monitoring and reporting actions prior to, during and following construction. The monitoring program that will be implemented is documented in Table 3, while decision triggers and adaptive responses for the risks (and mitigation measures) are described in Table 1. All actions and outcomes from monitoring and adaptive responses will be included in the reporting process.

5.3 Reporting and record keeping

The Project Manager will supply an informal monthly report to DPIE during the construction period. This report will take the form of an email or phone call, and cover issues such as:

- Construction progress
- Timelines
- Any environmental issues encountered
- Responses implemented to address issues
- Dated photographs of key issues and responses.
- The construction monitoring program for identified environmental risks is outlined in Table 1 , with reporting responsibilities outlined in Table 3.

The reports will be provided to the DPIE. Email reports will be submitted to compliance@planning.nsw.gov.au

An annual report will be provided to DPIE summarising results of monitoring, identifying opportunities for improvement or recommended changes to the program, and including relevant monitoring data. All logs and monitoring data will be available to DPIE on request. Copies of all reports will be supplied to DPIE as the consent authority and be made available to Port Stephens Council (PSC) if required.

5.4 Incidents

If an incident occurs that results in actual or potential impacts on retained biodiversity DPIE will be informed immediately. A written incident notification addressing the requirements set out below must be emailed to DPIE at the following address: compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition A28 or, having given such notification, subsequently forms the view that an incident has not occurred.

Written notification of an incident must:

- Identify the development and application number.
- Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident).
- Identify how the incident was detected.
- Identify when the applicant became aware of the incident.
- Identify any actual or potential non-compliance with conditions of consent.
- Describe what immediate steps were taken in relation to the incident.

- Identify further action(s) that will be taken in relation to the incident.
- Identify a project contact for further communication regarding the incident.

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

The Incident Report must include:

- A summary of the incident.
- Outcomes of an incident investigation, including identification of the cause of the incident.
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence.
- Details of any communication with other stakeholders regarding the incident.

Table 3 Monitoring Program

Risk (Table 1)	Monitoring action	Timing / frequency	Responsibility	Decision trigger / adaptive response	Reporting
Pre-construction					
1, 2, 3	**Visual inspection of vegetation clearance activities**	Daily inspections during clearing activities	Site Supervisor with the Environmental Advisor – report to Project Manager	Vegetation is being cleared in accordance with the development consent and FMP (Biosis 2019a). If not, stop work and follow process for reporting an incident outlined in Section 5.4.	Site Supervisor and Environmental Advisor to undertake monitoring and report to Project Manager. Report incidents to DPIE immediately as per Section 5.4. Include details in DPIE informal monthly report as well as a summary and details of any incidents in DPIE annual report.
1, 2	**Inspection of exclusion fencing and signage**	Regular daily inspections	Site Supervisor with the Environmental Advisor – report to Project Manager	Exclusion fencing and signage is damaged, not being maintained or not compliant with the specifications detailed within the KMSP (Biosis 2019c). Exclusion fencing and signage to be re-instated within 48 hours and maintained as per mitigation measures described in Table 1. If lack of exclusion fencing leads to damage to retained vegetation, stop work and follow process for reporting an incident outlined in Section 5.4. Reinstate exclusion fencing as required.	Site Supervisor and Environmental Advisor to undertake monitoring and report to Project Manager. Report incidents to DPIE immediately as per Section 5.4. Include details in DPIE informal monthly report as well as a summary and details of any incidents in DPIE annual report.

Risk (Table 1)	Monitoring action	Timing / frequency	Responsibility	Decision trigger / adaptive response	Reporting
1, 2	**Maintain a diary and photo-log of any issues and actions taken to remedy breaches of exclusion areas.**	As required.	Site Supervisor – report to Project Manager	If exclusion areas are breached or incidents occur.	Site Supervisor to undertake recording and report to Project Manager. Include the diary / photo-log in DPIE monthly report.
4	**Inspect all sediment and erosion control measures implemented prior to works**	Prior to earthworks and clearing activities commencing	Site Supervisor with the Environmental Advisor – report to Project Manager	Control measures to be implemented as per Blue Book standards.	Site Supervisor and Environmental Advisor to undertake monitoring and report to Project Manager.
During construction					
1, 2, 3	**Visual inspection of vegetation clearance activities**	Regular weekly inspections	Site Supervisor with the Environmental Advisor	Vegetation is cleared in accordance with the development consent. If not, stop work and follow process for reporting an incident outlined in Section 5.4.	Report incidents to DPIE immediately as per Section 5.4.
2	**Maintain a log of salvaged animals and actions taken to relocate them.**	As required prior to and during vegetation clearance and construction.	Environmental Advisor / Wildlife Handler	If any animals are identified during pre-clearance surveys or construction and are salvaged. Follow pre-clearance, clearance and fauna salvage protocols detailed within the FMP (Biosis 2019a).	Environmental Advisor to provide log to Site Supervisor and Project Manager to be included in informal monthly reporting as well as in annual report.
2	**Inspections for fauna where footings have been left open overnight.**	Every morning where left open overnight and prior to recommencing or back filling.	Environmental Advisor / Wildlife Handler	If footings or trenches have been left open overnight. Follow fauna salvage protocol. All inspection details should be logged and retained weather fauna identified or not. .	Environmental Advisor to include details in salvage log to be provided to Site Supervisor and Project Manager for inclusion in DPIE reporting.

Risk (Table 1)	Monitoring action	Timing / frequency	Responsibility	Decision trigger / adaptive response	Reporting
3, 4	**Inspections of stockpiles and storage areas to ensure no impact outside development site.**	Daily inspections required at construction area mark out and during construction.	Site Supervisor to undertake inspections and report to Project Manager	If stockpiles and / or storage areas encroach on areas outside the development site or onto areas for retained vegetation, stop work and follow process for corrective action and reporting an incident outlined in Section 5.4.	Site Supervisor to undertake monitoring and report to Project Manager. Report incidents to DPIE immediately as per Section 5.4. Include details in DPIE informal monthly report as well as a summary and details of any incidents in DPIE annual report.
4	**Check and maintain sediment control measures**	Daily during construction and as required.	Site Supervisor to undertake inspections and report to Project Manager	Maintain daily and after rainfall events greater than 10 mm in a 24 hour period. Reinstate measures as required. Bund, cover and wet down stockpiles if left for longer than one week. Cover stockpiles with jute matting or geofabric if left for longer than one month.	Site Supervisor to undertake monitoring and report to Project Manager. Report incidents to DPIE immediately as per Section 5.4. Include details in DPIE informal monthly report as well as a summary and details of any incidents in DPIE annual report.
5	**Inspections to detect weed germination and signs of soil pathogen infection**	Weekly during construction.	Site Supervisor with the Environmental Advisor and report to Project Manager	Implement weed / soil pathogen control measures if weed germination or pathogen infection is detected. 10% cover weed control to be undertaken at rosette stage / prior to flowering.	Environmental Advisor to advise Site Supervisor and Project Manager. Report incidents to DPIE immediately as per Section 5.4. Include details in DPIE informal monthly report as well as a summary and details of any incidents in DPIE annual report.

5.5 Adaptive management

It is expected that management of the construction of Catherine McAuley Catholic College can be modified, if and as necessary, to achieve the desired biodiversity objectives in response to the monitoring program. This cycle of 'do, monitor, evaluate and respond' is the foundation of adaptive management and is widely applied to terrestrial and aquatic ecosystem management (Kingsford et al. 2011). Consistent with adaptive management, monitoring results will be reviewed and actions revised from time to time where documented, improved knowledge of ecosystem management becomes available, or where on ground evidence supports a change in management trajectory.

Adaptive management for this site primarily relates to maintenance and improvement of vegetation extent and health to achieve a net gain in condition based on the following activities and related monitoring results:

- Management and replacement of hollows removed during vegetation clearing.
- Weed management based on weed threat and population extent, or new invasive species
- Stockpile management based on type of material and length of time to be stockpiled.

Adaptive management requires an agreed monitoring, evaluation, reporting and improvement cycle (MERI). As the various management plans and strategies for the site contain a range of objectives, activities and monitoring programs, a framework for MERI is provided below and will be further developed with the site manager:

Monitoring – activities and programs outlined in this plan and others to measure biodiversity condition and achievement of objectives.

Evaluation – collation of results by the site manager (or their agents) and assessment of trajectory towards desired objectives.

Reporting – internal and external reporting cycles that document results, general observations and suggest changes or maintenance of the status quo.

Improvement – the actual changes to management, and attendant monitoring programs, to ensure they remain relevant as conditions change or management challenges arise.

Adaptive management responses are outlined in the Monitoring Program in Section 5.2. Update and amendment of this Plan will occur as required. A copy of the updated Plan will be distributed to all relevant stakeholders. Adaptive management responses as a result of decision triggers outlined in the Monitoring Program will be included in the reporting to DPIE.

6 Contingency actions

In the event that monitoring shows that retained vegetation, surrounding biodiversity values or habitat for threatened flora and fauna has been or is being impacted by the construction or operation of the Catherine McAuley Catholic College, North Construction and Building Pty Ltd will undertake the following contingency actions:

- Notify DPIE.
- If required, undertake additional surveys and monitoring in consultation with DPIE to accurately quantify the severity and extent of the suspected or identified impacts using agreed methodologies.

As discussed in Section 3.3 of this report exclusion fencing is to be installed around the perimeter of the subject site, this fencing in conjunction with established no-go areas detailed in Section 3.3 will be crucial in protecting the surrounding biodiversity values.

7 References

Biosis 2018a. *Catherine McCauley Catholic College, Medowie BDAR*. Report for Webber Architects. Authors: A Barreto, S Allison, C Corden, Biosis Pty Ltd, Newcastle. Project no.26652

Biosis 2018b. Catherine McAuley Catholic College, Medowie draft VMP for Webber Architects. Authors: Scheid T and Price P, Biosis Pty Ltd, Newcastle. 28870

Biosis 2019a. *Catherine McAuley Catholic College Fauna Management Plan*. Report for North Construction & Building Pty Ltd. Authors: Allison S, Biosis Pty Ltd, Newcastle. Project no. 30449.

Biosis 2019b. *Catherine McAuley Catholic College, Medowie VMP sub plan.* Report for North Construction & Building. Authors: Scheid T and Price P, Biosis Pty Ltd, Newcastle. Project no. 30449

Biosis 2019c. *Koala Management Plan.* Report for North Construction & Building Pty Ltd. Authors: Allison S, Biosis Pty Ltd, Newcastle. Project no. 30449

de Witt Consulting 2018. *Environmental Impact Statement (EIS) – Proposed Catholic College at Medowie.* Report for Trustees of the Roman Catholic Church for the Dioceses of Maitland-Newcastle. Authors: M Maund, de Witt Consulting Pty Ltd. Project no. 7484

de Witt Consulting 2018. *Response to Submissions Report. Proposed Catholic College, Medowie*. Report for Trustees of the Roman Catholic Church for the Dioceses of Maitland-Newcastle. Authors: H Mackinnon, de Witt Consulting Pty Ltd. Project no. 7484

NSW Office of Water 2012. *Controlled activities on waterfront land: Guidelines for riparian corridors on waterfront land*. Department of Primary Industries – Office of Water.

Kingsford RT, Biggs HC & Pollard SR. 2011. Strategic Adaptive Management in freshwater protected areas and their rivers. *Biological Conservation*, vol. 144, pp. 1194-1203.

Landcom 2004. *Managing Urban Stormwater: Soils and Construction* (4th Edition). New South Wales Government.

MPC Consulting Engineers 2018. *Sediment and Erosion Control Overall Site Plan.* Report prepared for Catholic Schools Office. Sheets 1-9. Job no. 17-828. Approved DPIE 26 July 2019.

Newcastle Bushfire Consulting (NBC). 2018. *Bushfire Assessment Report (proposed school alternate solution) – Lot 412 and 413 DP 1063902 507 Medowie Road, Medowie*. Report for Catherine McAuley Catholic College.

North Building and Construction 2019. *Catherine McCauley Catholic College, Medowie. Site Integrated Management Plan (SIMP).* North Building and Construction Pty Ltd, Document Revision 24/06/19. Project no. 21921.

Standards Australia Committee 2009 – *Protection of Trees on Development Sites, AS 4970-2009.*

Appendix 1 Condition compliance

Table 4 Project Approval (Part C) – Conditions of consent

ID	Condition of Consent description	Addressed In	Location (page no.)
B6	The development must demonstrate that the proposal is consistent with the endorsed *Biodiversity Development Assessment Report* (BDAR) prepared by Biosis dated 20 April 2018 and all recommendations to mitigate the direct, indirect and prescribed impacts in the BDAR.	This report, VMSP, FMP, SIMP and KMSP.	SIMP (North 2019)
10	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include details of:		
a)	Detailed baseline data	Section 2 VMSP KMSP	4 S 4, (10) S 3, (6)
b)	(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Table 1, Section 5	27 18
c)	Description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 3, Section 4	6, 10
d)	A program to monitor and report on the: (i) impacts and environmental performance of the development; (ii) effectiveness of the management measures	Section 5.2	19
e)	A contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 6	25
f)	A program to investigate and implement ways to improve the environmental performance of the development over time;	Section 5.5	24
g)	A protocol for managing and reporting any:	Section 5.4	19

ID	Condition of Consent description	Addressed In	Location (page no.)
	(i) incident and any non-compliance (ii) complaint; (iii) failure to comply with statutory requirements;	SIMP (North 2019)	S 17, (66)
h)	A protocol for periodic review/update of the plan and as updates in response to incidents or matters of non-compliance.	Section 5.5	24
18	The BMSP must address, but not be limited to the following:		
a)	The BMSP must be prepared by a suitably qualified person and submitted to the Planning Secretary for approval prior to the commencement of construction works on site.	This report	Whole report
b)	Include all recommendations to mitigate the direct, indirect and prescribed impacts for works contained in the endorsed BDAR and the management and mitigation measures in EIS and Response to Submissions	This report	Table 5-7
c)	Include details of measures to protect the vegetation on the south western part of the Site, specifically the coastal wetlands mapped under the Coastal Management SEPP.	Section 3.5 VMSP	7 Whole report
d)	Include a Vegetation Management Sub-Plan (VMSP) for the Site during the construction works.	VMSP included as Appendix 3 Vegetation Management Sub-plan	Whole report
e)	Include measures to communicate to the construction workforce the biodiversity values that are to be retained and protected.	This report VSMP FMP KMSP	S 3.2 S 6.1.1 S 5 S 5
f)	Any hollows removed be salvaged and replaced into trees within the vegetated areas to be retained or they be replaced with nest boxes in consultation with Council suitable to native fauna likely to use the site;	Addressed in VMSP included as Appendix 3 Vegetation Management Sub-plan	Section 6.1.5
g)	Include a Fauna Management Plan for the site including details of impacts and proposed mitigation measures due to impact on movement, construction traffic, proposed construction hours, details of any fencing, restricting	FMP included as Appendix 4 Fauna	Whole report

ID	Condition of Consent description	Addressed In	Location (page no.)
	developments in identified areas, light spill, construction noise and on-site crane movements;	Management Plan	
h)	Include details to install and maintain exclusion fencing along the riparian corridor and around any native vegetation not being removed as part of this development.	Section 3.3	7

Table 5 Statement of Commitments – BDAR (Biosis 2018a) and EIS (de Witt Consulting 2018)

ID	Condition of Consent description	Addressed In	Location
SOC-BDAR-01	Installation of appropriate exclusion fencing to the boundary of the retained vegetation and any construction areas where there is some potential for accidental encroachment. This will include appropriate signage such as 'No Go Zone' or 'Environmental Protection Area'. Identification of any 'No Go Zones' in site inductions for all construction personnel.	Section 3.3	7
SOC-BDAR-02	All site perimeter is to be of a design that excludes terrestrial fauna, in particular Koala, so as to minimise the risk of Koala ingress to the construction site.	KMSP (Biosis 2019c)	S 5, Table 2
SOC-BDAR-03	Internal fencing / barricades are to be used to establish tree protection zones (TPZs) around retained native trees in accordance with the Standards Australia Committee (2009).	Section 3.3	7
SOC-BDAR-04	All material stockpiles, vehicle parking and machinery storage should be located within the areas proposed for clearing, and not in areas of native vegetation that are to be retained.	Section 3.3	7
SOC-BDAR-05	Sedimentation and erosion control measures including silt fencing, sediment traps, etc. to prevent sediment-laden stormwater exiting the construction areas and to prevent scouring and erosion of land beyond the development footprint. All erosion and sediment control measures are to be constructed and installed in accordance with relevant guidelines, are to be regularly maintained for the duration of the construction period and are to be carefully removed at completion of works.	Section 3.4	7
SOC-BDAR-06	Sediment and erosion control measures should follow recommendations of The Blue Book – Managing Urban Stormwater: Soils and Construction (Landcom 2004).	Section 3.4	7
SOC-BDAR-07	Dust suppression measures to ensure dust deposition beyond the construction area is minimised.	Table 1 SIMP (North 2019),	11 S 31.5, (83)

ID	Condition of Consent description	Addressed In	Location
SOC-BDAR-08	Weed and pathogen management including weed hygiene protocols for personnel, machinery and construction materials entering and exiting construction areas to minimise risk of weed and pathogen introduction and spread.	Section 3.2 VMSP (Biosis 2019b)	6 S 6.1.7, (18)
SOC-BDAR-09	Waste management is to ensure food scraps and other organic waste that may attract introduced predators (e.g. fox, cats) or other pests (e.g. rats) is not stored for prolonged periods within the construction site.	Section 3.2 SIMP (North 2019)	6 S 27.9.1, (64)
SOC-BDAR-10	Development of an Ecological Management Plan (EMP) for inclusion in the Construction Environmental Management Plan. The EMP will outline measures for staged vegetation clearing to manage fauna species during tree removal, including having a spotter / catcher present. Staged removal involves clearing of understorey vegetation and non-hollow-bearing trees in Stage 1, with removal of hollow-bearing trees in Stage 2. There should be a minimum of 24 to 48 hours between Stage 1 and Stage 2.	This report	Whole report
SOC-BDAR-11	Ecologist pre-clearance surveys should including dusk stag watch for microbats with anabat, not greater than one week prior to felling of hollow-bearing trees on site. The project ecologist is to be present during hollow-bearing trees clearing to manage any microbats or other hollow-dependent fauna that may be present in hollows at time of clearing.	FMP (Biosis 2019a)	S 5, (17)
SOC-BDAR-12	A 10 metre VRZ is to be maintained along either side of the waterway traversing the southern section of the subject site from the top of both banks.	VMP Draft (Biosis 2018a) To be carried over into final VMP to be prepared prior to the issue of Occupancy Certificate.	S 4.1, (10)
SOC-BDAR-13	Road crossings are permitted within the 10 metre VRZ according to the riparian corridor matrix provided in *Controlled activities on waterfront land - guidelines for riparian corridors on waterfront land* (NSW Office of Water, 2012a). The proposed access road crossing is to be constructed with reference to the recommendations made in *Controlled activities on waterfront land - guidelines for watercourse crossings on waterfront land* (NSW Office of Water, 2012b) and the *Policy and Guidelines for Fish Friendly Waterway Crossings* (2003).	VMP Draft (Biosis 2018a) To be carried over into final VMP to be prepared prior to the issue of Occupancy Certificate.	S 4.1, (10)

ID	Condition of Consent description	Addressed In	Location
SOC-BDAR-14	Sediment and silt-screens are to be used to manage instream sedimentation and erosion during construction of the access roads over the unnamed stream in the south of the subject site. Sediment and erosion control measures should follow recommendations of The Blue Book – Managing Urban Stormwater: Soils and Construction (Landcom 2004).	VMP Draft (Biosis 2018a) To be carried over into final VMP to be prepared prior to the issue of Occupancy Certificate.	S 4.1, (10)
SOC-BDAR-15	As far as practicable, all construction activities are to undertaken during daylight hours to minimise noise impacts on fauna utilising adjacent habitats.	SIMP (North 2019)	S 5.3, (12)
SOC-BDAR-16	Selection and retention of suitable logs (>10 centimetres diameter only) and hollows for placement within retained native vegetation adjoining the subject site.	VMSP (Biosis 2019b)	S 6.1.5, (17)
SOC-BDAR-17	Where appropriate native vegetation cleared from the study area should be mulched for re-use on the site, to stabilise bare ground.	VMSP (Biosis 2019b) SIMP (North 2019)	S 6.1.5, (17) S 27.11.1, (65)
SOC-BDAR-18	Security lighting within the construction site is to be minimised and where required, is to be oriented such that light spill beyond the subject site and in to patches of retained vegetation is minimised.	FMP (Biosis 2019a) SIMP (North 2019)	S 4.1.4 (14) 27.16, (67)
SOC-BDAR-19	Consideration is to be given to the installation of nest boxes prior to commencement of vegetation clearing for construction. Installation of nest boxes prior to clearing will allow time for microbats and other hollow-dependent fauna to encounter these new resources prior to removal of existing hollows within trees to be removed.	VMSP (Biosis 2019b)	S 6.1.5, (17)
SOC-BDAR-20	Establishment of APZs.	VMP Draft (Biosis 2018a) Bushfire Assessment Report (BAR) (NBC 2018)	Whole report Whole report

A Response to Submissions Report has been prepared by de Witt consulting (2018) that addressed submissions received during exhibition of the EIS for Catherine McAuley Catholic College. In addition a letter was prepared by De Witt Consulting dated 18 March 2019 to DPIE that provided response to additional comments received from government agencies in relation to the project. The following modifications to the proposal were adopted with regard to biodiversity.

Table 6 Statement of Commitments – Response to Submissions – Biodiversity

ID	Agency	Condition of Consent description	Addressed In	Location
SOC-RTS-01	Port Stephens Council (PSC)	A 10m revegetated buffer will be maintained along the riparian corridor of the watercourse that runs to the south of the development. This area will be managed via the averaging rule as described within Controlled activities on waterfront land – Guidelines for Riparian Corridors on Waterfront Land prepared by the NSW Office of Water (NSW Office of Water 2012).	VMP (Biosis 2018a) Final version of overarching VMP in preparation and is required before the issue of the OC. This commitment is currently included within the draft and will be maintained and referenced within the final operational VMP.	Whole report

Appendix 2 Site induction checklist

SITE INDUCTION - NEW PERSONNEL

north
BUILDING WITH TRUST

PLEASE PRINT:

NAME: _____ SITE INDUCTION # _____

COMPLETE HOME ADDRESS: _____ HOME PHONE: _____

_____ MOBILE PHONE # _____

EMERGENCY CONTACT NAME & PHONE #: _____ MEDICAL CONDITIONS (OPTIONAL): _____

SITE/LOCATION: _____

SITE MANAGER /SUPERVISOR: _____ SITE SAFETY OFFICER: _____

☐ NEW HIRE ☐ SUBCONTRACT ☐ TRANSFER - From: _____ ☐ OTHER: _____

DATE OF THIS SITE ASSIGNMENT: _____ SUBCONTRACTOR DETAILS: _____

CHECK EACH ITEM AS IT IS EXPLAINED TO YOU:

I. SITE LOGISTICS

☐ Schedule: Shift, Start/End & Break Times ☐ Site Access/Speed ☐ Phones &/or Radios ☐ Work Uniform/Footwear

☐ Sanitary Facilities - Restrooms & Water ☐ Site Access/Parking ☐ Supervision Requirements ☐ Smoking/Drinking Policy

☐ Eating Areas - Food Storage/Recycling ☐ Site Access/Security ☐ Procedures for waste storage, segregation and removal on stie

II. INITIAL TRAINING ON THE HEALTH AND SAFETY PROGRAM INCLUDING:

☐ Reporting safety concerns and the right to ask any question, or report any safety hazard, either directly OR ANONYMOUSLY without any fear of reprisal.

☐ Disciplinary procedures that may be used to ensure compliance with safe work practices.

☐ The location of HSE Alerts, Safety Notices, Toolbox Minutes etc

☐ Access to the GEII Safety Committee. Site Representative: _____

☐ Pre-Task Planning Forms (Pre-starts, JSEAs etc)

☐ Reporting Occupational Incidents - Injuries, Illnesses, Vehicle or Equipment Damage, Near Miss events and Hazardous Observations

☐ Emergency Contact Phone Numbers. To summon Emergency Medical Response, Call: _____

☐ Toolbox Meetings / Safety Meetings ☐

III. HAZARD COMMUNICATION TRAINING

☐ The potential occupational hazards in the work area and **safe work practices and/or personal protective equipment** required for my job title/assigned tasks:

- ◯ Bloodborne Pathogens - **Universal Precautions**
- ◯ Cranes & Forklifts - **Trained Operators**
- ◯ Work Hazards - **Ergonomics & Manual Lifting**
- ◯ Electrical Hazards - **LOTO, RCDs & Grounding**
- ◯ Confined Space - **Permits & Training**
- ◯ Poisoning/Spills - **HSE Systems Training**
- ◯ Fall From Heights - **Fall Protection Training/PPE**
- ◯ Excavations - **Barricades & Bridges**
- ◯ Site Hazards - **Animals / Temperature / Noise**
- ◯ Vehicle Accidents - **Local Animals / Hazards**
- ◯ Slip/Trip/Fall - **Housekeeping**
- ◯ Weather - **ERPs / Temperature**
- ◯ Site Gates - **Ensure gates are closed** _____
- ◯ Hailo - **Lifts** _____
- ◯ _____

☐ The hazards of any chemicals to which I may be exposed, and my right to review the information contained on the Material Safety Data Sheets.

☐ The labeling and hazard warnings for containers of hazardous chemicals.

☐ The location and availability of Material Safety Data Sheets (MSDS's) & the VWS Black List.

☐ The Person Responsible for maintaining the Material Safety Data Sheets (MSDS's) and the site Chemical Inventory List.

IV. BIODIVERSITY ISSUES TRAINING / INFO:

☐ Threatened Vegetation Communities ☐ Threatened Fauna ☐ Vehicle Speed Restrictions ☐ Koala, Bird and Bat

☐ Priority Weeds ☐ Hygiene Protocols ☐ Riparian Corridors ☐ VMSP / BMSP / KMSP / FMP

V. OTHER SAFETY TRAINING / INFO:

☐ HSE Policy ☐ Fall Arrest System Inspection ☐ Service Vehicle Inspection ☐ Emergency Response Plan

☐ Rehabilitation Policy ☐ PPE Issue & Storage ☐ HSE Alert Review

VI. EMPLOYEE QUALIFICATIONS/DATE (MUST TAKE PHOTOCOPIES)

☐	Load Shifting: _____	☐	First Aid/CPR: _____
☐	Crane Operator: _____	☐	Workplace Fire: _____
☐	Safe Work at Heights: _____	☐	Vertical Rescue: _____
☐	Confined Space Entry: _____	☐	Construction Induction: _____
☐	Scaffolding / Rigging: _____	☐	Pre-Employ Medical: _____
☐	Crane / Hoist: _____	☐	Drivers Licence: _____
☐	Trade Certificate: _____	☐	Other: _____

I fully understand the above items and agree to comply with safe work practices in my work area at all times.
I understand that my actions can affect the health and safety of others.
I understand that Disciplinary Action, up to and including termination, may result from failure to follow procedure.
I also understand that every individual is ultimately responsible for his/her own safety.

EMPLOYEE SIGNATURE: _____ DATE: _____

I, (Inductors Name/Job Title:) _____
hereby certify that this employee has been inducted on the items checked on this form.

INDUCTOR SIGNATURE: _____ DATE: _____

**When complete, file report in Site Induction Register*

Notes:

Appendix 3 Vegetation Management Sub-plan

Appendix 4 Fauna Management Plan