Upper South Creek

Advanced Water Recycling Centre and Pipelines

Biodiversity CEMP Sub-plan

Document No: USCP-JHG-MPL-ENV-0004
Revision: 11

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Recommend Documents to be Read in Conjunction

This management plan is to be read in conjunction with the Construction Environmental Management Plan (USCP-JHG-MPL-ENV-0008), Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) and Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001).

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Revisions

Draft issues of this document shall be identified as Revision 01, 02, 03 etc. Upon initial issue (generally Contract Award) this shall be changed to a sequential lettering commencing at Revision A. Revision numbers shall commence at Rev. A, B etc.

Date	Rev	Details Of Change	Section	Prepared By	Reviewed & Approved By
10/02/2023	01	Initial draft for John Holland and Sydney Water review	All	F.Williams	A.Harrington
25/02/2023	02	Updated following John Holland and Sydney Water comments	All	F.Williams / B.Dechnik	A.Harrington
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01/06/2023	07	Update following DPE review	All	M.Segaran	A.Harrington
30/06/2023	08	Update following EHG comments	Section 7.3	A.Harrington	A.Harrington
12/07/2023	09	Updated following Cth comments	Section 8.6, Appendix A, Appendix B	M.Segaran	A.Harrington
14/07/2023	10	Updated following additional EHG comments	Section 7.3	A.Harrington	A.Harrington
26/07/2023	11	Updated following EHG comment	Section 7.3	M.Segaran	A.Harrington

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1 Glossary & Abbreviations

Abbreviations	Meaning
ADWF	Average Dry Weather Flow
AWRC	Advanced Water Recycling Centre
BAM	Biodiversity Assessment Method
BC Act	NSW *Biodiversity Conservation Act 2016*
BCSP	Biodiversity CEMP Sub-plan (this plan)
BDAR	Biodiversity Development Assessment Report
BOS	Biodiversity Offsets Scheme
CEMP	Construction Environmental Management Plan
CM	Construction Manager
CoA	Minister's Conditions of Approval
CPESC	Certified Professional in Erosion and Sediment Control
CPTED	Crime Prevention Through Environmental Design
DCP	Development Control Plan
DPI	Department of Primary Industries
DPE	NSW Department of Planning and Environment
EEC	Endangered Ecological Community
EHG	The Environment and Heritage Group (part of the NSW Department of Planning and Environment)
EIS	Environment Impact Statement
EP&A Act	NSW *Environmental Planning and Assessment Act 1979*
EPBC Act	Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*
EM	John Holland Environmental Manager
ER	Environmental Representative
EWMS	Environmental Work Method Statements
FM Act	NSW *Fisheries Management Act 1994*
HBT	Hollow-bearing Tree
IBRA	Interim Biogeographic Regionalisation for Australia
IMP	Incident Management Plan
Impact Area	The area to be directly impacted by construction and operation of the project, including identified compound areas and access tracks.
Impact Assessment Area	A wider area, generally 12.5 m either side of the impact area to allow for design flexibility after the EIS is approved.
JH	John Holland (the Principal Contractor)
KFH	Key Fish Habitat
LGA	Local Government Area
LLS	Local Land Services
NPW Act	NSW *National Parks and Wildlife Act 1974*
NPWS	National Parks and Wildlife Service
OEH	The Office of Environment and Heritage
PCT	Plant Community Type
RBM	Relevant Biodiversity Measure
RC	Riparian Corridor
RMP	Rehabilitation Management Plan
RtS	Response to Submissions
SAIIs	Serious and Irreversible Impacts

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SCCSP	Soils & Contamination CEMP Sub-plan
SMEs	Subject Matter Experts
SWC (Sydney Water)	Sydney Water Corporation (the client and Proponent)
SWGA	South West Growth Area
SWGCSP	Surface Water & Groundwater CEMP Sub-plan
TEC	Threatened Ecological Community
TPZ	Tree Protection Zone
TTCSP	USC Traffic & Transport CEMP Sub-plan
TW	Treated Water
UDLP	Urban Design and Landscape plan
UMMs	Updated Management Measures
USC	Upper South Creek
VMP	Vegetation Management Plan
VRZ	Vegetated Riparian Zone
WMP	Weed and Pathogen Management Procedure
WSAGA	Western Sydney Aerotropolis Growth Area

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2 Introduction

2.1 Context

This Biodiversity CEMP Sub-plan (BCSP) forms part of the Construction Environmental Management Plan (CEMP) for Upper South Creek Advanced Water Recycling Centre (AWRC) and Pipelines Project (refer to herein as the Project).
This plan has been prepared by John Holland in consultation with suitably qualified and experienced ecologist Felicity Williams (BSc (Hons)) of Biosis Pty Ltd.

This BCSP has been prepared to address the requirements of:

- NSW Minister for Planning Conditions of Approval (CoA),
- *Upper South Creek Advanced Water Recycling Centre Environmental Impact Statement* (EIS) (September 2021)
- *Upper South Creek Advanced Water Recycling Centre Submission Report* (March 2022)
- *Upper South Creek Advanced Water Recycling Centre Amendment Report* (March 2022)
- *Upper South Creek Advanced Water Recycling Centre Submissions Report – Project Amendments* (April 2022)
- Response to DPE RFI 1, regarding responses to advice received on the Response to Submissions Report (dated 01 June 2022, 01 July 2022 and 11 July 2022)
- Modification of Infrastructure Approval CSSI 8609189, 26 May 2023 (herein referred to as Mod 1)
- Commonwealth Controlled Activity Approval (EPBC 2020/8816)
- Infrastructure Sustainability Council Technical Manual version 2.1 (ISC 2.1) requirements, and
- All applicable legislation.

The USC project will be built in stages, consisting of:

Stage 1

- building and operating the AWRC to treat a daily wastewater flow, known as the average dry weather flow (ADWF), of up to 50 megalitres per day (ML/day); and
- building the treated water and brine pipelines to cater for up to 100 ML/day flow coming through the AWRC (but only operating them to transport and release volumes produced by Stage 1).

Future Stages

It is expected that the AWRC will ultimately require expansion to treat wastewater flows up to 100 ML/day. Sydney Water will remain flexible on the size and timing of these future upgrades to accommodate changes in population projections over time. Future stages will be subject to further environmental assessment.

Further detail on project staging is provided in the EIS and the Staging Report. This BCSP applies to Stage1 detailed design, construction and commissioning only. John Holland has been appointed by Sydney Water to deliver the USC project works, including detailed design and construction for treating an operational daily wastewater flow of up to 35ML/day. Greater flow capacities (including up to 50ML/day and 100ML/day), as explored in the EIS, are not covered in this BCSP.

2.2 Project Description and Background

A comprehensive project description, including staging of the project, is outlined in Sections 1.1 to 1.3 of the CEMP. Figure 2-1a and Figure 2-1b includes an overview of the Project site and associated pipelines. Figure 2-2 includes an overview of the AWRC site.

As part of the EIS development, a detailed assessment identified key biodiversity issues, and characterised the existing sensitive environment surrounding the project. Physical and biological environmental impacts, including on terrestrial biodiversity, are included in Section 9 of the EIS and the associated technical assessments included in Appendix J (Biodiversity Assessment) and Appendix H (Aquatic Ecosystem Assessment). Additional biodiversity matters are included in the Amendment Report, within Chapter 7 and the Biodiversity Assessment Amendment Report (Appendix B of the Amendment Report).

The AWRC site is approximately 78 ha located in Kemps Creek, in the Penrith Local Government Area (LGA). The site is comprised of Lot 211 DP1272676 and is shown in Figure 1.2 of the CEMP. The AWRC site is located in the Cumberland Interim Biogeographic Regionalisation of Australia (IBRA) sub-bioregion of the Sydney Basin IBRA bioregion and the Hawkesbury Catchment area (EIS Section 6.1.1). It consists of primarily cleared land, containing few scattered, remnant patches of native vegetation.

The proposed pipelines cross the Penrith, Wollondilly, Liverpool, Fairfield and Canterbury-Bankstown LGAs.

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The treated water pipeline is planned to be about 16.7 km long and up to 1.2 m in diameter. The treated water pipeline will transfer treated water from the transfer pumping station at the AWRC, to the release point at Nepean River, upstream of Wallacia Weir. The treated water pipeline also includes a release structure to the Nepean River.

The brine pipeline will be about 24 km long and about 0.6 m in diameter. The advanced treatment process at the AWRC will produce a brine waste product, which will be transferred from the AWRC to the existing Malabar wastewater system at Lansdowne.

An overview of the project site and associated pipelines is presented in Figure 1-1 of the CEMP.

The following terms have been used with reference to the site:

- Impact area: The area to be directly impacted by construction and operation of the project, including identified compound areas and access tracks. The impact area is generally 12.5 m either side of the pipeline alignments but is wider or narrower in certain areas. For the AWRC site, this impact area comprises the entire 78 ha site.
- Impact assessment area: A wider area, generally 12.5 m either side of the impact area to allow for design flexibility after the EIS is approved.
- Project area: A general term for the pipeline route from Lansdowne to Wallacia, including the AWRC site, and all ancillary areas and access tracks.
- Biodiversity Development Assessment Report (BDAR) study area: The broader area in which the impact area and impact assessment area is located, including all areas of direct and indirect impact, the required 500 m buffer on the impact area (in accordance with Biodiversity Assessment Methodology (OEH, 2017)), and larger areas to provide context to the project.

2.3 Project Outcomes

The purpose of this BCSP is to outline the Project's approach to implement measures to minimise and manage biodiversity impacts during construction in accordance with the Project's legal, planning, and contractual requirements. Potential biodiversity impacts as a result of project activities requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through **SMART** principles:

- **S**pecific – biodiversity management measures explored in Section 8 of this Plan specifically speak to JH's approach to the management of biodiversity matters during construction.
- **M**easurable – Inspection and monitoring requirements detailed in Section 9 of this Plan include specific measures or indicators for which inspection and monitoring requirements will be triggered.
- **A**chievable – Ongoing compliance with CoAs, UMM and Commonwealth approval requirements (Tables 4-1, 4-2 and 4-3, respectively), as discussed in Section 8 of this Plan, is achievable throughout the delivery of the USC construction work and represents the minimum requirements to be implemented by JH.
- **R**elevant - The management measures outlined in Section 8 of this Plan represent JH's approach to monitoring and tracking against the objectives, targets, and environmental performance outcomes (which are identified in Section 3 of this Plan).
- **T**ime-bound – On a broader scale, the management measures set out within Section 8 of this Plan are required to be implemented for the duration of construction, setting a clear and defined time frame and includes reference to other temporal applications, including during *detailed design*, *pre-construction*, *post-construction* and/or *operation*.

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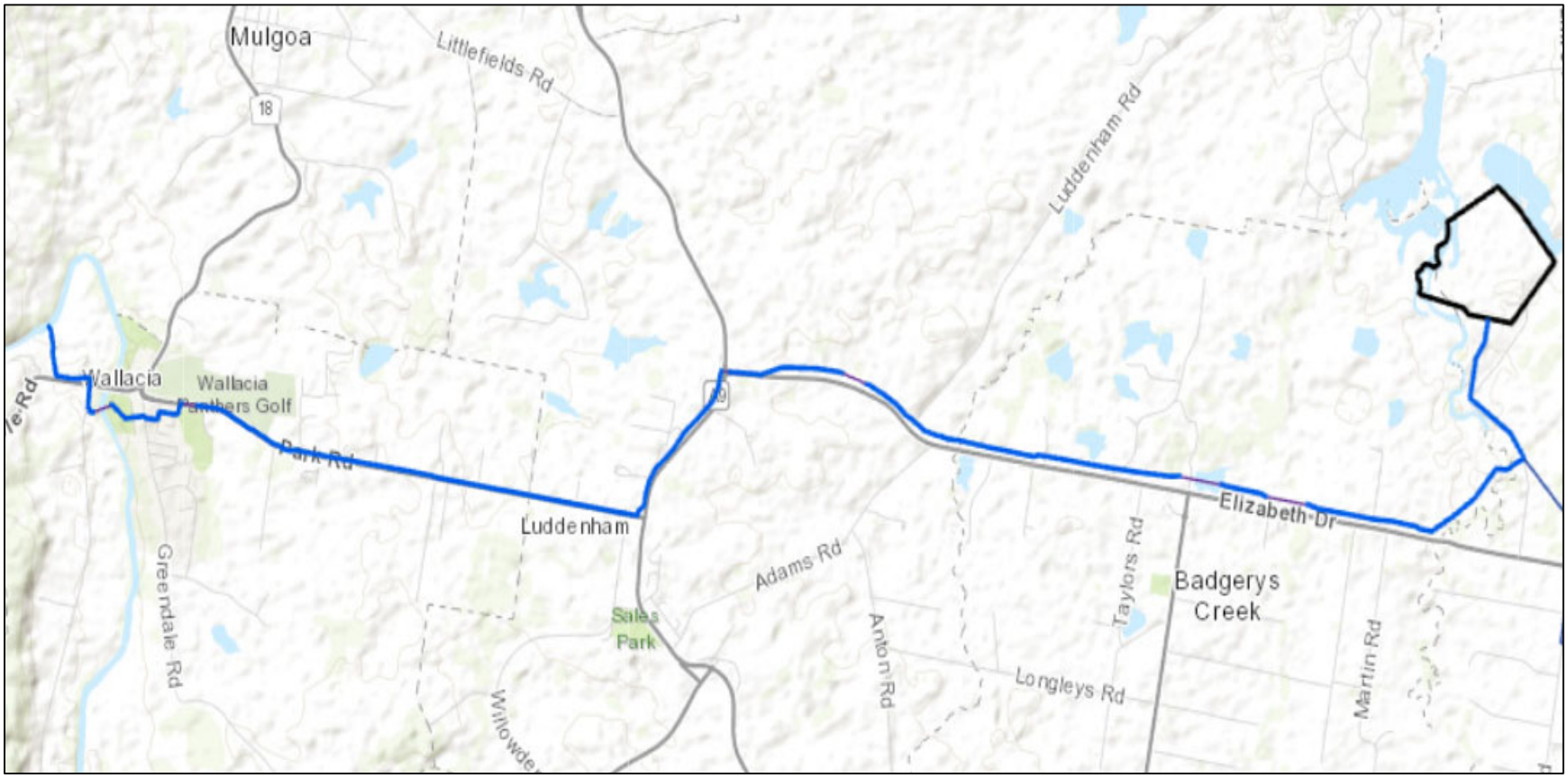

Figure 2-2-1a Indicative overview of the project site (AWRC) and treated water pipeline

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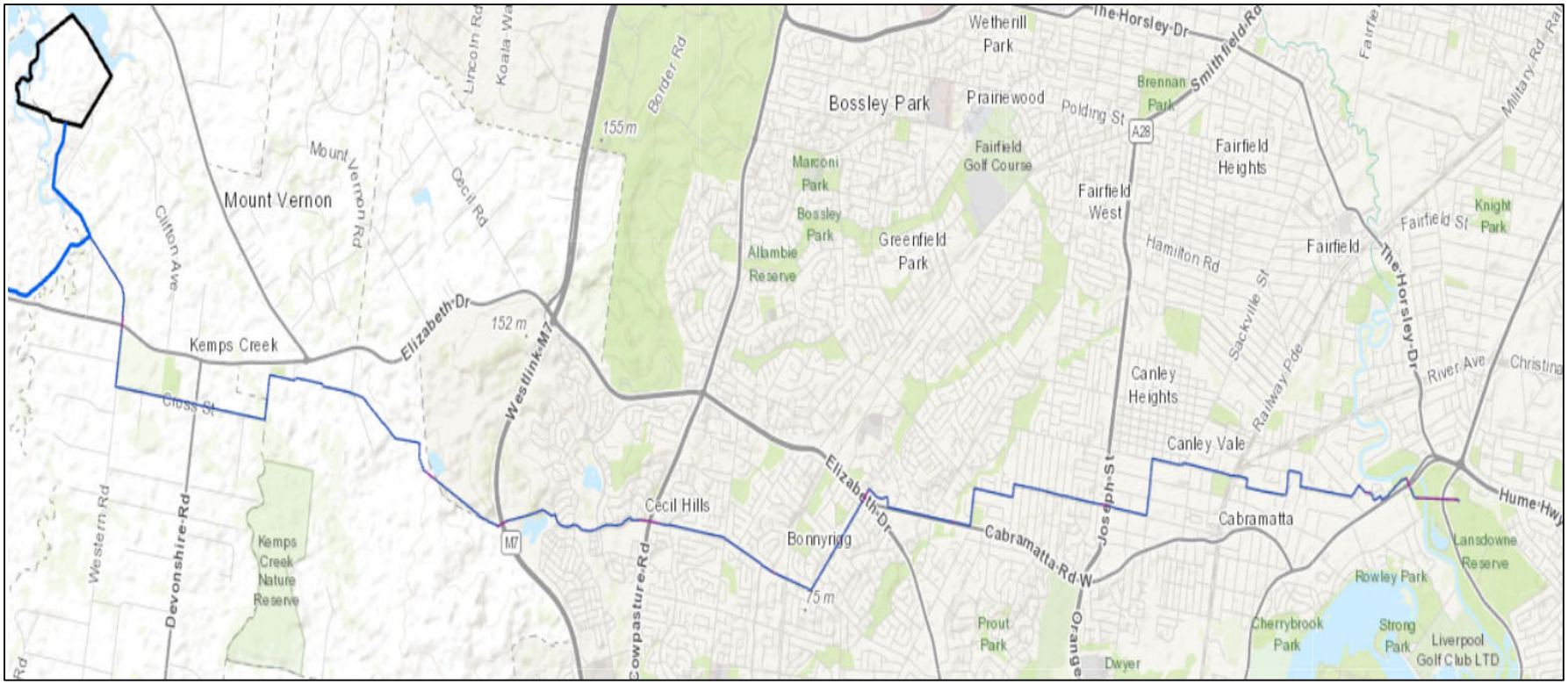

Figure 2-1b Indicative overview of the project site (AWRC) and brine pipeline

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1	AWRC SITE ENTRY	6	BRINE TANKS
2	ADMINSTRATION CENTRE AND CAR PARKING	7	DIGESTORS
3	PARKLAND ACCESS ROAD	8	MBR
4	OVERLAND DISCHARGE ALIGNMENT	9	INLET WORKS
5	ONSITE BIO DETENTION AND RETENTION BASIN	10	OXIDATION DITCH

Figure 2-2 Indicative AWRC site arrangement (indicative and pending detailed design)

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3 Scope, Objectives and Performance Criteria

The objectives, targets and performance criteria identified in this BCSP is applicable to all construction work associated with the USC Project undertaken by both John Holland and its subcontractors. This BCSP forms part of the Construction Environment Management Plan (CEMP) and must be implemented for the duration of construction of the project.

3.1 Objectives

- The objective of this BCSP is to ensure that all avoidance, mitigation and management measures relevant to the protection of biodiversity matters, including threatened species and threatened ecological communities, referred to in the following listed documents are adopted and implemented to ensure environmental performance outcomes are achieved:
- the Environmental Impact Statement (EIS)
- the Amendment Report
- the Updated Mitigation Measures (UMMs)
- Appendix B of the Amendment Report
- relevant NSW Minister for Planning Conditions of Approval (CoA)
- relevant Commonwealth Controlled Activity Approval (Upper South Creek Advanced Water Recycling Centre, Kemps Creek, NSW (EPBC 2020/8816)
- Sydney Water Management Specification (July 2021)
- Infrastructure Sustainability Council Technical Manual version 2.1 (ISC 2.1) requirements
- relevant legislation and other requirements described in Section 4 of this Plan.

3.2 Targets

The following targets have been established for the management of potential impacts to biodiversity during construction of the project:

- Full compliance with relevant CoA, UMMs and Commonwealth approval conditions
- Full compliance with John Holland Global Mandatory Requirements
- No impacts to threatened species, populations and/or ecological communities which are non-compliant with the project approval conditions.
- No disturbance to flora / fauna outside the project boundary.
- No disturbance to flora within the project boundary which is non-compliant with project approval conditions and large remnant trees that are not to be removed are to be tagged for identification.
- Clearing to be conducted only within the project clearing limits in accordance with the approved Vegetation Clearing Procedure.
- Avoid fauna fatalities resulting from construction activities, where feasible. Ensure no threatened species fatalities through the application of the approved Unexpected finds protocol for threatened flora and fauna, and also through application of the fauna rescue and release procedure.
- No new weeds introduced to the project area.
- No transfer of pathogen / disease from one project area to another. The Weed and Pathogen Management Procedure (Appendix F) will be adhered to.
- No increase in the distribution of weeds currently existing within the project boundary.
- No wilful pollution or sedimentation of aquatic ecosystems; threatened ecological communities or threatened species habitat.
- Ensure training and awareness on best practice management of biodiversity matters is provided to all construction personnel through site inductions and ongoing training and awareness.

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3.3 Environmental Performance Outcomes

The environmental performance outcomes related to biodiversity matters for the project are included in Table 3-1 below.

Table 3-1 Performance outcomes related to biodiversity matters

Desired Performance Outcome	How performance outcomes would be achieved	Measurement Tool
Biodiversity The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity.	Minimise removal of high retention value trees Compensatory tree planting (including native plants where appropriate) Re-use of native vegetation and habitat features Minimise impacts to Key Fish Habitat	The objectives and targets nominated in this BCSP (Section 3.1 and 3.2, respectively), will assist the project team in measuring and tracking performance against the desired outcomes and ensuring that all feasible measures to avoid and minimise impacts on biodiversity matters are achieved.

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4 Legislative and Guidance Requirements

4.1 Relevant Legislation, Standards and Guidance

4.1.1 Legislation

All legislation relevant to this BCSP is included in Appendix A3 of the CEMP. Some of the key legislation to the BCSP includes:

- Environmental Planning and Assessment Act 1979
- Biodiversity Conservation Act 2016
- Biosecurity Act 2015
- Fisheries Management Act 1994
- Environment Protection Biodiversity Conservation Act, 1999 (Commonwealth)

4.1.2 Standards and Guidelines

- The primary guidelines, specifications and other reference documents relevant to this plan include:
- Sydney Water Management Specification (1041412)
- Sydney Water Guidance Standard – 9.3 Biodiversity management
- Australian Standard AS 4373 Pruning of Amenity Trees
- Australian Standard 4970 – 2009 Protection of Trees
- USC Construction Environmental Management Plan
- USC Soils & Contamination CEMP Sub-plan
- USC Surface Water & Groundwater CEMP Sub-plan
- USC Rehabilitation Management Plan
- Hygiene protocol for the control of disease in frogs (Department of Environment, Climate Change and Water, 2008)
- Policy and Guidelines for Fish Habitat Conservation and Management (Department of Primary Industries, 2013)
- Guidelines for controlled activities on waterfront land – Riparian Corridors (NRAR, 2018)
- Controlled activities on waterfront land – Guidelines for watercourse crossings on waterfront land (NSW Office of Water, 2013).

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4.2 NSW Minister for Planning Conditions of Approval

Table 4-1 below provides a summary of the CoA relevant to biodiversity and how and where these items are addressed in this plan.

Table 4-1 NSW Minister for Planning Conditions of Approval relevant to the BCSP.

CoA Reference	Condition Requirement	BCSP Reference
A9	Where the terms of this approval require consultation to be undertaken, evidence of the consultation undertaken must be submitted to the Planning Secretary and ER (as relevant) with the corresponding documentation. This evidence must include: a. documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; b. a log of the dates of engagement or attempted engagement with the identified party; c. documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations; d. outline of the issues raised by the identified party and how they have been addressed; and e. a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.	Section 5 of this Plan – 'Consultation' and Appendix I – CoA A9 Consultation Summary Report (BCSP)
C3	The CEMP (and relevant CEMP sub-plans) must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one month before the commencement of construction, or where construction is staged, no later than one month before the commencement of each stage.	Section 5
C4	The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A9. (c) Biodiversity (EHG, DPI Fisheries and relevant council(s))	Section 5 of this Plan – 'Consultation' and Appendix I – CoA A9 Consultation Summary Report (BCSP)
C5	The CEMP Sub-plans must state how: a. the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved; b. the mitigation measures identified in the documents listed in Condition A1 will be implemented; c. the relevant terms of this approval will be complied with; and d. issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART (Specific, Measurable, Achievable, Realistic and Timely) principles.	Section 3.1 Section 3.2 Section 3.3 Section 8 Section 3.2 Section 8 Section 3.2 Section 2.3
C9 C11	The Biodiversity CEMP Sub-Plan must be prepared by a suitably qualified and experienced ecologist and include, but not limited to: a. details of the measures to avoid and minimise disturbance to native vegetation, and other habitat of native flora and fauna species; b. procedures for undertaking pre-clearance surveys for native fauna, including surveys by a suitably qualified and experienced ecologist to determine the presence of native fauna in the areas impacted by Stage 1 of the CSSI, and procedures and measures to manage their relocation; c. measures to prevent the spread of weeds, pathogens and to manage biosecurity; d. protocols for incidental finds of threatened species and ecological communities within the construction boundary; Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary.	Section 2.1 Section 8 Section 8.1 Appendix A Appendix C Section 8.4.4 Section 4 Section 8.4.2 Appendix B CEMP Section 1.5
C12	The CEMP and CEMP Sub-plans as approved, including any minor amendments approved by the ER, must be implemented for the duration of construction of Stage 1 of the CSSI.	Section 5
E12	The clearing of native vegetation must be minimised to the greatest extent practicable with the objective of reducing impacts to threatened ecological communities, threatened species and their habitat.	Section 8.1

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CoA Reference	Condition Requirement	BCSP Reference
E13	Impacts to plant community types and species credit species must not exceed those identified in Table 5 and Table 6.	Section 7.3
E14	Prior to impacts on the biodiversity values of Stage 1 of the CSSI, the number and classes of ecosystem credits and species credits (like-for-like) as set out in Table 5 and Table 6, must be retired. The retirement of the credits must be carried out in accordance with the BC Act, and can be achieved by:	Section 7.4
	a. acquiring and retiring "biodiversity credits" within the meaning of the BC Act; and / or b. making a payment into the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem and species credits, as calculated by the Biodiversity Offsets Payment Calculator; and/or	Section 7.4 Section 7.4
	c. funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme.	Section 7.4
E15	Where evidence of compliance with the Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits (OEH, 2017) for the purpose of applying the variation rules has been provided to the Planning Secretary, variation rules may be applied to retire the relevant ecosystem credits and species credits as set out in the BAM Biodiversity Credit Biodiversity Report (Variation). The variation rule does not apply to biodiversity credits for threatened species or threatened ecological communities that are listed as critically endangered under the *Biodiversity Conservation Act 2016* or listed in any capacity under the *Environment Protection and Biodiversity Conservation Act 1999*. ***Note:*** *"Impacted site" in the application of the like-for-like offset rules is taken to be the subject land described in the Biodiversity Development Assessment Report and Project Amendments: Biodiversity Assessment referred to in* ***Condition A1****. The subject land is the disturbance footprint subject to assessment under the Biodiversity Assessment Method.*	Section 7.4
E16	Evidence of the retirement of credits in satisfaction of Condition E14 must be provided to the Planning Secretary prior to impacts on biodiversity values.	Section 7.4
E17	Where lands mapped as non-certified existing native vegetation (ENV) under the *Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Regional Growth Centres) 2006* (the Order) are proposed to be impacted, the Proponent must prepare a Growth Centres Biodiversity Certification Offset Strategy. The strategy must: a. be prepared in consultation with EHG and submitted to the Planning Secretary for approval prior to the commencement of construction; b. be prepared in accordance with the Order; c. detail how the Proponent proposes to meet the requirements specified under Relevant Biodiversity Measure (RBM) 8 of the Order; and d. include the location of the offsets and the proposed measures to ensure the long-term protection of the offsets. *Note: The Growth Centres Biodiversity Certification Offset Strategy under Condition E17 is only required in the event impacts on non-certified existing native vegetation (ENV) are proposed.*	Section 7.4
E18	The Proponent must avoid direct or indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street during construction of Stage 1 of the CSSI.	Section 7.3
E19	The Proponent must prepare a Rehabilitation Management Plan to revegetate and restore impacted RBM 12 red-hatched lands at Kemps Creek, mapped within the amended impact assessment area at Appendix B. Rehabilitation must occur as soon as practical after construction of the brine pipeline mapped at Appendix B, or as otherwise agreed with relevant landowner(s) or EHG.	Section 8.5 Section 5 Rehabilitation Management Plan (RMP) to be prepared for relevant locations included in CoA E19.
E20	The Rehabilitation Management Plan required under Condition E19 must be prepared in consultation with EHG and submitted to the Planning Secretary for approval one month before the commencement of construction in the RBM 12 red-hatched lands. The plan must include: a. removal of all equipment, materials and environmental controls from site; b. where like-for-like re-vegetation is not possible (for example, to minimise risk to pipelines from tree roots), consider vegetation suited to the infrastructure requirements and environmental conditions; c. return disturbed areas to preconstruction ground level where practical; d. rehabilitate areas of native vegetation removal to the highest ecological condition possible;	Section 8.5 Rehabilitation Management Plan (RMP) to be prepared for relevant locations included in CoA E19.

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CoA Reference	Condition Requirement	BCSP Reference
	e. in areas of native vegetation removal, reuse felled vegetation (logs and tree-hollows) and other habitat features such as rocks and boulders to increase habitat values; f. in areas of native vegetation removal, use locally sourced (local provenance) tube stock only. All species installed are to be locally indigenous and suitable and characteristic of the Plant Community Type (PCT) that would have originally occurred at the site; g. where possible, reuse stockpiled vegetation as part of rehabilitation works; h. where open trenching of waterways is required, enhance aquatic habitat and restore creeks to an improved state; and i. preparation of six-monthly summary progress report(s) over the revegetation maintenance period, for submission to EHG for comment until EHG is satisfied that the vegetation is established.	
E21	The Proponent must minimise impacts to Key Fish Habitat (KFH) as defined in Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013 update).	Section 8.3
E22	The Proponent must take all reasonable and practicable measures to avoid open trenching of waterways, particularly Kemps Creek and South Creek, between late April and early June, and late October to late December, to minimise disruption of downstream and upstream Australian Bass migration.	Section 8.3 Section 8.6
E23	Stage 1 of the CSSI must maximise the reuse of native vegetation and other habitat features that have been approved for removal. Where reuse by the CSSI is not possible, relevant council(s), NSW National Parks & Wildlife Service, Western Sydney Parklands Trust, Greater Sydney Local Land Services, local Landcare groups, DPI Fisheries and any additional relevant government agencies must be consulted prior to the removal of vegetation and other habitat to determine if: a. hollows, tree trunks (greater than 25-30 centimetres in diameter and 2-3 metres in length), mulch, bush rock and root balls salvaged from native vegetation impacted by the CSSI; and b. collected plant material, seeds and/or propagated plants from native vegetation impacted by the CSSI, could be used by others in habitat enhancement and rehabilitation activities, before pursuing other disposal options. If the native vegetation and other habitat features can be reused by others, the Proponent must advise them and facilitate access for salvage.	Section 8.4.1 Appendix A
E63	An Urban Design and Landscape Plan (UDLP) must be prepared for the AWRC site to document and illustrate the permanent built works and landscape design of Stage 1 of the CSSI and how these works are to be maintained. The UDLP must be: a. prepared by a suitably qualified and experienced person(s) in place, urban and landscape design and bush regeneration; b. prepared in consultation with relevant council(s) and the community, including affected landowners and businesses; c. submitted to the Planning Secretary for approval no later than one month before the construction of permanent built surface works and/or landscaping in the area to which the UDLP applies; and d. implemented during construction and operation of Stage 1 of the CSSI. Note: The UDLP may be developed and considered in stages to facilitate design progression and construction. Any such staging and associated approval would need to facilitate a cohesive final design and not limit final design outcomes.	Section 8.6 The UDLP is currently in development and any outcome of the development and subsequent consultation, and approval process will be incorporated into the BCSP.
E64	The UDLP must document how the following matters have been considered in the design and landscaping of the project: a. the requirements of Conditions E61 to E62; b. the requirements of the Wildlife Management Plan under Condition E130; c. demonstrated integration of Crime Prevention Through Environmental Design (CPTED) principles; d. Designing with Country and the principles and objectives of the draft Connecting with Country Framework; e. the finalised version of the draft guideline *'Recognise Country – Draft Guidelines for development in the Aerotropolis*'; f. constraints associated with bushfire, flooding and airport safeguarding; g. vegetation management that considers the principles of *Guidelines for Vegetation Management Plans on Waterfront Land* (NSW Office of Water, DPI 2012), draft *Western Sydney Aerotropolis Riparian Revegetation Strategy*, and the tree planting provisions in the draft *Western Sydney Aerotropolis Development Control Plan* – Phase 2 (October 2021); h. architectural design to soften the industrial aesthetic;	

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CoA Reference	Condition Requirement	BCSP Reference
	i. integrating heritage character of the site with treatment and finishes of the new design; and j. inputs from relevant experts in architecture, landscape architecture, bushfire management, heritage, revegetation, ecology, wildlife hazard management and flooding.	
E65	The UDLP must include descriptions and visualisations (as appropriate) of: a. the design of the permanent built elements for the AWRC site including their form, materials and detail; b. place, design and landscape outcomes for the proposed green space area, consistent with the Upper South Creek Advanced Water Recycling Centre Urban Design Report, dated July 2021 (provided as Attachment A to RFI 1, dated 1 June 2022) and identified in the documents listed in Condition A1; c. the design of the project landform and landscaping elements; d. the type and design of public and open space; e. details of strategies to rehabilitate, regenerate or revegetate disturbed areas with local native species; and f. management and routine maintenance standards and regimes for design elements and landscaping Work (including adequate watering of plants following planting depending on forecast weather conditions and weed management) to ensure the success of the design and landscape outcomes. Unless otherwise agreed with the Planning Secretary, construction of permanent built work or landscaping that are the subject of the UDLP must not be commenced (in the area to which the UDLP applies) until the UDLP has been approved by the Planning Secretary	
E114	Works on waterfront land and within watercourses must have regard to Guidelines for controlled activities on waterfront land – Riparian Corridors (NRAR, 2018), Controlled activities on waterfront land – Guidelines for watercourse crossings on waterfront land (NSW Office of Water, 2013) and Policy and Guidelines for Fish Habitat Conservation and Management (DPI Fisheries, 2013). This includes outlets and watercourse crossings.	Section 8.3
E115	Suitably qualified expert(s) must agree to methods of construction of pipelines across waterways and through shallow aquifers, in consultation with relevant State and/or local authorities.	Section **Error! Reference source not found.**
E116	Drainage feature crossings (permanent and temporary watercourse crossings and stream diversions) and drainage swales and depressions must be carried out taking into consideration relevant guidelines and designed by a suitably qualified and experienced person.	Section 8.3
E117	Rehabilitation and revegetation of the riparian corridor and banks of watercourses impacted by Stage 1 of the CSSI must be commenced within three months of the completion of the watercourse Work and any other Work required in the riparian corridor.	Section 8.5
E130	Prior to the commencement of operation of Stage 1 of the CSSI, the Proponent must prepare a Wildlife Management Plan to identify the project's contribution to increased risk of wildlife strikes by aircraft. The Wildlife Management Plan must include: a. wildlife monitoring surveys and regular wildlife hazard assessments; b. wildlife awareness and management training for operational staff; c. implementation of activities to reduce hazardous bird populations; d. adoption of wildlife deterrent technologies to reduce hazardous bird populations; e. performance indicators to evaluate implementation and compliance; f. review process to regularly assess implementation against performance indicators, identify gaps, and ensure currency; and g. roles and responsibilities for plan implementation and review. h. The Wildlife Management Plan must be submitted to the Planning Secretary, Western Sydney Airport and DPI Agriculture for information prior to the commencement of operation of Stage 1 of the CSSI and be implemented throughout operation.	Section 8.2 Further, key aspects of measures related to wildlife deterrent technologies and other activities to reduce hazardous bird populations will be incorporated in the UDLP and relevant operational environmental management plan documents.

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4.3 Updated Management Measures (UMMs)

Table 4-2 below provides a summary of the UMMs relevant to biodiversity and how and where these items are addressed in this plan.

Table 4-2 UMMs relevant to the BCSP

UMMs Reference	Updated Management Measure Requirement	BCSP Reference
G05	Develop and implement a Rehabilitation Management Plan to restore pipeline work sites as soon as possible to pre-existing condition or as otherwise agreed with relevant landowner or council. This plan will also include the following: • Removing all equipment, materials and environmental controls from site. • Where like for like re-vegetation is not possible (for example to minimise risk to pipelines from tree roots), consider vegetation suited to the infrastructure requirements and environmental conditions. • Where street trees cannot be replaced like for like, consider other opportunities to reduce impacts to streetscape character and visual amenity. • Return disturbed areas to preconstruction ground level where practical. • Rehabilitate areas of native vegetation removal to the highest ecological condition possible. • In areas of native vegetation removal, reuse felled vegetation (logs and tree- hollows) and other habitat features such as rocks/boulders to increase the habitat values. • In areas of native vegetation removal, use locally sourced (local provenance) seed stock only. All species installed are to be locally indigenous and suitable and characteristic of the surrounding Plant Community Types (PCTs). • Where possible reuse stockpiled vegetation as part of rehabilitation works. • Where open trenching of waterways is required, enhance aquatic habitat and restore creeks to an improved state. • In areas covered by the Phase 2 Aerotropolis DCP, consider tree planting provisions of the DCP in designing re-vegetation, including in relation to the risk of wildlife attraction. • Incorporate inputs from relevant experts in revegetation, ecology, geomorphology. • Approach to maintaining revegetated areas during their establishment phase.	Rehabilitation Management Plan (RMP) to be prepared for pipeline work sites.
G12	Consult with DPI Fisheries during development of the CEMP, including the Biodiversity Management Plan, Soil and Water Management Plan and management measures at the Hinchinbrook Creek crossing.	Section 5
G15	Consult with WSA regarding the final design of the AWRC and any changes in risks relating to wildlife strikes.	Section 5
SC03	Consult with Greater Sydney Parklands to ensure impacts on the parkland and rehabilitation of disturbed areas are appropriately managed, to coordinate any interactions between project infrastructure and future recreation or other facilities proposed in the Cecil Park precinct or as part of the Southern Parklands Framework.	To be incorporated in the RMP required under UMM G05
WW02	Minimise the duration of instream works and where practical, conduct instream work during periods of low flow. Minimise the 'wet area' impacted during the installation of trenched crossings.	Section 8.3
WW03	Whenever possible: • operate equipment on land or from a floating barge to minimise disturbance to the banks and bed of the water body • use temporary crossing structures or other practices to cross watercourses with steep and/or highly erodible banks and beds. • limit machinery fording of the watercourse to a one-time event (i.e. over and back).	Section 8.3
WW04	Isolate works in waterways using booms, silt curtains or similar to contain suspended sediment.	Section 8.3
WW05	Undertake the following measures: • Restore bed and banks of the watercourse or water body to their original contour and gradient; if the original gradient cannot be restored due to instability, a stable gradient should be restored. Consider principles in relevant policy and guidelines including Fish Habitat Conservation and Management (DPI, 2013a) and Why do fish need to cross the road? (Fairfull and Witheridge, 2003).	Section 8.5
WW11	Consider riparian planting and natural bank stabilisation measures in the detailed design phase.	Section 8.5
WW14	Design and install coffer dams and temporary in-stream structures associated with open trenching in accordance with the Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013a).	Section 8.3

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UMMs Reference	Updated Management Measure Requirement	BCSP Reference
WW15	Temporary in-stream structures should be installed during low-flow periods, and measures established in the CEMP about how high flow events will be managed to limit erosion of the structures and associated sedimentation of downstream waterways.	Section 8.3
WW16	For dewatering of temporary in-stream structures: • Notify NSW DPI seven days prior to any dewatering activities in order to organise potential fish rescue activities. A separate s.37 permit may be required from NSW DPI to relocate fish. • Pump water a minimum of 30 m away from the waterway so it preferentially does not re-enter the waterway. If water is to re-enter the waterway, ANZECC water quality guidelines (or Wianamatta -South Creek Water Quality Objectives) the waterway objectives need to be adhered to.	Section 8.3
WW17	Where practical, open trenching of waterways, particularly Kemps Creek and South Creek are to be avoided between late April and early June, and late October to late December, to minimise disruption of downstream and upstream Australian Bass migration.	Section 8.3
WW18	Establish a vegetated riparian zone (VRZ) on the AWRC site (40 m from South Creek and wetland areas and 30 m from Kemps Creek) and apply an offset where operational areas of the AWRC encroach on this, in accordance with the principles of Guideline for Controlled Activities on Waterfront Land (DPI 2012), Guidelines for controlled activities on waterfront land – Riparian corridors (NRAR 018) and airport safeguarding constrains.	Requirement to be incorporated in the UDLP and associated design packages.
WW19	Design release structures considering the principles in Guidelines for Outlet Structures on Waterfront Land (DPI, 2012).	Considered in the detailed design development
WW20	Consider opportunities, where practical, to improve mixing and dilution of releases (for example investigating options for submerging release structures). The feasibility/acceptance of alternative options would need to be assessed against a number of key considerations including (but not limited to) engineering requirements, operations and maintenance risk, geomorphology and energy dissipation requirements.	Considered in the detailed design development
WW21	Investigate whether there are any scenarios where treated water releases to South Creek could occur when creek flows are low and still increasing in response to rainfall. If necessary and where feasible, identify opportunities to minimise releases while flows are still increasing in South Creek.	Considered in the detailed design development
WW21A	Where reasonable and practical, incorporate recommendations in the 'Guidelines for controlled activities on waterfront land' (DPI 2012) and 'Guidelines for controlled activities on waterfront land – Riparian corridors' (NRAR 2018).	Requirement to be incorporated in the UDLP and associated design packages. During construction of the project – Section 8.3
WW21B	Confirm the need to re-mineralise treated water releases to the Nepean River during detailed design. Consideration is to be given to existing conductivity levels locally and within the catchment and ANZG (2018) and ANZECC (2000) guideline values.	Considered in the detailed design development
TB01	Prepare and implement a Biodiversity Management Plan as part of the project's CEMP. The plan will include: • Identification of no-go zones and physical delineation of vegetation to be cleared and/or protected on site, including installation of appropriate signage prior to works commencing • Construction phase terrestrial biodiversity measures from this table • Roles and responsibilities • Monitoring and auditing requirements (including recording areas and locations of vegetation removed and revegetation) • Measures to prevent the spread of weeds, pathogens and to manage biosecurity.	This Plan (BCSP)
TB02	Vegetation trimming or removal is not to proceed without written authorisation from the Sydney Water Project Manager or delegate.	Section 8.4.1 Appendix A
TB03	Minimise vegetation clearance and disturbance, including impacts to standing dead trees and riparian zones. Where possible, limit clearing to trimming rather than the removal of whole plants.	Section 8.4.1 Appendix A
TB04	Adjust construction methodology (for example avoid area, hand excavate, implement exclusion fencing) to protect sensitive areas where possible (such as mature trees, known threatened species, populations or ecological communities).	Section 8.4.1 Appendix A
TB05	Protect trees in accordance with the requirements of Australian Standard 4970- 2009 for the Protection of Trees on Development Sites. Engage a qualified arborist where roots >50mm are impacted within the Tree Protection Zone.	Section 8.4.1 Section 9

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UMMs Reference	Updated Management Measure Requirement	BCSP Reference
		Appendix A
TB06	Engage qualified ecologists to undertake pre-clearance inspections (including fauna relocation) of vegetation for potential fauna prior to clearing or trimming, including the banks of larger watercourses to be impacted. Habitat trees are to be soft felled in the presence of a qualified ecologist. Undertake daily inspections of open pits and trenches to monitor for trapped fauna.	Section 8.4.1 Section 9 Appendix A
TB08	If any damage occurs to vegetation outside of the impact area stop work in that area and notify the Sydney Water Project Manager or delegate.	Appendix A
TB10	Prepare a Biodiversity Offset Strategy in accordance with the NSW Biodiversity Offset Scheme to address the species and ecosystem credit requirements outlined in section 9.1.10 the 'Upper South Creek Advanced Water Recycling Centre project amendments: Biodiversity Assessment', (Biosis, November 2021).	Section 7.4
TB11	Consult with Regional NSW in the event that a Biodiversity Stewardship Site(s) is proposed.	Section 7.4
AO01	Investigate opportunities for additional design measures at the AWRC site to manage potential wildlife populations. These will include: • covering large (100 m2) open bodies of still water • exclusionary devices • enclosing waste receptacle areas • selection of landscaping plant species that are less attractive to wildlife as a food and shelter source • steepening the slopes of basins to deter wildlife. Implement feasible design opportunities to deter wildlife that present a risk of wildlife strikes by aircraft.	Section 8.2
AO02	Prepare and implement a Wildlife Management Plan for the AWRC site. This plan will include: wildlife monitoring surveys • regular wildlife hazard assessments • wildlife awareness and management training for AWRC operational staff • implementation of activities to reduce hazardous bird populations • adoption of wildlife deterrent technologies to reduce hazardous bird populations • performance indicators to evaluate implementation and compliance to consent conditions • a review process to regularly assess implementation against performance indicators, identify gaps, and ensure currency • roles and responsibilities for plan implementation and review. The Wildlife Management Plan will be developed in consultation with Western Sydney International Airport and DPI Agriculture.	Section 8.2
AO04	Assess consistency of any design changes to the AWRC with the Avisure Wildlife Hazard Assessment in the EIS. If required, an updated risk assessment will be completed to identify any additional management measures to be incorporated into the detailed design and the Wildlife Management Plan.	Section 8.2

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4.4 Commonwealth Controlled Activity Approval Conditions

Table 4-3 below provides a summary of the Commonwealth Controlled Activity Approval conditions relevant to biodiversity and how and where these items are addressed in this plan.

Table 4-3 CAA conditions relevant to the BCSP

CAA Reference	Condition Requirement	BCSP Reference
A-1	To minimise impacts to protected matters, the approval holder must not clear more than: a. 1.44 ha of Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest b. 1.64 ha of Spiked Rice-flower habitat	Section 7.3
A-2	The approval holder must not clear outside the impact assessment area. The approval holder must not impact on protected matters by clearing outside the impact area.	Section 8.6
A-3	To mitigate impacts on protected matters the approval holder must implement conditions C4, C5, C9, C11, C12, E23, E119, E120, E132, E133, E134, C-B1 and C-B7 of the State Infrastructure Approval, in so far as they relate to monitoring, mitigating and avoiding impacts to protected matters.	Refer to CEMP and Table 4-1
A-4	To offset the impacts of the Action on protected matters, the approval holder must implement conditions E12, E13, E14, E15, and E16 of the State Infrastructure Approval.	Section 7.4, Section 8.6, Table 4-1
A-5	The approval holder must notify the department in writing within 10 business days of the biodiversity credits being retired in accordance with conditions E14, E15 and E16 of the State Infrastructure Approval.	Section 7.4
A-6	The approval holder must ensure, prior to submitting them for approval by the Planning Secretary, that the Construction Environmental Management Plan (CEMP) and sub-plans required for Biodiversity (sub-plan C4 (d)) and Heritage (sub-plan C4 (g)) required under conditions C4, C5 and C9 of the State Infrastructure Approval: a. are consistent with statutory documents for protected matters, including for the listings and management of the Greater Blue Mountains Area World Heritage property and the National Heritage place b. demonstrate how the approval holder will protect, minimise and mitigate impacts to protected matters c. state how the relevant terms of the State Infrastructure Approval for protected matters will be complied with	a) Heritage CEMP Sub-Plan b) Section 8 c) Section 4
A-7	The approval holder must not commence the Action unless the Minister has approved all of the CEMP, Biodiversity and Heritage sub-plans, required by condition C4 of the State Infrastructure Approval, in writing.	CEMP Section 1.8 Section 5.1
A-9	The approval holder must implement the CEMP, Biodiversity and Heritage sub-plans, WHMP and WQMP approved by the Minister until, at least, the end date of this approval, unless otherwise agreed to by the Minister in writing.	Section 3
A-11	The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a Revised Action Management Plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.	CEMP Section 3.12.3
A-12	The approval holder may choose to revise an action management plan approved by the Minister under conditions 7-8, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the Action in accordance with the RAMP would not be likely to have a new or increased impact.	CEMP Section 3.12.3
A-13	If the approval holder makes the choice under condition 12 to revise an action management plan without submitting it for approval, the approval holder must: a. Notify the department electronically that the approved action management plan has been revised and provide the department with: i. An electronic copy of the RAMP.	CEMP Section 3.12.3

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CAA Reference	Condition Requirement	BCSP Reference
	ii. An electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP. iii. An explanation of the differences between the approved action management plan and the RAMP. iv. The reasons the approval holder considers that taking the Action in accordance with the RAMP would not be likely to have a new or increased impact. v. Written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 business days after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the department. b. Subject to condition 15, implement the RAMP from the RAMP implementation date. c. Document changes to approved action management plans in the compliance report, as per condition 29.	
A-18	Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date: a. of this approval, if the version of the plan to be implemented is specified in these conditions; or b. the plan is approved by the Minister in writing, if the plan requires the approval of the Minister; or c. the plan is submitted to the department in accordance with a requirement of these conditions, if the plan does not require the approval of the Minister; or d. the plan is approved by a state/territory government official/the NSW Planning Secretary as required under a state/territory government condition which must be complied with in accordance with these EPBC Act conditions.	CEMP Section 2

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4.5 Infrastructure Sustainability Council Requirements

The Project is aiming to achieve the Level 2 benchmarks for Ecological Protection and Enhancement in Infrastructure Sustainability (IS) v2.1 Technical Manual Design and As Built Rating (ISC Benchmarks), herein referred to as ISC v2.1. The relevant benchmarks are listed in Table 4-4 and includes references to the requirements for achieving the benchmark, the necessary evidence and to documents and/or sections of this BCSP where the evidence is presented.

Table 4-4 ISC 2.1 requirements relevant to biodiversity

Level	Benchmark	Management Measure	Evidence Required	Where addressed
ECO-1 Design				
1	DL1.1 The ecological impacts and opportunities of the infrastructure project have been assessed and quantified.	MS1.1a: An ecological assessment for the project must be prepared or reviewed by a suitably qualified professional and include detailed investigations that describe and assess:	Ecological assessment, as specified in Section 2.1e.g. separate document or section in other relevant environmental assessment report. Documentation of suitably qualified professional e.g. CV, LinkedIn profile.	Appendix J, EIS
		Ecological features and ecological values of the project site (pre-development), as well as their spatial and temporal contexts		Appendix J, EIS
		The significance of the ecological features and processes that are known, or are likely, to be present		Appendix J, EIS
		Potential impacts (direct, indirect, temporary, and permanent) of the project activities on the identified ecological features and processes		Appendix J, EIS
		Cumulative impacts relevant to the project		Appendix J, EIS
		Compliance with legislative requirements and best practice industry standards		Appendix J, EIS
		Consideration of the effects of climate change on the ecological features of the site and how this might influence management		UDLP Rehabilitation Management Plan
		Potential opportunities for mitigation or enhancement		Appendix J, EIS
		MS1.1b: The ecological assessment must include an objectives statement (i.e. no quantifiable loss or net ecological gain) and provide guidance on achieving specified outcomes.		Appendix J, EIS
	DL1.2 Measures to avoid, minimise and remedy impacts on ecological features and values have been identified and incorporated into design.	MS1.2a: Appropriate measures to mitigate adverse impacts and to enhance the ecology of the project site must be identified and reviewed by a suitably qualified professional, and include:	Recommended practicable mitigation measures to avoid, minimise or remedy impacts e.g. in ecological assessment report Documentation of suitably qualified professional e.g. CV, LinkedIn profile Plans, drawings, maps and specifications that show how measures to avoid, minimise or remedy impacts have been incorporated into the design.	Appendix J, EIS UDLP
		Options for project development and impact management (avoid, minimise, remedy)		Appendix J, EIS
		Identification of any residual impacts after implementation of measures to avoid and minimise		Appendix J, EIS
		Identification of any opportunities to be considered during the design phase or implemented during future construction phases to enhance ecological features and values		Appendix J, EIS Rehabilitation Management Plan UDLP

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Level	Benchmark	Management Measure	Evidence Required	Where addressed
		Strategies for stakeholder management and community engagement.		Appendix J, EIS UDLP Rehabilitation Management Plan Section 5 (this plan)
		MS1.2b: All practicable measures to avoid, minimise and remedy impacts on the project site must be incorporated into design (reference design).		Appendix J, EIS UDLP Rehabilitation Management Plan
	DL1.3 Management plans have been prepared to ensure the ecological outcomes of the infrastructure project are achieved.	MS1.3a: Management plans to address ecological impacts and opportunities associated with the project must be prepared or reviewed by a suitably qualified professional for the construction and operation phases.	Management plans, as specified above Documentation of suitably qualified professional e.g. CV, LinkedIn profile	This Plan
		MS1.3b: At a minimum, a comprehensive Biodiversity Management Plan (or equivalent) covering flora and fauna must be developed and include:		
		A description and maps of ecological features and values to be protected, maintained or enhanced within and adjacent to the project site		Appendix J EIS Section 6 (This Plan) Section 3.2.4 of the CEMP
		A summary of the direct and indirect impacts identified in the ecological assessment		Section 6, 7.2 and 7.3 (This Plan)
		A description of the design elements that contribute to the protection, maintenance or enhancement of ecological values and features		Section 8 (This Plan) Rehabilitation Management Plan
		Measures to be implemented to protect ecological values and features during any future project phases, including design, construction, post-construction and commissioning		Section 8 (This Plan) Rehabilitation Management Plan UDLP
		Identification of the roles and responsibilities for implementing the management procedures		Section 9.1 (This Plan)
	DL1.4 The ecological values of the site (post-development) are modelled and result in no quantifiable loss when compared to its pre-development state (like	MS1.4a: Evidence that ecological features and values of the pre-development site (i.e. before any construction has started) have been maintained or enhanced and result in no quantifiable loss must use quantifiable metrics where	Evidence of no quantifiable loss ecological outcome e.g. extracts from calculators or suitable metric tools A compliance report, plans or drawings demonstrating that the project has implemented or will	Appendix J, EIS Biodiversity Offset Strategy Section 7.4 (This Plan)

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Level	Benchmark	Management Measure	Evidence Required	Where addressed
	for like land-based offsets allowed).	possible to demonstrate that all adverse ecological impacts have been mitigated or offset.	implement all practicable measures to avoid, minimise and remedy impacts on site A biodiversity offsets strategy / management plan, to deliver the offset requirements Documentation of suitably qualified professional e.g. CV, LinkedIn profile.	
		MS1.4b: These metrics must be specific to the features and values impacted and developed or reviewed by a suitably qualified professional.		
		MS1.4c: Offsets of any residual impacts to ecological features and values must follow the application of all practicable measures to avoid, minimise and remedy impacts on the project site.		Appendix J, EIS Biodiversity Offset Strategy Section 7.4 (This Plan)
		MS1.4d: The application of offsets must:		
		Be land based and relate to the features and values that are subject to residual impacts		Appendix J, EIS Biodiversity Offset Strategy
		Show what actions will be implemented on the offset site (where applicable) to achieve no quantifiable loss, ensuring these actions are additional to baseline duty of care		Appendix J, EIS Biodiversity Offset Strategy
		Demonstrate how the offset area will be protected and managed in perpetuity for conservation purposes.		Appendix J, EIS Biodiversity Offset Strategy
		MS1.4e: A biodiversity offset strategy or management plan must be prepared or reviewed by a suitably qualified professional to demonstrate how the planning and delivery of any biodiversity offsets will achieve the targeted ecological outcome.		Appendix J, EIS Biodiversity Offset Strategy
2	DL2.1 The ecological values of the site (post-development) are modelled and result in a quantifiable net ecological gain when compared to its pre-development state (like for like land-based offsets allowed).	MS2.1a: Evidence that ecological features and values of the pre-development site have been maintained or enhanced and result in net ecological gain must use quantifiable metrics where possible and demonstrate that all adverse ecological impacts have been offset.	Evidence of net ecological gain outcome e.g. extracts from calculators or suitable metric tools A compliance report, plans or drawings demonstrating that the project has implemented or will implement all practicable measures to avoid, minimise and remedy impacts on site A biodiversity offsets strategy / management plan, to deliver the offset requirements specified above Documentation of suitably qualified professional e.g. CV, LinkedIn profile.	UDLP
		MS2.1b: These metrics must be specific to the features and values impacted and developed or reviewed by a suitably qualified professional.		UDLP
		MS2.1c: Offsets of any residual impacts to ecological features and values must follow the application of all practicable measures to avoid, minimise and remedy impacts on the project site.		UDLP

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Level	Benchmark	Management Measure	Evidence Required	Where addressed
		MS2.1d: The application of offsets must meet the requirements as outlined in (DL1.4) but for achievement of net ecological gain.		UDLP
		MS2.1e: A biodiversity offset strategy or management plan must be prepared or reviewed by a suitably qualified professional to demonstrate how the planning and delivery of any biodiversity offsets will achieve the targeted ecological outcome.		UDLP Biodiversity Offset Strategy
Eco-1 As-Built				
1	ABL1.1 Measures to avoid, minimise and remedy impacts on ecological features and values identified in design have been implemented.	MS1.1a: Measures identified in Design to avoid, minimise and remedy impacts on project-related ecological features and values (DL1.2) must be implemented	Evidence of implemented measures as specified above e.g. Management plans, As Built drawings and reports, photos.	Section 9 (This Plan) UDLP Rehabilitation Management Plan
		MS1.1a: Evidence must be provided to demonstrate that all practicable measures to avoid and minimise impacts on site have been implemented		
	ABL1.2 Management plans to ensure the ecological outcomes of the infrastructure project are achieved have been implemented and reviewed.	MS1.2a: Management plans developed during design (DL1.3) including construction phase monitoring activities must be implemented.	Evidence of management plans and their implementation, as specified above Monitoring reports Annual review of management plans and implementation of recommendations Documentation of suitably qualified professional e.g. CV, LinkedIn profile.	Section 9 (This Plan) UDLP Rehabilitation Management Plan Design Reports
		MS1.2b: When monitoring triggers for prompting management responses are detected (DL1.3), the agreed processes must be followed.		Section 9 (This Plan) UDLP Rehabilitation Management Plan
		MS1.2c: Relevant management plans must be reviewed annually during construction by a suitably qualified professional to reflect feedback from monitoring activities and any changes to management responses.		Section 9.4 (This Plan)
		MS1.2d: Recommendations must be implemented in management plans or in improved site management practices.		Section 9.7 and 9.8 (Ths Plan) UDLP Rehabilitation management Plan
	ABL1.3 The ecological values of the site (post-development) result in no quantifiable loss when compared to its pre-development state (like for	MS1.3a: Evidence that ecological features and values have been maintained or enhanced and result in no quantifiable loss must use quantifiable metrics (DL1.4) where possible to demonstrate that all	Evidence of no quantifiable loss of ecological outcomes using accepted metrics e.g. extracts from calculators or suitable metric tools	UDLP Biodiversity Offset Strategy

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Level	Benchmark	Management Measure	Evidence Required	Where addressed
	like land-based offsets allowed)	adverse ecological impacts have been mitigated or offset.	A compliance report, plans or drawings demonstrating that the project has implemented all practicable measures to avoid, minimise and remedy impacts on siteEvidence of purchased biodiversity offsets for any residual impacts associated with the development in perpetuity e.g. a legal covenant or similar.	
		MS1.3b: Offsets of any residual impacts to ecological features and values must follow the implementation of all practicable measures to avoid, minimise and remedy impacts on the project site.		Biodiversity Offset Strategy
		MS1.3c: Offsets used must be evidenced and:		Biodiversity Offset Strategy
		Be land based and relate to the features and values that are subject to residual impacts		Biodiversity Offset Strategy
		Show what actions have been or will be implemented on the offset site (where applicable) to achieve no quantifiable loss, ensuring these actions are additional to baseline duty of care		Biodiversity Offset Strategy UDLP
		Demonstrate how the offset area will be protected and managed in perpetuity for conservation purposes.		Biodiversity Offset Strategy UDLP
		MS1.3d: Any biodiversity offsets must be delivered as per the management plan prepared in Design (DL1.4).		Biodiversity Offset Strategy UDLP
	ABL1.4 Details regarding mitigation measures and monitoring that require ongoing attention during operation and supporting documentation have been formally handed over to the operator or proponent.	MS1.4a: To maintain the ecological value of the asset relevant management plans, implemented mitigation measures and offsetting arrangements must be provided to the operator (if known) or proponent	Handover documentation provided to the proponent or operator.	Section 8.6 (This Plan) UDLP
2	ABL2.1 The ecological values of the site (post-development) result in a quantifiable net ecological gain when compared to its pre-development state (like for like land-based offsets allowed).	MS2.1a: Evidence that ecological features and values have been maintained or enhanced and result in quantifiable net ecological gain must use quantifiable metrics (DL2.1) to demonstrate that all adverse ecological impacts have been offset	Evidence of a quantifiable net ecological gain outcome e.g. extracts from calculators or suitable metric tools A compliance report, plans or drawings demonstrating that the project has implemented all practicable measures to avoid, minimise and remedy impacts on site. Evidence of purchased biodiversity offsets for any residual impacts associated with the development in perpetuity e.g. a legal covenant or similar.	UDLP
		MS2.1b: Offsets of any residual impacts to ecological features and values must follow the implementation of all practicable measures to avoid, minimise and remedy impacts on the project site.		UDLP
		MS2.1c: Offsets used must be evidenced and meet the requirements as outlined in (ABL1.3) but for achievement of net ecological gain.		UDLP
		MS2.1d: Any biodiversity offsets must be delivered as per the management plan prepared in Design (D2.1).		UDLP

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5 Consultation

Consultation requirements raised in the Infrastructure Approval are explored in detail in Section 2 of the CEMP. Specifically, the BCSP has been provided to the following agencies in accordance with CoA C4, with their details summarised in Appendix I and comments received from the consultation process incorporated into relevant sections of this Plan.

- Environment & Heritage Group (EHG) (within the NSW Department of Planning & Environment)
- NSW Department of Primary Industries, Fisheries (Fisheries NSW)
- Relevant Councils, including:
  - Wollondilly Shire Council
  - Penrith City Council
  - Liverpool City Council
  - Fairfield City Council
  - Canterbury-Bankstown Council

The outcomes of the agency consultation have been summarised in the Consultation Summary Report presented in Appendix I. It documents and provides evidence of consultation undertaken in accordance with the Infrastructure Approval.

Beyond the agency consultation requirements nominated in CoA C4 (listed above), John Holland will ensure the following additional engagement is undertaken in relation to relevant biodiversity matters:

- Consult with Western Sydney Airport (WSA) as the design of the AWRC site nears finalisation to ensure that any changes in risks relating to wildlife strikes are identified and accounted for
- Consult with Greater Sydney Parklands (GSP) to ensure impacts to the parkland and rehabilitation of disturbed areas are appropriately managed.
- Consult with relevant land-owners and/or EHG in relation to the development and implementation of the Rehabilitation Management Plan.
- Consult with the NSW Department of Primary Industries, Fisheries (Fisheries NSW) during development of the Biodiversity Management Plan and management measures at the Hinchinbrook Creek crossing.
- Consult with relevant State and/or local authorities in relation to methods of construction of pipelines across waterways and through shallow aquifers.
- Consult with Western Sydney Airport (WSA Co) and DPI Agriculture in developing A Wildlife Management Plan for the AWRC site as part of the operational documents for the Project.

5.1 Endorsement and Approval

Prior to submission of this sub-plan to the Planning Secretary, the BCSP will be endorsed by the ER. This BCSP will be submitted to the Planning Secretary no later than one month before the commencement of construction.

The BCSP will also be submitted to the Commonwealth for approval prior to commencement of construction. Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary.

The BCSP will be implemented for the duration of construction of Stage 1 of the project. Any minor amendments must be approved by the ER and implemented for the duration of construction.

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6 Existing Environment

The following sections summarise existing flora and fauna within and adjacent to the project area including species, communities and habitats. The project boundary and relevant ecological data is shown on the Site Environmental Plans (SEPs) including location information such as HBT areas, TEC areas, fish habitat areas etc. SEPs will be developed for the project as per Section 3.2.4 of the CEMP.

The project area supports patches of native vegetation ranging from high to low condition, some of which contains the potential to support threatened flora species. The project alignment crosses areas supporting native vegetation of conservation significance, including threatened species and ecological communities, and habitat for threatened fauna. The native vegetation across the project area has been mapped and assigned to 16 PCTs, included in Table 6-1. This vegetation includes remnant woodlands, scattered trees and thinned woodlands and riparian and aquatic habitats. In addition to native vegetation, areas of modified land occur in and around the project area that is dominated by exotic vegetation, including sporting fields, residential and commercial gardens, public open spaces, agricultural pasture and a commercial nursery.

Native vegetation within the impact area has been subject to a varying land use history of: grazing, agriculture, clearing, dumping and recreational impacts contributing to degradation of understorey vegetation, and thus threatened species habitats (EIS, Appendix J, Section 6.1). The understorey vegetation within the patches of high and moderate condition PCT 849 within Western Sydney Parklands and the Lansdowne BioBank site have been subject to recent restoration efforts by Western Sydney Parklands Trust and Canterbury Bankstown City Council respectively, aimed towards regenerating the community and habitats toward its benchmark ecological condition.

The AWRC area is located in the Cumberland sub-bioregion of the Sydney Basin bioregion and the Hawkesbury Catchment area. It covers an area of approximately 78 hectares of primarily cleared land, containing few scattered and remnant patches of native vegetation. The land is currently zoned as ENZ Environmental and Recreation and RU2 Rural Landscape under the Liverpool Local Environmental Plan 2008 (LEP).

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Plant Community Types

The 16 PCTs that may be impacted either directly or indirectly by the project and their corresponding conservation status are detailed in Table 6-1.

Table 6-1 PCTs known from the project area

PCT	Conservation Status	Location	
		Impact Area	Impact Assessment Area
PCT 724: *Broad-leaved Ironbark – Grey Box – Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion* (Castlereagh Shale – Gravel Transition Forest).	Critically Endangered (EPBC Act), Endangered (BC Act)	Yes	Yes
PCT 725: *Broad-leaved Ironbark – Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion* (Castlereagh Ironbark Forest).	Critically Endangered (EPBC Act), Endangered (BC Act)	Yes*	Yes
PCT 781: *Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion* (Coastal Freshwater Wetland).	Endangered (BC Act)	Yes	Yes
PCT 835: *Forest Red Gum – Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion* (Cumberland River-flat Forest).	Critically Endangered (EPBC Act)* Endangered (BC Act)	Yes	Yes
PCT 849: *Grey Box – Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion* (Cumberland Shale Plains Woodland).	Critically Endangered (EPBC Act and BC Act)	Yes	Yes
PCT 850: *Grey Box – Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion* (Cumberland Shale Hills Woodland)	Critically Endangered (EPBC Act and BC Act)	No	No
PCT 883: *Hard-leaved Scribbly Gum – Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion* (Castlereagh Scribbly Gum Woodland).	Endangered (EPBC Act) and Vulnerable (BC Act)	Yes*	Yes
PCT 1081: *Red Bloodwood – Grey Gum woodland on the edges of the Cumberland Plain, Sydney Basin Bioregion* (Sydney Hinterland Transition Woodland).	N/A	-	-
PCT 1083: *Red Bloodwood – scribbly gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion* (Coastal Sandstone Ridgetop Woodland).	N/A	Yes	Yes
PCT 1105: *River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion* (River Oak Open Forest).	N/A	Yes	Yes
PCT 1181: *Smooth-barked Apple – Red Bloodwood – Sydney Peppermint heathy open forest on slopes of dry sandstone gullies of western and southern Sydney, Sydney Basin Bioregion* (Hinterland Sandstone Gully Forest).	N/A	Yes	Yes
PCT 1800: *Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley* (Cumberland Swamp Oak Riparian Forest).	Endangered (EPBC Act and BC Act)	Yes	Yes

*PCT occurs on Existing Certified land within the impact area only.

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Threatened Plant Species

The threatened flora species present or considered likely to occur within the impact area are listed below in Table 6-2.

Table 6-2 Threatened flora that may be encountered

Scientific Name	Common Name	BC Act	EPBC Act
Acacia pubescens	Downy Wattle	V	V
Eucalyptus benthamii	Camden White Gum	V	V
Marsdenia viridiflora **subsp.** *Viridiflora*	Native Pear	E2	-
Pultenaea parviflora	Sydney Bush-pea	V	E
Callistemon linearifolius	Netted Bottle Brush	V	-
Dillwynia tenuifolia	-	V	-
Grevillea juniperina **subsp**. *Juniperina*	Juniper-leaved Grevillea	V	-
Pultenaea pedunculata	Matted Bush-pea	E	-
Pimelea spicata	Spiked Rice-flower	E	E

V- Vulnerable; E – Endangered; E2 – Endangered Population

Fauna Habitats

Fauna habitat within the impact area and impact assessment area were generally found to be degraded by past land use practices which have resulted in the loss of key habitat features across the landscape. This has resulted in a general deficiency of large tree-hollows, large patches of intact, well-structured vegetation not subject to edge effects, and high quality connectivity corridors. More localised areas of higher quality fauna habitats were found to occur in areas such as the BioBank site at Lansdowne, Western Sydney Parklands, areas north of Kemps Creek Nature Reserve, and areas near the Nepean River. However, fauna habitats in these locations were still considered sub-optimal and disturbed by a range of urban and peri-urban impacts.

Threatened Fauna

Threatened fauna that have the potential to occur in the project area and be impacted during construction are presented below in Table 6-3.

Table 6-3 Threatened fauna that may be encountered

Scientific Name	Common Name	BC Act	EPBC Act
Meridolum corneovirens	Cumberland Plain Land Snail	E	-
Pommerhelix duralensis	Dural Land Snail	E	E
Miniopterus orianae oceanensis	Eastern Bent-winged Bat	V	-
Miniopterus australis	Little Bent-winged Bat	V	-
Chalinolobus dwyeri	Large-eared Pied Bat	V	V
Myotis macropus	Southern Myotis	V	-
Litoria aurea	Green and Golden Bell Frog	E	V
Heleioporus australiacus	Giant Burrowing Frog	V	V
Pseudophryne australis	Red-crowned Toadlet	V	-

V- Vulnerable; E – Endangered

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Aquatic Fauna

The project is located in the Hawkesbury Nepean River catchment (including the South Creek sub-catchment) and the Georges River catchment. The waterways in these catchments have all been subject to historical impacts associated with urban and agricultural land use, including elevated nutrient levels and altered hydrology due to in-stream weirs, dams and other structures.

Threatened species potentially impacted by the project include the Macquarie Perch *Macquaria australasica*, which is protected under the *Fisheries Management Act 1994* (FM Act) and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) . In addition, the Australian Bass *Macquaria novemaculeata*, an important recreational fishing species, may be impacted by disruption to migration pathways by in-stream works conducted during the migratory period.

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7 Environmental Aspects and Impacts

7.1 Construction Phasing and Sequencing

Construction at the AWRC site will occur across the following overlapping phases:

- Phase 1 – site establishment and mobilisation.
- Phase 2 – site earthworks, stockpiling, storage and removal of materials.
- Phase 3 – civil works.
- Phase 4 – AWRC structure construction.
- Phase 5 – mechanical and electrical installation.
- Phase 6 – landscaping works and rehabilitation.
- Phase 7 – commissioning.

Construction of the pipelines is likely to occur over the entire construction phase. Construction will likely occur in several locations at one time, rather than moving progressively from one end to the other, and each location is likely to be in a different phase at different times. There are five main phases of construction of pipeline construction:

- Phase 1 – site establishment and mobilisation.
- Phase 2 – excavation (detail may vary pending construction approach, including open trenching, micro-tunnelling, horizontal directional drilling (HDD) or pipe-jacking).
- Phase 3 – pipe installation (detail may vary pending construction approach, including micro-tunnelling, horizontal directional drilling (HDD) or pipe-jacking).
- Phase 4 – commissioning.
- Phase 5 – landscaping and restoration.

The project will require the construction of additional structures, including the pipeline release structures at the Nepean River. The construction duration of the release structure is expected to be 12 months. Other additional structures include overflow structures, process chambers, advanced treatment buildings, interconnecting pipelines, digesters, pumping stations, carparking and an administration building. Ancillary facilities, as discussed in Section 1.5 of the CEMP, will also be established within the construction footprint.

A detailed project description can be found in Section 1.2 and 1.3 of the CEMP.

7.2 Construction Activities

Activities during construction which have a potential direct impact on flora and fauna include:

- Vegetation clearing causing destruction of plant species and loss of habitat;
- Damage to tree roots outside the clearing limit;
- Vehicle movement causing increased dust and noise;
- Disturbance of soils, resulting in potential erosion and mobilisation of sediment, particularly during works in and around waterways;
- Movement of vehicles and personnel posing biosecurity risks including the spread of weeds and pathogens;
- Construction activities in and around waterways and riparian zones (such as pipeline crossings and construction of release structures);
- General plant operation causing damage to trunks, branches, roots of trees or collision with fauna;
- Use of fuel/chemicals resulting in spills;

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7.3 Ecological Impacts

A summary of potential direct, indirect and / or likely impacts associated with the project are:

- Clearing of native vegetation;
- Removal of habitat considered to be potential Serious and Irreversible Impacts (SAIIs). Large-eared Pied bat, Large Bent-Winged bat and Sooty Owl have been conservatively assessed as potential SAIIs.
- Removal of threatened flora habitat assumed present in unsurveyed section of the impact area at Kemps Creek (ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street)
- Loss of threatened fauna and flora species and TECs (BC Act and EPBC Act);
- Changes to hydrological regimes;
- Disturbance to aquatic and riparian habitats potentially resulting in contamination and siltation of waterways;
- Turbidity, sedimentation and erosion;
- Water pollution;
- Physical, chemical and biological changes to aquatic environments;
- Increased noise, light, dust and vibration;
- Injury and mortality of fauna;
- Loss of habitat;
- Fragmentation of habitats and wildlife corridors;
- Barrier effects on wildlife and riparian corridors (such as the erosion of genetic stock, impacts on home ranges, territorial disputes, increased competition etc.);
- Invasion and spread of weeds and pests;
- Invasion and spread of pathogens and disease;
- Failure of rehabilitated sites / areas.
- Loss of breeding habitats
- Trampling of threatened flora species
- Inhibition of nitrogen fixation and increased soil salinity
- Fertiliser drift, rubbish dumping, wood collection, bush rock removal and increase in pest and predatory species
- Increased risk of fire
- Disturbance to specialist breeding and foraging habitat e.g. beach nesting for shorebirds

Mitigation and management measures provided in Section 8 aim to minimise the potential impacts to biodiversity as a result of the project. In the absence of appropriate mitigation measures, there is the potential for significant impacts on those threatened flora and fauna species and TECs identified as occurring in, or with the potential to occur within the project area.

The clearing of native vegetation must be minimised to the greatest extent practicable with the objective of reducing impacts to Threatened Ecological Communities (TECs), threatened species and their habitat.

Direct and indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street must be avoided during construction, Figure 7.1 below shows the location of RBM 12 red-hatched lands at Kemps Creek and Cross Street.

Impacts to PCTs and species credit species must not exceed those identified in Table 7-1 and Table 7-2 below as per Condition E13 from the CoA or the limits established under condition A (1) of the Commonwealth Controlled Activity Approval (EPBC 2020/8816) detailed in Table 7-3.

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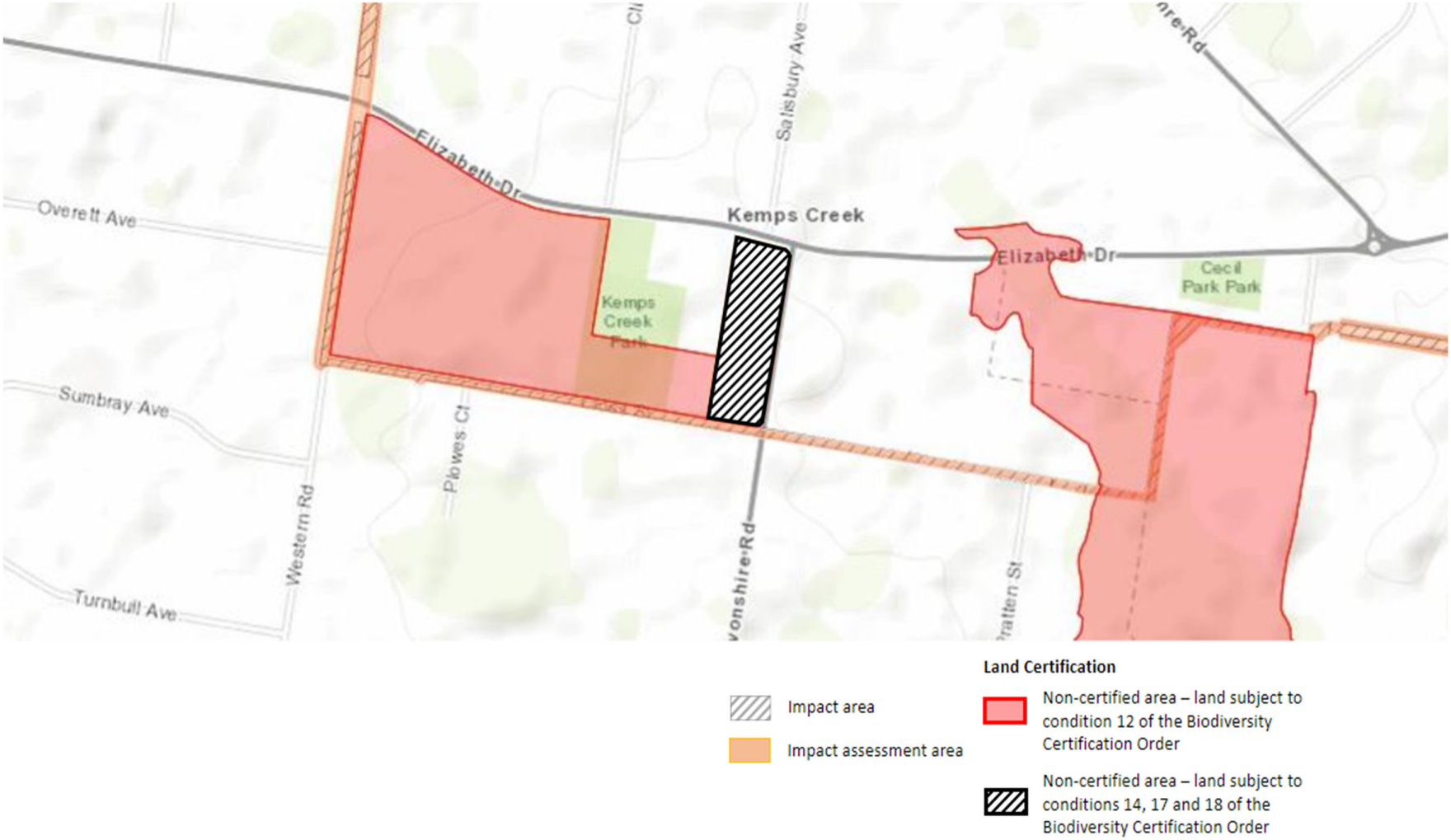

Figure 7-1 Location of RBM 12 red-hatched lands

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Table 7-1 Ecosystem credits to be retired.

PCT ID and Name	Construction Footprint Impact (hectares)	Number of Credits
724: Broad-leaved Ironbark – Grey Box – Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion (Shale Gravel Transition Forest TEC)	1.58	40
725: Broad-leaved Ironbark – Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain	0.01	1
835: Forest Red Gum – Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion (River-flat Eucalypt Forest TEC)	2.81	98
849: Grey Box – Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion (Cumberland Plain Woodland TEC)	4.48	110
1105: River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion	0.26	2
1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley (Swamp Oak Floodplain Forest TEC)	0.92	15
Total Ecosystem Credits		**266**

Table 7-2 Species credits to be retired

Species	Construction footprint impact (hectares)	Number of credits
Downy Wattle *Acacia pubescens*	0.16	4
Marsdenia viridiflora subsp. *Viridiflora* – endangered population	0.04	3
Spiked Rice-flower *Pimelea spicata*	1.64	41
Sydney Bush-pea *Pultenaea parviflora*	0.01	1
Large-eared Pied Bat *Chalinolobus dwyeri*	1.11	49
Cumberland Plain Land Snail *Meridolum corneovirens*	7.03	175
Southern Myotis *Myotis macropus*	6.04	149
Total Species Credits		**422**

Table 7-3 EPBC Act protected matters clearing limits (CAA EPBC 2020/8816)

Protected Matters Under EPBC Act	Clearing Limits (ha)
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	1.44
Spiked Rice-flower habitat	1.64

7.4 Biodiversity Offsets

The residual impact to biodiversity values as a result of the project will require biodiversity offsets to be secured in accordance with the NSW Biodiversity Offset Scheme (BOS). Biodiversity offsets will be retired prior to the commencement of construction of the project and any impacts to biodiversity values commencing.

Under the BOS, Sydney Water has three main avenues for securing biodiversity offsets for the project, those being:

- Payment to the Biodiversity Conservation Fund managed by the Biodiversity Conservation Trust.
- Purchase (transfer) and retire credits from existing credit holders.

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- Establish a Biodiversity Stewardship Site to generate credits required by the project. Consultation with Regional NSW in the event that a Biodiversity Stewardship site(s) is proposed.

Sydney Water is committed to securing the required number and type of biodiversity credits to offset the residual impacts of the project, either through retirement of like for like credits, via a combination of the above listed options, or if unavailable, through implementation of the variation rules.

Sydney Water will prepare a Biodiversity Offset Strategy in accordance with the NSW BOS to address the species and ecosystem credit requirements outlined in Section 9.1.10 of the 'Upper South Creek Advanced Water Recycling Centre project amendments: Biodiversity Assessment', (Biosis, November 2021). The project will secure biodiversity offsets by making a payment into the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem and species credits required.

The project must notify the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in writing 10 business days of the biodiversity credits being retired. Evidence of the retirement of credits will be provided to the DCCEEW and the Planning Secretary prior to any works commencing that could impact on biodiversity values.

As design refinements and construction planning have progressed, the project team will not be impacting lands mapped as non-certified existing native vegetation (ENV) under the Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Regional Growth Centres) 2006 (the Order). As such, a Growth Centres Biodiversity Certification Offset Strategy will not be prepared.

Sydney Water prepared and issued to EHG a memo summarising the above status to resolve CoA E17.

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8 Management of Biodiversity

Management measures and strategies that contribute to the project's overall approach to biodiversity values are explored below.

8.1 Pre-clearing Surveys

Pre-clearing surveys will be undertaken prior to commencement of construction activities in accordance with the following:

- APPENDIX A – Vegetation Clearing Procedure
- APPENDIX C – Fauna Rescue and Release Procedure
- APPENDIX D – Fauna Clearance Form
- APPENDIX F – Weed and Pathogen Management Procedure
- APPENDIX E – Fauna Relocation Register

Pre-clearing surveys and assessments will be undertaken by an experienced ecologist no more than 48 hours prior to scheduled clearing. Results of pre-clearing surveys will be documented and provided to the John Holland Environment Manager (JH EM) and the Sydney Water Environmental Leads. Pre-clearing surveys will be reviewed and where possible, further opportunities for reducing native vegetation clearing will be identified. This will ensure that the clearing of native vegetation will be minimised to the greatest extent practicable and any impacts to threatened ecological communities, threatened species and their habitat will be minimised.

8.2 Wildlife Hazard Management

As detailed design develops, Sydney Water and John Holland will continue to examine additional feasible design opportunities at the AWRC facility site to implement prior to operation to deter wildlife that present a risk of wildlife strikes by aircraft (in readiness of the operation of WSA), including:

- Selection of landscaping plant species that are less attractive to wildlife as a food and shelter source (to be detailed in the Urban Design and Landscape Plan (UDLP)).
- Enclosing any waste receptacle areas.
- Regular waste collection to ensure any bins on site during construction do not overflow.
- Covering large (100 m2) open bodies of still water.
- Weekly inspections of built structures to detect any perching or roosting birds. If detected, install exclusionary structures to deter birds from the site.
- Ensuring depth of standing water in water retention areas is below 1.18 m, including consideration of associated design requirements (for example, the ratio of batter slopes).
- Adoption of wildlife deterrent technologies to reduce hazardous bird populations (if required)
- Weekly inspections of built structures to detect and remove bird nests under a Licence to Harm Protected Animal under the NSW BC Act issued by DPE (not required if the species is introduced).
- Ensure retention basins (in use during operation) fully drain within 24 – 48 hours.

A Wildlife Management Plan for the AWRC site will be prepared as part of the operational documents for the Project in consultation with Western Sydney Airport (WSA Co) and DPI Agriculture. The plan will document the various measures, some of which are listed above, and will further detail additional performance tracking requirements, training and awareness for employees, contractors or visitor of the site during operation, a review and continual improvement process and finally the various roles and responsibilities for the implementation of the plan.

Any proposed AWRC design changes will be assessed for consistency against the Avisure Wildlife Hazard Assessment undertaken in the EIS. As is required under the project's approach to assessing environmental risks (Section 3.2 of the CEMP), an updated risk assessment will be completed to identify any additional management measures to be incorporated into the detailed design, the OEMP and the Wildlife Management Plan.

The Wildlife Management Plan will be submitted to the Planning Secretary for information prior to the commencement of operation of Stage 1 of the CSSI.

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8.3 Impacts to Waterways

Coffer dams and temporary in-stream structures associated with open trenching will be installed and works undertaken in accordance with the Policy and Guidelines for Fish Habitat Conservation and Management (DPI 2013), including:

- Temporary works would not be placed within a waterway between the months of April and early June, and late October to late December which are the key months for native fish moving to spawn or recruit within NSW waters.
- Underboring and other works within waterways will be assessed by a certified geomorphologist to ensure frac-out does not occur.
- Timing of works would coincide with low flow periods within the catchment.
- In-stream works would be staged to avoid blocking the entire waterway where possible.
- If an entire waterway is blocked, measures will be implemented to maintain historic base flow conditions (e.g. diversion channel) for the duration of the proposed works.
- In-stream works will also be undertaken in accordance with the following principles:
- Minimise the 'wet area' impacted during the installation of trenched crossings.
- Operate equipment on land or from a floating barge to minimise disturbance to the banks and bed of the water body.
- Use temporary crossing structures or other practices to cross watercourses with steep and/or highly erodible banks and beds.
- Limit machinery fording of the watercourse to a one-time event (i.e. over and back) or where possible, avoid completely using floating barges or other methodologies.
- Isolate works in waterways using booms, silt curtains or similar to contain suspended sediment.
- Specialist subcontractors engaged to perform the work will support development of instream work methodologies that are commensurate with maintaining in-stream ecological values.
- Drainage feature crossings and drainage swales and depressions will be designed by a suitably qualified and experienced person, with a range of engineers including experienced civil, hydraulic, geotechnical and structural Subject Matter Experts (SMEs) and reviewed with consultation the project's design and engineering team. As the project prepares for delivery, Sydney Water accredited contractors will be engaged to ensure the works are undertaken with accordance to minimum industry standard and best practice methods.
- Methods of construction of pipelines across waterways and through shallow aquifers will be agreed by suitably qualified experts, the JH Construction Team and documented in an EWMS which will be reviewed by the JH Environment Manager or delegate. Experts may include, but are not limited to:
    - CPESC – relative to potential erosion and sedimentation impacts due to construction method selected
    - Geomorphologist – relative to the physical impact to the waterway
    - Restoration / rehabilitation ecologist – relative to restoration of biodiversity matters
- EWMS to be prepared by each sub-contractor, to be reviewed by JH Environmental Manager and Sydney Water Environment team prior to the commencement of in-stream works.

Dewatering of temporary in-stream structures requires notification to NSW DPI seven days prior to any dewatering activities commencing in order to organise any fish rescue activities. If required, a separate s.37 permit will be obtained from NSW DPI to relocate fish.

Works on waterfront land and within watercourses will be carried out in accordance with the Guidelines for controlled activities on waterfront land – Riparian Corridors (NRAR, 2018), Controlled activities on waterfront land – Guidelines for watercourse crossings on waterfront land (NSW Office of Water, 2013) and Policy and Guidelines for Fish Habitat Conservation and Management (DPI Fisheries, 2013).

Works for watercourse crossings on waterfront land will be undertaken in accordance with the Controlled activities on waterfront land – Guidelines for watercourse crossings on waterfront land (NSW Office of Water, 2013), including:

- Identify the width of the riparian corridor in accordance with the NSW Office of Water guidelines for riparian corridors
- Consider the full width of the riparian corridor and its functions in the design and construction of crossings. Where possible, the design should accommodate fully structured native vegetation.
- Minimise the design and construction footprint and extent of proposed disturbances within the watercourse and riparian corridor.
- Maintain existing or natural hydraulic, hydrologic, geomorphic and ecological functions of the watercourse.
- Demonstrate that where a raised structure or increase in the height of the bed is proposed there will be no detrimental impacts on the natural hydraulic, hydrologic, geomorphic and ecological functions.
- Maintain natural geomorphic processes
    - Accommodate natural watercourse functions.
    - Maintain the natural bed and bank profile.

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  - Ensure the movement of sediment and woody debris is not inhibited.
  - Do not increase scour and erosion of the bed or banks in any storm events.
  - Avoid locating structures on bends in the channel.
  - Where bed degradation has occurred, address bed degradation to protect the structure and restore channel and bed stability.
- Maintain natural hydrological regimes
  - Accommodate site hydrological conditions.
  - Do not alter natural bank full or floodplain flows or increase water levels upstream.
  - Do not change the gradient of the bed except where necessary to address existing bed and bank degradation.
  - Do not increase velocities by constricting flows, for example filled embankments on approaches
- Protect against scour
  - Provide any necessary scour protection, such as rock rip-rap and vegetation.
  - Ensure scour protection of the bed and banks downstream of the structure is extended for a distance of either twice the channel width or 20 metres whichever is the lesser.
  - If cutting into banks, protect cuttings against scour.
- Stabilise and rehabilitate all disturbed areas including topsoiling, revegetation, mulching, weed control and maintenance in order to adequately restore the integrity of the riparian corridor

To maintain and/or rehabilitate riparian corridors, works on waterfront land and within watercourses will be carried out in accordance with the Guidelines for controlled activities on waterfront land – Riparian Corridors (NRAR, 2018). This includes the following:

- Identify whether or not there is a watercourse present and determine its order in accordance with the Strahler System.
- Seek to minimise disturbance and harm to the recommended RC/VRZ.
- Minimise the number of creek crossings and provide perimeter road separating development from the RC/VRZ.
- Locate services and infrastructure outside of the RC/VRZ. Within the RC/VRZ provide multiple service easements and/or utilise road crossings where possible.
- Treat stormwater run-off before discharging into the RC/VRZ

Measures regarding management of high flow events to limit erosion of any temporary in-stream structures and associated sedimentation of downstream waterways are detailed in the Surface Water and Groundwater CEMP sub-plan (SWGCSP) (Appendix B2 of the CEMP).

Procedures to ensure adherence to ANZECC water quality guidelines are detailed in the SWGCSP.

A procedure to manage construction associated with in-stream works will be developed prior to the commencement of any in-stream construction activities (Appendix H), with input from the specialist subcontractors engaged to perform the works. Once developed, this BCSP will be updated with the relevant information to minimise and manage potential impacts.

8.4 Project-specific Biodiversity Procedures

The following project-specific procedures have been established to address a number of potential impacts on biodiversity as a result of construction, including:

- Vegetation Clearing procedure.
- Unexpected Threatened Species Find procedure.
- Fauna Rescue and Release procedure.
- Weed and Pathogen Management procedure.
- In-stream Works Procedure (discussed in Section 8.3).
- Fencing and signage protocol.

These procedures are detailed in the subsections below.

8.4.1 Vegetation Clearing Procedure

Vegetation clearing will be conducted using a two-stage process in accordance with the vegetation clearing procedure detailed in Appendix A and must not commence until a pre-clearance inspection has been undertaken by an experienced ecologist no more than 48 hours prior to the commencement of clearing. The project ecologist or other suitably qualified wildlife rescuer

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must be present on-site during vegetation clearing works. The ecologist will ensure that appropriate procedures and measures are in place to manage any relocation of fauna and/or flora relocation.

Reuse of native vegetation and other habitat features that have been approved for removal will be maximised wherever possible. Where these features cannot be re-used for rehabilitation within the project footprint, consultation will be undertaken prior to the commencement of vegetation clearance for alternative re-use options, as outlined in the vegetation clearing procedure (Appendix A).

At the conclusion of clearing, the project ecologist will undertake a post-clearing survey to document the area of vegetation cleared. This data is to be submitted to the Sydney Water Environmental Lead and the ER and used to confirm that clearing undertaken as part of the project was in accordance with the allowable limits identified in Sections 4.2, 4.5 and 7.3.

8.4.2 Unexpected Threatened Species Finds Procedure

If any threatened species or TECs are unexpectedly encountered during construction activities, the Unexpected Threatened Species Finds procedure outlined in Appendix B will be followed. The threatened species and TECs that may be encountered are also listed in Appendix B.

8.4.3 Fauna Rescue and Release Procedure

A Fauna Rescue and Release procedure has been developed for the project and is included in Appendix C. Fauna capture and handling will follow the Fauna Rescue and Release procedure, and will be undertaken in accordance with the Animal Care and Ethics Committee Approvals and relevant Codes of Practice (e.g. NSW Code of Practice for Injured, Sick and Orphaned Protected Fauna (EPA 2011)) by a suitably qualified fauna ecologist or experienced wildlife carer. Fauna will be released into areas of suitable habitat as close as possible to their point of capture and, if necessary, appropriate property access arranged.

Any fauna requiring rescue or release is to be documented using a fauna clearance form, an example of which is included in Appendix D and recorded in the fauna relocation register included in Appendix E.

8.4.4 Weed and Pathogen Management Procedure

A Weed and Pathogen Management procedure has been developed for the project and is included in Appendix F. The purpose of the procedure is to detail how weeds and pathogens will be managed and controlled within the Project area. The aim is to prevent or minimise the spread of environmental weed species and the soil-borne pathogen Phytophthora cinnamomi (Phytophthora), throughout the Project area.

8.4.5 Fencing and Signage Protocol

Identification of no-go zones and physical delineation of vegetation to be cleared and / or protected on site, including installation of appropriate signage, is to be completed prior to works commencing. This information will be documented in Site Environmental Plans to be developed prior to construction commencing. Sensitive areas and no-go zones relevant to biodiversity may include:

- Commonwealth protected matters located between the impact area and the impact assessment area.
- Native vegetation to be retained.
- High value threatened species habitat.
- Delineation of weed infested areas.
- Threatened species or ecological communities.

A fencing and signage protocol to ensure clear demarcation of environmentally sensitive areas is included in Appendix G.

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8.5 Rehabilitation

Rehabilitation areas within the AWRC site are defined as impacted native vegetation which at the completion of works are not within the operational footprint or are not managed under an overarching landscape plan, such as the Urban Design and Landscape Plan (UDLP, required under CoA E63). Under John Holland's current scope of work, impacted native vegetation does fall within the operational footprint of the AWRC and as such, rehabilitation requirements will be addressed in the UDLP, as this will be the primary over-arching instrument managing this. Requirements around the future green space of the AWRC site will be further considered by Sydney Water and John Holland and where required, relevant information will be incorporated into the UDLP and relevant operational environmental management documentation.

Rehabilitation requirements for the pipelines are addressed in CoA E19 and E20 and UMM G05. A separate Rehabilitation Management Plan (RMP) will be developed in consultation with EHG and approved for implementation by the Planning Secretary no less than one month prior to commencement of construction in RBM 12 red-hatched lands (refer Appendix B of the SSI-8609189 approval). The RMP will describe the approach to maintaining revegetated areas during their establishment phase and will include the following requirements:

- Remove all equipment, materials and environmental controls from site.
- Where like for like re-vegetation is not possible, vegetation that is suited to the infrastructure requirements and environmental conditions should be considered.
- Where street trees cannot be replaced like for like, opportunities to reduce impacts to streetscape character and visual amenity should be considered.
- Disturbed areas should be returned to preconstruction ground level where practical.
- Areas of native vegetation removal should be rehabilitated to the highest ecological condition possible.
- Felled vegetation and other habitat features such as rocks/boulders should be reused to increase the habitat values in areas of native vegetation removal.
- Only locally sourced seed stock should be used in areas of native vegetation removal. All species installed are to be locally indigenous and suitable and characteristic of the surrounding Plant Community Types.
- Reuse stockpiled vegetation as part of rehabilitation works where possible.
- Enhance aquatic habitat and restore creeks to an improved state where open trenching of waterways is required.
- Tree planting provisions to be considered in designing re-vegetation in areas covered by the Phase 2 Aerotropolis DCP.
- Inputs from relevant experts should be incorporated in revegetation, ecology, geomorphology.
- Restore bed and banks of the watercourse or water body to their original contour and gradient; if the original gradient cannot be restored due to instability, a stable gradient should be restored.

Where required, following development of the RMP, this BCSP will be updated.

Impacted native vegetation relevant to the project is detailed in Section 7 of the Biodiversity Development Assessment Report (Appendix J of the EIS). Rehabilitation and revegetation of the riparian corridor and banks of watercourses impacted by the project will commence within three months of the completion of the watercourse Work and any other Work within the riparian corridor. Rehabilitation must occur as soon as practical after construction of the brine pipeline mapped at Appendix B of the approval, or as otherwise agreed with relevant landowner(s) or EHG. The project will prepare a six-monthly summary progress report(s) over the revegetation maintenance period will be prepared for submission to EHG for comment, until EHG is satisfied that the vegetation is established. Specific measures regarding riparian planting and natural bank stabilisation will be further developed in the relevant RMP and the UDLP for the pipeline and AWRC plant, respectively. When working in the riparian corridor, The main objective of the UDLP is to provide a stable watercourse and riparian corridor which will emulate local native vegetation.

Details regarding mitigation measures and monitoring that require ongoing attention and/or maintenance during the operational phase of the project will be provided to the operator (Sydney Water) where applicable and detailed in the UDLP and relevant Operational Management Plans.

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8.6 Summary of Biodiversity Management Measures

A summary of the specific biodiversity management measures is provided in **Error! Not a valid bookmark self-reference.** below.

Table 8-1 Biodiversity management measures

Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
Pre-construction					
B01	Planning Secretary approval issued for the BCSP **[Hold point]**	SWC Environment Lead (EL) / John Holland EM	Prior to construction	Formal approval letter from DPE (CoA C11)	CoA C11
B02	Evidence of the retirement of credits provided to the Planning Secretary **[Hold point]**	SWC EL	Prior to construction	Formal approval letter from DPE (CoA E14 – E16)	CoA E16
B03	Develop Site Environmental Plans highlighting biologically sensitive areas and clearly identifying construction boundaries **[Hold point]**	JH EM	Prior to construction	SEPs	Section 3.2.4 of the CEMP
B04	Identification of no-go zones and physical delineation of vegetation to be cleared and/or protected on site, including installation of appropriate signage to be installed at least 24-48 hours prior to works commencing [**hold point**].	JH Construction Manager (CM) / JH EM	Prior to works commencing	Project Ecologist Pre-clearance inspection	Section 8.2
B05	Communicate to all construction workers during site induction; • Clearing requirements and penalties (including fines) for over-clearing. • Commonwealth Approval restrictions for the clearing of certain habitats and threatened species • Construction exclusion zones. • Protected area requirements. • Threatened species photos and known locations on or near the project • Project identified sensitive flora and fauna locations and responsibilities in relation to these. • Fauna interaction rules.	USC project induction team	At Site Induction	Project induction session	Section 3.5 of the CEMP
B06	Identify appropriate local vet or rescue organisation/wildlife carers/facilities. Contact details for this person/company is to be available in the relevant Site Environmental Plan (SEP) and/or vegetation clearing permit.	JH EM	Prior to construction	SEPs	Section 8.5.3
B07	Ensure all key actions of this BCSP (e.g. clearing demarcation, locations and details of known threatened species in proximity to work zone, erosion control measures and clearing permit requirements, including fencing of no go zones) are incorporated in relevant project risk management documentation (Environmental Work Method Statements (EWMS) and SEPs)	JH EM	Prior to construction	EWMS workshops SEPs	Section 3.2 of the CEMP

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Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
General (During Construction)					
B08	No construction employee on the project shall intentionally damage or injure native flora or fauna.	All staff	At all times	Project induction, toolbox talks and pre-starts SEPs	Section 8.5.3
B09	No feeding of fauna by project personnel. No domestic animals are to be brought to site.	All Staff	At all times	Project induction, toolbox talks and pre-starts SEPs	Section 8.5.3
B10	Cover, protect or ensure escape measures are installed in excavations to prevent fauna from becoming trapped.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.5.3
B11	No plant/ equipment/ materials to be stored within established Tree Protection Zones (TPZs).	JH CM	At all times	Weekly environmental inspection checklist	UMM TB05
B12	Orientate temporary construction lighting to prevent light overspill into fauna habitat areas (including aquatic habitat).	JH CM	At all times	Weekly environmental inspection checklist	UMM LCV02
B13	No dumping of soil or vegetative material into or on top of vegetation to be retained.	JH CM	At all times	Weekly environmental inspection checklist	Section UMM G05
B14	Minimise light spill into vegetation wherever possible.	JH CM	At all times	Weekly environmental inspection checklist	UMM G06
B15	Methods of construction of pipelines across waterways and through shallow aquifers will be agreed by suitably qualified experts, and JH Construction Team and documented in an EWMS which will be reviewed by the JH Environment Manager or delegate. Experts may include, but are not limited to: • CPESC – relative to potential erosion and sedimentation impacts due to construction method selected • Geomorphologist – relative to the physical impact to the waterway • Restoration / rehabilitation ecologist – relative to restoration of biodiversity matters	JH CM/ JH EM	At all times	EWMS Weekly environmental inspection checklist	Section 8.3
Plant Access & Movement					
B16	Demarcate construction areas and transport routes.	JH CM	At site establishment	Weekly traffic inspection and daily observations (site diaries)	USC TTCSP

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Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
B17	Adhere to designated speed limit whilst on site.	All staff	At all times	Project induction, toolbox talks and pre-starts Weekly traffic inspection and daily observations (site diaries)	USC TTCSP
B18	Limit movement of vehicles and personnel to designated working areas and access routes.	All staff	At all times	Project induction, toolbox talks and pre-starts Weekly traffic inspection and daily observations (site diaries)	UMM TT01
B19	Implement TPZs as outlined within AS4970 -2009 Protection of trees on development sites and follow the advice provided in the standard if any minor or major encroachment of the zone is required. Encroachments on a TPZ must first be discussed and planned with the project arborist. TPZ = DBH (cm) x 12. DBH = Trunk diameter measured at 1.4m above ground.	JH CM / EM	Before plant movements occur in proximity of a protected tree	Weekly environmental inspection checklist Pre-clearance inspection Arborist	UMM TB05
B20	A qualified arborist will be engaged where roots >50mm in diameter are impacted within the Tree Protection Zone.	JH CM / EM	Before plant movements occur in proximity of a protected tree	Weekly environmental inspection checklist Pre-clearance inspection Arborist	UMM TB05
B21	All TPZs must be demarcated by: • Para-webbing – foot traffic • Demarcation / fencing – vehicle traffic • Padding/physical protection measures installed near excavators and other construction works	JH CM / EM	Prior to works occurring	Weekly environmental inspection checklist Pre-clearance inspection Arborist	Section UMM TB05

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Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
B22	Whenever possible: • Operate equipment on land or from a floating barge to minimise disturbance to the banks and bed of a water body. • Use temporary crossing structures or other practices to cross watercourses with steep and / or highly erodible banks and beds. • Limit machinery fording of the watercourse to a one-time event (over and back), while implementing measures to limit damage to waterway beds/ banks.	JH CM	At all times	Weekly environmental inspection checklist	UMM WW03
Disturbance and Clearing of Vegetation					
B23	No disturbance to any vegetation (native and non-native) shall occur outside of the clearing zones or the project boundary.	All staff	At all times	Project induction, toolbox talks and pre-starts SEPs Pre and Post-clearance inspection	Section 8.2, Section 8.5.1, Section 8.5.6 and Appendix A
B24	Clearly define limits of clearing on construction work plans and on site prior to clearing. Supervisors shall confirm permit boundaries and conditions with the JH EM prior to commencing clearing work.	JH EM / CM	Prior to clearing	Pre-clearance checklist Project Ecologist	Section 8.2, Section 8.5.1, Section 8.5.6 and Appendix A
B25	Vegetation clearing activities must: • Physically demarcate areas of vegetation to be trimmed or removed. • Mark areas of vegetation and habitat features to be retained and 'no go' zones, including near known threatened species to be retained • Install appropriate signage prior to works commencing. • Demarcate all habitat trees, including known and potential hollow-bearing trees (HBTs).	JH EM / CM / Project Ecologist	At all times	Pre-clearance checklist Project Ecologist Arborist	Section 8.2, Section 8.5.1, Section 8.5.6 and Appendix A
B26	• Any vegetation impacts must be undertaken in accordance with the Vegetation Clearing Procedure	JH EM / CM	At all times	Pre-clearance inspection checklist Project Ecologist	Section 8.2, Section 8.5.1, Section 8.5.6 and Appendix A
B27	A clearing permit must be obtained prior to any ground disturbing activity with all completed clearing permits requiring upload to project pack web. The clearing permit must be reviewed by the Sydney Water Environmental Lead, prior to being approved and signed off by the JH EM. Vegetation trimming or removal is not permitted to proceed until this occurs.	JH CM / EM SWC EL	Prior to clearing	Completed clearing permit	Section 8.4.1 and Appendix A

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Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
B28	Transport any injured animal to a licensed wildlife carer or wildlife facility – details available in Appendix C – Fauna Rescue and Release procedure.	Project Ecologist	At all times	Fauna re-location register	Section 8.5.3 and Appendix C
B29	Minimise areas of exposed earth by only stripping/clearing areas immediately prior to works and rehabilitating the area as per the RMP or UDLP, as relevant.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.5.1 and Appendix A
B30	Removal of flora not previously identified to be reported to Sydney Water and the JH EM to determine if supplementary approvals required and/or if changes to permit conditions may be required prior to clearing.	JH EM	At all times	Incident report	Section 8.2
B31	Damage to flora not pre-approved for clearing should be immediately reported to JH Environmental Manager and treated as an incident and as a non-conformance.	JH EM	At all times	Incident report	Section 8.2, Section 8.5.1, Section 8.5.6 and Appendix A
B32	If any damage occurs to vegetation outside of the impact area, stop work and notify the EM who will notify the Sydney Water Project Manager or delegate.	JH EM / CM	At all times	Incident report	Section 8.2, Section 8.5.1, Section 8.5.6 and Appendix A
B33	Minimise vegetation removal by trimming limbs rather than removing entire trees or bushes. Ensure any pruning complies with AS4373-2007 Pruning of amenity trees. Check with JH Environmental Manager for any permit requirements.	JH CM	At all times	SEPs Arborist	Section 8.5.1
B34	Leave rootstock in ground to stabilise the soil for as long as possible, where feasible prior to earthworks.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.5.1
B35	Retain all felled trees and hollows where possible for placement to provide further fauna habitat. Reuse native vegetation and other habitat features that have been approved for removal wherever possible within other areas of the project footprint as part of the rehabilitation works. Where such re-use is not possible, consultation prior to the removal of vegetation and other habitat is to occur in accordance with the Vegetation Clearing Procedure in an effort to find alternative reuse options.	JH CM / EM	At all times	Project Ecologist to maintain Habitat Feature Re-use Register (Appendix A)	Section 8.5.1
B36	Stockpile non-weed vegetative cuttings for respreading as mulch, erosion protection, and seed material.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.5.1 and Appendix A
B37	No burying or burning of cleared vegetation.	All Staff	At all times	Weekly environmental inspection checklist	Section 8.5.1 and Appendix A

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Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
B38	Direct and indirect impacts to ENV within RBM 12 red hatched lands at Kemps Creek and Cross street will be avoided by implementing exclusion zones and/or signage where appropriate and by ensuring EWMS capture and adequately describe how impacts to these features will be avoided.	JH EM / CM	At all times	Weekly environmental inspection checklist EWMS	Section 8.4.5table 8-1
B39	Ongoing consultation with relevant land-owners and/or EHG in regards to the preparation and implementation of the Rehabilitation Management Plan in regards to revegetating and restoring impacted RBM 12 red-hatched lands at Kemps Creek.	JH Community & Stakeholder Manager (CSM)/ EM	During development of RMP	Correspondence with stakeholder Meeting minutes	Section 5 Section 8.5
B40	A Rehabilitation Management Plan will be prepared prior to commencement of construction in RBM 12 red-hatched lands at Kemps Creek. The RMP will describe the approach to maintaining revegetated areas during their establishment phase.	JH CM/EM	Prior to works in RBM 12 red-hatched lands at Kemps Creek	RBM	Section 5 Section 8.5
Wildlife Hazard Management					
B41	Ensure waste receptacle areas are enclosed and regular waste collection prevents bins overflowing and attracting wildlife.	JH CM / ER	At all times	Weekly environmental inspection checklist	Section 8.3
B42	If perching, nesting and roosting is detected on built structures, install exclusionary devices to deter birds from the site.	JH CM / ER	Weekly	Weekly environmental inspection checklist Project Ecologist	Section 8.3
B43	If required, remove bird nests from the site under a Licence to Harm Protected Animal under the NSW BC Act, issued by DPE.	JH CM / ER	Weekly	Weekly environmental inspection checklist Project Ecologist	Section 8.3
Weeds, Pests and Pathogens					
B44	Weeds are to be managed in accordance with the Weed and Pathogen Management procedure detailed in Appendix F and prior to earthworks commencing.	All staff	At all times	Weeds & Pathogens Management Procedure Pre-clearance Inspections SEPs Project Ecologist	Section 8.5.4
B45	Noxious weeds are to be separated from other green waste and are to be managed in accordance with the *Biosecurity Act 2015* (Biosecurity Act) and in consultation with the local Council and / or weed control contractor.	All staff	At all times	Weekly environmental inspection checklist Project Ecologist	Section 8.5.4

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Ref.	Requirement	Responsibility	Timing	Resource	Reference Location
B46	The Weed and Pathogen Management procedure will include measures for weed management, including: • methods used to identify and mark areas of weeds to be removed and methods for their removal; • a procedure for the disposal of weeds and exotics.	JH EM / CM	Prior to construction	Pre-clearance Inspection Checklist	Section 8.5.4
B47	Areas of weed infestation will be identified by an ecologist during pre-clearance survey (weed and pathogens) and will identify the species and location of any weeds.	Project Ecologist	Prior to construction	Pre-clearance survey (weed and pathogen)	Section 8.5.4
Waterways					
B48	All works to be completed in accordance with the Policy and Guidelines for Fish Habitat Conservation and Management (DPI 2013).	JH CM / EM	At all times	Weekly environmental inspection checklist	Section 8.3
B49	Temporary blockages associated with in-stream structures would not be placed within a waterway during the months of September to March.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.3
B50	Install temporary in-stream structures during low-flow periods, where possible. Construction team to consider any opportunity to remove structures / materials / items prior to expected floods / high rainfall events, where possible.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.3
B51	In-stream works to be staged to prevent blocking of an entire waterway where possible.	JH CM	At all times	Weekly environmental inspection checklist	Section 8.3
B52	Open trenching of waterways to be avoided between late April and early June, and late October to late December to minimise disruption of downstream and upstream Australian Bass migration.	JH CM	Between late April and early June, and late October to late December	Weekly environmental inspection checklist	Section 8.3
B53	Notify NSW DPI seven days prior to any dewatering activities and determine if a s.37 permit is required to relocate displaced fish.	JH EM / CM	At all times	Construction program / lookahead	Section 8.3
B54	Consultation will be carried out with DPI Fisheries in relation to management measures at the Hinchinbrook Creek crossing.	JH Community & Stakeholder Manager (CSM)/ JH CM/ JH EM	Prior to construction	Consultation meeting minutes	Section 5

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9 Compliance, Review and Continuous Improvement

9.1 Resources

The John Holland Project Team organisational structure and overall roles and responsibilities are outlined in Section 3.3 of the CEMP. Specific responsibilities for the implementation of biodiversity management and environmental controls are detailed in Section 8.

A qualified ecologist will be engaged to provide specialist advice including pre-clearing inspections and post clearing reports, inspections during clearing, following any unexpected threatened species finds and for weed identification and removal.

The infrastructure Sustainability Council (ISC) V2.1, credit ECO-1 Ecology, mandates that management plans to address ecological impacts and opportunities associated with the project must be prepared and/or reviewed by a suitably qualified professional (SQP). ISC defines a SQP as *"A person with tertiary qualifications in any of these areas: ecology, natural resource management, environmental management, or environmental science; and a minimum of 7 years' experience in the field of ecology and ecological assessment."* The minimum qualifications and years of experience relevant to the review and preparation of this plan have been undertaken by Biosis in accordance with this definition. A qualified arborist will be engaged to ensure trees are protected in accordance with the requirements of Australian Standard 4970- 2009 for the Protection of Trees on Development Sites and/or where roots (>50mm) are impacted within a Tree Protection Zone and to ensure relevant mitigation measures set out in Table 8.1 of this plan are incorporated correctly.

9.2 Training and Awareness

All staff and subcontractors will undergo project-specific induction training that includes relevant biodiversity matters and associated management measures that must be implemented and/ or considered when planning and delivery work.

Additional daily and task-specific training and awareness material may be delivered to relevant staff and workforce, in the form of toolbox talks and pre-start meetings, to ensure that where detailed information is required, it is accessible to all involved with the project.

The general project induction will include a component on flora and fauna management to ensure that personnel understand the potential impacts from construction and the proposed mitigation measures. This will include, but not be limited to, the following:

- Existence and requirements of this BCSP.
- Relevant legislation, licenses and permits.
- Types of threatened flora and fauna identified within the project area and how these species can be recognised.
- Fauna rescue requirements.
- No-go areas and the requirement to remain outside of these locations.
- Types of weeds and pests identified within the project area.
- The project two-stage clearing procedure.
- General flora and fauna management procedures.
- Specific responsibilities for the protection of flora and fauna.

Toolbox and prestart meetings will be used, as required, to highlight any specific issues that arise on-site and posters will be used to further educate employees and sub-contractors, particularly immediately prior to clearing works.

9.3 Monitoring and inspections

Daily informal observations will be undertaken of the construction work and will be recorded in site diaries in project pack web, as required. General monitoring of construction areas will occur for evidence of adverse impacts which may result from construction activities.

Weekly environmental inspections will occur throughout construction, including inspections of the integrity of exclusion/buffer zones. All exclusion barriers, no-go zones and excavations which could contain trapped fauna shall be regularly inspected and maintained as required.

Details on the nature and frequency of these inspections and monitoring activities, including any resulting actions arising are detailed in Section 3.9 of the CEMP.

Inspections of sensitive areas and activities with the potential to impact flora and fauna will occur for the duration of the project as outlined in the CEMP. Further detail concerning monitoring and suggested corrective actions based on site issues is provided in Table 9-1.

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Table *9-1* Flora and fauna monitoring requirements for the Project

Inspection / Monitoring Type	Record	Responsibility	When
Weekly environmental inspection checklist to verify compliance with the implementation of biodiversity mitigation measures and controls	Weekly Environmental Inspection Checklist	JH EM / Project Ecologist	Weekly during construction
Pre-clearing Inspection (work area is surveyed for flora, fauna, weed and pathogen, etc)	Pre-clearing Inspection Checklist	JH EM / Project Ecologist	No more than 48hrs prior to clearing
Demarcation	Pre-clearing Inspection Checklist	JH EM / Project Ecologist	24 - 48hrs prior to clearing
Post-clearing Survey	Post-clearing Survey checklist	JH EM / Project Ecologist	Up to 1 week post-clearing
Inspections of open pits and trenches to monitor for trapped fauna.	Weekly Environmental Inspection Checklist	JH CM / Project Ecologist	Daily, during construction
Details of incidents (including unexpected finds) involving biodiversity will be documented.	In accordance with Section 3.7 of the CEMP	JH EM	As required

9.4 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan other relevant approvals, licenses and guidelines. An annual review of this plan will be undertaken and documented by a SQP, as defined in Section 9.1, to reflect any feedback from monitoring activities and any changes to management responses.

Audit requirements are detailed in Section 3.9 of the CEMP.

9.5 Reporting

Reporting requirements are documented in Section 3.10 of the CEMP. Project-specific requirements around reporting of the results of pre-clearing surveys are detailed in Section 8.1 of this plan.

Details of field observations shall be reported via the weekly environmental inspection checklist, and communicated to all staff during pre-starts, toolbox and team meetings, as required.

Any environmental incidents related to biodiversity matters will be reported in accordance with the project's environmental incident management plan (IMP), provided in Section 3.7 of the CEMP. The IMP is consistent with Sydney Water's Incident Management Procedure (DC0000506). Any incident that has caused or is likely to cause material harm to the environment will be reported to Sydney Water within 30 minutes after the incident was first notified, as required by the Sydney Water Environment Incident Reporting Process (REF0866). The John Holland Regional HSEQ team is to be immediately informed of any incident that has caused or has potential to cause material harm to the environment and will advise on the notification of relevant regulators and stakeholders.

A summary of project-specific biodiversity matters, including incident management, is provided in the project monthly report issued to Sydney Water.

There are specific reporting requirements associated with additional survey work and monitoring including:

- Results of pre-clearing inspections (flora, fauna, weed and pathogen).
- Results/ volume (area) of clearing in post-clearing surveys (Appendix A).
- Record all fauna relocations that occur in a fauna relocation register (Appendix E).
- Record of habitat feature relocation and re-use.
- Documents and evidence as requested by the Environmental Representative for input into monthly reports.
- Fauna incidents reporting.
- Baseline ecology monitoring program reporting.

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9.6 Incident Management

Any environmental incidents related to biodiversity such as unapproved clearing of vegetation will be reported in accordance with the project's environmental incident management plan (IMP), provided in Appendix A7 of the CEMP. The IMP is consistent with Sydney Water's Incident Management Procedure (DC0000506). Any incident that is likely to cause material harm to the environment will be reported to Sydney Water within 30 minutes after the incident was first notified, as required by the Sydney Water Environment Incident Reporting Process (REF0866). The John Holland Regional HSEQ team is to be immediately informed of any incident that has caused or has the potential to cause material harm to the environment and will advise on the notification of relevant regulators and stakeholders.

A summary of project-specific biodiversity matters, including incident management, will be provided in the project monthly report issued to Sydney Water.

9.7 Continuous Improvement

The Project shall continually review and improve the suitability, adequacy and effectiveness of this plan against environmental objectives, performance criteria and relevant legislative and other associated guidance documentation, for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance.
- Determine the cause or causes of non-conformances and deficiencies.
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies.
- Verify the effectiveness of the corrective and preventative actions.
- Document any changes in procedures or this BCSP resulting from the process improvement.
- Make comparisons with objectives and targets.

9.8 BCSP Update and Change Management

The environmental risk analysis processes described in Section 3.2 of the CEMP may result in the need to update or revise this Plan. This plan will be reviewed annually as a minimum but may be updated more regularly depending on process changes and refinements. Any revisions to the BCSP will be in accordance with the process outlined in Section 3.12 of the CEMP.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 3.12 of the CEMP.

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APPENDIX A – Vegetation Clearing Procedure

Objectives

The clearing of native vegetation must be minimised to the greatest extent practicable with the objective of reducing impacts to TECs, threatened species and their habitat. Minimisation of vegetation clearance and disturbance includes impacts to standing dead trees and riparian zones. Where possible:

- Limit clearing to trimming rather than the removal of whole plants.
- Avoid hollow-bearing trees (HBTs).
- Where unavoidable, HBTs should be flagged and left standing for as long as possible.
- Do not undertake clearing during breeding seasons, if unavoidable ensure fauna spotter / catcher is available.
- Hollow-bearing logs to be carefully repositioned under advice from ecologist into vegetation areas to be retained at the end of the project or reuse options offsite investigated (refer to Consultation section below).

Where vegetation clearing is required, the mitigation measures provided below must be implemented to minimise disturbance and biodiversity impacts.

Clearing Permit

A clearing permit will be prepared / opened by the JH Environmental Manager (EM) (or delegate), after initiation of the activity from the JH construction team.

A clearing permit must be obtained prior to any ground disturbing activity with all completed clearing permits requiring upload to project pack web.

The clearing permit must be reviewed by the Sydney Water Environmental Lead, prior to being approved and signed off by the JH EM. Vegetation trimming or removal is not permitted to proceed until this occurs.

Pre-clearance Inspections

Weed mapping will be conducted in accordance with the Weed and Pathogen Management procedure up to one week prior to clearing commencing to ensure appropriate biosecurity protocols are followed (Appendix F).

Pre-clearing inspections will be undertaken by an experienced ecologist no more than 48 hours prior to the removal of vegetation to be cleared. These surveys will include:

- Check for the presence of native fauna in the areas impacted.
- Check for the presence of listed threatened flora species within and adjacent to the area to be cleared. Ensure any threatened species found within clearing limit has been approved for removal prior to clearing (otherwise implement unexpected finds protocol as detailed in Appendix B). Any threatened species to be retained near vegetation to be cleared are to be protected, either as a demarcated no-go zone or fenced as per the protocol in Section 8.4.5
- Demarcation of all habitat trees, including known and potential HBTs, prior to the commencement of clearing.
- A check to ensure exclusion zones have been delineated and any biodiversity assets to be retained are clearly marked and / or signed.
- Identifying nearby habitats for suitable release of any captured fauna.
- Prior to any disturbance on the creek banks, a thorough inspection for aquatic fauna will be conducted.
- The results of pre-clearing inspections will be recorded in a pre-clearance report and submitted to the JH EM and provided to Sydney Water. The pre-clearance report will include recommend procedures and measures to manage the relocation of native fauna/flora.

Demarcation of Clearing Limits

All vegetation to be cleared / protected must be clearly fenced and signed at least 24-48 hours prior to removal. Flagging for clearing and exclusion zones to be distinctive from each other, to avoid confusion and potential over clearing. Trees for retention should be protected in accordance with Australian Standard 4970-2009 for the Protection of Trees on Development Sites.

Consultation (may occur concurrently with the vegetation clearing stage)

Reuse of native vegetation and other habitat features that have been approved for removal are to be maximised wherever possible within other areas of the project footprint as part of the rehabilitation works. Where such re-use is not possible, consultation prior to the removal of vegetation and other habitat is to occur with:

- Relevant council(s).
- NSW National Parks and Wildlife Service (NPWS).
- Western Sydney Parklands Trust.
- Greater Sydney Local Land Services (LLS).

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- Local Landcare groups.
- DPI Fisheries.
- Any additional relevant government agencies.

This consultation is to determine if:

a. Hollows, tree trunks (greater than 25-30 centimetres in diameter and 2-3 metres in length), mulch, bush rock and root balls salvaged from native vegetation impacted by the project and;

b. Collected plant material, seeds and / or propagated plants from native vegetation impacted by the project

could be used by others in habitat enhancement and rehabilitation activities, before pursuing other disposal options. If the native vegetation and other habitat features can be reused by others, Sydney Water and John Holland will advise them and facilitate access for salvage. Records of consultation and outcomes are to be kept.

The project ecologist will keep a register of any habitat items that have been marked for salvaged during clearing in a Habitat Feature Re-use Register.

Vegetation Clearing

Vegetation clearing must not commence until an ecologist has conducted a pre-clearance assessment no more than 48 hours prior to removal of the vegetation.

Wherever possible, adjust construction methodology (for example avoid area, hand excavate, implement exclusion fencing) to protect sensitive areas identified on Site Environmental Plans (refer to Section 3.2.4 of the CEMP) such as mature trees, known threatened species, populations or ecological communities.

All native vegetation clearing must be undertaken using the following 'two stage process':

Stage 1 – Non-habitat Tree Removal

- When vegetation that may provide habitat for native fauna is proposed to be removed, the area will be surveyed immediately (preceding night & day of clearing) prior to clearing, to:
  - Obtain updated information on likely fauna and fauna habitat resources present.
  - Capture and relocate non-mobile fauna, such as reptiles and frogs and key habitat features such as active bird nests.
  - Ensure all HBTs requiring removal under supervision are adequately marked.
- Vegetation around the temporary retained habitat features will be cleared in a controlled manner.

Stage 2 – Habitat Tree Removal

- HBTs will be retained for 24 hours after stage 1 clearing is completed. HBTs will be inspected prior to felling by the project ecologist. The HBT will be soft felled carefully using a harvester with a rotating head or a bulldozer. Importantly, the equipment used during tree felling will be appropriately sized to handle the majority of trees on-site and using an operator skilled in removing habitat trees and the two-stage clearing procedure. The ecologist will discuss the method of felling (i.e. orientation, equipment etc.) with the operator to ensure there is a balance between operator safety and animal welfare.
- Once felled, HBTs will be inspected carefully by ecologist/s (or ecologist & wildlife carer) and any fauna will be captured, processed and, if healthy, relocated in accordance with the Fauna Rescue and Release procedure (Appendix C).
- All fauna captured and relocated will be recorded using the Fauna Clearance Form (Appendix D) and the Fauna Relocation Register (Appendix E). Injured fauna will be taken to a local vet for treatment.

Stop Work

If any damage occurs to vegetation outside of the impact area, works must be stopped and the Sydney Water Project Manager notified. Work must not recommence until approval has been given by the Sydney Water Project Manager and / or ER.

Post-clearing

At the conclusion of clearing, the project ecologist will undertake an inspection to document the area of vegetation cleared to submit to Sydney water and the ER. This data is to be used to confirm that clearing undertaken as part of the project was in accordance with the allowable limits identified in Sections 4.2, 4.5 and 7.3.

The results of post-clearing inspections will be communicated by the project ecologist and submitted to the JH EM and provided to Sydney Water.

The JH EM will close out the relevant clearing permit to ensure post-clearing information has been recorded and closed out.

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APPENDIX B – Unexpected Finds Protocol for Threatened Flora & Fauna

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Unexpected Finds Protocol for threatened flora & fauna

Scope: This Procedure has been prepared in accordance with Environmental Planning and Assessment Act 1979 (EP&A Act) and the EPBC Act, including the requirements to prepare and implement an unexpected finds protocol for flora and fauna to manage incidental finds of threatened species or ecological communities during construction under the CSSI approval (SSI-8609189).

KEY STEPS AND RESPONSIBILITIES	ROLE
INDUCTION AND TOOLBOX TALKS All USC personnel are to be inducted and receive ongoing training and awareness via toolbox talks and pre-start meetings regarding unexpected flora and fauna finds of threatened species or ecological communities. JH Environment Manager to provide relevant content for the induction and other relevant training and awareness material.	JH Environment Manager

Has an unexpected flora and/or flora find occurred?

NO → Continue Works

YES

STOP WORK, PROTECT FIND AND INFORM DIRECTOR OF WORKS Notify the JH Construction Team and JH Environment Manager and advise all personnel to stay clear of the area. The JH Construction Team and Environment Manager to establish a 'no-go zone' around the specimen found. No work is to be undertaken within this zone until further investigations are complete and, if required, appropriate approvals are obtained.	JH Site Supervisor JH Environment Manager
NOTIFICATION AND CONSULTATION The JH Environment Manager / Project Director is to notify Sydney Water Major Projects Environment Team. JH not to move / impact the find without instruction from Sydney Water. The JH Environment Manager and JH Community & Stakeholder Engagement Manager, in consultation with the Sydney Water Major Projects Environment and Community Teams, are to contact and engage a qualified professional (e.g., ecologist, botanist, zoologist), where required. The qualified professional engaged will assess and confirm the significance of the ecological find. Upon confirmation the flora &/or fauna find is genuine, the JH Environment Manager is to consult with the Sydney Water Major Projects Environment Team regarding notification and consultation with relevant authorities (e.g., Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW), NSW Department of Planning and Environment – Environment & Heritage Group (EHG), Department of Primary Industries (DPI) Fisheries, and local councils where relevant.	JH Environment Manager JH Project Director JH Community & Stakeholder Engagement Manager SWC Major Projects Environment Team
ASSESSMENT OF SIGNIFICANCE & MANAGEMENT The qualified professional is to undertake recording and assessment of confirmed flora and/or fauna find and determine appropriate mitigation measures.	Qualified Professional
RECOMMENCE WORKS Works are not to recommence until written consent is given by the Sydney Water Major Projects Environment Team and if required, EHG and DPI Fisheries.	SWC Major Projects Environment Team EHG and DPI Fisheries JH Project Director JH Environment Manager JH Site Supervisor
CLOSE-OUT AND FINALISE REPORTING Reporting of findings and assessment to be finalised and submitted to relevant authorities in consultation with the Sydney Water Major Projects Environment Team.	SWC Major Projects Environment and Community Teams JH Environment Manager

If any threatened species are identified during construction works, the Unexpected Finds Protocol for threatened flora & fauna would be followed. The threatened species that are most likely to be found are listed in Table B-1 and B-2 as they have been identified as potentially occurring in the Project area.

Table B - 1 Threatened flora identified as potentially occurring in the Project area

Common Name (*Species name*)	BC Act*	EPBC Ac*
Downy Wattle (*Acacia pubescens*)	V	V
Camden White Gum (*Eucalyptus benthamii*)	V	V
Native Pear (*Marsdenia viridiflora* subsp. *viridiflora*	E2	-
Netted Bottle Brush (*Callistemon linearifolius*)	V	-
Dillwynia tenuifolia	V	-
Juniper-leaf Grevillea (*Grevillea juniperina* subsp. *juniperina*)	V	-
Spiked-rice Flower (*Pimelea spicata*)	E	E
Matted Bush-pea (*Pultenaea pedunculata*)	E	-

Table B - 2 Threatened fauna identified as potentially occurring in the Project area

Common Name (*Species name*)	BC Act*	EPBC Act
Eastern Bent-winged Bat (*Miniopterus orianae oceanensis*)	V	
Little Bent-winged Bat (*Miniopterus australis*)	V	-
Southern Myotis (*Myotis macropus*)	V	
Large-eared Pied Bat (*Chalinolobus dwyeri*)	V	V
Cumberland Plain Land Snail (*Meridolum corneovirens*)	E	-
Dural Land Snail (*Pommerhelix duralensis*)	E	E
Green and Golden Bell Frog (*Litoria aurea*)	V	E
Giant Burrowing Frog (*Heleioporus australiacus*)	V	V
Red-crowned Toadlet (*Pseudophryne australis*)	-	V

Reference	Requirement Description	How Addressed
C9 (d)	The Biodiversity CEMP Sub-Plan must be prepared by a suitably qualified and experienced ecologist and include, but not limited to: […] (d) protocols for incidental finds of threatened species and ecological communities within the construction boundary	In accordance with CoA C4(d), a project-specific Biodiversity CEMP sub-plan (BCSP) has been developed and implemented for the duration of the project. As required by CoA C9(d) the BCSP includes Appendix D, an unexpected finds protocol for incidental finds of threatened species and ecological communities within the construction boundary (this protocol).

APPENDIX C – Fauna Rescue and Release Procedure

Introduction

This procedure explains the actions to be undertaken in the event fauna (including injured, shocked, dependent juvenile or other animal) are discovered that require handling or rescue during vegetation and soil clearance and ongoing construction activities.

This procedure is applicable to all native and introduced species that are found on the project site.

Induction / Training

Personnel involved in any aspect of fauna handling or rescue, or those activities where this may be required, will be trained in the requirements of this procedure. Training will include inductions, toolbox talks, pre-starts and targeted training as required.

Scope

This procedure is applicable to all activities that may lead to fauna handling or rescue, such as clearing operations, on the project.

Procedure

Discovery of wildlife on project site during construction activities

If wildlife is discovered on the project site during site construction activities and there is a risk that activities may harm the animal or pose risk to site personnel, the following steps will be taken.

1. Stop all work in the vicinity of the fauna sighting and immediately notify JH Construction Manager who is then to notify the JH Environment Manager or Project Ecologist, if the latter is present onsite.
2. Attempt to prevent further harm to the animal and/or other animals in the vicinity by establishing a 10-metre radius no-go zone around animal).
3. Preferably allow fauna to leave the area without intervention.
4. If immediately available, use a licensed fauna ecologist or wildlife carer with specific animal handling experience to carry out any fauna handling.
5. Do not approach the injured animal unless directed to by ecologist / fauna spotter / catcher or WIRES Rescue representative.
6. Do not approach snakes, monitor lizards (goannas), bats (flying-foxes or microbats), large macropods (kangaroos or wallabies) or raptors (eagles, falcons, hawks). These animals require specialist handling and must be rescued by trained wildlife rescuers.
7. If no ecologist or wildlife carer is available on site and the animal is able to be handled, to minimise stress to native fauna and/or remove the risk of further injury before a licensed fauna handler arrives onsite, the JH Environment Manager shall:
    a. If time permits, call ecologist or fauna rescue for advice.
    b. Cover larger animals with a towel or blanket and place in a cardboard box and / or canvas bag.
    c. Place smaller animals in a cotton bag, tied at the top.
    d. Keep the animal in a quiet, cool (not cold), ventilated and dark location away from noisy construction activities.
    e. Aquatic fauna are to be placed in plastic aquaria or a plastic bag with sufficient amount of water. Frogs will be transported in moistened plastic bags (1 frog/bag) with a small amount of damp leaf litter. The translocation of frogs shall be in accordance with the Hygiene Protocol for the Control of Disease in Frogs (see below).

Notes on fauna handling -

Note 1. Some animals require particular handling (e.g. venomous reptiles, raptors) and should only be handled by appropriately qualified personnel i.e. Project Ecologist or WIRES representative(s).

Note 2. If handling bats, the handler must be vaccinated against the Australian Bat Lyssavirus (ABL - a form of rabies).

Note 3. Any frog handling will be undertaken in accordance with the Hygiene Protocol for the Control of Disease in Frogs (DECC 2008). This protocol recommends onsite hygiene precautions be undertaken to minimise the transfer of disease between and within wild frog populations. Measures recommended include:

(i) Thoroughly cleaning / disinfecting footwear and equipment when moving from one site to another.
(ii) Where necessary in high-risk areas, spraying / flushing vehicle tyres with a disinfecting solution.
(iii) Cleaning / disinfecting hands between collecting samples / frogs (preference would be given to using bags, rather than bare hands to handle frogs).
(iv) Limiting one frog or tadpole to a bag. Bags should not be reused.

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a. If the animal cannot be handled (i.e. venomous reptiles):
   (i) Exclude all personnel from the vicinity with fencing and/or signage.
   (ii) Record the exact location of the animal/s and provide to the Project Ecologist or appropriate rescue agency (i.e. WIRES).

b. If not already done, call the appropriate rescue agency immediately and follow any advice provided by the agency. Once the rescue agency arrives at the site, they are responsible for the animal. Any decisions regarding the care of the animal will be made by the rescue agency. The relevant fauna rescue services and local veterinary surgeries contact details are as follow:

Position	Contact Number
Project Ecologist	02 9101 8700
WIRES (only to be called if Project Ecologist not available)	1300 094 737
RSPCA	1300 278 3589
Orchard Hills Veterinary Hospital	02 4736 2027
Great Western Animal Hospital	02 9631 9322
St Clair Animal Hospital	02 9670 4955
Pendle Hill Veterinary Clinic	02 9636 5641

In the event the rescue service and / or local veterinary service cannot be contacted, the injured animal will be delivered to the relevant agency as soon as practically possible.

c. If the fauna species is identified as a threatened species that is not a species identified in the BCSP, the JH Environment Manager must follow the Unexpected Finds Protocol for Threatened Flora & Fauna.
   8. JH Environment Manger to record find in accordance with Section 3.7 of the CEMP where required following consultation with the Sydney Water / John Holland Representative. All relevant characteristics of the fauna find should be recorded to the extent practicable (i.e. visual signs of behaviour; habitat; health signs; sex, time date, weather, etc.).
   9. Following consultation with all relevant stakeholders, the JH Environment Manager shall implement any corrective actions and additional safeguards.
   10. Following confirmation by the JH Environment Manager that all appropriate safeguards have been implemented, construction works shall recommence.
   11. Relocation of fauna adjacent to the footprint will be undertaken where possible by the Project Ecologist or wildlife rescuer and will be recorded in the fauna relocation register. If the animal is not injured or stressed, it may be released nearby in an area that is not to be disturbed by the project construction works, in accordance with the following procedures:
      a. Sites identified as suitable release points by the Project Ecologist or wildlife rescuer.
      b. Release site will contain similar habitat and occur as close to the original capture location as possible.
      c. If the species is nocturnal, release will be carried out at dusk.
      d. Release would generally not be undertaken during periods of heavy rainfall.
      e. Hollow-dependent species, particularly those with dependent young, shall be released into a temporary nest box.

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Project Ecologist responsibilities for fauna handling and rescue

The Project Ecologist will follow the relevant steps detailed below:

1. Relocation of fauna captured during the clearing and associated works will generally take place in areas of suitable habitat immediately adjacent to the Project site taking into account:
   a. The release site contains similar habitat and occurs as close to the original area as possible.
   b. The species, number, sex, age, class and general health of each individual is to be recorded for later reporting.
   c. If the species is nocturnal, release will normally be carried out at dusk.
   d. Release would generally not be undertaken during periods of heavy rainfall except for aquatic fauna.
   e. Non-native fauna will be euthanised.

   If the animal has been placed into care due to injury, age (i.e. young) or stress, upon its rehabilitation it will be released in an area, selected by the Project Ecologist, that will not be disturbed by the project construction works. The Project Ecologist will record and provide the capture and relocation data in the post clearing report and ensure that this information is provided to any carer so that the animal can be released appropriately.

2. To minimise stress to native fauna and/or remove the risk of further injury, the Project Ecologist shall:
   a. Cover larger animals with a towel or blanket and place in a suitable nest box, carry cage or canvas bag.
   b. Place smaller animals in a cotton bag, tied at the top, or suitable nest box.
   c. Place frogs/tadpoles in a plastic bag with a small amount of water and leaf litter. One individual per bag.
   d. Fish and other aquatic life (i.e. turtles) place in plastic aquaria or plastic container with sufficient water.
   e. For terrestrial fauna keep the animal in a quiet, cool, well-ventilated and dark place away from noisy activities.
   f. For aquatic fauna species ensure there is sufficient water and adequate aeration.

   Notes on fauna handling –

   Note 1. Some animals require particular handling (e.g. venomous reptiles, raptors) and should only be handled by appropriately qualified personnel i.e. Project Ecologist or WIRES representative(s).

   Note 2. If handling bats, the handler must be vaccinated against the Australian Bat Lyssavirus (ABL) which is a form of rabies.

   Note 3. Any frog handling would be undertaken in accordance with the *Hygiene Protocol for the Control of Disease in Frogs* (DECC 2008).

3. In the event an animal is injured, the fauna rescue services and local veterinary surgeries contact details are detailed in 6 above.

   In the event the rescue service and/or local veterinary service cannot be contacted, the most appropriate euthanasia will be administered by the Project Ecologist (i.e. cervical dislocation for small vertebrates, ice slurry for introduced fish). This is to occur in accordance with applicable guidelines and legislative requirements.

4. If the fauna species is identified as a threatened species that is not a species identified in the BCSP, notify the JH Environment Manager who will follow steps 7 to 11 above.

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APPENDIX D – Fauna Clearance Form

Note – sample only and indicative of the content / information to be collected by the Project's document management system to be implemented prior to commencement of construction.

SPOTTER CATCHER CLEARANCE FORM

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Date:		**Time:**		**Clearance Form Valid to:**	
Project and Region (circle)					
Location & Activity (work area, tree removal)					
Pre –Clearing Inspection (date, time period, notes)					
Animals Located? (Yes/ No– Provide Detail)					
Action Taken (where required)					
Clearing (date, time period, notes)					
Authorised Spotter / Catcher	**Name:**		**Signed:**	**Date:**	
Authorised Supervisor	**Name:**		**Signed:**	**Date:**	

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APPENDIX E – Fauna Relocation Register

Date/Time	Project	Location (chainage, work area or intersection)	Animal (if it cannot be identified, provide a general description)	Status (alive, dead, injured) State how died or injured if known	Photo (attach photo to report or state file location)

*Note: or as provided by the project ecologist

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APPENDIX F – Weed and Pathogen Management Procedure

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Weed and Pathogen Management Procedure

Scope: This Procedure has been prepared in accordance with *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Biosecurity Act 2015*

1 Background and Project description

The USC AWRC will be located at the junction of Kemps Creek and South Creek in NSW, on Lot 211 DP1272676, plus the additional treated water and brine pipelines. The Project area comprises approximately 78 hectares, on land zoned as ENZ Environmental and Recreation and RU2 Rural Landscape. The AWRC area is located in the:

- Cumberland sub-bioregion withing the Sydney Basin bioregion.
- Penrith Local Government Area (LGA).
- Hawkesbury Catchment area.

As part of the scope of works for this proposal, John Holland requires the development of a Weed and Pathogen Management Procedure (WMP) to protect biodiversity from the potential spread of weeds and pathogens during construction works.

2 Site description

The Project occurs mainly within the Cumberland Plain, while a small portion in the western end extends toward the Blue Mountains Plateau. The vegetation within the study area is comprised mostly of fragmented patches of Grassy Woodland of the Cumberland Plain, Urban Native and Exotic vegetation and exotic grassland. High condition vegetation within the project area is contiguous with riparian vegetation of Prospect Creek and Georges River in the east, and Greater Blue Mountains World Heritage Area in the west. The broader landscape has been subject to long term, historical pastoral and agricultural farming, where extensive clearing has led to infestation of priority, agricultural and environmental weeds.

3 Purpose

This purpose of this Weed Management Procedure is to detail how weeds and pathogens will be managed and controlled within the Project area. The aim is to prevent or minimise the spread of environmental weed species and the soil-borne pathogen *Phytophthora cinnamomi* (Phytophthora), throughout the Project area. Several exotic species were identified within the project area during field investigations as part of the USC AWRC Biodiversity Development Assessment Report (BDAR) prepared by Biosis in 2021. A total of 151 species of weeds were observed, including several priority environmental, and agricultural weeds, as well as High Threat Weeds (HTW) and Weeds of National Significance (WoNS).

4 Potential Impacts

The Project will largely be undertaken in highly urbanised areas, with parts of the alignment supporting little native vegetation, reducing the threat of weeds and pathogens to biodiversity. However, this Procedure will be implemented to minimise the risk of potential introduction and spread of weeds and Phytophthora during construction activities.

5 Training and Inductions

All personnel will receive Environmental Inductions and ongoing training via Toolbox Talks, including on the existence and identification of any weeds on site and associated management procedures as per the CEMP (Section 3.5.2).

6 Weed Management within the study area

6.1 Occurrence within the Project Area

Weeds have the potential to cause serious damage to the environment, impacting the economy, health, farming, agriculture and biodiversity. In NSW, Department of Primary Industries (DPI) is the leading agency responsible for weed management. Exotic species are managed in accordance with the following:

- *Biosecurity Act 2015.*
- *Pesticides Act 1999.*
- *NSW Invasive Species Plan.*

A list of all weed species identified within the Project area are provided in the Appendix (listed in the Appendix, Weeds within the Project Area

Table).

6.2 Method

Pre-clearance surveys for exotic species will be undertaken prior to commencement of the proposed works. As part of pre-clearance surveys, weed inspections should be undertaken prior to the commencement of vegetation clearing. Weed inspections should include the following:

- Identification of all moderate and high threat weeds as listed in Table of this weed management procedure within the Project area.
- Mapping of all moderate and high threat weeds as listed in Table of this weed management procedure, including areas of large infestations.
- Mapping of potential Phytophthora infection within the Project area, in accordance with Table of this weed management procedure.

The weeds within the Project Area will be mapped by an Ecologist and assigned a threat level based on their invasiveness in accordance with Table 1. Additional Pre-clearance measures are outlined in Section 8.2 of the BCSP.

Table 1 Classification of weed threat level

Weed Threat Level	Justification
Low	Any exotic species not classified as a high threat weed, a priority weed for the Greater Sydney Region or a Weed of National Significance (WoNS).
Mod	Any exotic species that are classified as a high threat weed, but not classified as a priority weed for the Greater Sydney Region or a Weed of National Significance (WoNS).
High	Any exotic species that are classified as a high threat weed AND either a priority weed for the Greater Sydney Region and/or a Weed of National Significance (WoNS). Any exotic species classified as a Priority Weed or WoNS.

The species, status, relevant associated Biosecurity Duty (if applicable) and threat level for all weeds observed within the project area are listed in Table 4.

6.3 Weeds of National Significance (WoNS) and Priority Weeds

Several high and moderate threat weeds, classified as Weeds of National Significance and/or priority weeds for the Greater Sydney Region, were identified within the study area during field investigations as part of the USC AWRC BDAR conducted by Biosis in 2021, including:

- African Boxthorn *Lycium ferocissimum*
- African Olive *Olea europaea* subsp. *cuspidata*
- Alligator Weed *Alternanthera philoxeroides*
- Bridal Creeper *Asparagus asparagoides*
- Common Prickly Pear *Opuntia stricta*
- European Blackberry complex *Rubus fruticosus* sp. agg.
- Fireweed *Senecio madagascariensis*
- Giant Salvinia *Salvinia molesta*
- Green Cestrum *Cestrum parqui*
- Ground Asparagus *Asparagus aethiopicus*
- Madeira Vine *Anredera cordifolia*
- Sticky Nightshade *Solanum sisymbriifolium*

The status of each of the species listed above are included in Table of the Appendix.

7 Pathogen Management within the study area

7.1 Occurrence within the Project Area

Pathogens have the potential to impact on biodiversity by producing infections in plants and increasing the likelihood of spread through the movement of plant, water and soil material, particularly during construction activities. Several pathogens known to occur within NSW have the potential to impact on biodiversity, however this Procedure will focus on infection by Phytophthora, which is listed as a key threatening process under both the EPBC Act and BC Act. This pathogen causes the disease known as Phytophthora dieback (or root rot) which inhibits the uptake of water by first infecting the roots, resulting in symptoms similar to those observed in plants in drought or under water stress.

Infection by *Phythothora* was not observed, or tested for, during field assessments as part of the USC AWRC BDAR conducted by Biosis in 2021. However, infection should be treated as a risk during construction works (DCCEEW 2021).

7.2 Method

As part of the pre-clearance surveys, an Ecologist will map areas of potential Phytophthora infection by mapping the occurrence or evidence of pathogens in accordance with Table 2. Pathogen risk areas will be classified as either low, medium or high in order to identify areas most at risk of spreading infection or disturbing soil contaminated by this pathogen.

Table 2 Pathogen risk

Pathogen Risk Areas	Justification
Low	No tree dieback evident.
Mod	Small areas of tree dieback i.e., a group of trees within close proximity experiencing dieback
High	Extensive evidence of tree dieback.

Prior to construction:

- All workers should be familiar with the BCSP, this procedure and the symptoms of *Phythothora* infection.
- All Pathogen Risk Areas will be identified by an Ecologist and incorporated into the Site Environmental Plan (SEP). Various training and awareness avenues (project induction, toolbox talks, pre-start meetings) will be used to communicate this to all employees on the project.

Management actions for pathogens within the project area are detailed below in the Weed Management Procedure Flowchart.

8 Weed Management Procedure Flowchart

RESPONSIBILITY

Project Ecologist

Environmental Manager

Weed Control Contractor

Environmental Coordinator

MANAGEMENT ACTIONS

Pre-clearance inspection 48 hours before clearing is to begin
- Identify and map any moderate or high threat weeds as listed in Table 4 of this weed management procedure within the Project area.
- Map evidence of pathogens (Phytophthora) within the project area in accordance with Table 1 .
- Classify all weeds as either high, moderate, or low threat in accordance with Table 1.

WEED RISK LEVEL

Areas containing high/moderate risk weeds

Treat all high and moderate risk weeds prior to clearing in accordance with the weed treatments outlined in Table .

Areas containing low risk weeds

Pre-clearing treatment not required.

Vegetation clearing to commence in areas containing low risk weeds first, then move to areas containing medium risk weeds, and last in areas containing high-risk.

- Ensure vehicles and machinery arrive clean and free of mud.
- Ensure vehicles and machinery are washed down prior to movement between low, medium and high-risk weed areas, and prior to leaving site.
- Complete vehicle wash checklist prior to works and before leaving site and submit to site manager.

Areas containing high/moderate risk weeds and evidence of pathogens

- **Avoid stockpiling where possible**
- Confirm with site manager before stockpiling any material.
- If required, stockpile any weed propagules, soil contaminated with pathogens or reproductive material of high or moderate risk weeds in piles within already contaminated areas, separated from native vegetation waste and away from retained native vegetation.

Regularly treat weed stockpile to stop germination of any reproductive material.

- Medium and high-risk weed areas and areas with evidence of pathogens should be marked on all relevant plans and site maps.
- Appropriate wash down facilities should be provided to prevent weed propagules and potential pathogens spreading between weed areas.

Test soil and plant material from high/mod pathogen risk areas to confirm the presence/absence of Phytophthora.

All reproductive and contaminated material should be placed in bags or on plastic during weed removal, then immediately removed from site.

All reproductive and contaminated material will be removed from site and disposed of at a licensed green waste disposal facility or landfill.

Do not reuse soil or vegetation waste contaminated with high or moderate risk weeds or Phytophthora onsite.

Ecologist to conduct regular site inspections to map the occurrence of High and Moderate threat weeds within the project area. If treatment required, contact the Weed Control Contractor.

Areas containing low risk weeds

Low risk weeds can be removed as part of the full vegetation clearing.

- Soil containing no weed propagules or other exotic reproductive material can be reused on site.
- Confirm with Environmental Manager before reusing any soil.

- Any re-used soil should be monitored and treated for any future weed re-growth.
- This should be undertaken by a Weed Control Contactor.

Revegetate disturbed areas as soon as possible to prevent the growth of new weeds.

Primary pathway

Secondary pathway

TIMING

PRE – CONSTRUCTION

DURING CONSTRUCTION

POST CONSTRUCTION

9 Mitigation Measures

The introduction of weed species on-site and potential spread of Phytophthora will be minimised through the mitigation measures described in Table 3 below. Biosecurity safeguards and management strategies have been developed in order to prevent the spread of exotic species within NSW. These management strategies will be implemented to minimise the spread of exotic species within the project area, particularly moderate and high-risk weeds, as well as preventing the spread of weeds beyond the project area and protecting the area against the introduction of new weeds. Measures to minimise spread of weeds and manage current weeds onsite include:

Table 3 Weed management measures

Ref.	Requirement	Responsibility	Timing	Resource
B01 - F	Map areas that are infested with weeds and establish an exclusion zone with fencing and signage to limit access by personnel and vehicles.	John Holland EM	Prior to construction	SEPs
B02 - F	Machinery and vehicles will be cleaned and inspected prior to arriving or departing from site to minimise the likelihood of transporting any contaminated plant material and soil.	JH Construction Manager/Site Supervisor	During Construction	Environmental inspection records
B03 - F	Soil, plants or other materials entering the site will be checked to ensure they are free of weeds and pathogens.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records
B04 - F	Vehicles containing weed-contaminated material will be covered to prevent any weed material falling off vehicles.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records Plant onboarding
B05 - F	All weed plant material and topsoil containing weed plant material will be disposed of at an appropriate waste management facility.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Waste records
B06 - F	Weeds will be removed from site immediately, loaded onto suitable trucks and disposed of at an appropriate waste management facility without stockpiling (where possible).	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records
B07 - F	Any use of pesticides will be in accordance with the Pesticides Act 1999 (NSW).	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records EWMS
B08 - F	Soil testing or testing of effected plant material will be conducted if dieback is identified on site to determine the presence of Phytophthora.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	SAQP Environmental inspection records
B09 - F	Soil disturbance will be minimised in areas infested with weeds.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	SEPs EWMS
B10 - F	The vehicle wash checklist will be completed prior to works and before leaving site (Section 10.2).	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Vehicle wash checklist
B11 - F	Weed management measures such as clearing, slashing or mowing, as well as the use of herbicides will be carried out in accordance with the Pesticides Act 1999.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records
B13 - F	Loads containing reproductive weed material will be securely covered during disposal.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records
B14 - F	Do not re use weed material onsite.	JH Construction Manager/Site Supervisor/Environment Manager	During Construction	Environmental inspection records

Further management actions are outlined below in the Weed Management Procedure Flowchart. The Weed Management Procedure Flowchart is a guide to manage risk associated with construction works in exotic vegetation, and to eliminate potential spread of weed propagules or pathogens that produce infection in plants. The recommended treatments for relevant weed types are outlined below in Table 4.

Table 4 Recommended weed treatments

Weed type	Treatment recommendation
Woody shrubs and small trees	Seedlings can be manually removed. Cut/paint and apply 'neat' 360g/L Bioactive Glyphosate based herbicide to actively growing stems in areas of high regeneration potential (Off label permit: PER9907). Large specimens: Cut and paint/frill and drill live/actively growing stems with 'neat' 360g/L Bioactive Glyphosate based herbicide (Off label permit: PER9907). Stem injection (via drill, frill or appropriate methods) for basal diameter up to 25 cm of Glyphosate 360 g/L Roundup® at a rate of 1 part glyphosate to 1 part water, 2 mL per cut or for basal diameter 25 cm to 60 cm undiluted, 2 mL per cut. Best done during times of active growth ie. Spring/summer. Blackberry: Dig out single plants (biomass to remain on site) or scape and paint using a 'neat' 360g/L Bioactive Glyphosate based herbicide (Off label permit: PER9907). Chemically treat larger infestations using either a 360g/L Bioactive Glyphosate based herbicide at a diluted rate of 10–13 mL per 1 L of water or a APVMA approved broad leaf selective herbicide applied at the registered rate. Slashing may be required to gain access and stimulate new growth.
Perennials/ Scrambling weeds	Hand remove all parts of plant including underground tubers, biomass to be removed from site. Seedlings to be spot spray with a 360g/L Bioactive Glyphosate based herbicide at a diluted rate of 10ml/L of water. Completely wet all leaves and stems. Best done during times of active growth ie. Spring/summer. Tuberous perennials: Hand remove all parts of plant including underground tubers, biomass to be removed from site. Seedlings to be spot spray with a 360g/L Bioactive Glyphosate based herbicide at a diluted rate of 10ml/L of water.
Herbaceous plants	Hand remove or chemically treat (spray) specimens with a 360g/L Bioactive Glyphosate based herbicide at a diluted rate of 10ml/Litre of water (1:100). Larger specimens may be cut and painted with an undiluted L Bioactive Glyphosate based herbicide in areas of high regeneration potential. Best done during times germination and seed set ie. Spring/summer.
Cactus	Manually remove isolated plants and remove the biomass from site. If large infestations are detected control in accordance with NSW weedwise guidelines. Can be done all year.
Grasses	Slashing for large areas of infestation. Hand remove or chemically treat (spray) mature specimens with a 360 g/L Bioactive Glyphosate based herbicide at a diluted rate of 10ml/L of water (1:100). May require brush cutting or slashing to promote new growth prior to application. Can be done all year.
Vines	Small specimens: Hand remove seedlings or spot spray with a 360g/L Glyphosate based herbicide at a diluted rate of 10ml/L of water. All seeds and biomass are to be disposed of, off site. Larger specimens: Hand remove in area of high regeneration potential ensure that all fruiting bodies and central 'rhizome' has been removed and disposed of, off site. Can be done all year. Madeira vine: Hand remove all aerial and underground tubers, biomass to be removed from site. Seedlings to be spot spray with a 360g/L Bioactive Glyphosate based herbicide at a diluted rate of 10ml/L of water or appropriate selective herbicide as per label requirements.

10 Appendix

10.1 Weeds within the Project Area

Table 5 Exotic species within the study area and their associated status and threat level

Species name	Common name	WoNS	Asset/value at risk	Priority Weed - Greater Sydney LLS region	WeedWise - Biosecurity Duty	Risk Level
Alternanthera philoxeroides	Alligator Weed	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale. Biosecurity Zone The Alligator Weed Biosecurity Zone is established for all land within the state except land in the following regions: Greater Sydney; Hunter (but only in the local government areas of City of Lake Macquarie, City of Maitland, City of Newcastle or Port Stephens). Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone.	**High**

Species name	Common name	WoNS	Asset/value at risk	Priority Weed - Greater Sydney LLS region	WeedWise - Biosecurity Duty	Risk Level
					Regional Recommended Measure Exclusion zone: Blue Mountains City Council area. Core infestation area: the remainder of the region. Whole region: Land managers prevent spread from their land where feasible. Exclusion zone: The plant is eradicated from the land and the land kept free of the plant. Core infestation area: Land managers mitigate the risk of new weeds being introduced to their land. Land managers reduce the impact on priority assets.	
Anredera cordifolia	Madeira Vine	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale.	**High**
Araujia sericifera	Moth vine, Moth plant		Environment			**Mod**
Asparagus aethiopicus	Ground Asparagus	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale.	**High**
Asparagus asparagoides	Bridal Creeper	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale. *this requirement also applies to the Western Cape form of bridal creeper	**High**
Lantana camara	West Indian Lantana	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale.	**High**
Lycium ferocissimum	African Boxthorn	**Y**	Environment	**Y**	Prohibition on dealings: Must not be imported into the state, sold, bartered, exchanged or offered for sale	**High**
Opuntia stricta	Common prickly pear	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale. Except for Opuntia ficus-indica (Indian fig)	**High**
***Rubus fruticosus* sp. agg.**	European blackberry complex	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the State or sold All species in the Rubus fruiticosus species aggregate have this requirement, except for the varietals Black Satin, Chehalem, Chester Thornless, Dirksen Thornless, Loch Ness, Murrindindi, Silvan, Smooth Stem, and Thornfree	**High**
Salvinia molesta	Giant salvinia	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale. Regional Recommended Measure Exclusion zone: whole region except for the core infestation area of the Georges and Hawkesbury-Nepean Rivers and their tributaries. Whole region: Land managers mitigate the risk of the plant being introduced to their land. Exclusion zone: The plant is eradicated and the land kept free of the plant. The Local Control Authority should be notified if the plant is found. Core infestation area: Land managers should prevent spread from their land where feasible.	**High**
Senecio madagascariensis	Fireweed	**Y**	Environment	**Y**	Prohibition on dealings Must not be imported into the state, sold, bartered, exchanged or offered for sale.	**High**

10.2 Vehicle Wash Down Checklist

Part of Vehicle	Task	Complete (Tick)
Exterior		
Tyres (Wheel arches, wheel rims, mudflaps)	Clean with high pressure water to remove soil or plant material. Make sure to reach areas where soil may become trapped.	
Mirrors	Wipe around mirrors and remove any obvious plant or soil material.	
Windscreen wipers/windscreen	Wipe/scrub windscreen wipers with water to remove and soil and plant material that may become stuck within the wiper blades. Clean windscreen with high pressure water.	
Exterior cabin (incl. bumpers, towbar/towball, roof, underbody, etc)	Clean with high pressure water to remove soil or plant material.	
Tray (including around toolboxes, equipment, etc)	Clean with high pressure water to remove soil or plant material. Clean around and under toolboxes, check to make sure soil and plant material hasn't become lodged underneath.	
Interior		
Interior cabin (incl. seats, roof, dashboard, centre console, floor etc)	Wipe down with water and remove any obvious soil or plant material. Clean with a high-pressure vacuum to remove any plant or soil material that may be present from clothes or boots, if required.	
Floor mats	Remove from vehicle and check for any soil or plant material that may present from boots. Clean with a high-pressure vacuum.	
Engine	Check under the car bonnet, and clean and wipe down any surfaces where plant material or soil may be present.	

APPENDIX G – Fencing and Signage Protocol

Fencing and Signage Protocol		
Clearing Limits		Must be installed prior to commencement of clearing. Do not clear outside of delineated area. A current approved Clearing Permit is required to clear or impact vegetation.
Project Boundary	Flagging (orange flagging) 	Do not impact beyond delineation Project boundary signage will be installed on the flagging
Protected environmentally sensitive areas – includes heritage areas	Signed with: 	Identifies environmentally sensitive areas onsite including high value threatened species habitat, heritage sites, threatened species and TECs No impact beyond or within the delineated area. Do not remove protection fencing or signage.
Habitat Trees	Marked with blue and white 	This will be wrapped around the tree by the project ecologist prior to clearing

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APPENDIX H – In-stream Works procedure

Note - A procedure to manage construction associated with in-stream works is to be developed prior to commencement of any in-stream construction work. Once developed, this BCSP will be updated with the relevant information, following engagement of specialist subcontractors engaged to perform the work who will support development of these instream works.

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APPENDIX I – CoA A9 Consultation Summary Report

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Upper South Creek

Advanced Water Recycling Centre and Pipelines

CoA A9 Consultation Summary Report – Biodiversity CEMP Sub-plan

Document Number: USCP-JHG-RPT-ENV-0005
Revision: 06

Revisions and Distribution

Distribution

There are no restrictions on the distribution or circulation of this Construction Environmental Plan within John Holland.

	Uncontrolled Copy
Authorised By: Date:	Richard Ioffrida (Project Director)

Revisions

Draft issues of this document shall be identified as Revision 01, 02, 03 etc. Upon initial issue (generally Contract Award) this shall be changed to a sequential number commencing at Revision A. Revision numbers shall commence at Rev. A, B etc.

Date	Rev	Remarks	Section	Prepared By	Reviewed By & Approved By
01-05-2023	01	Summary of consultation from BCSP	All	M.Segaran	A.Harrington
03-05-2023	02	Updated following ER Comments	All	M.Segaran	A.Harrington
30-05-2023	03	Updated following correspondence with agencies	All	M.Segaran	A.Harrington
30-06-2023	04	Updated following receipt of EHG comments	Section 2.1 and Appendix 8	A.Harrington	A.Harrington
14-07-2023	05	Updated following receipt of EHG comments	Section 2.1 and Appendix 8	A.Harrington	A.Harrington
26-07-2023	06	Updated following EHG comments	Section 2.1 and Appendix B	M.Segaran	M.Segaran

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1 Introduction

1.1 Background

The Upper South Creek Advanced Water Recycling Centre and Pipelines project (the project) has been proposed to support the population growth and economic development of the Western Sydney Aerotropolis Growth Area (WSAGA or Aerotropolis), South West Growth Area (SWGA) and the new Western Sydney International Airport. The project will provide wastewater services to Western Sydney to produce high-quality treated water for non-drinking reuse and for release to local waterways.

The project will comprise the following components:

- A new Advanced Water Recycling Centre (AWRC) to collect wastewater from businesses and homes and treat it, producing high-quality treated water, renewable energy and biosolids for beneficial reuse
- A new green space area around the AWRC, adjacent to South Creek and Kemps Creek, to support the ongoing development of a green spine through Western Sydney
- New infrastructure from the AWRC to South Creek, to release excess treated water during significant wet weather events, estimated to occur about 3 – 14 days each year
- A new treated water pipeline from the AWRC to Nepean River at Wallacia Weir, to release high-quality treated water to the river during normal weather conditions
- A new brine pipeline from the AWRC connecting into Sydney Water's existing wastewater system to transport brine to the Malabar Wastewater Treatment Plant
- A range of ancillary infrastructure.

The Department of Planning and Environment (DPE) issued the final Secretary's Environmental Assessment Requirements (SEARs) for the project in January 2021. Sydney Water prepared an Environmental Impact Statement (EIS) responding to these requirements, which was on public exhibition on the major projects planning portal for 28 days from 21/10/2021 to 17/11/2021. During this time, due to its importance, the project was declared to be State Significant Infrastructure (SSI) and Critical State Significant Infrastructure (CSSI) by the then Minister for Planning and Public Spaces on 9 November 2021. Sydney Water submitted an Amendment Report for the proposal on 11 March 2022. This report provided a description of amendments to the proposal that occurred since the exhibition of the EIS. The Amendment Report was on public exhibition on the major projects planning portal from 23 March 2022 to 05 April 2022.

On 28 November 2022, the Department of Planning and Environment (DPE) approved the construction and operation of the project (SSI 8609189) (herein referred to as the USC project).

Following determination of the project at a state level by the NSW Minister for Public Spaces, the project was referred to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) for a decision about whether the project was likely to have a significant impact on any matters of national environmental significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

A detailed description of the project is provided in Chapter 4 of the Upper South Creek AWRC Environmental Impact Statement (EIS), Volume 2.

The USC project will be built in stages, consisting of:

Stage 1

- building and operating the AWRC to treat a daily wastewater flow, known as the average dry weather flow (ADWF), of up to 50 megalitres per day (ML/day)
- building the treated water and brine pipelines to cater for up to 100 ML/day flow coming through the AWRC (but only operating them to transport and release volumes produced by Stage 1).

Future Stages

It is expected that the AWRC will ultimately require expansion to treat wastewater flows up to 100 ML/day. Sydney Water will remain flexible on the size and timing of these future upgrades to accommodate changes in population projections over time. Future stages will be subject to further environmental assessment.

Further detail on project staging is provided in the Upper South Creek AWRC EIS.

John Holland has been appointed by Sydney Water to deliver the USC project works, with detailed design and construction planning for treating a daily wastewater flow of up to 35ML/day. Greater flow capacities (including up to 50ML/day and 100ML/day, as explored in the EIS, are not covered in Stage 1. The environmental flows pipeline is not part of John Holland's scope.

1.2 Purpose of this Consultation Summary Report

This Consultation Summary Report has been prepared to meet the requirements of the CSSI approval, in particular Condition of Approval (CoA) A9. CoA A9 outlines the requirements for undertaking and documenting consultation undertaken during the preparation of approval documents or monitoring programs required under relevant CoA for those documents. This Consultation Summary Report has been prepared to consolidate the consultation undertaken during the preparation of the following document:

- CoA C4(d): Biodiversity Sub-plan

Consultation required during development of this document is detailed in Table 1-1.

Table 1-1 Consultation Requirements

Reference	Document Name	Consultation Requirement
CoA C4(d)	Biodiversity CEMP Sub-plan	• EHG • DPI Fisheries • Relevant Councils

1.3 CoA Compliance

This section discusses the compliance of this Consultation Summary Report with the relevant CoA as applicable to consultation required to be undertaken during the development of the BCSP (Biodiversity CEMP Sub-plan).

Error! Reference source not found. lists the applicable CoA, where and how they have been addressed in this Consultation Summary Report.

Table 1-2 CoA relevant to Consultation Summary Report

CoA ID	CoA Detail	How and where addressed
A9	Where the terms of this approval require consultation to be undertaken, evidence of the consultation undertaken must be submitted to the Planning Secretary and ER (as relevant) with the corresponding documentation. The evidence must include:	This document (Consultation Summary Report)
A9	a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval;	Section 2 and Appendices of Consultation Summary Report
A9	b) a log of the dates of engagement o attempted engagement with the identified party;	Section 2 and Appendices of Consultation Summary Report
A9	c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations.	Section 2 and Appendices of Consultation Summary Report
A9	d) outline of the issues raised by the identified party and how they have been addressed	Section 2
A9	e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed	Section 2
C4	The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A9. (d) Biodiversity – EHG, DPI Fisheries and relevant council(s)	Consultation Summary Report

1.4 Consultation Process

Consultation with stakeholders and agencies was undertaken using the following means:

- Formal correspondence (DPE Portal Notifications)
- Formal correspondence (standard email)
- Phone Calls

2 Stakeholder and Agency Consultation

This Section of the Consultation Summary Report provides detail of consultation undertaken with each stakeholder and agency in the preparation of the BCSP. It contains:

A consultation log that identifies:

- Consultation dates (actual and attempted)
- Form of consultation
- Whether responses and / or comments were received
- Summary of the issues raised, including how they have been addressed

Documentary evidence of all the correspondence received and sent through the consultation phase is contained in the Appendices at the end of this Report. The Appendices and this Section are broken down by stakeholder and agency, not by issue.

2.1 BCSP – EHG

Consultation with EHG commenced on 03 March 2023 and concluded 16 March 2023.

Table 2-1 below includes the details of engagement between EHG and USC regarding the BCSP.

Table 2-2 includes a summary of the issues raised, how those were addressed and closed out. Full evidence of correspondence is in Appendix 1 of this report.

Table 2-1 Engagement log – BCSP - EHG

#	Date	Correspondence		From	Recipient
		Form/Type	Purpose		
1	03-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA C4	Alyce Harrington	Marnie Stewart
2	04-04-2023	Email	Respond to consultation	Marnie Stewart	Alyce Harrington
3	04-04-2023	Document attached to email	Comments raised to consultation	Susan Harrison	Alyce Harrington
4	24-05-2023	Email	Reissue of updated BCSP in response to EHG comments	Mira Segaran	Marnie Stewart
5	30-05-2023	Email	Request for tracked changes copy	Marnie Stewart	Mira Segaran
6	30-05-2023	Email	Re-issue of tracked changes copy of BCSP to EHG	Mira Segaran	Marnie Stewart
7	20-06-2023	Email	Receipt of follow-up comments from EHG	Marnie Stewart	Alyce Harrington
8	30-06-2023	Email	Re-issue of tracked changes copy of BCSP to EHG	Alyce Harrington	Marnie Stewart
9	06-07-2023	Email	Receipt of follow-up comments from EHG	Angela Taylor	Alyce Harrington
10	14-07-2023	Email	Re-issue of tracked changes copy of BCSP to EHG	Alyce Harrington	NSW Planning Portal (via Cheryl Cahill)
11	20-07-2023	Email	Receipt of follow up comments from EHG	Angela Taylor	Mira Segaran
12	21-07-2023	Email	Request for further information regarding EHG comments	Mira Segaran	Angela Taylor
13	21-07-2023	Email	Provided details regarding EHG comments	Angela Taylor	Mira Segaran
14	26-07-2023	Email	Re-issue of tracked changes copy of BCSP to EHG	Mira Segaran	Angela Taylor

Table 2-2 below summarises the consultation comments received from EHG on the BCSP.

Table 2-2 Summary of issues – BCSP – EHG

Document Section, CoA/REMM	Comment Raised	Date Raised	How Addressed / Justification Why Not Addressed
Appendix B	Appendix B of the Biodiversity CEMP Sub Plan states that if any of the threatened species listed in Table B-1 and Table B-2 are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. However, the protocol should be applied no matter what threatened species are unexpectedly found. EHG recommends the wording in Appendix B is changed to: "If any threatened species are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. The threatened species that are most likely to be found are listed in Table B-1 and B-2 as they have been identified as potentially occurring in the Project area."	4-04-2023	Appendix B has been updated to reflect comment
Section 8.1	Section 8.1 states pre-clearing surveys will be undertaken in accordance with Appendices A, F and E. It's unclear why Appendices C and D are also not listed as they are relevant.	4-04-2023	Updated Section 8.1 to include Appendix C and D
Section 8.4.5	Section 8.4.5 states fencing and signage protocol is included in App H, it should say Appendix G.	4-04-2023	Updated text to Appendix G
Table 4-1	Table 4-1 of the Biodiversity CEMP Sub-plan indicates that the Growth Centres Biodiversity Certification Offset Strategy required under CoA E17 is addressed in section 7.4, however, there is no mention of this Offset Strategy in this section. Given this issue, the updated sub-plan will need to address CoA E17	4-04-2023	Sydney Water to prepare memo to be issued directly to DPE regarding CoA E17. Additional information has been added to section 7.4.
Section 8.5	It is also noted that Biodiversity CEMP Sub-plan Section 8.5 states A separate Rehabilitation Management Plan (RMP) will be developed in consultation with EHG and approved for implementation by the Planning Secretary no less than one month prior to commencement of construction in RBM 12 red-hatched lands (refer Appendix B of the SSI-8609189 approval). Where required, following development of the RMP, this BCSP will be updated. EHG will provide comments on the Rehabilitation Management Plan for the red-hatched land when it is provided for consultation	4-04-2023	Acknowledged
Table 4.1	Table 4.1 indicates that CoA E115 is addressed in section 5 which at this stage only lists the agencies that the Biodiversity CEMP Sub-plan had been provided to and includes the relevant local councils and DPI Fisheries. EHG recommends that consultation also be undertaken with DPE Water.	4-04-2023	Whilst consultation with DPE Water is not required under the Conditions of Approval C4, section 7.15 of the surface water and groundwater CEMP sub-plan addresses this requirement and includes the following text: "Where work is required within a waterway, an EWMS for the work(s) will be prepared in consultation with relevant state and or local authorities (including DPE Water and DPI Fisheries), the project CPESC, and suitably qualified geomorphologist". The Surface Water and Groundwater CEMP Sub-plan can be provided to EHG at their request.
General	If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction.	4-04-2023	Noted and subject to further discussions between Sydney Water and DPE.

2.2 BCSP – DPI Fisheries

Consultation with DPI Fisheries commenced on 04 March 2023 and concluded 16 March 2023.

Table 2-3below includes the details of engagement between DPI Fisheries and USC regarding the BCSP. Table 2-4includes a summary of the issues raised, how those were addressed and closed out. Full evidence of correspondence is in Appendix 2 of this report.

Table 2-3 Engagement log – BCSP – DPI Fisheries

#	Date	Correspondence		From	Recipient
		Form/Type	Purpose		
1	04-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA C4	Alyce Harrington	Josi Hollywood
2	04-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA C4	Alyce Harrington	Ahp.central@ Dpi.nsw.gov.au
3	22-03-2023	Email	Response to BCSP consultation. No comments raised.	Jessica Hyland	Alyce Harrington
4	22-03-2023	Document attached to email	Response to consultation. Supportive of BCSP	Jessica Hyland	Alyce Harrington

Table 2-4below summarises the consultation comments received from DPI Fisheries on the BCSP.

Table 2-4 Summary of issues – BCSP – DPI Fisheries

Document Section, CoA/REMM	Comment Raised	Date Raised	How Addressed / Justification Why Not Addressed
N/A	No Comments Raised	22-03-2023	N/A

2.3 BCSP – Relevant Councils

Consultation with the relevant councils commenced on 03 March 2023 and concluded 16 March 2023.

Table 2-5 below includes the details of engagement between USC and the relevant councils regarding the BCSP. Table 2-6 includes a summary of the issues raised, how those were addressed and closed out. Full evidence of correspondence with relevant councils is provided in the following Appendices:

Appendix 3 - Wollondilly Shire Council

Appendix 4 - Penrith City Council

Appendix 5 - Liverpool City Council

Appendix 6 - Fairfield City Council

Appendix 7 - Canterbury Bankstown City Council

Table 2-5 Engagement log – BCSP– Relevant Councils

#	Date	Correspondence		From	Recipient
		Form/Type	Purpose		
Wollondilly Shire Council					
1	03-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA	Alyce Harrington	Bianca Klein
2	08-03-2023	Meeting	Stakeholder Meeting with Council on 50% design completion	Michael Robertson Rama Sapkota	Ibrahim Muharrem Trent Davies Matthew Hardland Nafizul Akash
3	28-03-2023	Email	Acknowledgement of recent workshop and confirmation of key council contacts	Alyce Harrington	Bianca Klein Mathew Harland Nafizul Akash Ibrahim Muharrem
4	26-04-2023	Email	Notification regarding end of consultation period	Alyce Harrington	Bianca Klein Mathew Harland Nafizul Akash Ibrahim Muharrem
Penrith City Council					
1	03-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA	Alyce Harrington	Ari Fernando
2	03-03-2023	Meeting	Stakeholder Meeting with Council on 50% design completion	Michael Robertson Rama Sapkota	Scott Jones Michael Middleton Adam Lowe Brad James Justine Vella Ari Fernando Payton Bradrock Murray Halls
3	03-04-2023	Email	Follow up on progression of all sub-plans comments	Alyce Harrington	Ari Fernando
4	26-04-2023	Email	Notification regarding end of consultation period	Alyce Harrington	Ari Fernando
Liverpool City					
1	03-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA	Alyce Harrington	Jerard Tungcab
2	09-03-2023	Meeting	Stakeholder Meeting with Council on 50% design completion	Michael Robertson Rama Sapkota	Jerard Tungcab Kweky Aikins Riham Gergis Stella Qu Mahavir Arya
3	24-03-2023	Phone Call	Query regarding the response date for the sub-plan	Jerard Tungcab	Alyce Harrington
4	31-03-2023	Email	Respond to sub-plan. Comments raised.	Jerard Tungcab	Alyce Harrington
5	24-05-2023	Email	Re-issue of updated BCSP in response to Liverpool comments	Mira Segaran	Jerard Tungcab
Fairfield City Council					
1	03-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA	Alyce Harrington	Alison Mortimer
2	13-03-2023	Meeting	Stakeholder Meeting with Council on 50% design completion	Michael Robertson Rama Sapkota	Andrew Mooney Kerren Ven Mursaleen Shah Zahid Hassan
3	03-04-2023	Email	Follow up on progression of all sub-plan comments	Alyce Harrington	Mursaleen Shah
4	04-04-2023	Email	Respond to follow up by John Holland	Mursaleen Shah	Alyce Harrington
5	04-04-2023	Email	Request to remove individual as point of contact	Mursaleen Shah	Alyce Harrington
6	26-04-2023	Email	Notification regarding end of consultation period	Alyce Harrington	Alison Mortimer Daniel Begnell Zahid Hassan mail@fairfieldcity.com.au
Canterbury Bankstown City Council					
1	03-03-2023	Email	Issuing of sub-plan for consultation in accordance with CoA	Alyce Harrington	Tim Ireland Peter Lay Paul Angel

2	29-03-2023	Email	Response to consultation. Comments raised	David Milner	Alyce Harrington
3	24-05-2023	Email	Re-issue of updated BCSP in response to Canterbury Bankstown City Council comments	Mira Segaran	David Milner

Table 2-6 below summarises the consultation comments received from the relevant councils on the BCSP.

Table 2-6 Summary of issues –BCSP – Relevant Councils

Relevant Council	Comment Raised	Date Raised	How Addressed / Justification Why Not Addressed
Canterbury Bankstown	All vegetation impacted within Canterbury Bankstown, particularly that in Lansdowne Reserve will be regenerated or revegetated with Cumberland Plain Woodland as per CoA E20?	29-03-2023	CoA E20 is in relation to the development and implementation of a Rehabilitation Management Plan (RMP) applicable to RBM 12 red-hatched area. However, an overarching RMP will be developed for the entire pipeline alignment and will take into consideration relevant areas within the Canterbury-Bankstown LGA, in accordance UMM G05 identified in the EIS. The RMP once developed and approved by the Planning Secretary will be appended to the BCSP.
Canterbury Bankstown	All areas impacted can be revegetated and the new infrastructure will not result in areas remaining cleared following the development.	29-03-2023	Acknowledged and will be addressed in the RMP as summarized above.
Canterbury Bankstown	Higher quality vegetation within the impact footprint, like that on the southern side of Tillett Parade will be prioritised for retention over lower quality vegetation like that on the northern side of Tillett Parade	29-03-2023	Acknowledge. CBCC comments will be communicated to the construction team as works are planned.
Canterbury Bankstown	No vegetation in the Biodiversity Stewardship Site will be impacted by the proposal.	29-03-2023	Construction planning that has occurred to date has acknowledged the presence and significance of the Biodiversity Stewardship Site and the area has been avoided.
Liverpool	Avoid fatalities to fauna resulting from construction activities. Ensure no threatened species fatalities	31-03-2023	Addressed in section 3.2
Liverpool	No disturbance to flora within the project boundary which is non-compliant with project approval conditions and Large remnant trees that are not to be removed are to be tagged for identification.	31-03-2023	Addressed in section 3.2
Liverpool	No transfer of pathogen / disease from one project area to another. All safeguards for pathogens will be followed every morning and afternoon. Phytophthora has been found north of Gurner Avenue, Austral and other Sydney water sites in the locality, please refer to Phytophthora Management Plan for Gurner Ave, Austral Document for further information.	31-03-2023	The weed management procedure flowchart in Appendix F of the BCSP will be adhered to at all times.
Liverpool	Ensure to avoid pollution or sedimentation of aquatic ecosystems; threatened ecological communities or threatened species habitat.	31-03-2023	Consistent with second last dot-point in Section 3.2, the project has committed to "no wilful pollution"
Liverpool	Compensatory revegetation of native plants. Avoid adverse impacts to native habitat.	31-03-2023	Additional detail regarding native plants added to table 3-1. Measures to avoid adverse impacts to native habitat in column 3 of table 3-1.
Penrith	No response received	N/A	N/A
Wollondilly	No response received	N/A	N/A
Fairfield	No response received	N/A	N/A

Appendix 1 – EHG – Evidence of consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)
Date:	Wednesday, 8 March 2023 2:18:44 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Alyce Harrington-JHG
Sent: Friday, 3 March 2023 11:54 PM
To: marnie.stewart@environment.nsw.gov.au
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good evening Marnie,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the Environment & Heritage Group (EHG) within the NSW Department of Planning and Environment. A list of the plans and programs relevant to EHG

is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to EHG, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for EHG reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)
Date:	Wednesday, 5 April 2023 10:38:45 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png EHG comments - USCAWRC bio CEMP sub plan(5).DOCX.pdf

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Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, 4 April 2023 4:48 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>

Sent: Tuesday, 4 April 2023 12:23 PM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good Afternoon Marnie,

Hope you are well.

I wanted to touch base with you regarding the Biodiversity CEMP Sub-plan for the Upper South Creek project. You indicated in your previous correspondence that we could expect comments by 24 march 2023.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Friday, 10 March 2023 1:47 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Thank you for your email. EHG will provide comments by 24 March 2023.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation | Environment and Heritage
Department of Planning and Environment

T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, 3 March 2023 11:54 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good evening Marnie,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the Environment & Heritage Group (EHG) within the NSW Department of Planning and Environment. A list of the plans and programs relevant to EHG is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to EHG, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for EHG reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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If you are not the intended recipient, please notify the sender and then delete it immediately.
Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the NSW Office of Environment, Energy and Science.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

Department of Planning and Environment

Our ref: DOC23/175219

Alyce Harrington
Environment and Approvals Manager
Upper South Creek
John Holland
Email: Alyce.Harrington@jhg.com.au

4 April 2023

Subject: Upper South Creek Advanced Water Recycling Centre (SSI 8906189) - Biodiversity CEMP Sub-plan - post approval consultation

Dear Ms Harrington

Thank you for your email received 3 March 2023 seeking consultation with the Environment and Heritage Group (EHG) on the Upper South Creek Advanced Water Recycling Centre (SSI 8906189) Biodiversity Construction Environmental Management Plan (CEMP) Sub-plan.

EHG notes that the post approval consultation is requested in accordance with condition of approval (CoA) C4(d) which states:

C4 The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A9.

	Required CEMP Sub-plan	Relevant government agencies to be consulted for each CEMP Sub-plan
(a)	Surface water and groundwater	EPA, EHG, DPE Water, DPI Fisheries, WaterNSW and relevant council(s)
(b)	Flood emergency response	EHG, SES, relevant council(s)
(c)	Soils and contamination	EPA and relevant council(s)
(d)	Biodiversity	EHG, DPI Fisheries and relevant council(s)
(e)	Noise and vibration	EPA, WaterNSW and relevant council(s)
(f)	Traffic and transport	TfNSW and relevant council(s)
(g)	Heritage (Aboriginal, non-Aboriginal, World and National heritage)	Heritage NSW, EHG, WaterNSW and relevant council(s)
(h)	Air quality	EPA and relevant council(s)

***Note**: **CEMP Sub-plan(s)** may reflect the construction of the project through geographical activities, temporal activities or activity based staging.*

It is also noted that CoA C9 states:

C9 The **Biodiversity CEMP Sub-Plan** must be prepared by a suitably qualified and experienced ecologist and include, but not limited to:
(a) details of the measures to avoid and minimise disturbance to native vegetation, and other habitat of native flora and fauna species;
(b) procedures for undertaking pre-clearance surveys for native fauna, including surveys by a suitably qualified and experienced ecologist to determine the presence of native fauna in the areas impacted by Stage 1 of the CSSI, and procedures and measures to manage their relocation;
(c) measures to prevent the spread of weeds, pathogens and to manage biosecurity;
(d) protocols for incidental finds of threatened species and ecological communities within the construction boundary;
(e) proposed passive roost exclusion measures over the vertical shaft at the Warragamba environmental flows release structure, as committed to in the documents listed in **Condition A1**.

EHG has reviewed the Biodiversity CEMP Sub-plan and provides the following comments.

- Appendix B of the Biodiversity CEMP Sub Plan states that if any of the threatened species listed in Table B-1 and Table B-2 are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. However, the protocol should be applied no matter what threatened species are unexpectedly found. EHG recommends the wording in Appendix B is changed to: "If any threatened species are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. The threatened species that are most likely to be found are listed in Table B-1 and B-2 as they have been identified as potentially occurring in the Project area."
- Section 8.1 states pre-clearing surveys will be undertaken in accordance with Appendices A, F and E. It's unclear why Appendices C and D are also not listed as they are relevant.
- Section 8.4.5 states fencing and signage protocol is included in App H, it should say Appendix G.

Growth Centres Biodiversity Certification

EHG notes CoA E17 states:

Impacts to Non-certified Existing Native Vegetation
E17 Where lands mapped as non-certified existing native vegetation (ENV) under the *Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Regional Growth Centres) 2006* (the Order) are proposed to be impacted, the Proponent must prepare a **Growth Centres Biodiversity Certification Offset Strategy**. The strategy must:

(a) be prepared in consultation with EHG and submitted to the Planning Secretary for approval prior to the commencement of construction;
(b) be prepared in accordance with the Order;
(c) detail how the Proponent proposes to meet the requirements specified under Relevant Biodiversity Measure (RBM) 8 of the Order; and
(d) include the location of the offsets and the proposed measures to ensure the long-term protection of the offsets.

Note: *The* ***Growth Centres Biodiversity Certification Offset Strategy*** *under* ***Condition E17*** *is only required in the event impacts on non-certified existing native vegetation (ENV) are proposed.*

Table 4-1 of the Biodiversity CEMP Sub-plan indicates that the Growth Centres Biodiversity Certification Offset Strategy required under CoA E17 is addressed in section 7.4, however, there is no mention of this Offset Strategy in this section. Given this issue, the updated sub-plan will need to address CoA E17.

It is also noted that Biodiversity CEMP Sub-plan Section 8.5 states *A separate Rehabilitation Management Plan (RMP) will be developed in consultation with EHG and approved for implementation by the Planning Secretary no less than one month prior to commencement of construction in RBM 12 red-hatched lands (refer Appendix B of the SSI-8609189 approval). Where required, following development of the RMP, this BCSP will be updated.* EHG will provide comments on the Rehabilitation Management Plan for the red-hatched land when it is provided for consultation.

Condition E115

> E115 Suitably qualified expert(s) must agree to methods of construction of pipelines across waterways and through shallow aquifers, in consultation with relevant State and/or local authorities.

Table 4.1 indicates that CoA E115 is addressed in section 5 which at this stage only lists the agencies that the Biodiversity CEMP Sub-plan had been provided to and includes the relevant local councils and DPI Fisheries. EHG recommends that consultation also be undertaken with DPE Water.

If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction.

If you have any queries please contact Marnie Stewart, Senior Project Officer Planning Officer via Marnie.stewart@environment.nsw.gov.au.

Yours sincerely

S. Harrison

Susan Harrison

Senior Team Leader Planning
Greater Sydney Branch
Biodiversity and Conservation

From:	Mira Segaran-JHG
To:	OEH ROG Greater Sydney Region Planning Unit Mailbox
Cc:	Alyce Harrington-JHG; Nathan Heath
Subject:	RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)
Date:	Tuesday, 30 May 2023 11:19:00 AM
Attachments:	image008.png image009.png image010.png image011.png image012.png image013.png image014.png image015.png image016.png image017.png image018.png image019.png image020.png

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Hi Marnie,

The track changes Word version of the document have been uploaded to the link provided in my earlier email. Please note that the word version for tracked changes has not been reformatted to include project branding.

Please do follow the link and let me know if you have any issues accessing the documents.

Thank you,

Mira Segaran
Sustainability & Environment Graduate
NSW/ACT

JOHN HOLLAND

Building D, 10 Bourke Street
Mascot NSW 2020
M. +61 459 954 529
E. mira.segaran@jhg.com.au
W. johnholland.com.au

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, May 30, 2023 7:42 AM
To: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Mira

It would be appreciated if you could please provide the word version with tracked changes

enabled to assist with identifying where amendments have been made.

Kind Regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Sent: Wednesday, 24 May 2023 1:34 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: HPE CM: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good afternoon Marnie,

Thank you for participating in the consultation process of the Upper South Creek project.

Please see attached updated Biodiversity CEMP Sub-plan for the Upper South Creek AWRC project and corresponding comment register for your information. Please download the documents in the folder for your review. EHG

If you have any questions regarding this matter, please do not hesitate to contact me.

Kind Regards,

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, 4 April 2023 4:48 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning

Greater Sydney

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Department of Planning and Environment
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From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 4 April 2023 12:23 PM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good Afternoon Marnie,

Hope you are well.

I wanted to touch base with you regarding the Biodiversity CEMP Sub-plan for the Upper South Creek project. You indicated in your previous correspondence that we could expect comments by 24 march 2023.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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Hi Alyce

Thank you for your email. EHG will provide comments by 24 March 2023.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

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Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, 3 March 2023 11:54 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good evening Marnie,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the Environment & Heritage Group (EHG) within the NSW Department of Planning and Environment. A list of the plans and programs relevant to EHG is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to EHG, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for EHG reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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Our ref: DOC23/461596

Alyce Harrington
Environment and Approvals Manager
Upper South Creek
John Holland
Email: Alyce.Harrington@jhg.com.au

20 June 2023

Subject: Upper South Creek Advanced Water Recycling Centre (SSI 8906189) - Biodiversity CEMP Sub-plan – response to EHG comments

Dear Ms Harrington

Thank you for your email received 24 May 2023 advising the Environment and Heritage Group (EHG) that the Upper South Creek Advanced Water Recycling Centre (SSI 8906189) Biodiversity Construction Environmental Management Plan (CEMP) Sub-plan has been updated and provided the updated Sub-plan and comments register.

EHG has reviewed the updated Upper South Creek Advanced Water Recycling Centre Biodiversity CEMP Sub-plan (revision 6) and it is considered that the EHG comments in items 1 to 3 in the comments register have been adequately addressed.

Growth Centres Biodiversity Certification

In regard to CoA E17, EHG acknowledges Sydney Water's letter dated 9 May 2023 that states:

The Upper South Creek Project (SSI 8609189) identified the potential impact of 6m2 of non-certified existing native vegetation (ENV) under the Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Regional Growth Centres) 2006 (the Order).

I am pleased to advise that the project will not impact this non-certified ENV. This area of non-certified ENV was on an indicative access road assessed in the EIS. Through construction planning our contactor has eliminated the need to use this access route.

Condition E17 of the project approval requires a Growth Centres Biodiversity Certification Offset Strategy to be prepared if impacts to non-certified ENV are proposed. However, the condition also notes that this strategy is only required in the event impact on non-certified ENV are proposed.

Therefore, Sydney Water is not preparing a Growth Centres Biodiversity Certification Offset Strategy.

It should also be noted that CoA E18 states:

E18 The Proponent must avoid direct or indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street during construction of Stage 1 of the CSSI.

In this regard, Section 7.3 in the updated CEMP Sub-plan states that:

Direct and indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street must be avoided during construction, Figure 7.1 below shows the location of RBM 12 red-hatched lands at Kemps Creek and Cross Street.

However, Figure 7.1 does not show the two separate RBM 12 red-hatched land areas at Kemps Creek and Cross Street. The Sub-plan should therefore be updated to show the location of both RMB 12 red-hatched land areas.

Condition E115

> E115 Suitably qualified expert(s) must agree to methods of construction of pipelines across waterways and through shallow aquifers, in consultation with relevant State and/or local authorities.

As previously advised, *If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction.* EHG advises that this recommendation remains relevant and acknowledges the comments in the comments register.

If you have any queries please contact Marnie Stewart, Senior Project Officer Planning Officer via Marnie.stewart@environment.nsw.gov.au.

Yours sincerely

S. Harrison

Susan Harrison

Senior Team Leader Planning
Greater Sydney Branch
Biodiversity and Conservation

From:	Alyce Harrington-JHG
To:	OEH ROG Greater Sydney Region Planning Unit Mailbox
Cc:	Nathan Heath; Mira Segaran-JHG; Marnie Stewart
Subject:	RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)
Date:	Friday, 30 June 2023 2:11:00 PM
Attachments:	USC BCSP_EHG Comments Register 30.06.2023.pdf USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 08)_tracked changes.docx image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png image009.png image010.png image011.png image012.png image013.png

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Good afternoon Marnie,

Please see attached revised USC Biodiversity CEMP Sub-plan in response to EHG comments.

In addition to the track changes Word version of the plan, an updated comments register has also been attached.

If you have any questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

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From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Wednesday, June 21, 2023 9:00 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments on the updated sub-plan.

Regards, Marnie

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Thursday, 15 June 2023 9:29 AM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good morning Marnie,

In regards to the revised Biodiversity CEMP sub-plan issued, I wanted to confirm if EHG has any response to the updated plan and accompanying comments register?

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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Sent: Tuesday, May 30, 2023 11:20 AM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox

<rog.gsrplanning@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Marnie,

The track changes Word version of the document have been uploaded to the link provided in my earlier email. Please note that the word version for tracked changes has not been reformatted to include project branding.

Please do follow the link and let me know if you have any issues accessing the documents.

Thank you,

Mira Segaran
Sustainability & Environment Graduate
NSW/ACT

JOHN HOLLAND

Building D, 10 Bourke Street
Mascot NSW 2020
M. +61 459 954 529
E. mira.segaran@jhg.com.au
W. johnholland.com.au

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Senior Project Officer – Planning

Greater Sydney

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Hi Alyce

Please find attached EHG comments.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

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Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

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C4

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d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to EHG, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for EHG reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

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Alyce Harrington-JHG

From: Angela Taylor <angela.taylor@environment.nsw.gov.au>
Sent: Thursday, 6 July 2023 4:41 PM
To: Alyce Harrington-JHG
Cc: Nathan Heath; Mira Segaran-JHG
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)
Attachments: DOC23 587187-3 EHG Advice - Updated USCAWRC Bio CEMP Sub Plan Consultation 3.pdf

Good afternoon Alyce

Please find attached EHG comments on the updated Biodiversity CEMP sub-plan.

Kind Regards,
Angela

Angela Taylor
Senior Conservation Planning Officer
Biodiversity & Conservation
Environment and Heritage Group
Department of Planning and Environment

T (02) 9585 6146 **E** angela.taylor@environment.nsw.gov.au
environment.nsw.gov.au
Locked Bag 5022
Parramatta NSW 2150

I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, 30 June 2023 2:12 PM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good afternoon Marnie,

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Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

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Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments on the updated sub-plan.

Regards, Marnie

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation | Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Thursday, 15 June 2023 9:29 AM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good morning Marnie,

In regards to the revised Biodiversity CEMP sub-plan issued, I wanted to confirm if EHG has any response to the updated plan and accompanying comments register?

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Sent: Tuesday, May 30, 2023 11:20 AM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Marnie,

The track changes Word version of the document have been uploaded to the link provided in my earlier email. Please note that the word version for tracked changes has not been reformatted to include project branding.

Please do follow the link and let me know if you have any issues accessing the documents.

Thank you,

Mira Segaran
Sustainability & Environment Graduate
NSW/ACT

JOHN HOLLAND

Building D, 10 Bourke Street
Mascot NSW 2020
M. +61 459 954 529
E. mira.segaran@jhg.com.au
W. johnholland.com.au

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, May 30, 2023 7:42 AM
To: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Mira

It would be appreciated if you could please provide the word version with tracked changes enabled to assist with identifying where amendments have been made.

Kind Regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Sent: Wednesday, 24 May 2023 1:34 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: HPE CM: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good afternoon Marnie,

Thank you for participating in the consultation process of the Upper South Creek project.

Please see attached updated Biodiversity CEMP Sub-plan for the Upper South Creek AWRC project and corresponding comment register for your information. Please download the documents in the folder for your review. EHG

If you have any questions regarding this matter, please do not hesitate to contact me.

Kind Regards,

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, 4 April 2023 4:48 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 4 April 2023 12:23 PM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good Afternoon Marnie,

Hope you are well.

I wanted to touch base with you regarding the Biodiversity CEMP Sub-plan for the Upper South Creek project. You indicated in your previous correspondence that we could expect comments by 24 march 2023.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Friday, 10 March 2023 1:47 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Thank you for your email. EHG will provide comments by 24 March 2023.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, 3 March 2023 11:54 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good evening Marnie,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the Environment & Heritage Group (EHG) within the NSW Department of Planning and Environment. A list of the plans and programs relevant to EHG is provided below.

C4

(a) Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
(b) Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
(d) Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
(g) Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)

C13

(a) Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to EHG, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for EHG reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the NSW Office of Environment, Energy and Science.

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Department of Planning and Environment

Our ref: DOC23/587187

Alyce Harrington
Environment and Approvals Manager
Upper South Creek
John Holland
Email: Alyce.Harrington@jhg.com.au

6 July 2023

Subject: Upper South Creek Advanced Water Recycling Centre (SSI 8906189) - Biodiversity CEMP Sub-plan – response to EHG comments

Dear Ms Harrington

Thank you for your email received 30 June 2023 advising the Environment and Heritage Group (EHG) that the Upper South Creek Advanced Water Recycling Centre (SSI 8906189) Biodiversity Construction Environmental Management Plan (CEMP) Sub-plan has been updated in response to EHG comments. Also attached to this email was the updated comments register for the Biodiversity CEMP Sub-plan.

EHG has reviewed the updated Upper South Creek Advanced Water Recycling Centre Biodiversity CEMP Sub-plan (Revision 8) and the updated comments register and provides comments below.

Growth Centres Biodiversity Certification

Condition of Approval (COA) E18 states:

> E18 The Proponent must avoid direct or indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street during construction of Stage 1 of the CSSI.

In this regard, Section 7.3 of the Biodiversity CEMP Sub-plan (Revision 6) that was recently reviewed by EHG stated that:

Direct and indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street must be avoided during construction, Figure 7.1 below shows the location of RBM 12 red-hatched lands at Kemps Creek and Cross Street.

However, in its submission dated 20 June 2023 EHG raised concerns that Figure 7.1 does not show the two separate RBM 12 red-hatched land areas at Kemps Creek and Cross Street. EHG therefore requested that the Sub-plan was updated to show the location of both RMB 12 red-hatched land areas. In response to this request, EHG notes that the Sub-plan has been amended to include two additional Figures, an updated Figure 7.1 'Location of RBM 12 red hatched lands (at Cross Street, Kemps Creek – 1)' and Figure 7.2 'Location of RBM 12 red-hatched lands (at Cross Street, Kemps Creek – 2)'. EHG notes that that original figure that was previously included in the Sub-Plan has also been retained but is now untitled.

EHG notes that Figures 7.1 and 7.2 incorrectly show the area to which RBM 12 of the Biodiversity Certification Order Applies. In this regard, the eastern portion of the area identified in Figure 7.1 is subject to RBM's 14, 17 and 18 of the Biodiversity Certification Order and the western portion of the area shown in Figure 7.2 is identified as non-certified land in the Biodiversity Certification Order.

EHG therefore recommends that these figures are amended to correctly show the areas to which RBM 12 applies. As part of this process EHG recommends that the following datasets which are available on the seed portal are consulted:

- https://datasets.seed.nsw.gov.au/dataset/red-hatched-and-black-hatched-non-certified-land-mapped-under-growth-centres-biocertification
- Subject Lands for the Biocertification of Sydney Region Growth Centres SEPP and related EPIs | Dataset | SEED (nsw.gov.au).

EHG also recommends that the legend and colours that are used in Figures 7.1 and 7.2 are amended so that the area subject to RMB 12 is shown in red hatching and that another colour and pattern is used to identify the impact area so that it is easier to identify.

Condition E115

> E115 Suitably qualified expert(s) must agree to methods of construction of pipelines across waterways and through shallow aquifers, in consultation with relevant State and/or local authorities.

As previously advised, *if possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction.* EHG advises that this recommendation remains relevant and acknowledges the comments in the comments register.

If you have any queries please email rog.gsrplanning@environment.nsw.gov.au.

Yours sincerely

S. Harrison

Susan Harrison

Senior Team Leader Planning
Greater Sydney Branch
Biodiversity and Conservation

Mira Segaran-JHG

From: Mira Segaran-JHG
Sent: Wednesday, 26 July 2023 8:32 AM
To: 'Angela Taylor'; OEH ROG Greater Sydney Region Planning Unit Mailbox
Cc: Alyce Harrington-JHG; CAHILL, CHERYL
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)
Attachments: USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 11)_tracked changes.docx

Good morning Angela,

Thank you for clarifying EHG's comment.

We have amended Figure 7-1 based on the map provided. Please see attached tracked changes Revision 11 of the Biodiversity CEMP Sub-plan.

Please let us know if this would suffice in closing out EHG's comments.

Thanks,
Mira

From: Angela Taylor <angela.taylor@environment.nsw.gov.au>
Sent: Friday, July 21, 2023 3:19 PM
To: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Mira

Thank you for your email.

At this stage I don't think a meeting is required. EHG has previously advised that Figure 7.1 incorrectly maps the areas to which RBM 12 applies. This is evident by comparing Figure 7.1 of the report with the GIS file available at (https://datasets.seed.nsw.gov.au/dataset/red-hatched-and-black-hatched-non-certified-land-mapped-under-growth-centres-biocertification or when simply comparing Figure 7.1 with the South West Growth Centre Biodiversity Certification map in the Biodiversity Certification Order.

A comparison of these maps is provided below to assist with the required amendments.

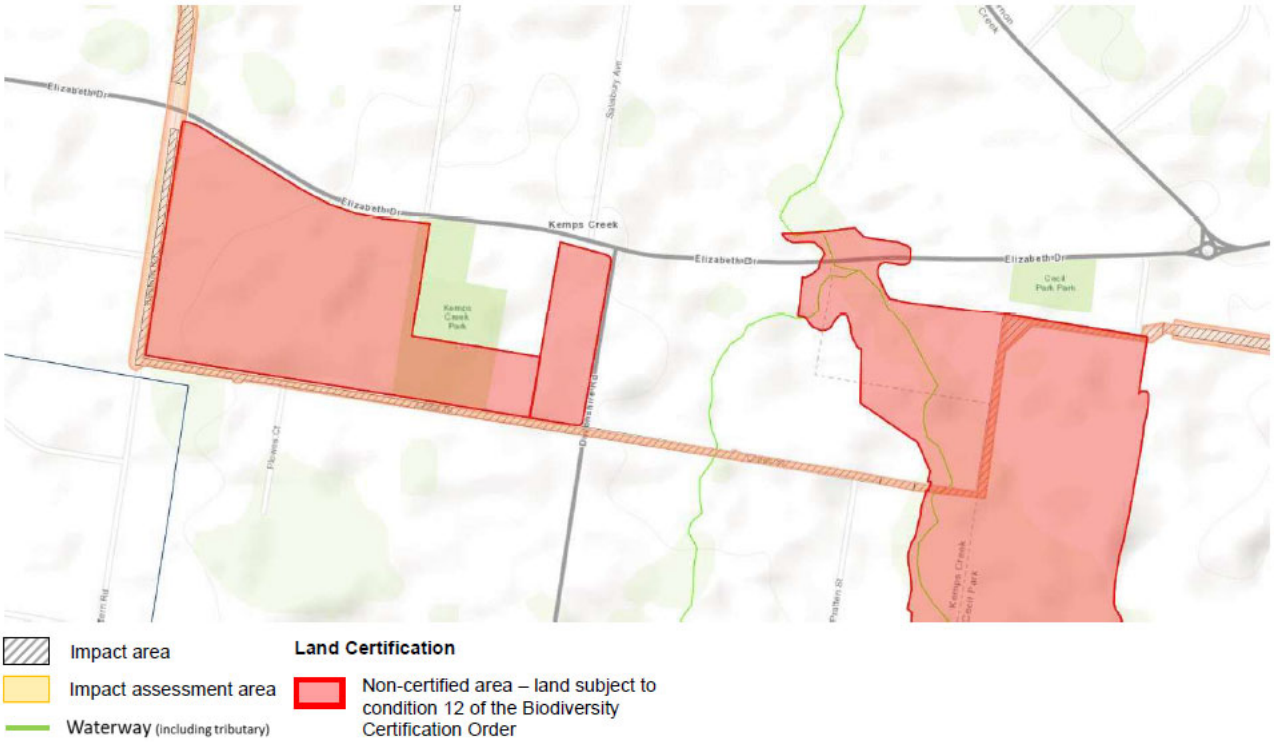

Figure 7-1 Location of RBM 12 red-hatched lands

GIS layer available via the seed portal (red hatching area subject to RBM 12, Black hatching areas subject to RBMs 14, 17 and 18).

South West Growth Centre Biodiversity Map.

If you have any further questions it would be greatly appreciated if you could send all future correspondence on this matter to: rog.gsrplanning@environment.nsw.gov.au.

Kind regards

Angela

Angela Taylor
Senior Conservation Planning Officer
Biodiversity & Conservation
Environment and Heritage Group
Department of Planning and Environment

T (02) 9585 6146 **E** angela.taylor@environment.nsw.gov.au
environment.nsw.gov.au
Locked Bag 5022
Parramatta NSW 2150

I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

From: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Sent: Friday, 21 July 2023 10:58 AM
To: Angela Taylor <angela.taylor@environment.nsw.gov.au>; OEH ROG Greater Sydney Region Planning Unit Mailbox

<rog.gsrplanning@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Angela,

Thank you for providing EHG's response to the Biodiversity CEMP Sub-plan.

John Holland would like to request if EHG would be willing to join a teams meeting to assist in closing out the remaining EHG comments. We have used the information provided by EHG previously (https://datasets.seed.nsw.gov.au/dataset/red-hatched-and-black-hatched-non-certified-land-mapped-under-growth-centres-biocertification) but seeing that it is not satisfactory, we would like some guidance to close out the comments.

If possible, please let us know of a time and date that would suit you.

Thanks for your time and help.

Sincerely,

Mira Segaran
Sustainability & Environment Graduate
NSW/ACT

JOHN HOLLAND

Building D, 10 Bourke Street
Mascot NSW 2020
M. +61 459 954 529
E. mira.segaran@jhg.com.au
W. johnholland.com.au

From: Angela Taylor <angela.taylor@environment.nsw.gov.au>
Sent: Thursday, July 20, 2023 4:28 PM
To: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Mira

Please find attached EHG's advice on the revised Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan.

It would be greatly appreciated if future correspondence on this matter is sent to: rog.gsrplanning@environment.nsw.gov.au.

Kind regards
Angela

Angela Taylor
Senior Conservation Planning Officer

Biodiversity & Conservation
Environment and Heritage Group
Department of Planning and Environment

T (02) 9585 6146 **E** angela.taylor@environment.nsw.gov.au
environment.nsw.gov.au
Locked Bag 5022
Parramatta NSW 2150

I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

From: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Sent: Friday, 14 July 2023 2:07 PM
To: Angela Taylor <angela.taylor@environment.nsw.gov.au>; Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Angela,

Hope you've had a good week.

Please see revised Biodiversity CEMP Sub-Plan in response to EHG comments from the 06/07/2023.

EHG

Please download the documents from the link provided, noting that the link is valid for your email address only. If others require access to the documents, please download them and distribute as required.

If you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Mira Segaran
Sustainability & Environment Graduate
NSW/ACT

JOHN HOLLAND

Building D, 10 Bourke Street
Mascot NSW 2020
M. +61 459 954 529
E. mira.segaran@jhg.com.au

W. johnholland.com.au

From: Angela Taylor <angela.taylor@environment.nsw.gov.au>
Sent: Thursday, July 6, 2023 4:41 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good afternoon Alyce

Please find attached EHG comments on the updated Biodiversity CEMP sub-plan.

Kind Regards,
Angela

Angela Taylor
Senior Conservation Planning Officer
Biodiversity & Conservation
Environment and Heritage Group
Department of Planning and Environment

T (02) 9585 6146 **E** angela.taylor@environment.nsw.gov.au
environment.nsw.gov.au
Locked Bag 5022
Parramatta NSW 2150

I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, 30 June 2023 2:12 PM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good afternoon Marnie,

Please see attached revised USC Biodiversity CEMP Sub-plan in response to EHG comments.

In addition to the track changes Word version of the plan, an updated comments register has also been attached.

If you have any questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Wednesday, June 21, 2023 9:00 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments on the updated sub-plan.

Regards, Marnie

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation | Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
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From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Thursday, 15 June 2023 9:29 AM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: Nathan Heath <Nathan.Heath@planning.nsw.gov.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good morning Marnie,

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Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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E. Alyce.Harrington@jhg.com.au

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Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Marnie,

The track changes Word version of the document have been uploaded to the link provided in my earlier email. Please note that the word version for tracked changes has not been reformatted to include project branding.

Please do follow the link and let me know if you have any issues accessing the documents.

Thank you,

Mira Segaran
Sustainability & Environment Graduate
NSW/ACT

JOHN HOLLAND

Building D, 10 Bourke Street
Mascot NSW 2020
M. +61 459 954 529
E. mira.segaran@jhg.com.au
W. johnholland.com.au

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, May 30, 2023 7:42 AM
To: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Nathan Heath <Nathan.Heath@planning.nsw.gov.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Mira

It would be appreciated if you could please provide the word version with tracked changes enabled to assist with identifying where amendments have been made.

Kind Regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Sent: Wednesday, 24 May 2023 1:34 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: HPE CM: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good afternoon Marnie,

Thank you for participating in the consultation process of the Upper South Creek project.

Please see attached updated Biodiversity CEMP Sub-plan for the Upper South Creek AWRC project and corresponding comment register for your information. Please download the documents in the folder for your review. EHG

If you have any questions regarding this matter, please do not hesitate to contact me.

Kind Regards,

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Tuesday, 4 April 2023 4:48 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Please find attached EHG comments.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation | Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 4 April 2023 12:23 PM
To: OEH ROG Greater Sydney Region Planning Unit Mailbox <rog.gsrplanning@environment.nsw.gov.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good Afternoon Marnie,

Hope you are well.

I wanted to touch base with you regarding the Biodiversity CEMP Sub-plan for the Upper South Creek project. You indicated in your previous correspondence that we could expect comments by 24 march 2023.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au> **On Behalf Of** OEH ROG Greater Sydney Region Planning Unit Mailbox
Sent: Friday, 10 March 2023 1:47 PM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: RE: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Hi Alyce

Thank you for your email. EHG will provide comments by 24 March 2023.

Kind regards,

Marnie Stewart
Senior Project Officer – Planning
Greater Sydney

Biodiversity & Conservation|Environment and Heritage
Department of Planning and Environment
T 02 9995 6868 | **E** marnie.stewart@environment.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150
www.dpie.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, 3 March 2023 11:54 PM
To: Marnie Stewart <Marnie.Stewart@environment.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: HPE CM: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (EHG)

Good evening Marnie,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the Environment & Heritage Group (EHG) within the NSW Department of Planning and Environment. A list of the plans and programs relevant to EHG is provided below.

C4

(a) Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
(b) Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
(d) Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
(g) Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)

C13

(a) Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to EHG, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for EHG reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

This email is intended for the addressee(s) named and may contain confidential and/or privileged information.
If you are not the intended recipient, please notify the sender and then delete it immediately.
Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the NSW Office of Environment, Energy and Science.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

This email is intended for the addressee(s) named and may contain confidential and/or privileged information.
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Appendix 2 – DPI Fisheries – Evidence of consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)
Date:	Wednesday, 8 March 2023 2:18:05 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf

---

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Alyce Harrington-JHG
Sent: Saturday, 4 March 2023 12:00 AM
To: josi.hollywood@dpi.nsw.gov.au
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)

Good evening Josi,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the NSW Department of Primary Industries (DPI

Fisheries). A list of the plans and programs relevant to DPI Fisheries is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to DPI Fisheries, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for DPI Fisheries reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)
Date:	Wednesday, 8 March 2023 2:18:44 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Alyce Harrington-JHG
Sent: Saturday, 4 March 2023 12:04 AM
To: ahp.central@dpi.nsw.gov.au
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)

Good evening,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the NSW Department of Primary Industries (DPI Fisheries). A list of the plans and programs relevant to DPI Fisheries is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to DPI Fisheries, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for DPI Fisheries reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From:	Alyce Harrington-JHG
To:	CAHILL, CHERYL
Cc:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)
Date:	Wednesday, 22 March 2023 11:49:34 AM
Attachments:	image007.png image008.png image009.png image010.png image011.png image012.png image013.png image014.png C23_105 s199 Biodiversity Subplan Upper South Creek AWRC.pdf

FYI

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Jess Hyland <jess.hyland@dpi.nsw.gov.au>
Sent: Wednesday, 22 March 2023 11:42 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)

Hi Alyce,

Please find attached s199 advice from DPI Fisheries.

Kind Regards,

Jess

Jess Hyland | Fisheries Manager – Coastal Systems
NSW Department of Primary Industries | Fisheries
M: 0455 794 560 E: jess.hyland@dpi.nsw.gov.au
Dharawal Country
84 Crown Street, Wollongong
ALL MAIL TO: DPI Fisheries, Attn: M.Coughran,1243 Bruxner Hwy, Wollongbar NSW 2477

PERMIT APPLICATION FORMS & FISH HABITAT POLICIES AVAILABLE AT:
https://www.dpi.nsw.gov.au/fishing/habitat/protecting-habitats/toolkit

Submit permit applications via email to: ahp.central@dpi.nsw.gov.au

Turnaround times: from date of receipt of application, please allow up to 28 days for Land Owners Consent, Permits and Consultations. Please allow up to 40 days for Integrated Development Applications.

DPI Fisheries acknowledges that it stands on Country which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for Elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Saturday, 4 March 2023 12:04 AM
To: DPI AHP Central Mailbox <ahp.central@dpi.nsw.gov.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (DPI Fisheries)

Good evening,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including the NSW Department of Primary Industries (DPI Fisheries). A list of the plans and programs relevant to DPI Fisheries is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)

John Holland proposes to issue the relevant plans and program progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to DPI Fisheries, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for DPI Fisheries reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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NSW GOVERNMENT | Department of Primary Industries

Our Ref: C23/105 22 March 2023

Alyce Harrington
John Holland Group
c/o: alyce.harrington@jhg.com.au

Dear Alyce,

s.199 consultation for the Biodiversity CEMP Sub-plan for Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project

Thank you for your referral of 04/03/2023 seeking comment on the proposal from DPI Fisheries, a division of NSW Department of Primary Industries on the proposed works stated above. This notification complies with s.199(1)(a) of the *Fisheries Management Act 1994* (FM Act) concerning the proposed dredging and reclamation activities.

DPI Fisheries is responsible for ensuring that fish stocks are conserved and that there is no net loss of key fish habitats upon which they depend. To achieve this, DPI Fisheries ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (FM Act) (namely the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act, respectively), and the associated *Policy and Guidelines for Fish Habitat Conservation and Management (2013)*. DPI Fisheries is also responsible for ensuring the sustainable management of commercial, recreational and Aboriginal cultural fishing, aquaculture, marine parks and aquatic reserves within NSW.

DPI Fisheries has reviewed the Biodiversity CEMP Sub-plan for Stage 1 of the Upper South Creek AWRC and is supportive of this plan as drafted.

If you require any further information, please contact me on jess.hyland@dpi.nsw.gov.au.

Yours sincerely,

J Hyland

Jessica Hyland
Fisheries Manager, Coastal Systems

DPI Fisheries
Mail to: M.Coughran,1243 Bruxner Hwy, Wollongbar NSW 2477
Email: ahp.central@dpi.nsw.gov.au
ABN 20770707468

Appendix 3 – Wollondilly City Council – Evidence of consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (WSC)
Date:	Wednesday, 8 March 2023 2:17:21 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Alyce Harrington-JHG
Sent: Friday, 3 March 2023 11:39 PM
To: bianca.klein@wollondilly.nsw.gov.au
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (WSC)

Good evening Bianca,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Wollondilly Shire Council (WSC). A list of the plans and programs relevant to WSC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to WSC, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for WSC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Kind Regards,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From:	Darragh O"Brien-JHG
To:	Mira Segaran-JHG
Cc:	Alyce Harrington-JHG
Subject:	FW: Wollondilly Council meeting minutes 08.03.2023
Date:	Friday, 28 April 2023 8:04:14 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png Wollondilly Shire Council Early Coordination Meeting (1).pdf 20230308_Wollondilly Council meeting minutes_FINAL (3).pdf image007.png image008.png image009.png image010.png image011.png image012.png

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Hi Mira,

See below as discussed.

Regards,

Darragh O'Brien
Environment Lead
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 408927726
E. Darragh.O'Brien@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>
Sent: Monday, 27 March 2023 1:27 PM
To: Mathew Harland <mathew.harland@wollondilly.nsw.gov.au>; ibrahim.muharrem@wollondilly.nsw.gov.au; Nafizul Akash <nafizul.akash@wollondilly.nsw.gov.au>
Cc: Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Mark Trethewy-JHG <Mark.Trethewy@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Rex Taka-JHG <Rex.Taka@jhg.com.au>
Subject: Wollondilly Council meeting minutes 08.03.2023

Hi All,

Please see attached meeting minutes from 08.03.2023.

The 50% design drawings are within the attached slide pack.

Thank you,

Rama Sapkota
Senior Community Engagement Advisor - Upper South Creek project

JOHN HOLLAND
M: 0447 633 275
W. johnholland.com.au

Meeting Minutes

Title	Stakeholder meeting with Wollondilly Shire Council on 50% design completion
Date	8/03/2023
Time	2:30pm
Held at	Teams Meeting

Chaired by	Michael Robertson
Minuted by	Rama Sapkota
Distribution Date	

Attendees List

Aidan O'Driscoll (AO), Construction Manager, JHG
Rex Taka (RT), Project Development Manager, JHG
Michael Robertson (MR), Community Manager, JHG
Mark Trethewey (MT), Sustainability Manager, JHG
Darragh O'Brien (DO), Environment Lead, JHG
Rama Sapkota (RS), Senior Community Advisor, JHG
Ibrahim Muharrem (IM), Acting environment assessment planner, Wollondilly Shire Council
Trent Davies (TD), Maintenance Engineer, Wollondilly Shire Council
Matthew Hardland (MH), Council Technical officer, Wollondilly Shire Council
Nafizul Akash (NA), Acting team leader Assets and Transport, Wollondilly Shire Council

Apologies List

Alyce Harrington (AH), Environment & Approvals Manager, JHG

IDescription / Action	By Whom	By When
Acknowledgement of Country	MR	
An introduction of the project and introduced the meeting attendees.	MR	
AO ran through the treated pipeline water overview, overview of the project in the area and gave overview of timing of design process. Some points discussed below: • Horizontal directional drill (HDD) under Nepean River • HDD under Silverdale Road		

IM mentioned that Wollondilly Council has a farm in Wallacia and would like the opportunity to reuse the treated water.

IM mentioned that they want zero impact to waterways and enquired about the methodology of work under the river. He also mentioned that farmers are keen for water and would like to use treated water.

ACTION: MR mentioned the project will provide treated water for non-drinking purposes in the Aerotropolis and treated water for environmental flows in the Nepean River system but he will put Sydney Water in touch with Council about water reuse opportunities.

AO advised that work will be underneath the creek and go across to other side of the bridge. AO mentioned that he would like to work within rock, silty soil is not ideal. The team will start HDD on the rock level, explained outlined micro-tunnel and HDD construction methods.

IM enquired what will be used to stabilise? Will it be Bentonite? If it is, then he raised concern that it might be harmful to the river.

AO confirmed that bentonite will be used to stabilise however the HDD will be quite deep in the rock. There will be an HDD rig on rock in Fowler Reserve which will calculate the pump pressure. Confident that work is going to be very deep in rock and there shouldn't be any impact to the waterways.

IM asked if there is any risk to the bed rock.

AO mentioned not at the depth we are going and the rocks have also been assessed for consistency and strength.

IM and AO spoke about trenching methodology.

AO shared project milestone, start dates, drill set up location and work location.

IM enquired if vegetation clearing required during these works?

AO mentioned that vegetation will be cleared during valve construction. AO confirmed there is no open trench on the riverbanks for the pipeline (but there is the outlet structure to be built on the riverbank on private property to the north).

IM asked about the trenching methodology and if the trench will be secured properly to minimise animals getting trapped.

AO mentioned that the trench will be fenced off and backfilling as the work progresses (with people observing the whole process).

Traffic

AO advised site set up will be at Silverdale Road and entry to site will be from there. There will be trucks and dog, semi trailers and light vehicles accessing the site.

The Nepean River will be the water release point.

AO mentioned they will monitor the traffic and won't be stopping traffic. There shouldn't be any impact to traffic as the work will be underneath the road.

MH enquired if traffic entering and existing Silverdale road will be managed by traffic control – will there be traffic control?

AO mentioned they are currently working on Traffic Management Plan and would like to work with Wollondilly Council and requested for a contact person. **ACTION: Council to nominate best contact person.**
Traffic Contact for John Holland, Upper South Creek AWRC: Balendra Kunaratnam kunaratnam.balendra@jhg.com.au; 0418 979 198

NA enquired if there is anything in the road reserve as most of the work is going through private property.
AO mentioned the access to Silverdale Rd will be through road reserve.

NA requested for better drawings.

ACTION: JHG to share 50% drawings by sharing this slide pack with Council. Complete

IM enquired if there will be trenching around significant trees which may result in damaging their roots. Is there any offset for tree removal? Previously, Sydney Water have offset tree removal. Wollondilly Council is open to planting additional trees, replanting/reinstate the disturbed areas and mitigate the biodiversity impacts.

ACTION: MT said his team would be interested to catch up about the replanting conversation/offset.

DO went through the environment slides and advised that CEMP and subplans have been sent to Council for consultation.

IM enquired if Controlled Activity Approval come through?

DO mentioned that management plan issued and should have been circulated.

ACTION: MR has since confirmed the plans were issued to Bianca Klein but will re-send to this group. RS sent the plans to the group on 10/03/2023. Complete

MT went through the sustainability slides.

MT – Requests if Wollondilly Council could please identify the best environment or sustainability contact to address further council and USC collaboration opportunities proposed on Sustainability slides (e.g. asset resilience in response to climate change, material/water/waste reuse/recycling opportunities)

IM asked what level the water is being treated at? They currently have good quality water and doesn't want it to be impacted. IM keen for alternate solution and link in any offset.

ACTION: MR provided a link to the EIS in the Teams chat during the meeting. Repeated here Upper South Creek Advanced Water Recycling Centre | Planning Portal - Department of Planning and Environment (nsw.gov.au)
For Council review Community & Stakeholder Engagement Plan and comment on the planned engagement activities and stakeholders
https://www.sydneywatertalk.com.au/53513/widgets/322594/documents/251449
Link to the project website: www.sydneywatertalk.com.au/uppersouthcreek

IM had questions around environment control, fracking and how Riparian Zone will be protected? Requested for a Controlled Activity Approval.

ACTION: JHG to set up a meeting to discuss methodology about how we are getting across the Nepean River and more detailed conversation as the design is getting finalised.

NA shared concerns about pipeline going underneath the bridge. During flooding, panels go missing. Upgrade to GFR system to make it easily accessible or for water to run

through would be ideal. He shared concerns around flood, pedestrian access on footpath and impacts to residents.

ACTION: Further meeting about traffic, pedestrian management and the drilling fluid return pipe.

ACTION: Make sure the people present from Wollondilly Council get copies of CEMP sub-plans previously sent by Alyce Harrington to Bianca Klein. Complete

ISSUES SUMMARY

- Interest in receiving treated water
- No impact to waterways
- Drilling fluid – fracking risk – CEMP contingencies
- Separation of topsoil and subsoil for reinstatement when trenching
- Vegetation removal in riparian zone - offset approach
- Fauna getting trapped in trenches during construction
- Traffic management on to Silverdale Road
- Drawings – Nafizul Akash
- Want to know to what classification the water is treated to?
- Primary concern is the discharge to the river. Prefer water gets reused by farms etc in the area than go to rivers. Important to reuse water than discharge it.
- Allow them time to review documents as they are under-resourced
- Question about damage to bridge during floods – install a GRF system?
- Pedestrian access across the bridge, particularly if there's a flood.

Could council please confirm the above list to allow the Project to be aware that council's key concerns are understood?

From:	Alyce Harrington-JHG
To:	Ibrahim.Muharrem@wollondilly.nsw.gov.au; Mathew.Harland@wollondilly.nsw.gov.au; Nafizul.Akash@wollondilly.nsw.gov.au; bianca.klein@wollondilly.nsw.gov.au; trent.davies@wollondilly.nsw.gov.au
Cc:	CAHILL, CHERYL; Cameron Varricchio; Rob Cranston-JHG; Jason Julius-JHG; Michael Robertson-JHG; Michael McIlveen-JHG; Darragh O"Brien-JHG; Mira Segaran-JHG
Subject:	Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (WSC)
Date:	Tuesday, 28 March 2023 10:04:36 PM
Attachments:	USCP-JHG-MPL-ENV-0005 Traffic and Transport CEMP Sub-plan (Rev 04)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (2).pdf image001.png image002.png image003.png image004.png image005.png image006.png

Good evening,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Wollondilly Shire Council (WSC). A list of the plans and programs relevant to WSC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to WSC, the **Traffic & Transport CEMP Sub-plan** (TTCSP, C4(f)). Please note that as there are a number of references to sections within the CEMP throughout the TTCSP, John Holland has also provided a copy of the CEMP for WSC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 13 April 2023.

If you have any questions regarding this submission, please contact me.

Kind Regards,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

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M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From:	Alyce Harrington-JHG
Bcc:	CAHILL, CHERYL; Cameron Varricchio; Michael Robertson-JHG; Rob Cranston-JHG; Jason Julius-JHG; Darragh O"Brien-JHG; Simone Kenyon-JHG; bianca.klein@wollondilly.nsw.gov.au; ari.fernando@penrith.city; tungcabj@liverpool.nsw.gov.au; Alison Mortimer; Daniel Begnell; mail@fairfieldcity.nsw.gov.au; Mathew Harland; Nafizul Akash; Ibrahim Muharrem; Zahid Hassan
Subject:	Upper South Creek (SSI-8609189) - CEMP and Sub-plans consultation period
Date:	Wednesday, 26 April 2023 4:44:00 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

Good afternoon,

Over recent weeks, John Holland on behalf of Sydney Water has been issuing documents to relevant government agencies and local councils in relation to the Upper South Creek Advanced Water Recycling Centre project.

These documents include the project's Construction Environmental Management Plan (CEMP) and associated sub-plans as summarised below:

- USC Construction Environmental Management Plan (CEMP)
- USC Air Quality CEMP Sub-plan
- USC Flood Emergency Response CEMP Sub-plan
- USC Heritage CEMP Sub-plan
- USC Biodiversity CEMP Sub-plan
- USC Noise & Vibration CEMP Sub-plan
- USC Traffic & Transport CEMP Sub-plan
- USC Surface Water & Groundwater CEMP Sub-plan
- USC Soils & Contamination CEMP Sub-plan

Please note that whilst the formal consultation period for the above documents has now ended, John Holland would welcome any future opportunity to engage with you on matters related to the project.

If you have any further questions related to this matter, please do not hesitate to contact me.

Kind Regards,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

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E. Alyce.Harrington@jhg.com.au

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Appendix 4 – Penrith City Council – Evidence of consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (PCC)
Date:	Wednesday, 8 March 2023 2:18:46 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

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E. Alyce.Harrington@jhg.com.au

Make flexibility work – if you receive an email from me outside of normal business hours, it's because I'm sending it at a time that suits me. I'm not expecting you to read it or reply until normal business hours.

From: Alyce Harrington-JHG
Sent: Friday, 3 March 2023 11:42 PM
To: ari.fernando@penrith.city
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (PCC)

Good evening Ari,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Penrith City Council (PCC). A list of the plans and programs relevant to PCC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to PCC, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for PCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

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From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Penrith Council meeting minutes 3.03.2023
Date:	Friday, 28 April 2023 7:44:04 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png Penrith City Council Early Coordination Meeting1.pdf 20230303_Penrith Council meeting minutes_FINAL.pdf image007.png image008.png image009.png image010.png image011.png image012.png

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Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

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From: Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>
Sent: Friday, 17 March 2023 3:20 PM
To: ari.fernando@penrith.city; Murray.halls@penrith.city; adam.lowe@penrith.city; Michael.Middleton@penrith.city; Justine.Vella@penrith.city
Cc: Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Mark Trethewy-JHG <Mark.Trethewy@jhg.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; NORTH, GEMMA <GEMMA.NORTH@sydneywater.com.au>
Subject: Penrith Council meeting minutes 3.03.2023

Hi all,

Please see attached meeting minutes from 03.03.2023.

Thank you,

Rama Sapkota
Senior Community Engagement Advisor - Upper South Creek project

JOHN HOLLAND

Meeting Minutes

Title	Stakeholder meeting with Penrith City Council (PCC) on 50% design completion
Date	3/03/2023
Time	2:00pm
Held at	Teams Meeting

Chaired by	Michael Robertson
Minuted by	Rama Sapkota
Distribution Date	

Attendees List

Aidan O'Driscoll (AO), Construction Manager, JHG
Alyce Harrington (AH), Environment & Approvals Manager, JHG
Michael Robertson (MR), Community Manager, JHG
Mark Trethewey (MT), Sustainability Manager, JHG
Rama Sapkota (RS), Senior Community Advisor, JHG
Gemma North (GN), Community Advisor, SW
Scott Jones (SJ), Utilities Coordination Manager, PCC
Michael Middleton (MM), Environmental Health Coordinator, PCC
Adam Lowe (AL), Asset Coordinator: Parks and Open Space, PCC
Brad James (BJ), Asset Officer, PCC
Justine Vella (JV), Bushland Management Coordinator, PCC
Ari Fernando (AF), PCC
Payton Bradcock (PB), Asset Officer, PCC
Murray Halls (MH), PCC

Apologies List

Oliver De Paz, Asset Coordinator - Permits and Inspections, PCC

Anne Richardson, Strategic Asset Management Coordinator, PCC

Lynden Tandy, Business Administration Support Officer – Road Assets, PCC

ID	Description / Action	By Whom	By When
	Acknowledgement of Country	MR	

An introduction of the project and introduced the meeting attendees. MR

AO ran through the treated pipeline water overview, overview of the project in the area and gave overview of timing of design process. Some points discussed below:

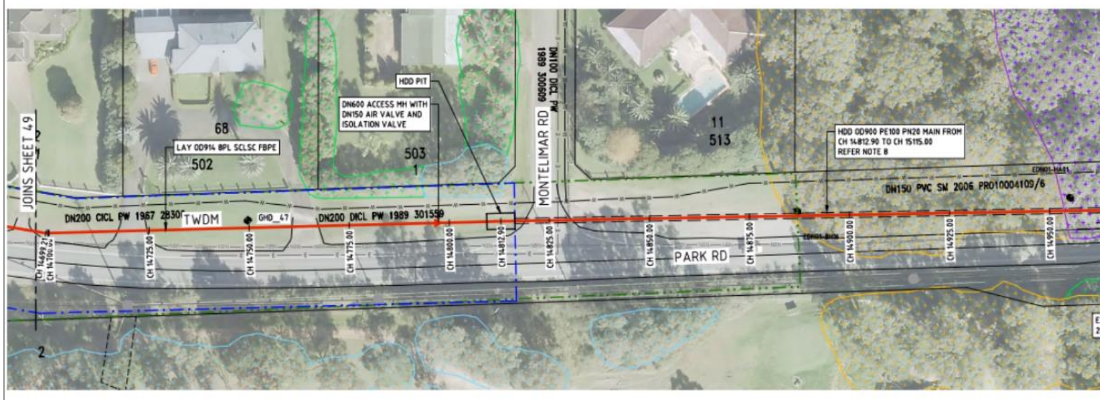
- Open trench to Luddenham Road
- The Northern Road HDD or boring
- Park Road, south side on the verge and working on a design to reduce impact on local traffic [threatened orchids are northern side]
- Jerry's creek crossing
- Nepean River – HDD under the river

MM enquired about the methodology of going under the river.

AO mentioned that he would like to work with rock, silty soil is not ideal. The team will start HDD on the rock level, explained outlined micro-tunnel and HDD construction methods. He mentioned there will be two pits either side of the Northern Road.

SJ enquired about Park Road and resident access and impacts. He enquired if it will be open excavation or boring.

AO advised there are impacts to couple of driveways and went through the design drawing below.



AO advised there are impacts to some driveways on Park Road.

Some driveway access will be temporarily blocked for short periods during open excavation. He went through how the team on the ground will facilitate access during construction, temporary access lanes could be created as fences are set back from road. He further mentioned there will a rig set up at Jerrys' Creek. There will be trenching work on Driver Avenue.

MM enquired if they will be trenching on nature strip or the road. He enquired if the excavation will be close to the trees and if an arborist report was done. He enquired about the hours of operation and if the work will be day or night work.

Any requirement to undertake work outside of standard daytime construction hours will be in accordance with relevant conditions of the Environmental Protection License to be obtained by John Holland in consultation with the NSW EPA.

MM enquired of there will be consultation with residents before the works begin and if there will be door knocking.

MR advised that there will be face to face consultation with residents around the pipeline, especially the residents that are closer to the pipeline. There will be notifications and online communication with the wider community.

ACTION: PCC to review Community & Stakeholder Engagement Plan and comment on the planned engagement activities and stakeholders
https://www.sydneywatertalk.com.au/53513/widgets/322594/documents/251449
Link to the project website: www.sydneywatertalk.com.au/uppersouthcreek

MM enquired about the roadside vegetation with JV and had an internal discussion around disturbance to the reserve. JV is aware of the environment assessment carried out by JH and SW and was satisfied with the outcome.

MM raised concern around vegetation on PCC land.
MH enquired about Riverbank and fish habitat and asked if it is in danger?

AO and MR advised the work will be well below the fish habitat.

SJ and JV spoke about machinery access around or near Fowler reserve. JV advised that she has gone through all the impacts with the site team previously and understands that impact to the embankment won't be fully eliminated. SJ mentioned that it is a steep embankment and wanted to know where the machinery will be stored. SJ flagged that environment assessment and bio-diversity should be looked into.

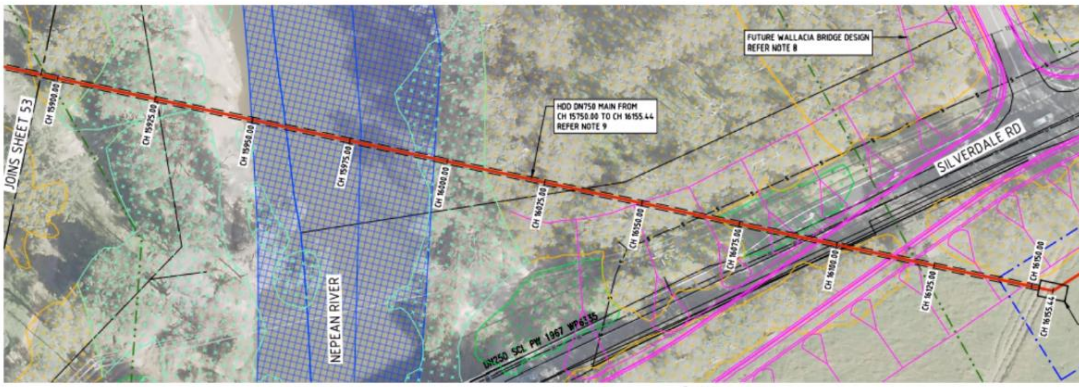
ACTION: AH and MR to speak with JV further about construction approach and vegetation removal near Shelley Road and Fowler Reserve.

AO advised them of the machinery storage location.

ACTION: MR and AO advised we can facilitate an on site meeting to go through construction methodology on site regarding the drilling fluid return pipe.

AO went through the construction methodology around HDD.

SJ shared concerns around pedestrian access on the bridge.



AO advised there may be a possibility of traffic control to help with pedestrian access on site however the drill will be there 24/7.

AF spoke to the above drawing and advised to speak to Wollondilly Council about the pier.

SJ advised that he would like more information on impacts to private properties and restoration piece on Park Road.

ACTION: AO to provide more information about the design along Park Road including any tree removal.

AF requested plans of the old Northern Road and AO went through the drawing with him. AF advised that the Old Northern Road is/will be Council Road, it will no longer state road.

AF enquired about what will happen at Park Road and Northern Road intersection.

AH and MT went through the environmental and sustainability items and encouraged to provide feedback as the sub-plans are being finalised and encouraged open engagement between Council and the USC project.

MT – Requests if Council could please identify the best environment or sustainability contact to address further council and USC collaboration opportunities proposed on Sustainability slides (e.g. asset resilience in response to climate change, material/water/waste reuse/recycling opportunities).

BJ requested a dedicated contact for permits.

ACTION: AO to respond to BJ about permits.

AL enquired about Fowler Reserve, is there is potential for something to sink? AL advised to make safe or make good Fowler Reserve when the work is completed. He had concerns around restoration as other contractors/projects have caused damage previously and unable to get an outcome once they leave the area. He doesn't want any damage to any Council assets.

AO advised that USC project team will be there even after the completion of the project and will restore it properly.

AF enquired about access road on Clifton Avenue or future road for the treatment plant and who does the ownership of that road sit with. Will it be SW private road? Who will be maintaining the access road?

ACTION: MR to ask Sydney Water's WRDT project team to provide information about access road to AF.

AF advised that Traffic Management and impact on local residents is a concern.

MR summarised the issues and asked if there were more questions.

JV enquired are you holding a stall at the Wallacia Community Festival in April?

MR advised that he has been invited and would like to discuss this with JV next week.

MM requested for a clear contact should Council receive resident concerns for noise, dust or other environmental health impacts.

MR provided the project 1800 064 127 number for future contact.

AO advised about site specific Traffic Management Plan and would like to workshop with PCC.

ACTION: JH and PCC agreed that there will be specific targeted meetings on an as-needs basis going forward rather than regular coordination meetings. AF will be the main point of contact and will arrange specific teams to attend the meeting.

Summary of key issues or interests raised by Council

- Impacts of pipeline under waterways
- Parking and traffic impacts on Park Road and Driver Avenue
- Blocking driveways and trenching through driveways during construction
- Vegetation removal including on Park Road and near Shelley Road / Fowler Reserve
- Working hours in residential areas
- Protecting fish habitat structure on Nepean River near Fowler Reserve

- Construction works on or near Silverdale Road bridge including pedestrian management
- Requests for work permits including within Council's road reserves
- Traffic management
- Restoration of Fowler Reserve

Could council please confirm the above list to allow the Project to be aware that council's key concerns are understood?

From:	Alyce Harrington-JHG
To:	ari.fernando@penrith.city
Cc:	Darragh O"Brien-JHG; Mira Segaran-JHG; Michael Robertson-JHG
Subject:	Upper South Creek AWRC Project - CEMP & Sub-plans
Date:	Monday, 3 April 2023 5:40:28 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

---

Hello Ari,

Hope you are well.

I'm reaching out to follow up on the USC AWRC Project CEMP and sub-plans issued to Penrith City Council (PCC) over the last few weeks. As a summary of the documents issued, please see below a list of plans and programs that have been issued by John Holland to PCC:

- Air Quality CEMP Sub-plan (issued 01 March 2023)
- Flood Emergency Response CEMP Sub-plan (issued 02 March 2023)
- Heritage CEMP Sub-plan (issued 03 March 2023)
- Biodiversity CEMP Sub-plan (issued 03 March 2023)
- Soils & Contamination CEMP Sub-plan (issued 11 March 2023)
- Noise & Vibration CEMP Sub-plan (including the noise & vibration construction monitoring program) (issued 07 March 2023)
- Traffic & Transport CEMP Sub-plan (issued 28 March 2023)
- Surface Water & Groundwater CEMP Sub-plan (including the surface water quality and groundwater construction monitoring programs) (issued 31 March 2023)

At Sydney Water's request, the plans have been progressively submitted to PCC from Wednesday 01 March 2023. It would be greatly appreciated if you could submit any comments available for any of the plans submitted from early March, as soon as possible so we can review and make the appropriate amendments.

If you have any questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

From:	Alyce Harrington-JHG
To:	ari.fernando@penrith.city
Cc:	Darragh O"Brien-JHG; Mira Segaran-JHG; Michael Robertson-JHG
Subject:	Upper South Creek AWRC Project - CEMP & Sub-plans
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If you have any questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

From:	Alyce Harrington-JHG
Bcc:	CAHILL, CHERYL; Cameron Varricchio; Michael Robertson-JHG; Rob Cranston-JHG; Jason Julius-JHG; Darragh O"Brien-JHG; Simone Kenyon-JHG; bianca.klein@wollondilly.nsw.gov.au; ari.fernando@penrith.city; tungcabj@liverpool.nsw.gov.au; Alison Mortimer; Daniel Begnell; mail@fairfieldcity.nsw.gov.au; Mathew Harland; Nafizul Akash; Ibrahim Muharrem; Zahid Hassan
Subject:	Upper South Creek (SSI-8609189) - CEMP and Sub-plans consultation period
Date:	Wednesday, 26 April 2023 4:44:00 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

Good afternoon,

Over recent weeks, John Holland on behalf of Sydney Water has been issuing documents to relevant government agencies and local councils in relation to the Upper South Creek Advanced Water Recycling Centre project.

These documents include the project's Construction Environmental Management Plan (CEMP) and associated sub-plans as summarised below:

- USC Construction Environmental Management Plan (CEMP)
- USC Air Quality CEMP Sub-plan
- USC Flood Emergency Response CEMP Sub-plan
- USC Heritage CEMP Sub-plan
- USC Biodiversity CEMP Sub-plan
- USC Noise & Vibration CEMP Sub-plan
- USC Traffic & Transport CEMP Sub-plan
- USC Surface Water & Groundwater CEMP Sub-plan
- USC Soils & Contamination CEMP Sub-plan

Please note that whilst the formal consultation period for the above documents has now ended, John Holland would welcome any future opportunity to engage with you on matters related to the project.

If you have any further questions related to this matter, please do not hesitate to contact me.

Kind Regards,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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E. Alyce.Harrington@jhg.com.au

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Appendix 5 – Liverpool City Council – Evidence of consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (LCC)
Date:	Wednesday, 8 March 2023 2:18:41 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

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E. Alyce.Harrington@jhg.com.au

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From: Alyce Harrington-JHG
Sent: Friday, 3 March 2023 11:44 PM
To: tungcabj@liverpool.nsw.gov.au
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (LCC)

Good evening Jerard,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Liverpool City Council (LCC). A list of the plans and programs relevant to LCC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to LCC, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for LCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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E. Alyce.Harrington@jhg.com.au

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From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Liverpool Council meeting minutes 09.03.2023
Date:	Friday, 28 April 2023 7:44:04 AM
Attachments:	Liverpool City Council Early Coordination Meeting (1).pdf 20230309_Liverpool Council meeting minutes_FINAL (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png image009.png image010.png image011.png image012.png

---

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

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E. Alyce.Harrington@jhg.com.au

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From: Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>
Sent: Monday, 27 March 2023 1:33 PM
To: GergisR@liverpool.nsw.gov.au; SuryaprakashA@liverpool.nsw.gov.au; WiafeC@liverpool.nsw.gov.au; qus@liverpool.nsw.gov.au; aikinsk@liverpool.nsw.gov.au
Cc: Belinda Dechnik-JHG <Belinda.Dechnik@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Mark Trethewy-JHG <Mark.Trethewy@jhg.com.au>
Subject: Liverpool Council meeting minutes 09.03.2023

Hi All,

Please see attached meeting minutes from 09.03.2023.

The 50% design drawings are within the attached slide pack.

Thank you,

Rama Sapkota
Senior Community Engagement Advisor - Upper South Creek project

Meeting Minutes

Title	Stakeholder meeting with Liverpool City Council on 50% design completion
Date	9/03/2023
Time	2:00pm
Held at	Teams Meeting

Chaired by	Michael Robertson
Minuted by	Rama Sapkota
Distribution Date	

Attendees List

Aidan O'Driscoll (AO), Construction Manager, JHG
Michael Robertson (MR), Community Manager, JHG
Belinda Dechnik (BD) Environment and Sustainability Advisor, JHG
Darragh O'Brien (DO), Environment Lead, JHG
Rama Sapkota (RS), Senior Community Advisor, JHG
Jerard Tungcab (JT), Strategic Planner, Liverpool City Council
Kweku Aikins (KA), Acting Executive Planner, Liverpool City Council
Riham Gergis (RG), Approval Officer, Liverpool City Council
Stella Qu (SQ), Council Planner, Liverpool City Council
Mahavir Arya (MA), Liverpool City Council

Apologies List

Alyce Harrington (AH), Environment & Approvals Manager, JHG
Mark Trethewey (MT), Sustainability Manager, JHG

IDescription / Action	By Whom	By When
Acknowledgement of Country	MR	
An introduction of the project and introduced the meeting attendees.	MR	
Will have more focused meeting with Traffic team and Council in future	MR	
AO went through the treated pipeline water overview, overview of the project in the area and gave overview of timing of design process.		

MR mentioned the treated pipeline is outside of Liverpool LGA but happy to share details if requested.

RG enquired about the Construction Traffic Management Plan (CTMP) and would like to get the contact in JHG to liaise with directly. **ACTION: AO to follow up with RG about traffic management and permit applications.**

Traffic Contact for John Holland, Upper South Creek AWRC: Balendra Kunaratnam
kunaratnam.balendra@jhg.com.au; 0418 979 198

RG is responsible for ROL. Some points she flagged:

- Location near the school will require consultation with the schools so there are no conflicting issues with them. HSC period should be considered if work is located near a high school
- Dilapidation report to be prepared before starting work, restoration works
- Road opening permit can be applied online
- Things to consider are CTMP, road occupancy, road opening and dilapidation reports

ACTION for Council: Send details for road opening representative.

SQ advised to consult with the school and update the CTMP accordingly to minimise impacts. She also advised that Sydney Metro placed electrical powerline underneath the road last year, but she is not sure if electrical lines are within the verge or middle of the road.

ACTION: JHG currently developing a CTMP and will consult with Council. JHG to consult with School. JHG have addressed the consultation approach in the Community & Stakeholder Engagement Plan.

AO went through the locations of works and advised the work will be going through residential streets at Cecil Park. The construction team will aim to keep the impacts to a minimum but there will be traffic changes and some noise and dust.

RG enquired about the work hours and noted that there will be restricted hours for road closures noting that there will be no closures during peak hours. Details to be confirmed by JHG in the CTMP.

MA enquired about the depth of the pipe. What is the length of pipe in one day?

AO explained the methodology of pipe placement and advised that there will be multiple crews working along the project alignment.

MA enquired about parking plant on the road, how it will be protected, safety of the plant and enquired if 2-way movement will be allowed? How long will the work take?

AO advised that works will be 6 months plus.

MA flagged that Kennards have carried out work at Cross Street. Electrical work for the airport has also been carried out at this location. He noted that 750mm pipe depth is not sufficient. There is a risk associated with that and advised it is better to have the pipe deeper so it doesn't impact the future development of the road. MA advised he is not aware of any development plans currently. He flagged that Council don't want to relocate the pipeline when there is road construction in future. He is unable to comment on what depth is recommended.

AO advised he will take MA's feedback to the designers.

ACTION: Longitudual/Vertical design to be passed on to the Council when ready. JHG will issue a 90% detailed design on late May 2023.

MA enquired about where the valve is placed?

AO spoke about the methodology around valve construction and placement.

ACTION: AO to check the road centre line and where the valve will be. JHG will issue a 90% detailed design on 15 May 2023.

MA enquired what kind of pipe is being used?

AO advised PVC pipeline.

MA raised concerns around this for future works in the area.

AO advised the detailed design is 4-6 weeks from 90% design.

Council asked if there was any impact to bus stops? If yes, consult with the bus companies if they need to be relocated.

Council's maintenance team should be involved in these meetings and discussions.

MA will review the design plan and will let the project team know if the pipeline needs to be deeper. MA also enquired if Cowpasture Road will be underbored or trenched?

AO advised the intersection at Cowapasture Road will be underbored. The pit will be located on the shoulder.

MA mentioned there is a lot of services at that location and the pit is in close proximity to the roundabout.

DO went through the environment slide.

JT advised that he has received some management plans which he has circulated internally but is missing Traffic, contamination and air quality plans.

ACTION: DO and JT to coordinate to see which management plans have been sent. Complete

MA will pass on the information to Council's environment team, requested for slides and management plans.

BD went through the sustainability slides.

BD – Requests if Liverpool Council could please identify the best environment or sustainability contact to address further council and USC collaboration opportunities proposed on Sustainability slides (e.g. asset resilience in response to climate change, material/water/waste reuse/recycling opportunities).

JT enquired if there have been any changes to sustainability since the planning phase, they didn't have any comments on that and if there are any significant changes.

BD advised there hasn't been any significant changes since the planning. The team is currently getting into more details of the sustainability requirements.

MR went through the community slides and enquired if there are community festivals or events coming up that JHG could consider attending? If so please let him know. He also requested for feedback on the Community, Stakeholder and Engagement Plan (later sent the Plan to Jerard for distribution within Council).

ACTION: Liverpool Council to review Community & Stakeholder Engagement Plan and comment on the planned engagement activities and stakeholders https://www.sydneywatertalk.com.au/53513/widgets/322594/documents/251449

Link to the project website: www.sydneywatertalk.com.au/uppersouthcreek

MR summarised the meeting and gave an overview of the issues discussed.

Issues summary

- Consultation with residents and schools particularly around HSC times
- Road occupancy/opening permits and restoration approach (do dilap reports)
- Interest in Construction Traffic Management Plan
- Work hours – suggestion for night work (avoiding peak hours) on very busy roads
- Parking and safety of our machinery (and pedestrians) overnight
- Duration of work in this LGA
- Coordination with other project teams and understanding location of other underground assets

- Depth of pipe on Cross Street – deep enough to allow for potential future upgrade of Cross Street? Widening could be 8 metres road too
- Location of HDD pit near roundabout at corner of N Liverpool Road and Capricorn Boulevard
- Request for Shape files
- Site compound will be located where there are HDD.
- Site access arrangements.

Could council please confirm the above list to allow the Project to be aware that council's key concerns are understood?

From:	Alyce Harrington-JHG
To:	tungcabj@liverpool.nsw.gov.au
Cc:	CAHILL, CHERYL; Cameron Varricchio; Mira Segaran-JHG; Michael Robertson-JHG
Subject:	Upper South Creek (SSI-8609189) - LCC - CEMP Sub-plan consultation feedback
Date:	Friday, 24 March 2023 4:39:39 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

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Hello Jerard,

It was good to chat with you earlier this afternoon, I really appreciate the call.

As discussed, John Holland on behalf of Sydney Water have issued the Upper South Creek CEMP and Sub-plans in a progressive fashion and would appreciate it if Council could issue back as soon as possible, any plans that have comments available.

You indicated that the Flood Emergency Response and Heritage CEMP Sub-plans have comments, so if you could please send those through now, we can get working on them straight away.

With regard to the remaining plans (including the Traffic & Transport and Surface Water & Groundwater CEMP Sub-plans to be issued imminently), could Council please provide any remaining comments by COB Monday 03 April 2023.

Thank you again and please reach out if you have any other questions.

Cheers,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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E. Alyce.Harrington@jhg.com.au

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From: Mira Segaran-JHG
To: Jerard Tungcab
Cc: Michael Robertson-JHG; Alyce Harrington-JHG
Subject: RE: Upper South Creek (SSI-8609189) - LCC - CEMP Sub-plan consultation feedback
Date: Wednesday, 24 May 2023 1:40:00 PM
Attachments: image006.png
image007.png
image008.png
image009.png
image010.png
image011.png
image012.png

Good afternoon Jerard,

Thank you for participating in the consultation process of the Upper South Creek project.

Please see attached updated Biodiversity CEMP Sub-plan for the Upper South Creek AWRC project and corresponding comment register for your information. Please download the documents in the folder for your review. Liverpool City Council

If you have any questions regarding this matter, please do not hesitate to contact me.

Kind Regards,

From: Jerard Tungcab <TungcabJ@liverpool.nsw.gov.au>
Sent: Friday, March 31, 2023 11:33 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>
Subject: RE: Upper South Creek (SSI-8609189) - LCC - CEMP Sub-plan consultation feedback

Good Morning Alyce,

This is regarding the Upper South Creek Advanced Water Recycling Centre (AWRC) CEMP referrals. Please read the email to ensure understanding of Council's referral process.

Ordinarily, the current practice involves an applicant providing all of them in bulk to Council for comment. Whilst I understand from our phone correspondence that Sydney Water has specifically chosen this approach, it is procedurally difficult for Council to make comment when sub-plans are scattered with different circulation dates and deadlines. I have provided comments below regarding Heritage and Biodiversity in due courtesy as no further internal consultation is needed in any case.

Heritage Sub-Plan
Council's internal officers have thoroughly reviewed the submitted sub-plans for Heritage. Note that Heritage matters were previously commented on during the initial planning stage. No issues have been raised with the proposal and approach taken for the CEMP.

Biodiversity Sub-Plan
The following changes have been recommended for the Biodiversity sub-plan; the top line in italics being the original and the line below being the revised:

3.2 Targets – Page 12

- *Minimise fauna fatalities resulting from construction activities. Ensure no threatened species fatalities.*
  - Avoid fatalities to fauna resulting from construction activities. Ensure no threatened species fatalities.
- No *disturbance to flora within the project boundary which is non-compliant with project approval conditions.*
  - No disturbance to flora within the project boundary which is non-compliant with project approval conditions and Large remnant trees that are not to be removed are to be tagged for identification.
- *No transfer of pathogen / disease from one project area to another.*
  - No transfer of pathogen / disease from one project area to another. All safeguards for pathogens will be followed every morning and afternoon. Phytophthora has been found north of Gurner Avenue, Austral and other Sydney water sites in the locality, please refer to Phytophthora Management Plan for Gurner Ave, Austral Document for further information.
- *No wilful pollution or sedimentation of aquatic ecosystems; threatened ecological communities or threatened species habitat.*
  - Ensure to avoid pollution or sedimentation of aquatic ecosystems; threatened ecological communities or threatened species habitat.

Page 13- Section 3.3 Environmental Outcomes - How performance outcomes would be achieved.
The below bullet points are recommended for Environmental outcomes section 3.3:

- Compensatory revegetation of native plants.
- Avoid adverse impacts to native habitat.

Note that Council's internal technical officers are dispersed through different teams; for instance, I am unable to give you comment on the 'Flood Emergency Response' sub-plan due to the fact not all teams have had a chance to respond (Council's flooding team have provided comment, but not the Traffic team who need to comment on the 'Flood Emergency Response' sub-plan, but were waiting on the 'Traffic and Transport' sub-plan to make a full assessment). From a technical review, it is improper to review sub-plan isolated from one another and risks having an incomplete assessment; please advise Sydney Water that any further sub-plan engagement should be provided to Council in one complete package with one set deadline.

I have created the following table summarising progress of the sub-plan assessment:

Sub-Plan	Responsible Council Officer/Team	Status
Surface Water & Ground Water	Environmental Health Team	Sub-plans have not yet been circulated.
Flood Emergency Response	Flooding Team Transport Management Team	Flooding team have provided a response; however, Transport Management Team have yet to provide comment due to awaiting the 'Traffic and Transport' sub-plan. Comments will be provided once assessed
Soils and Contamination	Environmental Health Team	Environmental Health Team are awaiting 'Surface Water & Ground Water' sub-plan to formulate a complete response
Biodiversity	Biodiversity Officer	Comments provided above.
Noise and Vibration	Environmental Health Team	Environmental Health Team are awaiting 'Surface Water & Ground Water' sub-plan to formulate a complete response
Traffic & Transport	Transport Management Team	Awaiting response; sub-plan circulated to Council 28th March 2023
Heritage	Heritage Officer	No concerns raised with proposal and approach
Air Quality	Environmental Health Team	Environmental Health Team are awaiting 'Surface Water & Ground Water' sub-plan to formulate a complete response

Further comments will be provided based on the final sub-plan circulated to Council with a due date (in this case, Surface Water & Ground Water).

Sincerely,
Jerard Tungcab
Strategic Planner

LIVERPOOL CITY COUNCIL
02 8711 7860 | | TungcabJ@liverpool.nsw.gov.au
Customer Service: 1300 36 2170 |
www.liverpool.nsw.gov.au

We acknowledge the traditional custodians of the land that now resides within Liverpool City Council's boundaries, the Darug and Dharawal nations and pay our respects to their Elders past, present and emerging.

This email (including any attachments) may contain confidential and/or legally privileged information. If you are not the intended recipient please delete this email and notify us by telephone. Any privilege is not waived and the storage, use or reproduction is prohibited.

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Friday, March 24, 2023 4:40 PM
To: Jerard Tungcab <TungcabJ@liverpool.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>
Subject: Upper South Creek (SSI-8609189) - LCC - CEMP Sub-plan consultation feedback

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With regard to the remaining plans (including the Traffic & Transport and Surface Water & Groundwater CEMP Sub-plans to be issued imminently), could Council please provide any remaining comments by COB Monday 03 April 2023.

Thank you again and please reach out if you have any other questions.

Cheers,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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Appendix 6 – Fairfield City Council – Evidence of consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (FCC)
Date:	Wednesday, 8 March 2023 2:18:40 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

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From: Alyce Harrington-JHG
Sent: Friday, 3 March 2023 11:46 PM
To: Alison Mortimer <amortimer@fairfieldcity.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (FCC)

Good evening Alison,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Fairfield City Council (FCC). A list of the plans and programs relevant to FCC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to FCC, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for FCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

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From:	Alyce Harrington-JHG
To:	MShah@fairfieldcity.nsw.gov.au
Cc:	Zahid Hassan; Daniel Begnell; Darragh O"Brien-JHG; Mira Segaran-JHG
Subject:	RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)
Date:	Monday, 3 April 2023 5:20:31 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png image009.png image010.png

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Hi Mursaleen,

To follow up on Zahid's correspondence last week, please see below a list of plans and programs relative to the Upper South Creek AWRC Project that have been issued by John Holland to Fairfield City Council.

- Air Quality CEMP Sub-plan (issued 01 March 2023)
- Flood Emergency Response CEMP Sub-plan (issued 02 March 2023)
- Heritage CEMP Sub-plan (issued 03 March 2023)
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- Noise & Vibration CEMP Sub-plan (including the noise & vibration construction monitoring program) (issued 07 March 2023)
- Traffic & Transport CEMP Sub-plan (issued 28 March 2023)
- Surface Water & Groundwater CEMP Sub-plan (including the surface water quality and groundwater construction monitoring programs) (issued 31 March 2023)

At Sydney Water's request, the plans have been progressively submitted to FCC from Wednesday 01 March 2023. It would be greatly appreciated if you could submit any comments available from those plans submitted approximately 4 weeks ago in early March, as soon as possible so we can review and make the appropriate amendments.

If you have any questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
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From: Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>
Sent: Wednesday, 29 March 2023 9:11 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Mursaleen Shah <MShah@fairfieldcity.nsw.gov.au>; Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)

Good Morning Alyce

Could you please send the list of the plans and programs for the subject project to Mursaleen Shah whom I have copied in this email. I will provide comments relevant to infrastructure assets to him if required.

Regards,

Zahid Hassan
Asset Manager – Civil and Built | Asset Management
City Assets & Operations

PO Box 21, Fairfield NSW 1860
P 9725 0248 | M 0418 863 083

www.fairfieldcity.nsw.gov.au
mail@fairfieldcity.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 28 March 2023 10:36 PM
To: Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>; Mail Mail <mail@fairfieldcity.nsw.gov.au>; Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>

Subject: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)

Good evening,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Fairfield City Council (FCC). A list of the plans and programs relevant to FCC is provided below.

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John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to FCC, the **Traffic & Transport CEMP Sub-plan** (TTCSP, C4(f)). Please note that as there are a number of references to sections within the CEMP throughout the TTCSP, John Holland has also provided a copy of the CEMP for FCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Tuesday 13 April 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

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From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Fairfield Council meeting minutes 13.03.2023
Date:	Friday, 28 April 2023 7:43:35 AM
Attachments:	Fairfield City Council Early Coordination Meeting.pdf 20230313_Fairfield Council meeting minutes_FINAL.pdf image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png image009.png image010.png image011.png image012.png

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Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

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E. Alyce.Harrington@jhg.com.au

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From: Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>
Sent: Thursday, 30 March 2023 4:31 PM
To: amortimer@fairfieldcity.nsw.gov.au; mshah@fairfieldcity.nsw.gov.au; AMooney@fairfieldcity.nsw.gov.au
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Michael Robertson <michael@mrcommunications.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; Mark Trethewy-JHG <Mark.Trethewy@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Belinda Dechnik-JHG <Belinda.Dechnik@jhg.com.au>
Subject: Fairfield Council meeting minutes 13.03.2023

Hi All,

Please see attached meeting minutes from 13.03.2023.

The 50% design drawings are within the attached slide pack.

Thank you,

Rama Sapkota
Senior Community Engagement Advisor - Upper South Creek project

Meeting Minutes

Title	Stakeholder meeting with Fairfield City Council on 50% design completion
Date	13/03/2023
Time	3:00pm
Held at	Teams Meeting

Chaired by	Michael Robertson
Minuted by	Rama Sapkota
Distribution Date	

Attendees List

Aidan O'Driscoll (AO), Construction Manager, JHG
Michael Robertson (MR), Community Manager, JHG
Mark Trethewey (MT), Sustainability Manager, JHG
Darragh O'Brien (DO), Environment Lead, JHG
Rama Sapkota (RS), Senior Community Advisor, JHG
Andrew Mooney, Executive Strategic Planner, Fairfield City Council
Kerren Ven, Strategic Planner, Fairfield City Council
Mursaleen Shah, Design Coordinator, Fairfield City Council
Zahid Hassan, Asset Manager - Civil and Built, Fairfield City Council

Apologies List

Alyce Harrington (AH), Environment & Approvals Manager, JHG

IDescription / Action	By Whom	By When
Acknowledgement of Country	MR	
An introduction of the project and the meeting attendees.	MR	
AO went through the treated pipeline water overview, overview of the project in the area and gave overview of timing of design process. He mentioned there will be impacts to local streets and residential roads, work underneath the Sydney Trains corridor at Cabramatta, under Cowpasture Road and on TfNSW Roads.	MR	

AO advised that works will impact parking lane on North Liverpool Road and Montgomery Road.

MS enquired about the pipe size.

AO clarified the pipe size has been updated and explained.

MS enquired if EPA has been consulted, impacts during construction, hazards of the materials that is going to be discharged (Class 2 discharge material).

AO explained the process of design process of the valve and material discharge. It will be discharged into an existing sewer.

MS enquired about the emergency procedure of a leak or any incident and how it will be managed?

ACTION: AO to provide information on emergency protocol and send it to Council. Link to EIS Chapter 4 Section 4.6.2 (Volume 2_ Project Information and Construction_ Part 2 (nsw.gov.au)). **Complete**

Council enquired about construction impacts and ongoing impacts, private property impact of trenches or will it be on the roadway. What will be the construction timing? What will be impact on the roads and public infrastructure? Impact to maintenance of SW asset?

AO explained the construction methodology and scour chambers. It is designed for no rework and asset is expected last for 100 years. EIS exhibition was carried out in the planning phase which address the concerns raised. The site mobilisation in July.

AM requested for the MCOA and planning approvals.

ACTION: FCC to review Community & Stakeholder Engagement Plan and comment on the planned engagement activities and stakeholders- Upper South Creek Advanced Water Recycling Centre | Planning Portal - Department of Planning and Environment (nsw.gov.au). **Link to project website:** www.sydneywatertalk.com.au/uppersouthcreek

MS enquired about how the ROLs will be managed.

AO advised that site specific traffic management plan is currently being prepared and would like to get Council feedback.

ACTION: FCC to provide Traffic management team contact.

MS provided advice on Traffic construction plan. The day work time and night time work; start and finish time will be provided in the TCP. It will be indicative times.

Council enquired how will the project rectify Council asset? They wanted clarification on who will carry out the restoration?

ZH spoke about the Council requirement and apply for a Road Reserve Clearance Certificate Application.

AO advised that the project team will carry out restoration upon completion.

MS enquired if the pipeline will go through CBD?

AO advised the project avoids CBD but does go through busy streets.

What is the duration of the project?

AO advised that it will conclude around mid 2025.

MS enquired about the HDPE lifecycle? He mentioned that it usually comes with a 25 years lifecycle.

AO advised the HDPE will have a longer life cycle than 25 years.

MS enquired about how the trenching will be carried out?

MR advised that trenching methodology and the construction approach.

Council enquired about the risk during ongoing construction to Council asset; existing stormwater. How to avoid that?

AO advised it is addressed in the 90% design which will be finalised in six weeks' time and will show all Council assets.

MS enquired if pipes will be in the centre of the road?

AO advised that pipes will go in the parking lane? Most of the pipes is under the curb.

MS enquired if there will be road closures?

AO advised the plan is to take two of the four lanes.

MS enquired about how is the noise and dust going to be managed, environment impacts, complaints and night works?

Note: Addressed in the environment management plans, FCC to review the CEMP and sub-plans emailed to dbegnell@fairfieldcity.nsw.gov.au for **council review and complaints line 1800 064 127.**

DO spoke about the mitigation of the dust, noise, complaints and out of hour work. He spoke about the mitigation measures during works.

AO went through the key construction areas.

MS enquired about booster stations along the way.

AO advised that there will be valves but no booster stations.

ZH enquired will the permanent restoration be completed to Council Specs?

AO advised that it will be done to Council Specs.

MS requested for the slides.

ACTION: RS to send the slides and meeting minutes. Complete

MS advised to have early consultation with residents about parking space impacts. Council would like to work with JHG about the parking impacts and have early conversation with residents.

AO advised that consultation will be carried out prior to any impacts to residents.

DO went through the environment slides.

MS enquired if the EPL will be publicly available?

DO advised that EPL application is underway and going through the process currently.

MS enquired about the water discharge and water quality? He noted these are question the community will ask them.

ACTION: CEMP has been sent to council. It outlines mitigation measures around water discharge and quality. Complete

MT went through the sustainability slides and request for Council input.

MT requests if Fairfield Council could please identify the best environment or sustainability contact to address further council and USC collaboration opportunities proposed on Sustainability slides (e.g. asset resilience in response to climate change, material/water/waste reuse/recycling opportunities).

MS enquired about how will contaminated materials is found during trenching be disposed of?

MT advised that it is more of an environmental query.

AO advised contaminated material will be taken offsite and be disposed at a licenced facility and it will be tracked. AO advised its covered under the EPL.

MS advised that Council must be notified of the contamination and requested to be notified? In case there are questions from landowners.

MR went through the community slides and requested for any upcoming Council festivals? Also, shared the Community Engagement Plan and requested to pass on to their community team.

AM mentioned that there is a Fairfield markets every weekend if you want to do a pop up. Advised the festivals will be too hectic not as beneficial as the weekend market.

ACTION: Council to review Community & Stakeholder Engagement Plan and comment on the planned engagement activities and stakeholders
www.sydneywatertalk.com.au/53513/widgets/322594/documents/251449
Link to the project website: www.sydneywatertalk.com.au/uppersouthcreek

MS enquired about the parameters of the materials that is going to transported – type of water or material. BUD, CUD, dissolve solid, bio solids – requested share EPL.

MR advised that most of these are in the EIS and will point in the right section of the EIS.

ACTION: EIS Chapter 8 Section 8.7 (Volume 3_Impact Assessment_Part 1 (nsw.gov.au)) **EIS Appendix F Section 6** (Appendix F_Hydrodynamic and Water Quality Impact Assessment_Part 1 (nsw.gov.au)) . **Complete**

ACTION: There will be specific targeted meetings on an as-needs basis going forward and will arrange specific teams to attend the meeting.

AM advised that contact MS will be the main point of contact.

Summary of key issues or interests raised by Council

- Construction impacts and mitigation measures
- Night work
- Construction duration
- Risk management (from potential pipe leak)
- Planning approvals and Minister's Conditions of Approval
- Road applications and restoration approach
- If construction will be through any town centres
- Pipe life – any operational impact to Council from the pipe being in the road?
- Pipe locations
- Pipe materials
- Type of water in the brine pipe – chemical make up of the water
- Would like to review design drawings **(ACTION: RS to share 50% design drawings via the attached slide pack) Complete**
- Keen to stay involved and review construction and traffic management approach
- Copy of EPL
- Unexpected finds policy – Council doesn't want to have to pay for any finds
- Fairfield Markets are a good opportunity to meet the community

	Could council please confirm the above list to allow the Project to be aware that council's key concerns are understood?

From:	Mursaleen Shah
To:	Alyce Harrington-JHG
Cc:	Zahid Hassan; Daniel Begnell; Darragh O"Brien-JHG; Mira Segaran-JHG
Subject:	RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)
Date:	Tuesday, 4 April 2023 8:14:06 AM
Attachments:	image015.png image016.png image021.png image022.png image023.png image024.png image025.png image026.png image027.png image028.png image029.png image030.png

Hi Alyce

Council can provide comment on the documents that are marked yellow below. However, Traffic Team and Catchment Team need to see a copy of the document before a comment could be provided. Additionally, for CEMP to be reviewed, Council need to see a copy of the EIS/REF and any ancillary investigation undertaken to support the document(s).

I note, there are several questions regarding the proposed project. Those questions are primarily related to the impacts on public infrastructure, the process for the delivery of construction activities, and impacts on the community during construction and operation. It is yet to be determined how Council will respond to those questions.

Regards

Mursaleen Shah| Design Services Coordinator
Design Services | City Delivery
PO Box 21, Fairfield NSW 1860
M 0447 721 321
P 02 9725 0144

www.fairfieldcity.nsw.gov.au
mshah@fairfieldcity.nsw.gov.au

The Bluett Award
WINNER AR BLUETT MEMORIAL AWARD 2018
'Most progressive council in NSW'

FairfieldCity
Celebrating diversity

We acknowledge the Cabrogal of the Darug Nation who are the Traditional Custodians of this Land.
We also pay our respect to the Elders both past, present and emerging of the Darug Nation.

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Monday, 3 April 2023 5:20 PM
To: Mursaleen Shah <MShah@fairfieldcity.nsw.gov.au>
Cc: Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>; Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
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Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
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C4

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b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to FCC, the **Traffic & Transport CEMP Sub-plan** (TTCSP, C4(f)). Please note that as there are a number of references to sections within the CEMP throughout the TTCSP, John Holland has also provided a copy of the CEMP for FCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Tuesday 13 April 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From:	Mursaleen Shah
To:	Alyce Harrington-JHG
Cc:	Zahid Hassan; Daniel Begnell; Darragh O"Brien-JHG; Mira Segaran-JHG
Subject:	RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)
Date:	Tuesday, 4 April 2023 8:14:06 AM
Attachments:	image015.png image016.png image021.png image022.png image023.png image024.png image025.png image026.png image027.png image028.png image029.png image030.png

Hi Alyce

Council can provide comment on the documents that are marked yellow below. However, Traffic Team and Catchment Team need to see a copy of the document before a comment could be provided. Additionally, for CEMP to be reviewed, Council need to see a copy of the EIS/REF and any ancillary investigation undertaken to support the document(s).

I note, there are several questions regarding the proposed project. Those questions are primarily related to the impacts on public infrastructure, the process for the delivery of construction activities, and impacts on the community during construction and operation. It is yet to be determined how Council will respond to those questions.

Regards

Mursaleen Shah| Design Services Coordinator
Design Services | City Delivery
PO Box 21, Fairfield NSW 1860
M 0447 721 321
P 02 9725 0144

www.fairfieldcity.nsw.gov.au
mshah@fairfieldcity.nsw.gov.au

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FairfieldCity
Celebrating diversity

We acknowledge the Cabrogal of the Darug Nation who are the Traditional Custodians of this Land.
We also pay our respect to the Elders both past, present and emerging of the Darug Nation.

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Monday, 3 April 2023 5:20 PM
To: Mursaleen Shah <MShah@fairfieldcity.nsw.gov.au>
Cc: Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>; Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)

Hi Mursaleen,

To follow up on Zahid's correspondence last week, please see below a list of plans and programs relative to the Upper South Creek AWRC Project that have been issued by John Holland to Fairfield City Council.

- Air Quality CEMP Sub-plan (issued 01 March 2023)
- Flood Emergency Response CEMP Sub-plan (issued 02 March 2023)
- Heritage CEMP Sub-plan (issued 03 March 2023)
- Biodiversity CEMP Sub-plan (issued 03 March 2023)
- Soils & Contamination CEMP Sub-plan (issued 11 March 2023)
- Noise & Vibration CEMP Sub-plan (including the noise & vibration construction monitoring program) (issued 07 March 2023)
- Traffic & Transport CEMP Sub-plan (issued 28 March 2023)
- Surface Water & Groundwater CEMP Sub-plan (including the surface water quality and groundwater construction monitoring programs) (issued 31 March 2023)

At Sydney Water's request, the plans have been progressively submitted to FCC from Wednesday 01 March 2023. It would be greatly appreciated if you could submit any comments available from those plans submitted approximately 4 weeks ago in early March, as soon as possible so we can review and make the appropriate amendments.

If you have any questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From: Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>
Sent: Wednesday, 29 March 2023 9:11 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Mursaleen Shah <MShah@fairfieldcity.nsw.gov.au>; Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)

Good Morning Alyce

Could you please send the list of the plans and programs for the subject project to Mursaleen Shah whom I have copied in this email. I will provide comments relevant to infrastructure assets to him if required.

Regards,

Zahid Hassan
Asset Manager – Civil and Built | Asset Management
City Assets & Operations

PO Box 21, Fairfield NSW 1860
P 9725 0248 | M 0418 863 083

www.fairfieldcity.nsw.gov.au
mail@fairfieldcity.nsw.gov.au

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 28 March 2023 10:36 PM
To: Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>; Mail Mail <mail@fairfieldcity.nsw.gov.au>; Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)

Good evening,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Fairfield City Council (FCC). A list of the plans and programs relevant to FCC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
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h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to FCC, the **Traffic & Transport CEMP Sub-plan** (TTCSP, C4(f)). Please note that as there are a number of references to sections within the CEMP throughout the TTCSP, John Holland has also provided a copy of the CEMP for FCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Tuesday 13 April 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From:	Mursaleen Shah
To:	Alyce Harrington-JHG
Cc:	Zahid Hassan; Daniel Begnell; Darragh O"Brien-JHG; Mira Segaran-JHG
Subject:	RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)
Date:	Tuesday, 4 April 2023 8:18:31 AM
Attachments:	image002.png image003.png image008.png image009.png image010.png image011.png image012.png image013.png image014.png image015.png image016.png image017.png

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In addition to the email below, please note I am not a point of contact for this project.

Please use your appropriate point of contacts for your further emails or send it to Council's email address or phone number.

Mursaleen Shah| Design Services Coordinator
Design Services | City Delivery
PO Box 21, Fairfield NSW 1860
M 0447 721 321
P 02 9725 0144

www.fairfieldcity.nsw.gov.au
mshah@fairfieldcity.nsw.gov.au

We acknowledge the Cabrogal of the Darug Nation who are the Traditional Custodians of this Land.
We also pay our respect to the Elders both past, present and emerging of the Darug Nation.

From: Mursaleen Shah
Sent: Tuesday, 4 April 2023 8:14 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Zahid Hassan <ZHassan@fairfieldcity.nsw.gov.au>; Daniel Begnell <DBegnell@fairfieldcity.nsw.gov.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>
Subject: RE: Upper South Creek (SSI 8906189) CoA C4(f) - Traffic & Transport CEMP Sub-plan - for consultation (FCC)

Hi Alyce

From:	Alyce Harrington-JHG
Bcc:	CAHILL, CHERYL; Cameron Varricchio; Michael Robertson-JHG; Rob Cranston-JHG; Jason Julius-JHG; Darragh O"Brien-JHG; Simone Kenyon-JHG; bianca.klein@wollondilly.nsw.gov.au; ari.fernando@penrith.city; tungcabj@liverpool.nsw.gov.au; Alison Mortimer; Daniel Begnell; mail@fairfieldcity.nsw.gov.au; Mathew Harland; Nafizul Akash; Ibrahim Muharrem; Zahid Hassan
Subject:	Upper South Creek (SSI-8609189) - CEMP and Sub-plans consultation period
Date:	Wednesday, 26 April 2023 4:44:00 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

Good afternoon,

Over recent weeks, John Holland on behalf of Sydney Water has been issuing documents to relevant government agencies and local councils in relation to the Upper South Creek Advanced Water Recycling Centre project.

These documents include the project's Construction Environmental Management Plan (CEMP) and associated sub-plans as summarised below:

- USC Construction Environmental Management Plan (CEMP)
- USC Air Quality CEMP Sub-plan
- USC Flood Emergency Response CEMP Sub-plan
- USC Heritage CEMP Sub-plan
- USC Biodiversity CEMP Sub-plan
- USC Noise & Vibration CEMP Sub-plan
- USC Traffic & Transport CEMP Sub-plan
- USC Surface Water & Groundwater CEMP Sub-plan
- USC Soils & Contamination CEMP Sub-plan

Please note that whilst the formal consultation period for the above documents has now ended, John Holland would welcome any future opportunity to engage with you on matters related to the project.

If you have any further questions related to this matter, please do not hesitate to contact me.

Kind Regards,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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Appendix 7 – Canterbury Bankstown City Council – Evidence of Consultation

From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (CBCC)
Date:	Wednesday, 8 March 2023 2:17:34 PM
Attachments:	USCP-JHG-MPL-ENV-0004 Biodiversity CEMP Sub-plan (Rev 03)_clean and consolidated.pdf USCP-JHG-MPL-ENV-0008 Upper South Creek CEMP (Rev 04)_clean and consolidated (1).pdf image001.png image002.png image003.png image004.png image005.png image006.png

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Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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E. Alyce.Harrington@jhg.com.au

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From: Alyce Harrington-JHG
Sent: Friday, 3 March 2023 11:48 PM
To: Tim.IRELAND@cbcity.nsw.gov.au; Paul.ANGEL@cbcity.nsw.gov.au; Peter.Lay@cbcity.nsw.gov.au
Cc: CAHILL, CHERYL <CHERYL.CAHILL@sydneywater.com.au>; Cameron Varricchio <CAMERON.VARRICCHIO@sydneywater.com.au>; Rob Cranston-JHG <Rob.Cranston@jhg.com.au>; Jason Julius-JHG <Jason.Julius@jhg.com.au>; Michael McIlveen-JHG <Michael.McIlveen@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>
Subject: Upper South Creek (SSI 8906189) CoA C4(d) - Biodiversity CEMP Sub-plan - for consultation (CBCC)

Good evening,

John Holland has recently been awarded a contract by Sydney Water to design, construct and commission Stage 1 of the Upper South Creek Advanced Water Recycling Centre and Pipelines Project (herein referred to as 'USC Project' or 'the Project'). The Project was approved by the Minister for Planning, Anthony Roberts on Monday 28 November 2022 (SSI-8609189) and in accordance with the relevant conditions of approval (CoA) C1 and C2, John Holland has prepared a Construction Environmental Management Plan (CEMP).

CoA C4 and CoA C13 requires a number of CEMP Sub-plans and Construction Monitoring Programs, respectively, to support the CEMP and they must be developed in consultation with relevant government agencies, including Canterbury-Bankstown City Council (CBCC). A list of the

plans and programs relevant to CBCC is provided below.

C4

a. Surface Water & Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001) (SWGCSP)
b. Flood Emergency Response CEMP Sub-plan (USCP-JHG-MPL-ENV-0002) (FERCSP)
c. Soils & Contamination CEMP Sub-plan (USCP-JHG-MPL-ENV-0003) (SCCSP)
d. Biodiversity CEMP Sub-plan (USCP-JHG-MPL-ENV-0004) (BCSP)
e. Noise & Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) (NVCSP)
f. Traffic & Transport CEMP Sub-plan (USCP-JHG-MPL-ENV-0005) (TTCSP)
g. Heritage CEMP Sub-plan (USCP-JHG-MPL-ENV-0006) (HCSP)
h. Air Quality CEMP Sub-plan (USCP-JHG-MPL-ENV-0009) (AQCSP)

C13

a. Surface Water Quality Construction Monitoring Program (Appendix E of the SWGCSP)
c. Noise & Vibration Construction Monitoring Program (Appendix E of the NVCSP)

John Holland proposes to issue the relevant plans and programs progressively, following review and approval by Sydney Water. As such, John Holland on behalf of Sydney Water, is please to present to CBCC, the **Biodiversity CEMP Sub-plan** (BCSP, C4(d)). Please note that as there are a number of references to sections within the CEMP throughout the BCSP, John Holland has also provided a copy of the CEMP for CBCC reference.

It would be greatly appreciated if any comments regarding this submission are provided by close of business Thursday 16 March 2023.

If you have any questions regarding this submission, please contact me.

Thank you,

Alyce Harrington
Environment & Approvals Manager
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From:	Alyce Harrington-JHG
To:	Mira Segaran-JHG
Subject:	FW: Canterbury-Bankstown Council meeting minutes 17.03.2023
Date:	Friday, 28 April 2023 7:43:24 AM
Attachments:	20230317_Canterbury Bankstown_Council meeting minutes_FINAL.pdf image001.png image002.png image003.png image004.png image005.png image006.png Bankstown City Council Early Coordination Meeting1 (1).pdf image007.png image008.png image009.png image010.png image011.png image012.png

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Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
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E. Alyce.Harrington@jhg.com.au

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From: Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>
Sent: Thursday, 30 March 2023 3:41 PM
To: Paul.Angel@cbcity.nsw.gov.au; Tim.IRELAND@cbcity.nsw.gov.au; Peter.Lay@cbcity.nsw.gov.au; michael.conway@cbcity.nsw.gov.au; Anna.Griggs@cbcity.nsw.gov.au; cameron.crawford@cbcity.nsw.gov.au
Cc: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>; Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Mark Trethewy-JHG <Mark.Trethewy@jhg.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>
Subject: Canterbury-Bankstown Council meeting minutes 17.03.2023

Hi All,

Please see attached meeting minutes from 17.03.2023.

The 50% design drawings are within the attached slide pack.

Thank you,

Rama Sapkota
Senior Community Engagement Advisor - Upper South Creek project

Meeting Minutes

Title	Stakeholder meeting with Canterbury Bankstown Council on 50% design completion
Date	17/03/2023
Time	2:00pm
Held at	Teams Meeting

Chaired by	Michael Robertson
Minuted by	Rama Sapkota
Distribution Date	

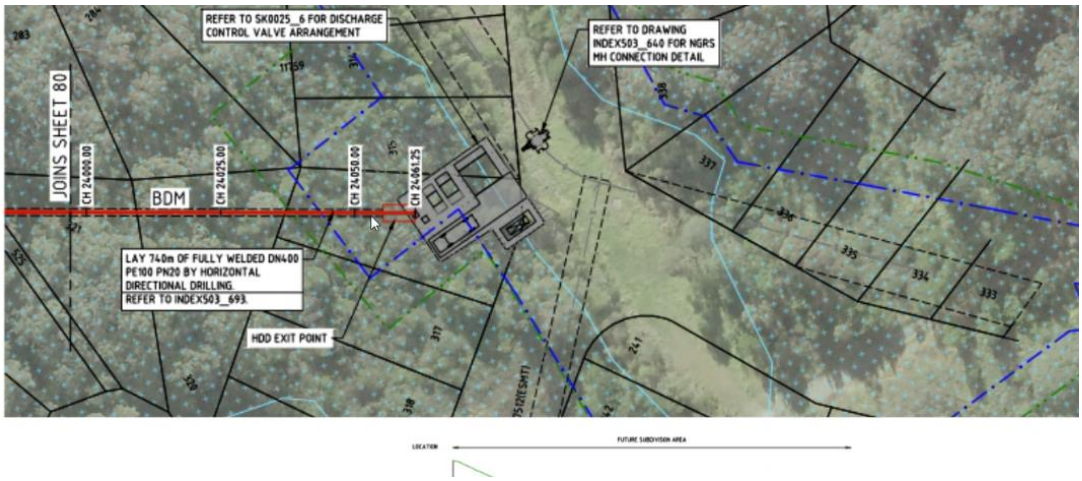
Attendees List

Aidan O'Driscoll (AO), Construction Manager, JHG
Michael Robertson (MR), Community Manager, JHG
Alyce Harrington (AH), Environment & Approvals Manager, JHG
Mark Trethewey (MT), Sustainability Manager, JHG
Rama Sapkota (RS), Senior Community Advisor, JHG
Cameron Crawford (CC), Environmental Planner, Canterbury-Bankstown Council
Glen Moody(GM), Coordinator Asset Planning, Open Space and Buildings, Canterbury-Bankstown Council
David Milner (DM), Senior Infrastructure Services Officer, Canterbury-Bankstown Council
Paul Angel (PA), Bushcare coordinator, Canterbury-Bankstown Council

Apologies List

Description / Action	By Whom	By When
Acknowledgement of Country	MR	
An introduction of the project and introduced the meeting attendees.	MR	
AO provided an overview of the project in the area, treated and brine pipeline and gave overview of timing of design process. DM enquired if the trenching was at bottom end of the sewer? GM enquired if 750m of the project is within their LGA?		

AO confirmed yes.
CC enquired about the timing of the project.
AO went through the project milestone.
AO advised the site set up for this area and will have machinery for a large underbore. This set up will be early due to the sizeable work at this location.
DM enquired about the approach to Lansdowne Reserve?
AO explained the approach methodology including rig set up on either side of the Lansdowne Reserve.
PA advised at the earlier planning stage the approach to the Lansdowne Reserve was different and concerned about impact on biobank site; why is the pipe being pulled from Lansdowne side and not the Chipping Norton side?
AO advise that methodology of coming in from the Lansdowne side.
PA advised that what he has heard previously is opposite to what the current methodology is. Nine months ago it was the opposite as Sydney Water was trying to avoid impacts to Lansdowne biobanking area.
CC explained the methodology in detail, and this will not go through the bio bank.
PA spoke about the heavy truck access to the bore hole site.
ACTION: John Holland will confirm approach for construction within Lansdowne Reserve and the heavy vehicle approach to site.
AO explained the proposed connection to existing sewer and alternate access will be from Henry Lawson Drive.



PA enquired about the image above.

AH explained the construction boundary, showed layers on the GIS and spoke about the revised design as originally approved in the EIS. She also spoke about the Impact Assessment Area. She spoke to the praticality of the EIS access and proposed an alternate access through the fire trail which will give an opportunity to reduce the impact.

AH noted council's concern.

PA concerned about the access from the North as the access routes are not in place. PA spoke about access via western side from Henry Lawson Drive would be better. It may need some work to enable vehicles to come through but at least you don't need to clear bush from the north (with the EIS option). Less disturbance to bush and undisturbed soils. Disturbance and then revegetation from the fire trail to the southwest makes sense and the revegetation will be more beneficial to an already disturbed area.

AH advise that that's what they want to speak to Council about.

GM - is the alternate acceess the replacement or additional access?

AH advise this is the alternate access and the proposed new access will have less impact to bio diversity. Proposed new access would be instead of the access from Tillett Pde from the north rather than in addition to.

PA advised Council favours the southern access.

AO advised the original access as per EIS will have a bigger impact and will require more vegetation clearing.

Henry Lawson Drive – will there be TfNSW approval around the amount of vehicles accessing in and out of site?

AO advised that it will go though TMC and necessary TfNSW apprvovals willl be sought prior to works.

PA enquired if there is a depot site at the location – advised that there are opportunities to use the open space to use Henry Lawson Drive which can be turned into a lane.

AH went though the environmental slides and advsied the sub-plans were issued to Council. Would appreciate any feedback form Council.

DM advsied the sub-plans need to come directly to them. Advised that 4/5 subplans have come through. He will check with PA.

NOTE: Send a list of subplans to DM and he will issue accordingly.

MT went through the slides and requested if Council could please identify the best environment or sustainability contact to address further council and USC collaboration opportunities proposed on Sustainability slides (e.g. asset resilience in response to climate change, material/water/waste reuse/recycling opportunities).

DM advsied that they will send the sustainability contact to JHG.

ACTION: Council to send sustainability contact to JHG.

MR went through the community slides and requested for any upcoming Council festivals? Also, shared the Community Engagement Plan and requested to pass on to their community team.

ACTION: Council to review Community & Stakeholder Engagement Plan and comment on the planned engagement activities and stakeholders
www.sydneywatertalk.com.au/53513/widgets/322594/documents/251449
Link to the project website: www.sydneywatertalk.com.au/uppersouthcreek
Link to planning documents: Upper South Creek Advanced Water Recycling Centre | Planning Portal - Department of Planning and Environment (nsw.gov.au).

PA enquired about the vegetation and maintenance. Council invested money was the vegetation offset, now the trees are maturing and shared concerns that mature trees will be destroyed during this work. Will the council land be re-vegetated and how will be tha land be restored?

AH informed that bio diversity offset has been approved and will take back to SW what mitigation was proposed.

AH advised there is a rehabiliation plan and it will in agreement with Sydney Water.

ACTION: AH to Send Rehabilitation Management Plan.

CM shared concern that it is hard to comment on the design without knowing the rehabiliation plan.

DM noted that SW property should be in contact with the Council's property team.There are Council requirements to get access and would like to have early conversation to facilitate it.

ACTION: Pass on Council details to SW property team to liaise directly. Completed by MR.

PA shared concerns about the rehabilitation, advsied that it will be better to go through the disturbed area and rehabilitate from the Northern end.

AO advised they are looking at alternate access from the south.

MR summarised the issues and asked if there were more questions.

Summary of key issues or interests raised by Council

- Duration in the reserve
- Boring from Lansdowne Reserve
- Impact on biobank site – why is the pipe being pulled from Lansdowne side and not the Chipping Norton side? Nine months ago it was the opposite as Sydney Water was trying to avoid impacts to Lansdowne biobanking area
- Key interest in bio banking
- Any clearing of offset vegetation
- Access via western side from Henry Lawson Drive would be better. It may need some work to enable vehicles to come through but at least you don't need to clear bush from the north (with the EIS option). Less disturbance to bush and undisturbed soils. Disturbance and then revegetation from the fire trail to the southwest makes sense and the revegetation will be more beneficial to an already disturbed area.
    - Proposed new access would be instead of the access from Tillett Pde from the north rather than in addition to – preferred by Council too
- Reviews needed by TfNSW and Council for access off Henry Lawson Drive – for noting
- Acquisition of land / property impacts
- Traffic impacts
- Rehabilitation Management Plan
- Permits for access, construction and ongoing maintenance – request an agreement before work starts – what legislation will this work be done under?

Could council please confirm the above list to allow the Project to be aware that council's key concerns are understood?

From:	David Milner
To:	Alyce Harrington-JHG
Cc:	Michael Robertson-JHG; Rama Sapkota-JHG; Darragh O"Brien-JHG; Mira Segaran-JHG; Aidan O"Driscoll-JHG; Tim Ireland; Paul Angel; David Lowery; Asad Suman; Cameron Crawford
Subject:	RE: Upper South Creek (SSI 8906189) - CEMP & sub-plans
Date:	Wednesday, 29 March 2023 9:54:33 AM
Attachments:	image007.png image008.png image013.png image015.png image016.png image017.png image018.png image019.png image020.png

Hi Alyce,

See below comments received at this time.
I have not yet received comments on the Heritage and Soils & Contamination CEMPs.
I have passed on details as to request that all comments are received by Tuesday 4 April 2023.

Flood Emergency Response CEMP Sub-plan:

Comments from our Urban Policy and Planning team

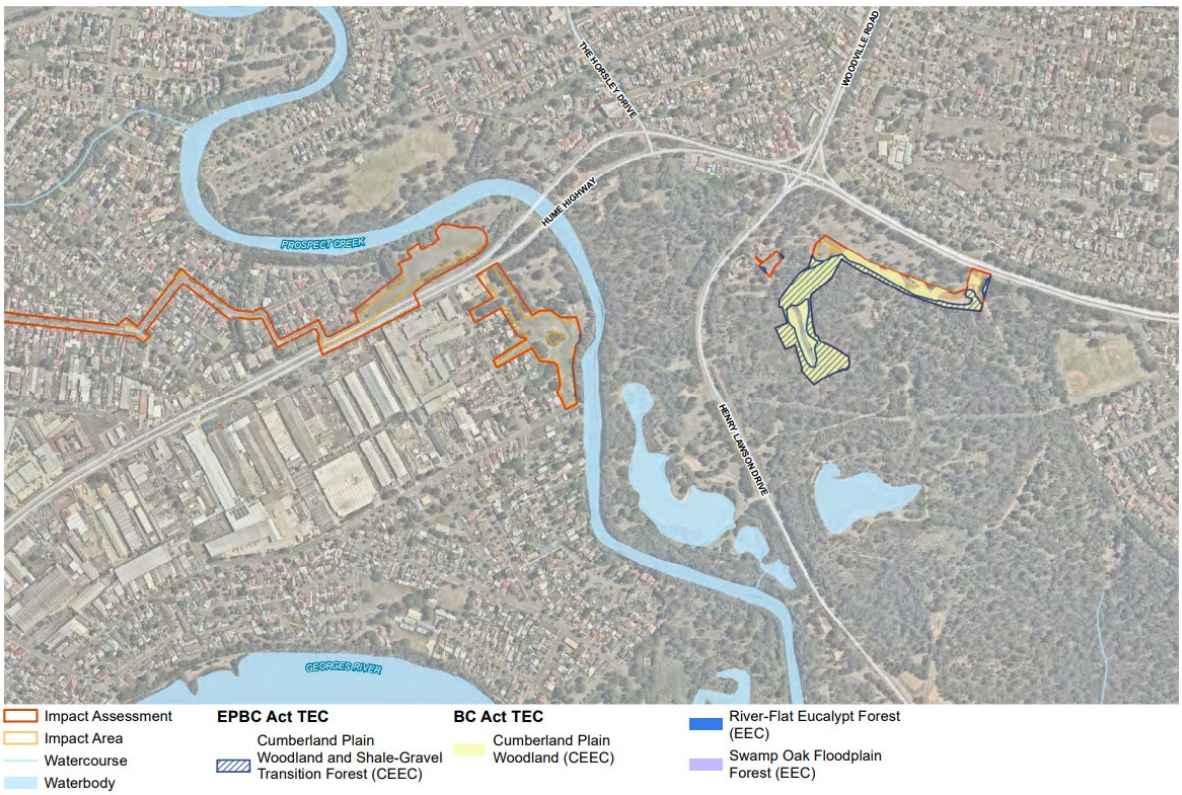
- Section 2.1 (context) reported as This Floor Emergency Response CEMP Sub-plan (FERCSP) should be amended as This Flood Emergency Response CEMP Sub-plan (FERCSP)
- Section 4 LEGISLATIVE AND GUIDANCE REQUIREMENTS reported Canterbury-Bankstown Council LGA, Georges River Floodplain Risk Management Study and Plan (Bewsher Consulting Pty Ltd, 2014) published year should be amended as 2004
- Hazard near me app (developed by the NSW Government) should be also be listed in Section 8.2

Biodiversity CEMP Sub-plan:

Comments from our Urban Policy and Planning team

The biodiversity CEMP covers issues relating to biodiversity impacts and mitigation quite comprehensively, however it does not specifically reference locations so I would like to confirm the following points:

- All vegetation impacted within Canterbury Bankstown, particularly that in Lansdowne Reserve will be regenerated or revegetated with Cumberland Plain Woodland as per CoA E20?
- All areas impacted can be revegetated and the new infrastructure will not result in areas remaining cleared following the development.
- Higher quality vegetation within the impact footprint, like that on the southern side of Tillett Parade will be prioritised for retention over lower quality vegetation like that on the northern side of Tillett Parade.
- No vegetation in the Biodiversity Stewardship Site will be impacted by the proposal.



Noise & Vibration CEMP Sub-plan:

Reviewed by our Environmental Health team and they advised they have no comment

Air Quality CEMP Sub-plan:

Reviewed by our Environmental Health team and they advised they have no comment

Regards

David Milner - Senior Infrastructure Services Officer
T 9707 9345
E David.Milner@cbcity.nsw.gov.au
www.cbcity.nsw.gov.au

CANTERBURY BANKSTOWN

@ourcbcity
Like & follow us

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 28 March 2023 10:52 PM
To: David Milner <David.Milner@cbcity.nsw.gov.au>
Cc: Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; Tim Ireland <Tim.IRELAND@cbcity.nsw.gov.au>; Paul Angel <Paul.ANGEL@cbcity.nsw.gov.au>; David Lowery <David.Lowery@cbcity.nsw.gov.au>; Asad Suman <Asad.Suman@cbcity.nsw.gov.au>
Subject: Upper South Creek (SSI 8906189) - CEMP & sub-plans

Good evening David,

Recently, Canterbury-Bankstown City Council has kindly participated in a stakeholder engagement meeting with John Holland in anticipation of the commencement of construction work within the relevant council area.

During the meeting, we made reference to the CEMP and associated sub-plans and that John Holland would re-issue the plans that had been issued in the lead up to the meeting to ensure they have reached the appropriate audience and subject matter experts within CBCC. The documents are as follows:

- Air Quality CEMP Sub-plan (AQCSP)
- Flood Emergency Response CEMP Sub-plan (FERCSP)
- Heritage CEMP Sub-plan (HCSP)
- Biodiversity CEMP Sub-plan (BCSP)
- Noise & Vibration CEMP Sub-plan (NVCSP)
- Soils & Contamination CEMP Sub-plan (SCCSP)

Progressive submission of these documents commenced on Wednesday 01 March and it would be greatly appreciated if all comments regarding the submissions provided to date are returned by close of business Tuesday 4 April 2023.

Please note that the final CEMP sub-plan (surface water and groundwater) is scheduled to be issued for CBCC review and comment by the end of this week.

If you have any further questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
E. Alyce.Harrington@jhg.com.au

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From: Mira Segaran-JHG
To: David Milner; Alyce Harrington-JHG
Cc: Michael Robertson-JHG; Rama Sapkota-JHG; Darragh O"Brien-JHG
Subject: RE: Upper South Creek (SSI 8906189) - CEMP & sub-plans
Date: Wednesday, 24 May 2023 1:28:00 PM
Attachments: image001.png
image002.png
image003.png
image008.png
image010.png
image011.png
image012.png
image013.png
image014.png
image015.png

Good afternoon David,

Thank you for participating in the consultation process of the Upper South Creek project.

Please see attached updated Biodiversity CEMP Sub-plan for the Upper South Creek AWRC project and corresponding comment register for your information. Please download the documents in the folder for your review. Canterbury Bankstown City Council

If you have any questions regarding this matter, please do not hesitate to contact me.

Kind Regards,

From: David Milner <David.Milner@cbcity.nsw.gov.au>
Sent: Wednesday, March 29, 2023 9:54 AM
To: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Cc: Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; Tim Ireland <Tim.IRELAND@cbcity.nsw.gov.au>; Paul Angel <Paul.ANGEL@cbcity.nsw.gov.au>; David Lowery <David.Lowery@cbcity.nsw.gov.au>; Asad Suman <Asad.Suman@cbcity.nsw.gov.au>; Cameron Crawford <Cameron.Crawford@cbcity.nsw.gov.au>
Subject: RE: Upper South Creek (SSI 8906189) - CEMP & sub-plans

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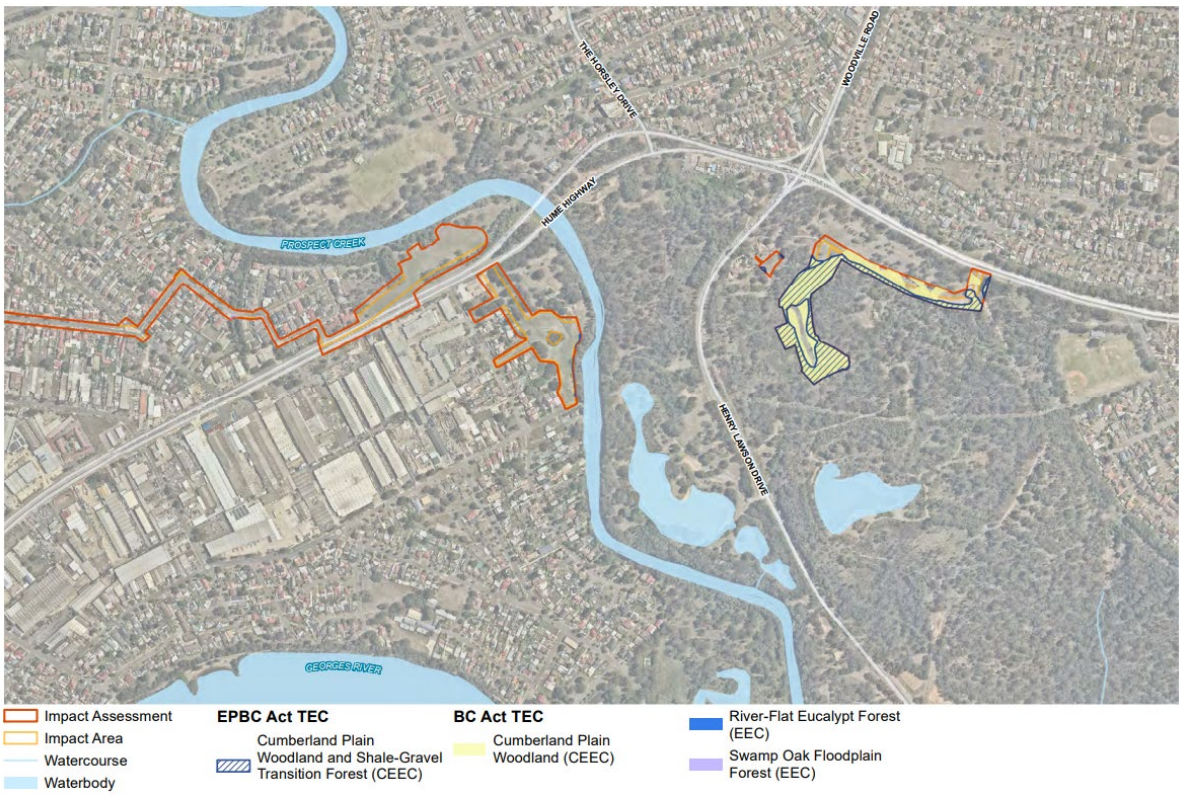

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Reviewed by our Environmental Health team and they advised they have no comment

Air Quality CEMP Sub-plan:
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Regards

David Milner - Senior Infrastructure Services Officer
T 9707 9345
E David.Milner@cbcity.nsw.gov.au
www.cbcity.nsw.gov.au

@ourcbcity
Like & follow us

From: Alyce Harrington-JHG <Alyce.Harrington@jhg.com.au>
Sent: Tuesday, 28 March 2023 10:52 PM
To: David Milner <David.Milner@cbcity.nsw.gov.au>
Cc: Michael Robertson-JHG <Michael.Robertson@jhg.com.au>; Rama Sapkota-JHG <Rama.Sapkota@jhg.com.au>; Darragh O'Brien-JHG <Darragh.O'Brien@jhg.com.au>; Mira Segaran-JHG <Mira.Segaran@jhg.com.au>; Aidan O'Driscoll-JHG <Aidan.O'Driscoll@jhg.com.au>; Tim Ireland <Tim.IRELAND@cbcity.nsw.gov.au>; Paul Angel <Paul.ANGEL@cbcity.nsw.gov.au>; David Lowery <David.Lowery@cbcity.nsw.gov.au>; Asad Suman <Asad.Suman@cbcity.nsw.gov.au>
Subject: Upper South Creek (SSI 8906189) - CEMP & sub-plans

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Please note that the final CEMP sub-plan (surface water and groundwater) is scheduled to be issued for CBCC review and comment by the end of this week.

If you have any further questions, please do not hesitate to contact me.

Thank you,

Alyce Harrington
Planning, Environment & Approvals Director
Upper South Creek

JOHN HOLLAND

Level 3, 65 Pirrama Road, Pyrmont NSW
M. +61 409 633 908
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Appendix 8 – Consultation Summary Register

Upper South Creek - Consultation Register - Biodiversity Sub-Plan

Document	**Consultation Register**
Date Issued	**01/05/2023**
Docu	
Date Due	

Reviewer Name 1	EHG, DPI Fisheries, Canterbury Bankstown, Liverpool

RESPONSE AGREEMENT STATUS
O Open
C Closed

Relevant Government Agency			Upper South Creek - John Holland		Relevant Government Agency		
Item	**Agency**	**Comments**	**Response Comments**	**By**	**Reviewer Close-out Comments**	**Response Status**	**Date Closed**
1	EHG	Appendix B of the Biodiversity CEMP Sub Plan states that if any of the threatened species listed in Table B-1 and Table B-2 are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. However, the protocol should be applied no matter what threatened species are unexpectedly found. EHG recommends the wording in Appendix B is changed to: “If any threatened species are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. The threatened species that are most likely to be found are listed in Table B-1 and B-2 as they have been identified as potentially occurring in the Project area.”	Appendix B has been updated to reflect comment	MS			
2	EHG	Section 8.1 states pre-clearing surveys will be undertaken in accordance with Appendices A, F and E. It’s unclear why Appendices C and D are also not listed as they are relevant.	Updated Section 8.1 to include Appendix C and D	MS			
3	EHG	Section 8.4.5 states fencing and signage protocol is included in App H, it should say Appendix G.	Updated text to Appendix G	MS			
4	EHG	Table 4-1 of the Biodiversity CEMP Sub-plan indicates that the Growth Centres Biodiversity Certification Offset Strategy required under CoA E17 is addressed in section 7.4, however, there is no mention of this Offset Strategy in this section. Given this issue, the updated sub-plan will need to address CoA E17	Sydney Water to prepare memo to be issued directly to DPE regarding CoA E17. Additional iformation has been added to section 7.4 of the plan. Appendix I has also been added to address CoA E17.	MS			
5	EHG	It is also noted that Biodiversity CEMP Sub-plan Section 8.5 states A separate Rehabilitation Management Plan (RMP) will be developed in consultation with EHG and approved for implementation by the Planning Secretary no less than one month prior to commencement of construction in RBM 12 red-hatched lands (refer Appendix B of the SSI-8609189 approval). Where required, following development of the RMP, this BCSP will be updated. EHG will provide comments on the Rehabilitation Management Plan for the red-hatched land when it is provided for consultation	Acknowledged	MS			

6	EHG	Table 4.1 indicates that CoA E115 is addressed in section 5 which at this stage only lists the agencies that the Biodiversity CEMP Sub-plan had been provided to and includes the relevant local councils and DPI Fisheries. EHG recommends that consultation also be undertaken with DPE Water.	Whilst consultation with DPE Water is not required under the Conditions of Approval C4, section 7.15 of the surface water and groundwater CEMP sub-plan addresses this requirement and includes the following text: "Where work is required within a waterway, an EWMS for the work(s) will be prepared in consultation with relevant state and or local authorities (including DPE Water and DPI Fisheries), the project CPESC, and suitably qualified geomorphologist". The Surface Water and Groundwater CEMP	MS			
7	EHG	If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction.	Noted and subject to further discussions between Sydney Water and DPE.	MS			
8	Canterbury-Bankstown	All vegetation impacted within Canterbury Bankstown, particularly that in Lansdowne Reserve will be regenerated or revegetated with Cumberland Plain Woodland as per CoA E20?	CoA E20 is in relation to the development and implementation of a Rehabiliatation Management Plan (RMP) applicable to RBM 12 red-hatched area. However, an overarching RMP will be developed for the entire pipeline alignment and will take into consideration relevant areas within the Canterbury-Bankstown LGA, in accordance UMM G05 identifed in the EIS. The RMP once developed and approved by the Planning Secretary will be appended to the BCSP.	MS			
9	Canterbury-Bankstown	All areas impacted can be revegetated and the new infrastructure will not result in areas remaining cleared following the development.	Acknowledged and will be addressed in the RMP as summarized above.	MS			
10	Canterbury-Bankstown	Higher quality vegetation within the impact footprint, like that on the southern side of Tillett Parade will be prioritised for retention over lower quality vegetation like that on the northern side of Tillett Parade	Acknowledge. CBCC comments will be communicated to the construction team as works are planned.	MS			
11	Canterbury-Bankstown	No vegetation in the Biodiversity Stewardship Site will be impacted by the proposal.	Construction planning that has occurred to date has acknowledged the presence and significance of the Biodiversity Stewardship Site and the area has been avoided.	MS			
12	Liverpool	Avoid fatalities to fauna resulting from construction activities. Ensure no threatened species fatalities	Addressed in section 3.2	MS			
13	Liverpool	No disturbance to flora within the project boundary which is non-compliant with project approval conditions and Large remnant trees that are not to be removed are to be tagged for identification.	Addressed in section 3.2	MS			
14	Liverpool	No transfer of pathogen / disease from one project area to another. All safeguards for pathogens will be followed every morning and afternoon. Phytophthora has been found north of Gurner Avenue, Austral and other Sydney water sites in the locality, please refer to Phytophthora Management Plan for Gurner Ave, Austral Document for further information.	The weed management procedure flowchart in Appendix F of the BCSP will be adhered to at all times.	MS			
15	Liverpool	Ensure to avoid pollution or sedimentation of aquatic ecosystems; threatened ecological communities or threatened species habitat.	Consistent with second last dot-point in Section 3.2, the project has commited to "no willful pollution"	MS			

16	Liverpool	Compensatory revegetation of native plants. Avoid adverse impacts to native habitat.	Additional detail regarding native plants added to table 3-1. Measures to avoid adverse impacts to native habitat in column 3 of table 3-1.	MS			
17	Penrith	No response received	N/A				
18	Wollondilly	No response received	N/A				
19	Fairfield	No response received	N/A				
20	DPI Fisheries	No comments raised	N/A				

Upper South Creek - Consultation Register - Biodiversity Sub-Plan

Document	**Consultation Register**
Date Issued	**23/05/2023**
Docu	
Date Due	
Reviewer Name 1	EHG (Susan Harrison)
Reviewer Name 2	EHG (Susan Harrison)
Reviewer Name 3	

RESPONSE AGREEMENT STATUS
O Open
C Closed

	Relevant Government Agency		Upper South Creek - John Holland		Relevant Government Agency		Upper South Creek		Relevant Government Agency		Upper South Creek	
Item	**Section**	**Comments**	**Response Comments**	**By**	**EHG Response (20.06.2023)**	**By**	**John Holland Response (30.06.2023)**	**By**	**EHG Response (06.07.2023)**	**By**	**John Holland Response (14.07.2023)**	**By**
1	Appendix B	Appendix B of the Biodiversity CEMP Sub Plan states that if any of the threatened species listed in Table B-1 and Table B-2 are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. However, the protocol should be applied no matter what threatened species are unexpectedly found. EHG recommends the wording in Appendix B is changed to: "If any threatened species are identified during construction works, the Unexpected Threatened Species Finds Protocol would be followed. The threatened species that are most likely to be found are listed in Table B-1 and B-2 as they have been identified as potentially occurring in the Project area."	Appendix B has been updated to reflect comment	AH	EHG letter response received 20 June 2023: EHG has reviewed the updated Upper South Creek Advanced Water Recycling Centre Biodiversity CEMP Sub-plan (revision 6) and it is considered that the EHG comments in items 1 to 3 in the comments register have been adequately addressed.	Susan Harrison						
2	Section 8.1	Section 8.1 states pre-clearing surveys will be undertaken in accordance with Appendices A, F and E. It's unclear why Appendices C and D are also not listed as they are relevant.	Updated Section 8.1 to include Appendix C and D	AH	EHG letter response received 20 June 2023: EHG has reviewed the updated Upper South Creek Advanced Water Recycling Centre Biodiversity CEMP Sub-plan (revision 6) and it is considered that the EHG comments in items 1 to 3 in the comments register have been adequately addressed.	Susan Harrison						
3	Section 8.4.5	Section 8.4.5 states fencing and signage protocol is included in App H, it should say Appendix G.	Updated text to Appendix G	AH	EHG letter response received 20 June 2023: EHG has reviewed the updated Upper South Creek Advanced Water Recycling Centre Biodiversity CEMP Sub-plan (revision 6) and it is considered that the EHG comments in items 1 to 3 in the comments register have been adequately addressed.	Susan Harrison						
4	Table 4-1	Table 4-1 of the Biodiversity CEMP Sub-plan indicates that the Growth Centres Biodiversity Certification Offset Strategy required under CoA E17 is addressed in section 7.4, however, there is no mention of this Offset Strategy in this section. Given this issue, the updated sub-plan will need to address CoA E17	Sydney Water to prepare memo to be issued directly to DPE regarding CoA E17. Additional iformation has been added to section 7.4 of the plan. Appendix I has also been added to address CoA E17.	AH	EHG letter response received 20 June 2023: In regard to CoA E17, EHG acknowledges Sydney Water's letter dated 9 May 2023 that states: The Upper South Creek Project (SSI 8609189) identified the potential impact of 6m2 of non-certified existing native vegetation (ENV) under the Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Regional Growth Centres) 2006 (the Order). I am pleased to advise that the project will not impact this non-certified ENV. This area of non-certified ENV was on an indicative access road assessed in the EIS. Through construction planning our contactor has eliminated the need to use this access route. Condition E17 of the project approval requires a Growth Centres Biodiversity Certification Offset Strategy to be prepared if impacts to non-certified ENV are proposed. However, the condition also notes that this strategy is only required in the event impact on non-certified ENV are proposed. Therefore, Sydney Water is not preparing a Growth Centres Biodiversity Certification Offset Strategy.	Susan Harrison						
5	BCSP	It is also noted that Biodiversity CEMP Sub-plan Section 8.5 states A separate Rehabilitation Management Plan (RMP) will be developed in consultation with EHG and approved for implementation by the Planning Secretary no less than one month prior to commencement of construction in RBM 12 red-hatched lands (refer Appendix B of the SSI-8609189 approval). Where required, following development of the RMP, this BCSP will be updated. EHG will provide comments on the Rehabilitation Management Plan for the red-hatched land when it is provided for consultation	Acknowledged	AH	EHG letter response received 20 June 2023: In this regard, Section 7.3 in the updated CEMP Sub-plan states that: Direct and indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street must be avoided during construction, Figure 7.1 below shows the location of RBM 12 red-hatched lands at Kemps Creek and Cross Street. However, Figure 7.1 does not show the two separate RBM 12 red-hatched land areas at Kemps Creek and Cross Street. The Sub-plan should therefore be updated to show the location of both RMB 12 redhatched land areas.	Susan Harrison	Section 7.3 of the BCSP has been updated to show relevant RBM-12 areas at both Cross Street and Kemps Creek.	AH	For resolution of this line item, please refer to line item 8 of this comment register (raised under Condition E18 in EHG letter dated 06 July 2023).	AH		
6	Table 4-1	Table 4.1 indicates that CoA E115 is addressed in section 5 which at this stage only lists the agencies that the Biodiversity CEMP Sub-plan had been provided to and includes the relevant local councils and DPI Fisheries. EHG recommends that consultation also be undertaken with DPE Water.	Whilst consultation with DPE Water is not required under the Conditions of Approval C4, section 7.15 of the surface water and groundwater CEMP sub-plan addresses this requirement and includes the following text: "Where work is required within a waterway, an EWMS for the work(s) will be prepared in consultation with relevant state and or local authorities (including DPE Water and DPI Fisheries), the project CPESC, and suitably qualified geomorphologist". The Surface Water and Groundwater CEMP Sub-plan can be provided to EHG at their request.	AH	EHG letter response received 20 June 2023: Condition E115: As previously advised, If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction. EHG advises that this recommendation remains relevant and acknowledges the comments in the comments register.	Susan Harrison	Noted	AH				
7	BCSP	If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction.	Noted and subject to further discussions between Sydney Water and DPE.	AH	EHG letter response received 20 June 2023: Condition E115: As previously advised, If possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction. EHG advises that this recommendation remains relevant and acknowledges the comments in the comments register.	Susan Harrison	Noted	AH	EHG letter response received 06 July 2023: Condition E115: As previously advised, if possible, it is further recommended that DPE (as the consent authority) engage an independent review of the plans and subsequent inspection during construction. EHG advises that this recommendation remains relevant and acknowledges the comments in the comments register.	Susan Harrison	Noted	AH

	Relevant Government Agency		Upper South Creek - John Holland	
Item	**Section**	**EHG Comments (06.07.2023)**	**John Holland Response Comments (14.07.2023)**	**By**

8	BCSP Condition E18	Growth Centres Biodiversity Certification In this (CoA E18) regard, Section 7.3 of the Biodiversity CEMP Sub-plan (Revision 6) that was recently reviewed by EHG stated that: *Direct and indirect impacts to ENV within RBM 12 red-hatched lands at Kemps Creek and Cross Street must be avoided during construction, Figure 7.1 below shows the location of RBM 12 red-hatched lands at Kemps Creek and Cross Street.* However, in its submission dated 20 June 2023 EHG raised concerns that Figure 7.1 does not show the two separate RBM 12 red-hatched land areas at Kemps Creek and Cross Street. EHG therefore requested that the Sub-plan was updated to show the location of both RMB 12 red-hatched land areas. In response to this request, EHG notes that the Sub-plan has been amended to include two additional Figures, an updated Figure 7.1 'Location of RBM 12 red hatched lands (at Cross Street, Kemps Creek – 1)' and Figure 7.2 'Location of RBM 12 red-hatched lands (at Cross Street, Kemps Creek – 2)'. EHG notes that that original figure that was previously included in the Sub-Plan has also been retained but is now untitled. EHG notes that Figures 7.1 and 7.2 incorrectly show the area to which RBM 12 of the Biodiversity Certification Order Applies. In this regard, the eastern portion of the area identified in Figure 7.1 is subject to RBM's 14, 17 and 18 of the Biodiversity Certification Order and the western portion of the area shown in Figure 7.2 is identified as non-certified land in the Biodiversity Certification Order. EHG therefore recommends that these figures are amended to correctly show the areas to which RBM 12 applies. As part of this process EHG recommends that the following datasets which are available on the seed portal are consulted: • https://datasets.seed.nsw.gov.au/dataset/red-hatched-and-black-hatched-non-certified-land-mapped-under-growth-centres-biocertification • Subject Lands for the Biocertification of Sydney Region Growth Centres SEPP and related EPIs | Dataset | SEED (nsw.gov.au). EHG also recommends that the legend and colours that are used in Figures 7.1 and 7.2 are amended so that the area subject to RMB 12 is shown in red hatching and that another colour and pattern is used to identify the impact area so that it is easier to identify.	Please refer to revised Figure 7.1 in the BCSP (Rev 10)	AH								