



Albion Park Rail Bypass

Biodiversity Offset Package

Transport for NSW

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1 Introduction

1.1 Project background

Transport for NSW (TfNSW) is constructing a 9.8-kilometre extension of the Princes Motorway between Yallah and Oak Flats to bypass the suburb of Albion Park Rail, NSW. The motorway would complete the 'missing link' for a motorway standard road between Sydney and Bomaderry. Key features of the project include:

- Two lanes in each direction divided by a median (with capacity to upgrade to three lanes in each direction in future)
- Three interchanges provided at Yallah, Albion Park and Oak Flats would connect the local road network with the motorway
- Bridges to carry the motorway over Duck Creek, Macquarie Rivulet and Frazers Creek
- Bridges to carry the motorway over the Princes Highway and Tongarra Road
- A bridge to carry the motorway over the South Coast Rail Line
- Improved pedestrian and cycle connections.

1.2 Project approval

The Albion Park Rail Bypass (APRB) received State Significant Infrastructure project approval under Section 115ZB of the *Environmental Planning & Assessment Act 1979* (EP&A Act) on 30 January 2018, subject to conditions.

As part of the project approval process an Environmental Impact Statement (EIS) was prepared in accordance with (former) Part 5.1 of the EP&A Act. The EIS addressed the Secretary Environmental Assessment Requirements (SEARs), which were issued for the project by the Department of Planning and Environment (DP&E) on 18 March 2015.

To address biodiversity matters in the EIS, a Biodiversity Assessment Report (NGH Environmental 2017a) and Biodiversity Offset Strategy (NGH Environmental 2017b) were prepared in accordance with the NSW Framework for Biodiversity Assessment (FBA) and the NSW Biodiversity Offsets Policy for Major Projects (Office of Environment and Heritage 2014).

At the time of project approval, all threatened terrestrial biodiversity entities within NSW were listed under the *Threatened Species Conservation Act 1995* (TSC Act). This act was repealed on 25 August 2017 and replaced by the *Biodiversity Conservation Act 2016* (BC Act).

Impacts on biodiversity values assessed under FBA for the project were calculated using the BioBanking credit calculator that underpinned both the FBA and Biobanking Assessment Method 2014 (BBAM).

The project was approved subject to specific biodiversity conditions of approval under Part E, condition E11 – E15 of the approval. An overview of relevant conditions of approval are outlined below.

1.3 Conditions of approval – biodiversity offsets

Project approval was granted under Section 115ZB of the EP&A Act on 30 January 2018 subject to conditions of approval. As part of the project conditions of approval, several key conditions relate to biodiversity offsets. These conditions are presented below in Table 1.1.

Table 1.1 Conditions of approval (SSI 6678)

Condition	Part E Key issue conditions - Biodiversity	Section addressed
E11	<i>The Proponent must offset impacts to the Plant Community Types and Endangered Population specified in the Albion Park Rail, Biodiversity Addendum, ngh environmental, December 2017, in accordance with the requirements of the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014), the Framework for Biodiversity Assessment 2014, or as otherwise agreed by the Secretary in consultation with OEH.</i>	Section 4
E12	<i>The Proponent must submit a progress report to the Secretary which identifies offsets required and evidence that they are achievable, or alternatively provide details on how the offset requirements will be met using the Biodiversity Conservation Fund. This report must be provided to the Secretary for information prior to any impacts on vegetation communities and the Eastern Flame Pea endangered population, except those within the Croom Regional Sporting Complex.</i>	<i>This has been previously addressed refer to Albion Park Rail Bypass - Biodiversity Offset Package progress report addressing CoA (E12) (WSP, 2018)</i>
E13	<i>Within 24 months of the submission of the progress report (as required under Condition E12), or as otherwise agreed by the Secretary, the Proponent must finalise and submit to the Secretary for approval, a Biodiversity Offset Package. The Package must be prepared in consultation with OEH and confirm how the impacts of the SSI will be offset. The Package must be consistent with the biodiversity offset strategy requirements of the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014), unless otherwise agreed by OEH. The Package must include, but not necessarily be limited to:</i> <i>(a) details on the biodiversity credits (including number and type) identified to offset the impacts of the SSI and evidence that they be attained and secured in accordance with the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014); and</i> <i>(b) for offsets not secured through the retirement of biodiversity credits, details on how offset requirements will be met.</i>	<i>a. Section 2 b. Section 3.5</i>
E14	<i>Should supplementary measures be proposed, the Package must also provide details on:</i> <i>(a) the management and monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure that outcomes of the package are achieved, including:</i> <i>i. the monitoring of condition of species and ecological communities at offset (including translocation) locations,</i> <i>ii. the methodology for the monitoring programs(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites,</i>	<i>This condition is not applicable as supplementary measures are not required.</i>

Condition	Part E Key issue conditions - Biodiversity	Section addressed
	<i>iii. provisions for the annual reporting of the monitoring results to the Department, OEH and the public for a set period of time, as determined in consultation with OEH, and</i> <i>iv. timing and responsibilities for the implementation of the supplementary measures; and</i> <i>(b) processes and/or measures that would be implemented to ensure that any land offsets are protected and managed in perpetuity.</i> <i>The supplementary measures must be implemented by the Proponent according to the timeframes set out in the Biodiversity Offset Package.</i>	
E15	<i>All required offsets must be secured in consultation with the OEH, within 12 months of the approval of the Biodiversity Offset Package or within another timeframe agreed with the Secretary. The Proponent must submit to the Secretary a copy of the credit retirement report issued by the OEH once the offsets are retired, within one month of receiving the report.</i>	Section 4.2; Section 5

1.4 Biodiversity Offset Package objectives

This BOP details the final Biodiversity Offset Package for the whole project, which includes Stages 1, 2 and 3, as approved in the NSW Infrastructure Approval SSI 6878. This BOP builds on and importantly improves on the conservation outcomes of the proposed offset options by:

- Addressing the CoA relevant to biodiversity offsets (SSI 6678)
- Providing for the acquisition of substantial areas of land-based biodiversity offsets within proximity to the project (i.e. Shellharbour City Council LGA)
- Targeting the preservation of the specific endemic communities and populations of the area including:
 - Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion Endangered Ecological Community
 - *Chorizema parviflorum* (Eastern Flame Pea) Endangered population in the Wollongong and Shellharbour Local Government Areas.
- Targeting the preservation of threatened ecological communities:
 - Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions Endangered Ecological Community
 - Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions Endangered Ecological Community

The overall objective of this BOP is to detail the ecological values that will result from the project and how these impacts will be offset. Specifically, this BOP aims to:

- Prepare a BOP in accordance with the project's CoA (Condition E11, 13 & 14), the approved BOS (NGH Environmental, 2017) and in consideration of relevant NSW policies and guidelines

- Apply Biodiversity Assessment Methodology 2020 (BAM) to each proposed offset site to ensure the quantum of offset generated for each site is consistent with the project biodiversity offset equivalency requirements
- Compare the project and land-based offsets to demonstrate that the proposed Biodiversity Stewardship Sites are appropriate to offset impacts of the project, including reference to the NSW Biodiversity Offsets Policy for Major Projects (Office of Environment and Heritage, 2014)
- Provide a net gain in local conservation of important endangered ecological communities and populations in consultation with the local community, local councils and relevant government regulators
- Determine the management and monitoring requirements for biodiversity offset measures to ensure outcomes of the package are achieved
- Secure residual credits through trading of existing credits in accordance with the FBA trading rules and in accordance with the NSW Biodiversity Offsets Policy for Major Projects (Office of Environment and Heritage, 2014)
- Retire residual credits through payment into the Biodiversity Conservation Fund (BCF) administered by the BCT in accordance with the NSW Biodiversity Offsets Policy for Major Projects (Office of Environment and Heritage, 2014) and based on final reasonable equivalency.

2 Project offset requirement

2.1 Project approved offset requirement

The project approved biodiversity offset requirement was calculated using the FBA that was underpinned by the BioBanking credit calculator. All biodiversity credit requirements calculated for the project are presented as BBAM credits.

Biodiversity offsets were required for both plant community types (ecosystem credits) and threatened species impacts (species credits). A full breakdown of biodiversity offset requirements and calculations for the project are outlined in the Biodiversity Assessment Report – Biodiversity Addendum (NGH Environmental 2017a). It should be noted that impact areas are conservative and are based on predicted clearing. Final vegetation clearing calculations have been reassessed for all impact areas and credit requirements, this is discussed further in section 2.2.

An overview of the project approved BBAM biodiversity offset requirement for ecosystem and species credits is presented below.

2.1.1 Ecosystem credit requirement

A summary of the extent of each vegetation community to be impacted upon by the project and the subsequent BBAM ecosystem credit offsets required are provided in Table 2.1.

Table 2.1 Summary of vegetation to be impacted and BBAM ecosystem credits required to offset impacts

Ecosystem credit	Threatened ecological community	Area impacted	Credits required
<i>PCT 781 (SR 536) Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Freshwater Wetlands on Coastal Floodplains - Endangered</i>	7.20 ha	293
<i>PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	1.12 ha	35
<i>PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Swamp Oak Floodplain Forest - Endangered</i>	0.55 ha	19
<i>PCT 1245 (SR652) Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion</i>	<i>Not listed</i>	0.96 ha	19
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	6.76 ha	338
<i>Total ecosystem credit</i>			704

2.1.2 Species credit requirement

The project impact on species credits threatened species was limited to one threatened flora species being the endangered population of *Chorizema parviflorum* (Eastern Flame Pea). A summary of the extent of impact on this species by the project and the subsequent BBAM species credit offsets required are provided in Table 2.2.

Table 2.2 Summary of threatened species to be impacted and BBAM species credits required to offset impacts

Species credit	Threatened status	No. of individuals impacted	Credits required
<i>Chorizema parviflorum</i> (Eastern Flame Pea)	Endangered population	110	1725
Total species credits			1725

2.2 Updated offset requirement based on final vegetation clearing calculations

Current impact areas and therefore credit requirements are based on predicted clearing and are conservative. Given that vegetation clearing for the project is now finalised, the impacts on biodiversity has been reassessed to reflect actual area cleared. Reductions in approved clearing limits have been achievable particularly for the threatened ecological communities Freshwater Wetlands on Coastal Floodplains and Illawarra Lowlands Grassy Woodland - Endangered. This reduction in vegetation clearing is consistent with the Revised Environmental Management Measure (BD02) from the Submission and Preferred Infrastructure Report.

Updated area impacts were forwarded to the NSW Biodiversity Conservation Division (BCD) where revised BBAM credit calculations were undertaken. A summary of the updated biodiversity credit offset obligation for the project is presented in Table 2.3 with consultation documented in Appendix E.

Table 2.3 Summary of updated vegetation to be impacted and BBAM ecosystem credits required to offset impacts

Ecosystem credit	Threatened ecological community	Previous area impacted	Previous credits required	Updated area impact	Updated credit required
PCT 781 (SR 536) Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion	Freshwater Wetlands on Coastal Floodplains - Endangered	7.20 ha	293	5.65 ha	230
PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion	Illawarra Lowlands Grassy Woodland - Endangered	1.12 ha	35	1.12 ha	35
PCT 1232 (SR649) Swamp Oak floodplain swamp forest,	Swamp Oak Floodplain	0.55 ha	19	0.07 ha	18

Ecosystem credit	Threatened ecological community	Previous area impacted	Previous credits required	Updated area impact	Updated credit required
<i>Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Forest - Endangered</i>				
<i>PCT 1245 (SR652) Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion</i>	<i>Not listed</i>	<i>0.96 ha</i>	<i>19</i>	<i>0.96 ha</i>	<i>19</i>
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	<i>6.76 ha</i>	<i>338</i>	<i>4.07 ha</i>	<i>204</i>
<i>Total ecosystem credit</i>			<i>704</i>		<i>506</i>

2.3 Application of reasonable equivalency

Application for reasonable equivalency has been issued for the project (Appendix F) to account for legislative changes that have resulted in different methods for calculating biodiversity offset credits. The requirement for existing approved projects to seek reasonable equivalency is outlined in the Biodiversity Conservation (Savings and Transitional) Regulation 2017. The outcome of reasonable equivalency as issued by the Department of Planning Industry and Environment (DPIE) dated 19 May 2021 for ecosystem credits is presented in Table 2.4 with species credits presented in Table 2.5.

Table 2.4 Reasonable equivalency comparison for ecosystem credits

Ecosystem credit	Area (ha)	BBAM credits	BAM credits if paying into fund ¹	BAM credits if using BSA sites ²
<i>PCT 781 Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>5.65</i>	<i>230</i>	<i>163</i>	<i>37</i>
<i>PCT 838 Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	<i>1.12</i>	<i>35</i>	<i>35</i>	<i>33</i>
<i>PCT 1232 Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>0.07</i>	<i>18</i>	<i>9</i>	<i>15</i>
<i>PCT 1245 (SR652) Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion</i>	<i>0.96</i>	<i>19</i>	<i>19</i>	<i>10</i>
<i>PCT 1326 Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>4.07</i>	<i>204</i>	<i>149</i>	<i>128</i>

Ecosystem credit	Area (ha)	BBAM credits	BAM credits if paying into fund ¹	BAM credits if using BSA sites ²
<i>Total ecosystem credits</i>			375	223

[1]Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites established by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

[2]BAM credit obligation if using retiring of credits from Biodiversity Stewardship sites established by the applicant.

Table 2.5 Reasonable equivalency comparison for species credits

Ecosystem credit	Impact	BBAM credits	BAM credits if paying into fund ¹	BAM credits if using BSA sites ²
<i>Chorizema parviflorum Benth. in the Wollongong and Shellharbour Local Government Areas</i>	<i>110 individuals</i>	<i>1725</i>	<i>230</i>	<i>144</i>
<i>Total species credits</i>			<i>230</i>	<i>144</i>

[1]Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites established by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

[2]BAM credit obligation if using retiring of credits from Biodiversity Stewardship sites established by the applicant.

3 Identification of biodiversity offsets

3.1 Biodiversity offset strategy

The project approved Biodiversity Offset Strategy (NGH Environmental 2017b) presented an offset options analysis on 23 potential offset sites in the project locality. These sites were investigated for their potential to provide like-for-like biodiversity offsets for the project.

In determining final site selection for the Biodiversity Offset Package, the preferred Biodiversity Offset Strategy sites were further assessed. These were:

- Site 1 – Shellharbour City Council (Croom Reserve)
- Site 3 – Shellharbour City Council (Light Rail)
- Site 8 – TransGrid
- Sites 12,13,14 – Private landholder
- Site 22 – Shellharbour City Council (Dunmore Wetland)
- Site 23 – Yallah TAFE

Extensive landholder consultation was undertaken for all preferred sites that resulted in identifying that landholders of Sites 3, 8, 12, 13, 14 and 23 were not interested in proceeding further with biodiversity offset establishment negotiations. It should be noted that site 23 was previously included as a potential biodiversity offset site and in-principle agreement was signed between Transport for NSW and TAFE NSW (dated 15 March 2018). Whilst an in-principle agreement was established for this site TAFE NSW has recently terminated any further commitment for this site and as such it has been removed from the Biodiversity Offset Package.

Landholder agreement to proceed with potential offset sites at Sites 1 and 22 have been established (refer Appendix C) and detailed field surveys in accordance with BAM were undertaken. A Biodiversity Stewardship Site Assessment Report (BSSAR), management action plan and detailed Total Fund Deposit (TFD) costing has been completed for each site.

The establishment of biodiversity credits through the creation of Biodiversity Stewardship Agreements will only partially meet the required project biodiversity offset obligation. To ensure this Biodiversity Offset Package meets the full quantum of required biodiversity offset credits, TfNSW will commit to payment into the Biodiversity Trust Fund for any credit shortfall outside the locally secured Biodiversity Stewardship Agreements.

3.2 Establishment of biodiversity stewardship agreements

Biodiversity Stewardship Site Assessment Reports have been prepared and will be lodged with the Biodiversity Conservation Trust for two selected sites that will partially deliver the required biodiversity offsets for the project. These sites are:

- Site 1 – Croom Reserve (Shellharbour City Council)
- Site 22 – Dunmore Wetland (Shellharbour City Council)

Each site has been selected based on the presence of PCT 781 (SR536), PCT 838 (SR545), PCT 1232 (649), PCT 1326 (SR669) and *Chorizema parviflorum* (Eastern Flame Pea) that form part of the biodiversity offset requirement for the project.

The proposed offset areas will be protected by a Biodiversity Stewardship Agreement in accordance with the BC Act that will place legal restrictions on the future use and management of the land that would exist within the land title in perpetuity. This will ensure

that the offsets are enduring and that they will offset the impact of the development in perpetuity.

A 20% reduction for ecosystem credits and species credits for a biodiversity stewardship site on Local Government land has been applied. This credit reduction has been applied to community and operation land classified under the *Local Government Act 1993* and will include Site 1 (Croom Reserve) and Site 22 (Dunmore Wetland).

An overview of each proposed biodiversity stewardship site is presented below. BAM credit calculations were carried out on the using the BAM Calculator Version 38.

3.2.1 Site 1 – Croom Reserve

Croom Reserve is located directly adjacent to the project and occurs to the south of Tongarra Road and south west of Croome Road, Croom (Figure 3.1). It covers an area of about 68 ha of which 27.8 ha is included in the proposed biodiversity offset site.

Croom Reserve was identified as Site 1 within the project approved Biodiversity Offset Strategy (NGH Environmental 2017b). The reserve includes areas of remnant native vegetation that form part of the Endangered Ecological Community Illawarra Lowlands Grassy Woodland as providing habitat for *Chorizema parviflorum* (Eastern Flame Pea) Endangered population.

A summary of native vegetation types, extent and credit yield within the site calculated using BAM is provided in Table 3.1.

Threatened species and associated credit yield within the site calculated using BAM is provided in Table 3.2. The BAM-C biodiversity credit report is provided in Appendix A.

Table 3.1 Ecosystem credits generated on Croom Reserve (Site 1) using BAM

Ecosystem credit	Threatened ecological community	Area (ha)	BAM credits
<i>PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	2.2	8
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	25.6	59
<i>Total ecosystem credit</i>			67

Table 3.2 Species credits generated on Croom Reserve (Site 1) using BAM

Species credit	Threatened status	Count	BAM credits
<i>Chorizema parviflorum</i> (Eastern Flame Pea)	<i>Endangered population</i>	133 individuals	110
<i>Total species credits</i>			110



3.2.2 Site 22 – Dunmore Wetland

Dunmore Wetland is located within Minnamurra River catchment and is surrounded by Links Golf Course, approximately 5 km to the south east of the project (Figure 3.2).

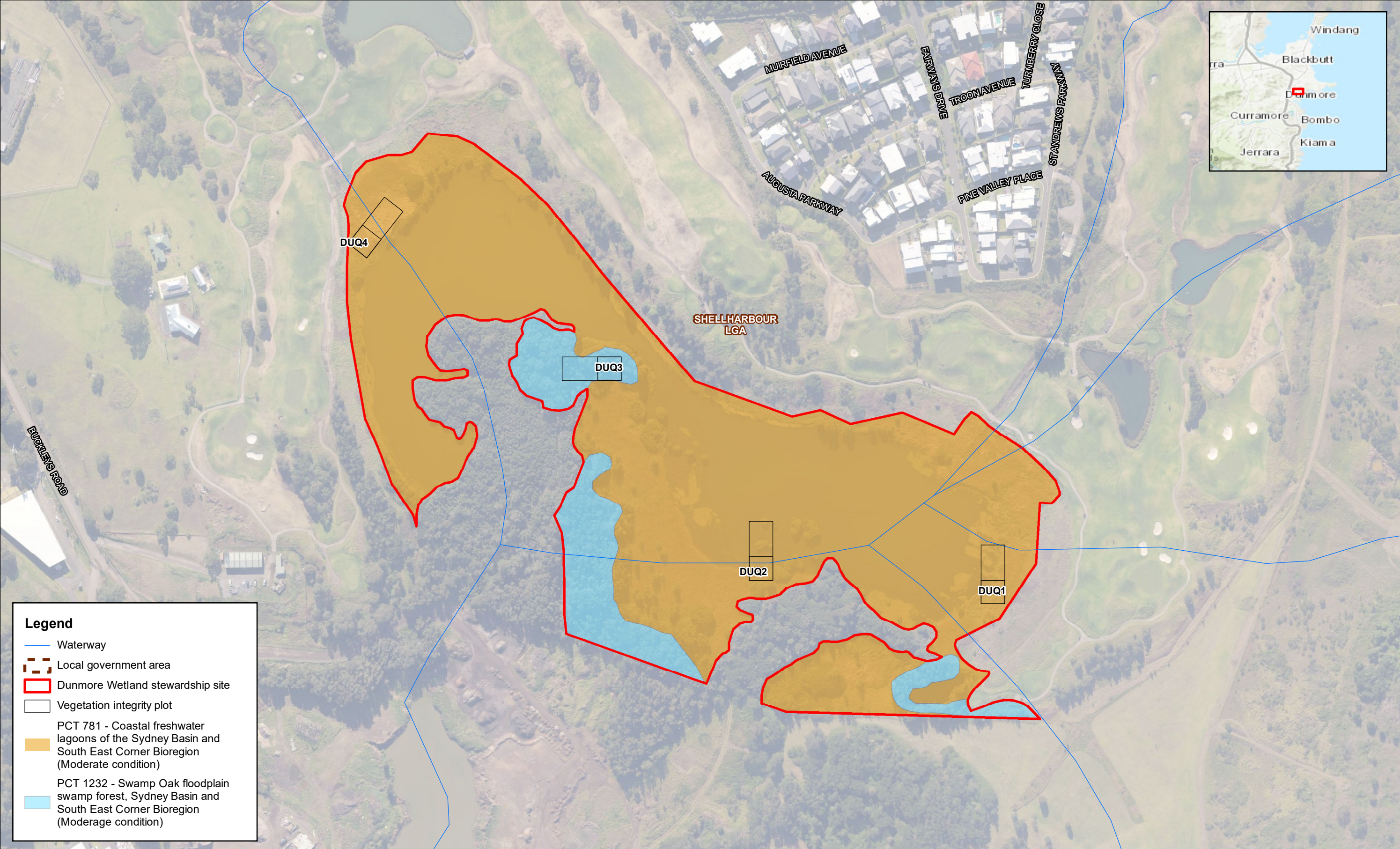
Dunmore Wetland was one of the wetland sites identified by NGH Environmental as Site 22 within the project approved Biodiversity Offset Strategy (NGH 2017). Dunmore Wetland is listed under State Environmental Planning Policy No. 14 Coastal Wetlands (SEPP 14). Vegetation consists of freshwater wetland and forested wetland which forms part of two Endangered ecological communities:

- Freshwater Wetlands on Coastal Floodplains
- Swamp Oak Floodplain Forest.

No threatened species were identified. A summary of native vegetation types, extent and credit yield within the site calculated using BAM is provided in Table 3.3. The BAM-C biodiversity credit report is provided in Appendix B.

Table 3.3 Ecosystem credits generated on Dunmore Wetlands (Site 22) using BAM

Ecosystem credit	Threatened ecological community	Area	BAM credits
<i>PCT 781 (SR536) Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Freshwater Wetlands on Coastal Floodplains – Endangered</i>	<i>11.22</i>	<i>52</i>
<i>PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Swamp Oak Floodplain Forest - Endangered</i>	<i>1.52</i>	<i>1</i>
<i>Total ecosystem credit</i>			<i>53</i>



Croom Reserve and Dunmore Wetland Biodiversity Stewardship Site Assessment Report

Figure 3.2



3.3 Summary

A summary of the BAM credits generated for the Biodiversity Stewardship Sites is presented in Table 3.4. A summary of residual ecosystem and species credit obligation is presented in Table 3.5 and Table 3.6.

Table 3.4 Summary of BAM generated on proposed Biodiversity Stewardship Sites

Biodiversity credit	Threatened Entity	Site	Area (Ha) / Individuals	BAM credits
<i>PCT 781 (SR536) Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Freshwater Wetlands on Coastal Floodplains – Endangered ecological community</i>	<i>Dunmore Wetland</i>	<i>11.22</i>	<i>52</i>
<i>PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland – Endangered ecological community</i>	<i>Croom Reserve</i>	<i>2.2</i>	<i>8</i>
<i>PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Swamp Oak Floodplain Forest – Endangered ecological community</i>	<i>Dunmore Wetland</i>	<i>1.52</i>	<i>1</i>
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland – Endangered ecological community</i>	<i>Croom Reserve</i>	<i>25.6</i>	<i>59</i>
<i>Total of all ecosystem credits generated on Biodiversity Stewardship Sites</i>			<i>40.52</i>	<i>120</i>
<i>Chorizema parviflorum (Eastern Flame Pea)</i>	<i>Endangered population</i>	<i>Croom Reserve</i>	<i>133 individuals</i>	<i>110</i>
<i>Total of all species credits generated on Biodiversity Stewardship Sites</i>			<i>133 individuals</i>	<i>110</i>

Table 3.5 Summary of BAM ecosystem credits required against BAM ecosystem credits generated at BSA sites and residual credit obligation

Ecosystem credit	Threatened ecological community	BAM credits if paying into fund ¹	BAM credits if using BSA sites ²	BAM credits generated from BSA sites	Proportion of the credit obligation from BSA sites	Proportion of residual credit obligation required	Residual credit obligation
<i>PCT 781 (SR 536) Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Freshwater Wetlands on Coastal Floodplains - Endangered</i>	163	37	52	100%	0	0
<i>PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	35	33	8	24%	76% of 35	27
<i>PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Swamp Oak Floodplain Forest - Endangered</i>	9	15	1	7%	93% of 9	8
<i>PCT 1245 (SR652) Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion</i>	<i>Not listed</i>	19	10	0	0%	0	19
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>Illawarra Lowlands Grassy Woodland - Endangered</i>	149	128	59	46%	54% of 149	80
<i>Total ecosystem credit</i>		375	223	120	<i>n/a</i>	<i>n/a</i>	134

[1]Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites established by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For

example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

[2]BAM credit obligation if using retiring of credits from Biodiversity Stewardship sites established by the applicant.

Table 3.6 Summary of BAM species credits required against BAM species credits generated at BSA sites and residual credit obligation

Species credit	Threatened status	BAM credits if paying into fund ¹	BAM credits if using BSA sites ²	BAM credits generated from BSA sites	Proportion of the credit obligation from BSA sites	Proportion of residual credit obligation required	Residual credit obligation
<i>Chorizema parviflorum</i> (Eastern Flame Pea)	<i>Endangered population</i>	230	144	110	76%	24% of 230 credits	55
<i>Total species credits</i>		230	144	110	n/a		55

[1]Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites established by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

[2]BAM credit obligation if using retiring of credits from Biodiversity Stewardship sites established by the applicant.

3.4 Use of existing biodiversity credits

3.4.1 Ecosystem credits

No existing ecosystem biodiversity credits are relied upon in preparing this BOP.

3.4.2 Species credits

The establishment of one Biodiversity Stewardship Agreement over an existing population of *Chorizema parviflorum* (Eastern Flame Pea) is the preferred method to offset species credit obligations. A total of 55 BAM *Chorizema parviflorum* (Eastern Flame Pea) species credits are residual.

A search of the Biodiversity Offset Credit Supply register on the 31/05/2021 revealed that there are currently no species credits available for *Chorizema parviflorum* (Eastern Flame Pea).

TfNSW currently own species credits for *Zieria granulata* (Illawarra Zieria) established on a BioBanking Site near Broughton Village, NSW as part of the Princess Highway - Foxground to Berry Bypass Project Biodiversity Offset Package (Table 3.7).

The proposed retirement of existing credits for *Zieria granulata* (Illawarra Zieria) is assessed through both FBA trading rules (in accordance with E13 of the CoA) and the NSW variation offset rules outlined in clause 6.4 of the *Biodiversity Conservation Regulation 2017* below and is considered appropriate under both sets of legislation.

Table 3.7 *Chorizema parviflorum* and *Zieria granulata* conservation status and BAM credits

Scientific name	Common name	BC Act	BAM equivalent credits
<i>Zieria granulata</i>	Illawarra Zieria	Endangered	55

FBA Trading rules

Section 10.5.7 of the FBA outlines the variations of the offset rules and supplementary measures for species credits. This section outlined that the consent authority may approve a variation of the offset rules by allowing a different species to that impacted to be used to meet offset requirements provided the following rules are met:

(a) the proponent can demonstrate that all reasonable steps have been taken to secure the number and types of species credits impacted on at the development site, and

The establishment of two Biodiversity Stewardship Agreements over existing populations of *Chorizema parviflorum* (Eastern Flame Pea) are proposed as the preferred method to offset species credit obligations. A total of 55 *Chorizema parviflorum* (Eastern Flame Pea) species credits are residual.

A search of the Biodiversity Offset Credit Supply register on the 31/05/2021 revealed that there are currently no species credits available for *Chorizema parviflorum* (Eastern Flame Pea).

As such, residual credits are subject to FBA trading rules. TfNSW currently own 3536 BBAM *Zieria granulata* (Illawarra Zieria) established on a Biobanking Site near Broughton Village, NSW. The use of existing *Zieria granulata* (Illawarra Zieria) species credits to meet residual offset requirements for *Chorizema parviflorum* (Eastern Flame Pea) is proposed. These

species credits will constitute BAM equivalent credits and be retired with a BAM equivalent statement.

(b) the species to which the species credit relates is not listed on the EPBC Act or listed as critically endangered on the BC Act.

Chorizema parviflorum (Eastern Flame Pea) is not listed under the EPBC Act or listed as Critically Endangered under the BC Act.

(c) the alternative species credits are created on land within the same IBRA region in which the proposed Major Project occurs

The *Chorizema parviflorum* (Eastern Flame Pea) impacted by the project and the *Zieria granulata* (Illawarra Zieria) individuals proposed for offsetting are both within the Sydney Basin IBRA region.

(d) the alternative species is, according to the Threatened Species Profile Database, from the same life-form as the flora species impacted at the development site. In addition, the PCT containing the flora species at the offset site should preferably be the same PCT within which this species was located at the development site, and

Chorizema parviflorum (Eastern Flame Pea) and *Zieria granulata* (Illawarra Zieria) are the same life-form, a shrub, and are associated with PCT 1326 and PCT 838.

(e) the alternative species credits are for a species or population listed in either Schedule 1 or 1A of the TSC Act, where the species credit required for the proposed development relates to a species or population listed in Schedule 1 of the TSC Act.

Chorizema parviflorum (Eastern Flame Pea) and *Zieria granulata* (Illawarra Zieria) are listed as Endangered under the BC Act.

3.5 Payment into the Biodiversity Conservation Fund

Residual ecosystem credit requirements are proposed to be retired through the payment into the Biodiversity Conservation Fund in accordance with the NSW Biodiversity Offsets Policy for Major Projects (Office of Environment and Heritage, 2014). The residual ecosystem credit obligation is based on the reasonable equivalency issued for the project that has determined a proportional ratio BAM credits based on use of BSA sites for the offsets. A summary of residual ecosystem credits is outlined in Table 3.8.

Table 3.8 Residual BAM ecosystem credits required by the project

Offset entity	Trading Group	Project residual ecosystem credit obligations
<i>PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	<i>TEC - Illawarra Lowlands Grassy Woodland - Endangered</i>	27
<i>PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	<i>TEC - Swamp Oak Floodplain Forest - Endangered</i>	8
<i>PCT 1245 (SR652) Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion</i>	<i>Not TEC - North Coast wet sclerophyll forests with a percent cleared value <50%</i>	19

Offset entity	Trading Group	Project residual ecosystem credit obligations
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion (Illawarra Lowlands Grassy Woodland EEC)</i>	<i>TEC - Illawarra Lowlands Grassy Woodland - Endangered</i>	80
<i>Total residual ecosystem credit obligations</i>		134

4 Consistency with Biodiversity Offset policy

The Albion Park Rail Bypass (APRB) conditions of approval state in E11 that the proponent must offset impacts to the Plant Community Types and Endangered Population specified in the Albion Park Rail, Biodiversity Addendum (NGH Environmental, 2017a), in accordance with the requirements of the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014), the Framework for Biodiversity Assessment 2014, or as otherwise agreed by the Secretary in consultation with OEH.

4.1 NSW Biodiversity Offsets Policy for Major Projects

The NSW Biodiversity Offsets Policy for Major Projects consistency with the revised Biodiversity Offset Package is addressed in this section. Each of the six principles which underpins the offset policy and how it is consistent with the Biodiversity Offset Package is addressed below.

4.1.1 Principle 1: Before offsets are considered, impacts must first be avoided and unavoidable impacts minimised through mitigation measures. Only then should offsets be considered for the remaining impacts.

As outlined in 9.3 of the EIS (RMS, 2015) the project has followed the avoidance of impacts through the detailed design where impact to two populations of *Chorizema parviflorum* (Eastern Flame Pea), Illawarra Lowland Grassy Woodland EEC and Macquarie Rivulet floodplain was avoided. Impacts to native vegetation was not able to be avoided entirely. Mitigation measures provided in section 9.5 of the EIS have resulted in a reduction of project impact area.

4.1.2 Principle 2: Offset requirements should be based on a reliable and transparent assessment of losses and gains

A key component of the Biodiversity Offset Package for the project is the establishment of a Biodiversity Stewardship Agreements over two sites owned and managed by Shellharbour City Council. Biodiversity across these offset sites has been quantified using the BAM. This method is considered reliable and transparent.

The proposed Biodiversity Offset Package uses BAM credits to quantify losses by the project and gains on the offset sites. This approach is considered appropriate to provide a reliable and transparent assessment of losses and gains.

The Biodiversity Offset Package involves the following:

- The establishment of a Biodiversity Stewardship Agreements on Croom Reserve, and Dunmore Wetland would provide:
 - like for like offsets for ecosystem credit obligations
 - like for like offsets for species credits obligations through *Chorizema parviflorum* (Eastern Flame Pea)
- Retirement of existing *Zieria granulata* (Illawarra Zieria) credits using trading rules for *Chorizema parviflorum* (Eastern Flame Pea) species credits consistent with both FBA and *Biodiversity Conservation Regulation 2017*.
- Retirement of ecosystem credits unable to be met through BSAs using the Biodiversity Conservation Trust (BCT)

The ecosystem credit offset obligations unable to be met through the establishment of BSAs include:

- 27 BAM credits for PCT 838 Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion
- 8 BAM credits for PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion
- 19 BAM credits for PCT 1245 Sydney Blue Gum x Bangalay - Lilly Pilly moist forest
- 80 BAM credits for PCT 1326 Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion

4.1.3 Principle 3: Offsets must be targeted to the biodiversity values being lost or to higher conservation priorities.

A key component of the Biodiversity Offset Package is the generation of like for like credits across two potential BSAs: Croom Reserve and Dunmore Wetland. The PCTs recorded across these sites correspond to those impacted by the project and have been detailed in Table 5.1.

The land-based biodiversity offsets required to compensate for the project's residual impacts were chosen based on the biodiversity values being equal or higher to those impacted. As such, the offsets are targeted to the biodiversity values being lost.

Land based offsets will account for 54% of all required ecosystem credits and 76% of species credits under BAM.

4.1.4 Principle 4: Offsets must be additional to other legal requirements.

The current planning controls for the project biodiversity offset sites have been investigated. The assessment of offsets and credits created by the offset sites will be subject to additionality for Council owned and managed land. This will apply to community and operation land classified under the *Local Government Act 1993* and will include a 20% credit reduction for Site 1 (Croom Reserve) and Site 22 (Dunmore Wetland). This credit reduction has been factored into all BAM-C calculations within the Biodiversity Offset Package.

4.1.5 Principle 5: Offsets must be enduring, enforceable and auditable

The proposed offset areas will be protected by a Biodiversity Stewardship Agreement that will place legal restrictions on the future use and management of the land that would exist within the title for the land in perpetuity. This will ensure that the offsets are enduring and that they will offset the impact of the development in perpetuity.

TfNSW is proposing to establish Biodiversity Stewardship Agreements over two sites as the preferred method of providing enduring, enforceable and auditable conservation areas administered under the BC Act.

4.1.6 Principle 6: Supplementary measures can be used in lieu of offsets.

Part of the proposed offset strategy involves a direct offset approach by combining the long-term protection of two sites and ongoing management of the sites for conservation including restoration, rehabilitation and re-establishment of the degraded habitats. This approach is a major component of the Biodiversity Offset Package.

TfNSW will make payment into the Biodiversity Conservation Fund for those ecosystem credits unable to be secured through land based offsets. Residual species credits will be

secured through the retirement of existing credits for *Zieria granulata* (Illawarra Zieria), this approach is consistent with both FBA and *Biodiversity Conservation Regulation 2017* trading rules.

4.2 Consultation with Environment Energy & Science Group (former OEH)

Consultation between Environment, Energy and Science (EES) Group, formerly known as Office of Environment and Heritage (OEH), WSP and TfNSW occurred several times during the development of the BOP via emails, phone calls and face to face meetings.

Meetings were held:

- 1 May 2017 1:00pm-2:00pm, 90 Crown Street Wollongong, NSW
- 13 May 2020 2pm-3.10pm, Microsoft Teams Meeting (online forum)
- 16 June 2020 10.30-11.30am, Microsoft Teams Meeting (online forum)

A summary of key issues raised during consultation with EES is provided in Table 4.1 with meeting minutes provided in Appendix D with ongoing email consultation presented in Appendix E.

Table 4.1 A summary of consultation with Environment Energy & Science Group (former OEH)

Date of consultation	Key issue raised	Comment
1 May 2017 1:00pm-2:00pm, 90 Crown Street Wollongong, NSW	Information update on biodiversity offset credit obligation due to revisions.	Information noted.
	Suitability of existing credits for Freshwater Wetland TEC in the Batemans IBRA sub-region.	OEH confirmed the existing credits for Freshwater Wetland TEC in the Batemans IBRA sub-region are unsuitable for the project due to a difference threatened species profile associated with the credits (email dated 22 August 2017). Credits not further pursued.
	Proposed BioBanking sites to include Shellharbour City Council reserves and Yallah TAFE	OEH confirmed Shellharbour City Council and Yallah TAFE sites are suitable locally based offsets that would provide a positive like for like biodiversity outcome in the local area. TfNSW to pursue establishment of BioBanking sites.
	Possible PCT 1326 Woollybutt offsets on BlueScope Steel land.	Discussions held with BlueScope Steel although credits not available for sale. Credits not further pursued.
13 May 2020 Microsoft Teams Meeting, 2.00 – 3.30pm	Background of offset process for the Project. • Commenced in 2014, biodiversity offset strategy developed and numerous sites investigated (22 sites, run many through	Information noted.

Date of consultation	Key issue raised	Comment
	<i>BBAM calculator, Croom Site 1, Dunmore Site 22) submit with EIS October 2015</i> <i>• Negotiation with many offset landholders 2016 – 17 including trying to secure TransGrid who rejected offer</i> <i>• Updated Biodiversity Offset Strategy (BOS), identified additional Yallah TAFE Site 23 submitted for approval September 2017</i> <i>• Project approved Jan 2018</i> <i>• Reasonable Equivalence application June 2018</i> <i>• Final equivalence (1:1 for all ecosystem credits) Dec 2019</i> <i>• SCC have gone through an extensive process to get agreement for offset sites at Croom and Dunmore including a vote from a Council meeting</i>	
	<i>Approach to offset sites</i> <i>• Project has biodiversity offset sites that are good conservation outcome (Croom and Dunmore) which would preserve some of the last remaining stands of CEEC vegetation in the local region which is the preference to any alternative offset methods</i> <i>• These offset sites were identified in Biodiversity Offset Strategy (BOS) that was part of the approval, and accounted for a substantial portion of the offset requirements.</i> <i>• Credit generation has been substantially reduced from BBAM methodology to BAM methodology, based on credit generation these sites are not viable offset sites when accounting for the Reasonable Equivalence of 1:1.</i> <i>• TfNSW believe that the offset liability should not be changed after the approval and should be consistent with the BOS and planning conditions.</i> <i>• TfNSW believe that the offset package meets the conditions in accordance with the Major Projects Offset Policy (listed in CoA E13).</i> <i>• EES stated that the Reasonable Equivalence could be reassessed based on current knowledge</i> <i>• EES stated that the BBAM calculator is not available for use</i> <i>• EES were unsure that the BBAM methodology could be used as a valid</i>	<i>Action – TfNSW to look at whether the BBAM calculator is still available for use.</i> <i>Outcome – BBAM calculator is available and all proposed offset sites have been subject to BBAM calculations dated 28 May 2020.</i> <i>Action – EES to review if an alternative approach can be utilised for offset other than BAM.</i> <i>Outcome – EES to provide further advice.</i> <i>EES supportive of Shellharbour City Council sites and Yallah TAFE and recognise that they are suitable locally based offsets that would provide a positive like for like biodiversity outcome in the local area.</i>

Date of consultation	Key issue raised	Comment
	<i>approach as the Reasonable Equivalence is being applied for conversion of credits, but would review if an alternate approach is available.</i>	
	<i>Chorizema species credits using Zieria granulata</i> <i>TfNSW propose to use credits generated by the existing offset sites for Chorizema Species Credits</i> <i>Remaining credits required would utilise alternative BBAM credits utilising the trading rules that were generated for Zieria granulata that were generated from another project.</i>	<i>EES supportive of this approach.</i>
	<i>Remaining credit requirements</i> <i>Utilise the BCT fund for the remaining credit requirements using reasonable equivalence</i>	<i>EES supportive of this approach.</i>
	<i>Actual impacts recalculated as clearing in accordance with Submission and Preferred Infrastructure Report (BD02)</i> <i>Impact will be reassessed based on the actual clearing impacts as some vegetation has been protected from impact during the detailed design and construction</i>	<i>EES supportive of vegetation clearing reduction particularly Freshwater Wetland TEC.</i>
16 June 2020	<i>Discussion was held around the final BOP and method for quantifying the offset sites accordance with conditions of approval and the NSW Biodiversity Offsets Policy for Major Projects.</i>	<i>TfNSW proposed to quantify offset sites using BBAM in accordance with conditions of approval and the NSW Biodiversity Offsets Policy for Major Projects.</i> <i>EES indicated that they would consider further the potential to use BBAM give the calculator is still available.</i>
22 June 2020	<i>Biodiversity and Conservation Division of ESS provided a letter with comment on the Biodiversity Offset Package, which included:</i> <i>ESS are supportive that the BOP meets the general intent of the offset requirements set out in the relevant conditions of approval.</i> <i>EES would like to review the reduction in credit obligation based on the reduced clearing that occurred as part of the project.</i> <i>EES have sought to carry out field survey to confirm presence of Zieria granulata</i>	<i>TfNSW acknowledges the support from EES on the intent of the package.</i> <i>TfNSW will further consult with EES once the final clearing has been quantified in regards to the final credit obligation.</i> <i>Zieria granulata credits are currently held by TfNSW and would be utilised under the trading rules.</i> <i>EES have inspected the BioBank site with Zieria granulata (pers comm. Peter Hawkins TfNSW inspected the</i>

Date of consultation	Key issue raised	Comment
	ESS are assessing suitability of using BBAM credits as opposed to BAM credits	site with EES representative Vanessa Allen). TfNSW believe that the biodiversity offset package as described meets the conditions of approval for the project.
2 February 2021	Email correspondence: Updated BBAM credit obligation issued by Biodiversity and Conservation Division of EES issued for revised final vegetation clearing impact area.	BioBanking calculations rerun by John Seidel of Biodiversity and Conservation Division of EES
19 May 2021	Email correspondence: Updated statement of reasonable equivalence issued for the project.	Final updated statement of reasonable equivalence incorporated into the BOP

5 Statement of commitments

The following statement of commitments by TfNSW is made to ensure full compliance with conditions of approval (SSI 6678) E11 to E15.

- TfNSW will establish two Biodiversity Stewardship Sites.
- TfNSW have a Council resolution to establish a Biodiversity Stewardship Site with Shellharbour City Council (see Appendix C).
- TfNSW will purchase and retire all ecosystem credits generated from the Biodiversity Stewardship Sites as outlined in Table 3.4 or as modified by the BCT.
- TfNSW will purchase and retire all species credits generated from the Biodiversity Stewardship Sites as outlined in Table 3.4 or as modified by the BCT.
- TfNSW will retire the remaining credit requirement for *Chorizema parviflorum* (Eastern Flame Pea) with *Zieria granulata* (Illawarra Zieria) species credits held by TfNSW.
- TfNSW will facilitate a payment into the NSW Biodiversity Conservation Fund to meet residual credit obligation for ecosystem credits utilising the reasonable equivalence obtained for the project.
- Should the Biodiversity Stewardship Sites not be established, TfNSW would facilitate a payment into the NSW Biodiversity Conservation Fund for the required biodiversity offset obligation utilising the reasonable equivalence obtained for the project.

It should be noted that in accordance with the conditions of approval (E15) all required offsets must be secured within 12 months of the approval of the Biodiversity Offset Package. The Biodiversity and Conservation Division has stated that the Biodiversity Offset Package meets the general intent of the offsetting requirements set out on the condition of approval (SSI 6678) (refer to Appendix E). A summary of the Biodiversity Offset Package commitments by TfNSW is outlined in Table 5.1.

Table 5.1 A summary of the Biodiversity Offset Package commitments

Vegetation type	Updated impact area (ha)	Trading Group	BAM credits if paying into fund ¹	BAM credits if using BSA sites ²	BAM credits generated from BSA sites	Proportion of the credit obligation from BSA sites	Residual credit obligation from Biodiversity Conservation Fund
<i>PCT 781 (SR536) Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion</i>	5.65	<i>Freshwater Wetlands on Coastal Floodplains (EEC)</i>	163	37	52	100%	0
<i>PCT 838 (SR 545) Forest Red Gum – Thin-leaved Stringybark grassy woodland southern Sydney Basin Bioregion</i>	1.12	<i>Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (Commonwealth CEEC)</i>	35	33	8	24%	27
<i>PCT 1232 (SR649) Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion</i>	0.07	<i>River Flat Eucalypt Forest on Coastal Floodplains (EEC)</i>	9	15	1	7%	8
<i>PCT 1245 (SR652) Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion</i>	0.96	<i>North Coast wet sclerophyll forests with a percent cleared value <50%</i>	19	10	0	0%	19
<i>PCT 1326 (SR 669) Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion</i>	4.07	<i>Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (Commonwealth CEEC)</i>	149	128	59	46%	80
<i>Chorizema parviflorum (Eastern lame Pea) Endangered Population</i>	-	<i>Endangered flora species</i>	230	144	110	76% (+55 BAM) ¹	0

[1] A residual credit obligation of 55 BAM species credits for *Chorizema parviflorum* (Eastern lame Pea) will be sourced using 55 BAM equivalent species credits of *Zieria granulata* (Illawarra Zieria) held by TfNSW. This trade meets FBA variation trading rules for species credit species.

6 Conclusion

This Biodiversity Offset Package demonstrates how TfNSW will deliver the biodiversity offset obligations for the approved Albion Park Rail Bypass project (SSI 6678).

The package adequately meets the requirements of conditions of approval E11 to E15 and has been prepared in accordance with the NSW Biodiversity Offsets Policy for Major Projects and in consultation with Environment, Energy and Science (EES) Group (formerly known as Office of Environment and Heritage).

Biodiversity offsets will be delivered through three primary sources being:

- Local land based offsets through the establishment of two Biodiversity Stewardship Agreements
- The retirement of existing biodiversity credits
- Payment into the NSW Biodiversity Conservation Fund

One of the key fundamentals underpinning this Biodiversity Offset Package is the in-perpetuity security of tenure and funded management actions for two Biodiversity Stewardship Sites; Croom Reserve and Dunmore Wetland.

Croom Reserve contains some of the largest remaining remnants of the Endangered ecological community listed as Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion. This site also provides security of tenure and in-perpetuity management for an Endangered population of *Chorizema parviflorum* (Eastern Flame Pea).

Dunmore Wetland contains two Endangered ecological communities listed as Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions and Swamp Oak Floodplain Forest and Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and South East Corner bioregions.

The inclusion of significant local conservation outcomes for land based offsets within the package has been quantified using BAM. The Biodiversity and Conservation Division of the EES Group has stated that the Biodiversity Offset Package meets the general intent of the offsetting requirements set out on the condition of approval (SSI 6678).

To ensure compliance of conditions of approval are completely met, if the Biodiversity Stewardship Sites are unable to be established due to circumstances beyond TfNSW control, a commitment to facilitate a payment into the NSW Biodiversity Conservation Fund for the full biodiversity offset obligation is made.

7 References

Department of Planning, Industry and Environment (19 May 2021) Statement of assessment of reasonable equivalence, Albion Park Rail Bypass SSI 6878, authorised by Michelle Chung Watson

NGH Environmental (2015). Biodiversity Assessment Report (Technical Paper 4), Albion Park Rail Bypass Report prepared for RMS, on behalf of the Hyder and Cardno Joint Venture, September 2017.

NGH Environmental (2017a). Biodiversity Addendum, Albion Park Rail Bypass Report prepared for RMS, on behalf of the Hyder and Cardno Joint Venture, December 2017.

NGH Environmental (2017b). Biodiversity Offset Strategy, Albion Park Rail Bypass Report prepared for RMS, on behalf of the Hyder and Cardno Joint Venture, March 2017.

NSW Government Planning and Environment (2018) Infrastructure Approval. Application number SSI 6878 issued on the 20th January 2018

Office of Environment and Heritage (2014). Biobanking Assessment Methodology (BBAM) 2014. Office of Environment and Heritage (NSW Government), Sydney.

Office of Environment and Heritage (2014) NSW Biodiversity Offsets Policy for Major Projects, available:

<https://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf>

Office of Environment and Heritage (2020) Biodiversity Assessment Method, available:

<https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method>

Roads and Maritime (2017) Preliminary Documentation Assessment, Albion Park Rail Bypass Report prepared for RMS, on behalf of the Hyder and Cardno Joint Venture, December 2017.

WSP (2020) Draft Biodiversity Stewardship Site Assessment Report: Croom Reserve and Dunmore Wetland, Revision C, prepared for Shellharbour City Council

WSP (2019) Albion Park Rail Bypass Project EPBC Act Biodiversity Offset Package, prepared for Roads and Maritime Services

WSP (2018) Albion Park Rail Bypass - Biodiversity Offset Package progress report addressing CoA (E12), prepared for Roads and Maritime Services

Appendix A

Biodiversity stewardship credit report – Site1 Croom Reserve

BAM Credit Summary Report - Stewardship Agreement

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00009413/BAAS17020/17/00009414	SCC Stewardship	10/06/2021
Assessor Name	Report Created	BAM Data version *
Vanessa Allen	14/07/2021	45
Assessor Number	BAM Case Status	Date Finalised
BAAS18073	Open	To be finalised
Assessment Revision	Assessment Type	
0	Stewardship (for offset sites)	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone name	TEC name	Percent Cleared Value	Area (ha)	Current Vegetation integrity score	Future Vegetation integrity score without management	Future Vegetation integrity score with management	Security benefit score	Total gain in Vegetation integrity	BC Act listing status	EPBC Act listing status	Total number of ecosystem credits
Forest Red Gum - Thin-leaved Stringybark grassy woodland on coastal lowlands, southern Sydney Basin Bioregion												
2	838_Mod_Croom	Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	85	2.2	71.4	66.1	80.1	0	14	Endangered Ecological Community		8
											Subtotal	8

BAM Credit Summary Report - Stewardship Agreement

Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion

1	1326_Good_Croom	Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	95	24.5	76.3	72.4	81.5	0	9.1	Endangered Ecological Community		56
3	1326_Low_Croom	Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	95	0.77	0.3	0.3	6.4	0	6.1	Endangered Ecological Community		1
4	1326_Poor_Croom	Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	95	0.34	42.3	38.1	59.7	0	21.6	Endangered Ecological Community		2
											Subtotal	59
											Total	67

Species credits for threatened species

Vegetation zone name	Total gain in Habitat condition (HC)	Area (ha) / Count (no. individuals)	Constant	BC Act listing status	EPBC Act listing status	Total number of species credits
<i>Chorizema parviflorum</i> - endangered population / <i>Chorizema parviflorum</i> Benth. in the Wollongong and Shellharbour Local Government Areas (Flora)						
1326_Good_Croom	N/A	133	0.25	Endangered Population	Not Listed	110
						Subtotal
						110

Appendix B

Biodiversity stewardship credit report – Site22 Dunmore
Wetland

BAM Credit Summary Report - Stewardship Agreement

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00009305/BAAS17020/17/00009306	Shellharbour City Council BSA - Dunmore Wetland	10/06/2021
Assessor Name	Report Created	BAM Data version *
Alexander Cockerill	14/07/2021	45
Assessor Number	BAM Case Status	Date Finalised
BAAS17020	Open	To be finalised
Assessment Revision	Assessment Type	
1	Stewardship (for offset sites)	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone name	TEC name	Percent Cleared Value	Area (ha)	Current Vegetation integrity score	Future Vegetation integrity score without management	Future Vegetation integrity score with management	Security benefit score	Total gain in Vegetation integrity	BC Act listing status	EPBC Act listing status	Total number of ecosystem credits

BAM Credit Summary Report - Stewardship Agreement

Coastal freshwater swamp forest												
2	1232_Moderate	Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	95	1.5	35.6	34.2	35.8	0	1.6	Endangered Ecological Community		1
											Subtotal	1
Coastal freshwater wetland												
1	781_Moderate	Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	74	11.2	46.9	43.8	62.2	0	18.4	Endangered Ecological Community		52
											Subtotal	52
											Total	53

Species credits for threatened species

Vegetation zone name	Total gain in Habitat condition (HC)	Area (ha) / Count (no. individuals)	Constant	BC Act listing status	EPBC Act listing status	Total number of species credits
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Appendix C

Shellharbour City Council – Ordinary Council Meeting – 22 May
2018

**Minutes of the Ordinary Meeting
of Shellharbour City Council
held at the Council Chambers, Council Administration Centre
Shellharbour City Centre
on Tuesday 22 May 2018 commencing at 6.30 pm**

Present

Mayor, Councillor	M Saliba
Deputy Mayor, Councillor	K Marsh
Councillor	N Cattell
Councillor	M Hamilton
Councillor	P Moran
Councillor	J Murray
Councillor	R Petreski

In attendance

General Manager	C McIntyre
Director Council Sustainability	M Youell
Director Community and Customers	M Boxall
Director Amenity and Assets	B Stewart
Executive Manager / Public Officer	F Lepouras
Chief Financial Officer	G Grantham
Group Manager City Development	G Meredith
Group Manager City Planning	G Hoynes
Group Manager Design	M Boenisch
Acting Group Manager Asset Strategy	K Stevens
Group Manager Services	R Crowhurst
Group Manager Organisational Performance	E Woods
Manager Property Services	D Flanagan
Airport Manager	J Barnden
Governance Manager	R Kennedy
Manager Financial Services	P Henderson
Team Leader Environment	T Heather
Team Leader Planning	J Micevski
Senior Development Assessment Officer	B Koop
Media Officer	K Wells
Senior Executive Assistant (Minute Taker)	L Davey
Councillor Support Officer	J Frasca

1. Acknowledgement to Country

Shellharbour City Council acknowledges the Traditional Owners and Custodians of the Land on which we are meeting and pays its respects to Elders past and present.

Webcasting and Emergency Plan Statement

The Mayor read the usual advice regarding the webcasting of the meetings of the Council and the emergency plan for Council Meetings.

2. Apologies

Nil

3. Leave of Absence

Nil

4. Confirmation of Minutes

4.1 Ordinary Meeting 1 May 2018

85 RESOLVED: Murray/Cattell

That the Minutes of the Ordinary Council Meeting held on 1 May 2018 as circulated be taken as read and confirmed as a correct record of proceedings.

CARRIED UNANIMOUSLY

4.2 Committee of the Whole 1 May 2018

Councillor Moran stated that he wished to raise a matter in relation to the minutes as he believed there was an error in the minutes. The Mayor stated that discussion can take place in the Committee of the Whole in Closed Session meeting and asked for a motion to defer consideration of this item until the Open Session following Committee of the Whole in Closed Session.

86 RESOLVED: Murray/Marsh

That the Confirmation of Minutes for Committee of the Whole 1 May 2018 be considered following Committee of the Whole in Closed Session.

CARRIED UNANIMOUSLY

5. Declarations of Interest

Nil

6. Confidential Business (Committee of the Whole in Closed Session)

In accordance with the *Local Government Act 1993*, and the *Local Government (General) Regulation 2005*, in the opinion of the General Manager, the following business is of a kind as referred to in Section 10A(2) of the Act, and should be dealt with in a Confidential Session of the Council meeting closed to the press and public.

Set out below is Section 10A(2) of the Local Government Act 1993, in relation to Confidential Business:

10A(2) Which parts of a meeting can be closed to the public? The matters and information are the following:

- (a) personnel matters concerning particular individuals,
- (b) the personal hardship of any resident or ratepayer,
- (c) information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business,
- (d) commercial information of a confidential nature that would, if disclosed:
 - (i) prejudice the commercial position of the person who supplied it, or
 - (ii) confer a commercial advantage on a competitor of the council, or
 - (iii) reveal a trade secret,
- (e) information that would, if disclosed, prejudice the maintenance of law,
- (f) matters affecting the security of the council, councillors, council staff or council property,
- (g) advice concerning litigation, or advice that would otherwise be privileged from production in legal proceedings on the grounds of legal professional privilege,
- (h) information concerning the nature and location of a place or an item of Aboriginal significance on community land,
- (i) alleged contraventions of any code of conduct requirements applicable under section 440.

CONFIDENTIAL ITEMS

6.1 Tender 2018/10 - Construction of Cell 5B (11040554)

Reason for Confidentiality

This item is classified CONFIDENTIAL under the provisions of Section 10A(2)(d)(i) of the *Local Government Act 1993*, which permits the meeting to be closed to the public for business relating to the following:

(d) commercial information of a confidential nature that would if disclosed:

(i) prejudice the commercial position of the person who supplied it.

The information in this report should remain confidential as it would, if disclosed, prejudice the commercial position of the person who supplied it.

It is not in the public interest to disclose this commercial information as it may impact the ability of Council to attract competitive tenders in the future.

Declassification of this Report

This report will be declassified at the completion of the project in accordance with the Government Information (Public Access) Act 2009.

6.2 Acquisition Private Land - Rivulet Crescent Extension Update (11040885)

Reason for Confidentiality

This item is classified CONFIDENTIAL under the provisions of Section 10A(2)(c) of the *Local Government Act 1993*, which permits the meeting to be closed to the public for business relating to the following:

(c) information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business.

Council may be considering commencing the formal process to acquire land for the proposed extension of Rivulet Crescent, Albion Park Rail. Included within this report is information pertaining to the current market values of land in private ownership. The consideration of this information must be conducted in confidential session, to enable candid debate of commercial details without prejudicing the Council's commercial interest and if discussed in open meeting would be contrary to the public interest.

Declassification of this Report

The report will be declassified once the Road and Maritime Services Network Strategy for Albion Park Rail Highway has been completed and if the acquisitions are still required to be undertaken.

6.3 Regular Passenger Transport (11041067)

Reason for Confidentiality

This item is classified CONFIDENTIAL under the provisions of Section 10A(2)(c) of the *Local Government Act 1993*, which permits the meeting to be closed to the public for business relating to the following:

- (c) information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business

The information provided in this report outlines commercial conversations and financial positions that are of a confidential nature and would compromise both current and future negotiated business outcomes.

Declassification of this Report

The report will be declassified once all matters regarding this report have been finalised and will be made public if applicable.

6.4 Confidential Albion Park Rail Bypass - Biodiversity Offset Sites (11040757)

Reason for Confidentiality

This item is classified CONFIDENTIAL under the provisions of Sections 10A(2)(c) and 10A(2)(d)(i) of the *Local Government Act 1993*, which permits the meeting to be closed to the public for business relating to the following:

- (c) information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business
- (d) commercial information of a confidential nature that would if disclosed:
 - (i) prejudice the commercial position of the person who supplied it

The information in the report should remain confidential as it discusses business relating to the use of Council land for biodiversity offsetting requirements by the Roads and Maritime Services (RMS) for the Albion Park Rail Bypass. If disclosed it may affect the ability of Council to secure offset sites on Council land and reach a competitive market price for biodiversity credits generated.

Declassification of this Report

The report will be declassified when and if Biodiversity Stewardship Site Agreements for all sites are signed and endorsed by the Biodiversity Conservation Trust.

7. Condolences

The Council acknowledged the following deaths in the Local Government area.

Mrs Annette Boles	of	Albion Park
Mr Charles Hoobin	of	Albion Park
Mr Barry William Templeman	formerly of	Albion Park Rail
Ms Violet Whitfield	of	Albion Park Rail
Mrs Anna Maria Maier	of	Barrack Heights
Mr Morris Eizenberg	of	Barrack Point
Mr Kenneth Hyslop Murphy	formerly	Barrack Point
Mr Giuseppe Di Puglia	of	Blackbutt
Mrs Patricia Flynn	of	Lake Illawarra
Mrs Allison Beryle May	formerly of	Lake Illawarra
Mrs Joan Williams	of	Lake Illawarra
Mrs Dorothy Marle Willett	of	Lake Illawarra
Mrs Helen Margaret Maxwell	of	Mount Warrigal
Mrs Judith Gooley	of	Oak Flats
Mr Stanley O'Toole	of	Oak Flats
Ms Laraine Gail Timbs	of	Oak Flats
Mr Ronald Looney	of	Shell Cove
Mr Robert Meires	of	Warilla
Mrs Marie Therese Murphy	of	Warilla
Mrs Cvetanka Petrovska	of	Warilla
Mrs Heather Toms	of	Warilla
Mrs Stoja Zlojutro	of	Warilla

- 87 A Motion of condolence was passed by all present standing for one minute's silence.

8. Mayoral Statements / Reports / Presentations

The Mayor outlined the events she has attended since the last Council Meeting:

3/5/18	-	LGNSW Board Working Committee Meeting
4/5/18	-	Launch of Kidsfest Shellharbour

SHELLHARBOUR CITY COUNCIL

Ordinary Council Meeting – 22 May 2018

5-6/5/18	-	Wings Over the Illawarra
5/5/18	-	Sunrise Rotary Club Swing Into Wings Dinner
17-18/5/18	-	South East Australian Transport Strategy meeting hosted by Council
19/5/18	-	Australian Local Government Women's Association Executive Meeting
20/5/18	-	Stella Maris School 60 th Anniversary Mass
	-	Cities Service Boston Commemoration
21/5/18	-	Illawarra Shoalhaven Joint Organisation Transition meeting
22/5/18	-	Stella Maris School assembly

9. Mayoral Minutes

Nil

10. Councillors' Statements / Reports

Councillor Marsh congratulated Councillors, the General Manager and staff on the recent announcement of Shellharbour's inclusion in the Regional Growth Fund.

Councillor Petreski outlined his attendance on behalf of the Mayor at the TAFE NSW Illawarra Region's Student Excellence Awards Gala Dinner and the Oak Flats Swimming Club Presentation Night. Councillor Petreski also outlined his attendance on behalf of the Member for Shellharbour at the Illawarra Teachers Association Centenary Dinner.

Councillor Cattell outlined his attendance with Councillor Marsh at the Dunmore Rural Fire Service's 60th Anniversary event. Councillor Cattell also outlined his attendance on behalf of the Mayor at the CREATE Foundation Community Forum where he was guest speaker.

11. Reports

Note: The Addresses to Council Forum was held prior to the Council Meeting from 4.30pm to 5.30pm.

Agenda Item No & Title	Page Ref	Name
<i>Community and Customers Directorate</i>		
11.3.2 Proposed Multi-Dwelling Housing Development Application No. 128/2017, Lot 80 DP 14042 and is known as 4 Addison Avenue, Lake Illawarra	45	Robert Petkovski Angela Roman Mark Borg
11.3.5 Adoption and Gazettal of the Shellharbour Coastal Zone Management Plan	170	Steven Krinks Max Clay

88 RESOLVED: Murray/Marsh

That Standing Orders be suspended in order for Items 11.3.2 and 11.3.5, the subject of Addresses to Council, to be considered here in the agenda.

CARRIED UNANIMOUSLY

11.3 Community and Customers Directorate

11.3.2 Proposed Multi-Dwelling Housing Development Application No. 128/2017, Lot 80 DP 14042 and is known as 4 Addison Avenue, Lake Illawarra (11040546)

89 RESOLVED: Murray/Cattell

That Council grant the consent to Development Application No.0128/2017 for demolition of existing Dwelling and construction of five (5) dwellings with garages at Lot 80 DP 14042, No. 4 Addison Avenue, Lake Illawarra subject to the conditions of consent in Attachment 6 of this report.

CARRIED 6 / 1

FOR VOTE - Cr Cattell, Cr Hamilton, Cr Marsh, Cr Murray, Cr Petreski, Cr Saliba

AGAINST VOTE - Cr Moran

11.3.5 Adoption and Gazettal of the Shellharbour Coastal Zone Management Plan (11040547)

90 RESOLVED: Murray/Hamilton

That Council in accordance with the transition provisions of the Coastal Management Act 2016 and Section 55H of the Coastal Protection Act 1979:

1. Adopt the certified Shellharbour Coastal Zone Management Plan as contained in Attachment 1; and
2. Place a Council Notice in the NSW Government Gazette advising of the certification and adoption of the Shellharbour Coastal Zone Management Plan.

CARRIED UNANIMOUSLY

91 RESOLVED: Murray/Marsh

That Standing Orders be resumed.

CARRIED UNANIMOUSLY

11.1 General Manager

11.1.1 Third Quarter Review of the Operational Plan 2017-2018 (11038321)

92 RESOLVED: Murray/Petreski

That Council adopt the:

1. Quarterly Review of the Operational Plan 2017-2018 – Quarter Three - January to March 2018.
2. March 2018 Quarter Budget Review with all recommended adjustments as contained in this report and attachments.

CARRIED UNANIMOUSLY

11.2 Council Sustainability Directorate

11.2.1 Proposed Purchase of Land - Lot 51 DP 825278 Smith Avenue, Albion Park (11031510)

93 RESOLVED: Marsh/Petreski

1. That Council approve the purchase of Lot 51 DP 825278 Smith Avenue, Albion Park from the Roads and Maritime Services for the amount of \$121,000 GST exclusive.
2. That the Mayor and General Manager, or his nominated delegate, be authorised to sign all documentation associated with the purchase of the Lot 51 DP 825278 Smith Avenue, Albion Park including the affixing of the Seal of Council.

CARRIED UNANIMOUSLY

11.3 Community and Customers Directorate

11.3.1 Albion Park Rail Bypass - Biodiversity Offset sites (11040461)

The Mayor called for a MOTION to defer this item so that it may be considered following Item 19 in the agenda to allow for consideration of confidential Item 6.4 to be dealt with first in the agenda.

94 RESOLVED: Murray/Petreski

That Item 11.3.1 be deferred and considered following Item 19 in the Agenda.

CARRIED 6 / 1

FOR VOTE - Cr Cattell, Cr Hamilton, Cr Marsh, Cr Murray, Cr Petreski, Cr Saliba
AGAINST VOTE - Cr Moran

11.3.2 Proposed Multi-Dwelling Housing Development Application No. 128/2017, Lot 80 DP 14042 and is known as 4 Addison Avenue, Lake Illawarra (11040546)

This item was dealt with earlier in the agenda as it was the subject of Addresses to Council prior to the meeting (refer to Resolution 89).

11.3.3 Draft Planning Agreement - 6 Benson Avenue, Shellharbour City Centre (11040464)

95 RESOLVED: Murray/Marsh

That:

1. Council endorse the draft Planning Agreement for Lot 4212 DP 809265, 6 Benson Avenue, Shellharbour City Centre for public notification purposes.
2. The draft Planning Agreement be publicly notified for a period of at least 28 days in accordance with Section 7.5(1) of the *Environmental Planning and Assessment Act 1979*.
3. Should no changes be required to the scope and timing of the works or the amount to be reimbursed as a result of the public notification process, the General Manager and Mayor be granted delegation to enter into the agreement on Council's behalf.

CARRIED UNANIMOUSLY

11.3.4 Shellharbour Surf Life Saving Club - Planning proposal to reclassify land from community to operational and permit a function centre - Lot 1 DP 211127, part of Lot 5, DP 218551 (11040463)

96 RESOLVED: Murray/Marsh

That Council:

1. Adopt the planning controls for planning proposal 0005/2016 in Attachment 1: Table of Properties and Attachment 3: The Maps to amend Shellharbour Local Environmental Plan 2013.
2. Authorise the General Manager to forward the revised planning proposal to the Minister for Planning and Environment under Section 3.35(2) of the *Environmental Planning & Assessment Act 1979*.
3. Authorise the General Manager to request the Minister for Planning prepare the Draft Local Environmental Plan under section 3.36(1) and make the Plan under section 3.36(2) of the *Environmental Planning & Assessment Act 1979*.
4. Delegate to the General Manager authority to make minor mapping and wording changes if and as required by the Director General of the NSW Department of Planning & Environment or the Parliamentary Counsel's Office.

5. Note the Shellharbour Surf Club/Sea Spray Function Centre Plan of Management will cease to apply once the subject land is reclassified from community to operational.
6. Note the Beverley Whitfield Park/Shellharbour Swamp Plan of Management will cease to apply to the subject land and continue to apply to the broader area outside of the subject land: once the subject land is reclassified from community to operational.

CARRIED UNANIMOUSLY

11.3.5 Adoption and Gazettal of the Shellharbour Coastal Zone Management Plan (11040547)

This item was dealt with earlier in the agenda as it was the subject of Addresses to Council prior to the meeting (refer to Resolution 90).

11.4 Amenity and Assets Directorate

11.4.1 Draft Tree Management Policy (11040899)

97 RESOLVED: Moran/Hamilton

1. That the Draft Tree Management policy be placed on public exhibition for a period of at least 28 days calling for submissions.
2. That if any submissions are received on the Policy, the results be reported back to Council for consideration.
3. That if no submissions are received as a result of the public exhibition, the Council adopts the Tree Management policy and revokes the Solar Panels and Council Trees policy as attached to this report.

CARRIED UNANIMOUSLY

12. Committee Recommendations

12.1 Recommendations from the Traffic Committee Meeting held 2 May 2018 recommended for adoption.

98 RESOLVED: Marsh/Cattell

That the Recommendations from the Traffic Committee Meeting held 2 May 2018 be adopted.

CARRIED UNANIMOUSLY

12.2 Recommendations from the Australia Day Committee Meeting held 18 April 2018 recommended for adoption.

99 RESOLVED: Petreski/Cattell

That the Recommendations from the Australia Day Committee Meeting held 18 April 2018 be adopted.

CARRIED UNANIMOUSLY

13. Items for Information

Nil

14. Notices of Rescission/Alteration Motions

Nil

15. Notices of Motion

15.1 Notice of Motion submitted by Cr Kellie Marsh and Cr Peter Moran: CCTV Cameras

Councillor Marsh asked how many other councils in New South Wales have CCTV in their CBD's. The Mayor requested that this response be extended to suburbs as well. The General Manager took the Question on Notice.

Councillor Marsh asked how many external consultations have been undertaken to date as part of the report that has been requested and if the Lake Illawarra Local Area Command have been consulted with as yet. The General Manager took the Question on Notice.

MOTION: Moran/Marsh

That Council officers prepare an urgent report on the costings to install Closed Circuit Television (CCTV) Cameras in the Albion Park, Oak Flats, Shellharbour & Warilla CBDs and in doing so, consult with NSW Police regarding the operations and monitoring of the CCTV Camera footage.

Councillor Marsh MOVED a POINT of ORDER during the Mayor's address and disputed the comments which the Mayor attributed to her. The Mayor did not accept the POINT of ORDER and continued her address.

Councillor Marsh MOVED a further POINT of ORDER during the Mayor's address that she is not speaking to the issue. The Mayor did not accept the POINT of ORDER and continued with her address.

100 The MOTION on being PUT to the Meeting was LOST 2 / 5

FOR VOTE - Cr Marsh, Cr Moran

AGAINST VOTE - Cr Cattell, Cr Hamilton, Cr Murray, Cr Petreski, Cr Saliba

16. Questions on Notice (must be submitted in writing)

16.1 Question on Notice Submitted by Cr Moran: Parking in Addison Street, Shellharbour

A Question on Notice has been submitted by Cr Moran and is noted for the purposes of this meeting.

16.2 Question on Notice Submitted by Cr Marsh: Civic Centre Cafe

A Question on Notice has been submitted by Cr Marsh and is noted for the purposes of this meeting.

17. Urgent Business

Nil

18. Committee of the Whole in Closed Session (Closed to the Public): Adjournment

The Mayor asked whether anyone in the public gallery wish to speak on the reasons why Items 6.1 Tender 2018/10 – Construction of Cell 5B, 6.2 Acquisition Private Land – Rivulet Crescent Extension Update, 6.3 Regular Passenger Transport and 6.4 Confidential Albion Park Rail Bypass – Biodiversity Offset Sites should not be held in Confidential Session (Closed to the Public). No members of the public expressed an interest in addressing the Council.

101 RESOLVED: Murray/Petreski

1. That Council resolve into Committee of the Whole (in Confidential Session) to consider the above business as listed, together with any late reports tabled at the meeting.

2. That pursuant to Section 10A(1-3) of the *Local Government Act 1993*, the press and public be excluded from the proceedings on the basis that the business to be considered is classified confidential under the provisions of Section 10A(2) 10A(2)(c), 10A(2)(d)(i) of the Act as outlined above.
3. That the correspondence and reports relevant to the subject business be withheld from access to the press and public in accordance with Section 11(2) of the *Local Government Act 1993*.

CARRIED UNANIMOUSLY

Meeting adjourned at 7.51 pm

Meeting resumed at 8.49 pm

Deferred Item: (refer to Resolution 86)

4. Confirmation of Minutes

4.2 Committee of the Whole 1 May 2018

102 RESOLVED: Hamilton/Marsh

That the Minutes of the Committee of the Whole (Confidential) Meeting held on 1 May 2018 as circulated be taken as read and confirmed as a correct record of proceedings.

CARRIED UNANIMOUSLY

19. Committee of the Whole in Closed Session: Consideration of Adoption of Decisions Reached in Closed Session

The following Recommendations to Council from the Committee of the Whole (Confidential) meeting were read to the Meeting by the General Manager.

6.1 Tender 2018/10 – Construction of Cell 5B

COMMITTEE RECOMMENDATION:

That Council:

1. Approve the funding for Cell 5B construction in 2018/19 and adopt the total budget of \$1,995,913 for this project.

2. In accordance with Section 178 of the *Local Government (General) Regulation (2005)*, accept the tender and enter into a contract (Contract 2018/10) with J.B.G Civil Pty Ltd for the amount of \$1,383,618.90 ex GST for a component of the project.
3. Authorise the General Manager or his nominated delegate to sign the Letter of Award and execute the contract and associated documents on behalf of Shellharbour City Council.

6.2 Acquisition Private Land – Rivulet Crescent Extension Update

COMMITTEE RECOMMENDATION:

That Council await the outcome of the Traffic Management Study from the Roads and Maritime Services which will outline the impact the Albion Park Rail Bypass will have on the current Princes Highway before proceeding with the land acquisitions.

6.3 Regular Passenger Transport

COMMITTEE RECOMMENDATION:

That Council endorse the recommendations provided within the confidential report 'Regular Passenger Transport' presented to Council on 22 May 2018.

6.4 Confidential Albion Park Rail Bypass – Biodiversity Offset Sites

COMMITTEE RECOMMENDATION:

That Council receive and note this report.

103 RESOLVED: Murray/Petreski

The Recommendations to Council from the Committee of the Whole held earlier today be adopted.

CARRIED UNANIMOUSLY

11.3 Community and Customers Directorate

11.3.1 Albion Park Rail Bypass - Biodiversity Offset sites (11040461)

Councillor Moran stated that Rosella Grove has been subject to slippage in the past and asked if that road has been stabilised or is it in danger of further slippage. The General Manager took the Question on Notice.

Councillor Moran noted the independent ecological consultant's comments in relation to the likelihood of the extinction of the Illawarra Lowlands Grassy Woodlands and asked for an indication of the extent of that ecological community outside the sites identified in the report. The General Manager took the Question on Notice.

MOTION: Murray/Petreski

That Council:

1. Resolve to progress toward the establishment of a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust for sites A (Croom Reserve) and E (Dunmore Wetland).
2. Resolve to progress toward the establishment of a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust for parts of site D (Stony Range Reserve), excluding lands along New Lake Entrance Road to a width of approximately 100m, with further negotiations on this site delegated to the General Manager.
3. Resolve that the signing of the Biodiversity Stewardship Site Application and Biodiversity Stewardship Site Agreement be delegated to the General Manager.
4. Request that the Roads & Maritime Services formally agree to purchase all biodiversity credits Council have available with respect to the project approval when they are released on the market.
5. Resolve to sell all credits it has available, with respect to the project approval, that are required by the Roads & Maritime Services for the Albion Park Rail Bypass offsetting agreement to the Roads & Maritime Services.

Councillor Moran FORESHADOWED a MOTION that should the MOTION be lost, he would move the recommendation as printed in the business paper clearly identifying all five parcels of land identified in the table on page 38 in the business paper as being parcels of land Council would progress towards the establishment of a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust.

104 The MOTION on being PUT to the Meeting was CARRIED 6 / 1

FOR VOTE - Cr Cattell, Cr Hamilton, Cr Marsh, Cr Murray, Cr Petreski, Cr Saliba

AGAINST VOTE - Cr Moran

20. Consideration of Motions to Declassify Reports Considered in Closed Session

Nil

Meeting closed 9.10 pm

Appendix D

Consultation with Environment Energy & Science Group
(former OEH)

Name of meeting: Albion Park Rail Bypass - Project Update and Biodiversity Offsets

Location of meeting: 90 Crown Street Wollongong, Level 5 Meeting Room

Meeting facilitator: Nicole Moore (RMS)

Date: Monday 1 May 2017

Time: 1:00PM - 2:00PM

Attendees: Daniel Robson (OEH) - DR
Vanessa Allen (OEH) - VA
Mark Stables (WSP I PB) - MS
Alex Cockerill (WSP I PB) - AC
Peter Hawkins (RMS) - PH
Bill Healy (RMS) - BH
Cassandra Thompson (RMS) - CT
Shannon Schofield (RMS) - SS
Nicole Moore (RMS) - NM

AGENDA

1. Introductions

2. Project update and timeframes

- NM presented project update information, including design refinements
- Approval will be sought for the whole project, without staging
- Response to submissions Report (RtS) will include a revised Biodiversity Assessment Report (BAR) and a revised Biodiversity Offset Strategy (BOS)

3. Offsets

a. Credits required

- NM - Minor changes from what was included in the EIS, with revised numbers in the Response to Submissions report (RtS). These changes comprise:

Vegetation community /species	EIS	RtS
Woollybutt – White Stringybark	324	362
Coastal Freshwater Lagoons	290	293
Swamp-Oak floodplain forest	0	19
Chorizema parviflorum	1650	1725

b. Work to date

- AC, MS - WSP I PB investigating sites identified in BOS, additional potential sites, credits for sale and EOIs
- AC, MS - Shellharbour City Council is landowner of most sites under investigation. A single BioBanking Agreement (BBA) would be implemented for all sites.
- DR - noted this would be acceptable.
- AC, MS - Credit target for freshwater wetlands is likely to be met due to availability of sites, however landholder agreement remains a risk
- AC, MS - Some credits available in the Batemans IBRA sub-region, however it needs to be determined if these will be suitable.
- DR - Requested that supporting information be provided to OEH for confirmation of suitability.
 - **WSP I PB to prepare consolidated information for OEH review, including in regard to credits available in the Batemans IBRA sub-region**

c. Proposed BioBanking sites

Note - Preliminary mapping provided for sites owned by Shellharbour City Council (Attachment 1). Vegetation mapping is based on the relevant plan of management and hasn't yet been confirmed. Boundaries are preliminary only and subject to detailed survey and consultation with Council.

Site 1 - Croom Reserve (AC,MS)

- AC, MS - all boundaries are preliminary only
- AC, MS - BBA would likely cover all vegetated areas of the site
- AC, MS - No detailed surveys have been conducted as yet – vegetation community extents will be refined during further surveys
- AC, MS - Voluntary Conservation Agreement (VCA) on part of this land
- DR - noted that if the VCA was in place prior to March 2009, under the BBAM no discounting applies
 - **RMS confirms that the implementation date of the VCA was 2 July 2002**
- AC, MS - Current funding from Saving our Species (SoS) in place, including for 2016/17 fencing and weed removal, and ongoing weed removal for 10 years. Local Land Services (LLS) and Rural Fire Service (RFS) funding also in place
- DR - specified the standard method in BBAM 2014 (s12.10 Table 10 & Table 11) for identifying how discounts should be applied.
- DR - noted that for management actions not specifically required under any conservation agreement, obligation or Act where no funding is in place, no discounting for additionality applies.
 - **WSP I PB to prepare consolidated information for OEH review, including assessment against discounting criteria for each site**
- PH - asked if discounting applies to species credits
- DR - take this on notice and advise
 - **OEH to advise if discounting applies to species credits**

Site 3 - Light Rail

- AC, MS - Possible concerns about the volunteer group active in this areas opposition to using this site, boundary would likely be extended following consultation.
- AC, MS - Current funding from SoS and LLS for weed removal

Site 22 - Dunmore Wetland

- AC,MS - Contains freshwater wetland and swamp oak forest – the transition between these plant communities still needs to be defined.
- AC,MS - Need to determine how to best define boundary eg inclusion of key drainage lines in BBA
- AC,MS - Plan of management in place, but no funding

Site 24 - Stony Range Reserve

- AC,MS - Vegetation comprises only red gum community, would meet EPBC Act definition but not TSC Act due to community clearing extent
- AC,MS - Red gum (SR545) community may be proposed as offset if other feasible and reasonable options are exhausted
- DR - noted that this wasn't the preferred approach but could be discussed when other options have been exhausted, , but would need to be under supplementary measures, rather than variation rules
- AC,MS - Plan of management in place, but no funding

Site 23 - Hargraves Avenue

- AC, MS - Current funding from SoS and LLS for weed removal
- NM - asked how we could identify the exact funding, including target species (for SoS), funding and duration
- DR - noted OEH could provide this information
 - **OEH to provide information on SoS funding for each site**

4. Other

- DR - noted a number of other potential sites that could be investigated, including:
 - Yallah TAFE - PH has had discussions with the TAFE about Chorizema, where it was decided that there was not enough in the area. Could be potential site for Woollybutt
 - Site below Yallah TAFE - current EOI. Potential interest from Wollongong Council in this site. WSP I PB following up in regard to EOI.
 - Bluescope - potential for Woollybutt offsets
 - Quarries, including Boral
- DR - on leave from May 8 until June 5, VA available during this period
- DR - advised that OEH can provide support with Council briefings



AGENDA

Albion Park Rail bypass - Biodiversity Offset Package

Date	13/05/2020		
Time	2:00 – 3:30pm		
Venue	Microsoft Teams Meeting		
Chairperson	Peter Hawkins		
Attendees	Peter Hawkins Peter Chudleigh Alex Cockerill Mark Stables Andrew Lee Chris Page Vanessa Allen	PH PC AC MS AL CP VA	TfNSW TfNSW WSP WSP Shellharbour City Council EES / DPIE EES / DPIE

Agenda Items		Comment
1.	Background of Offset Process APRb - Commenced in 2014, biodiversity offset strategy developed and numerous sites investigated (22 sites, run many through BBAM calculator, Croom Site 1, Dunmore Site 22) submit with EIS October 2015 - Negotiation with many offset landholders 2016 – 17 including trying to secure Transgrid who rejected offer - Updated Biodiversity Offset Strategy (BOS), identified additional Yallah Tafe Site 23 submitted for approval September 2017 - Project approved Jan 2018 - Reasonable Equivalence application June 2018 - Final equivalence (1:1 for all ecosystem credits) Dec 2019 - SCC have gone through an extensive process to get agreement for offset sites at Croom and Dunmore including a vote from a Council meeting	PH PH PH PH AL
2.	Approach to Offset Sites - Project has biodiversity offset sites that are good conservation outcome (Croom, Dunmore and Yallah Tafe) which would preserve some of the last remaining stands of CEEC vegetation in the local region which is the preference to any alternative offset methods - These offset sites were identified in Biodiversity Offset Strategy (BOS) that was part of the approval, and accounted for a substantial portion of the offset requirements. - Credit generation has been substantially reduced from BBAM methodology to BAM methodology, based on credit generation these sites are not viable offset sites when accounting for the Reasonable Equivalence of 1:1. - TfNSW believe that the offset liability should not be changed after the approval and should be consistent with the BOS and planning	All AC AC PH

Agenda Items		Comment
	conditions. - TfNSW believe that the offset package meets the conditions in accordance with the Major Projects Offset Policy (listed in CoA E13). - EES stated that the Reasonable Equivalence could be reassessed based on current knowledge - EES stated that the BBAM calculator is not available for use - EES were unsure that the BBAM methodology could be used as a valid approach as the Reasonable Equivalence is being applied for conversion of credits, but would review if an alternate approach is available. Action – TfNSW to look at whether the BBAM calculator is still available for use Action – EES to review if an alternative approach can be utilised for offset other than BAM	PH CP CP CP MS CP
3.	Chorizema Species Credits using <i>Zieria granulata</i> - TfNSW propose to use credits generated by the existing offset sites for Chorizema Species Credits - Remaining credits required would utilise alternative BBAM credits utilising the trading rules that were generated for <i>Zieria granulata</i> that were generated from another project.	AC AC / AL
4.	Remaining Credit Requirements Utilise the BCT fund for the remaining credit requirements using reasonable equivalence	PH
5.	Actual impacts recalculated as clearing in accordance with Submission and Preferred Infrastructure Report (BD02) Impact will be reassessed based on the actual clearing impacts as some vegetation has been protected from impact during the detailed design and construction	PH

Appendix E

Biodiversity and Conservation Division response and ongoing email consultation



Mr Peter Hawkins
Project Development Manager
Transport for NSW

Date: 22/6/2020
Our reference: DOC20/489132
Contact: Chris Page, 4224 4180

By email: Peter.Hawkins@transport.nsw.gov.au

Dear Peter

Reference is made to your email dated 18/6/2020 regarding the Biodiversity Offset Package (BOP) for the Albion Park Bypass project.

Condition E13 of the project approval conditions (SSI 6678) requires the proponent (Transport for NSW, TfNSW) to finalise and submit a BOP to the Planning Secretary for approval. The condition requires that the BOP be prepared "in consultation with OEH". For the purpose of this condition, OEH is now the Biodiversity and Conservation Division (BCD) of the Environment, Energy and Science (EES) Group in the Department of Planning Industry and Environment (DPIE).

We can confirm the BOP meets the general intent of the offset requirements set out in the relevant conditions of approval. The BOP contains details for meeting offset requirements through establishment of Biodiversity Stewardship Agreements (BSAs), making payments to the Biodiversity Conservation Fund for residual ecosystem credit retirement and utilising the variation rules established under the *Biodiversity Conservation Act* to retire the remaining credit requirement for *Chorizema parviflorum* with *Zieria granulata* species credits held by TfNSW. We particularly acknowledge the local and regional value of establishing the three BSAs at Croom Reserve, Dunmore Wetland and Yallah TAFE.

There is, however, further work to progress before the current BOP can be considered finalised. Firstly, the BOP states that clearing areas have been reduced and therefore credit obligations will be lower. The final clearing areas will need to be confirmed and submitted to us before we can support a reduction of the credit obligation (as referred to in condition E11 of the approval).

Secondly, we need to carry out a field visit to confirm the presence of *Zieria granulata* as this species has suffered recent declines due to drought. Arrangements with TfNSW for a field visit will be made in the near term.

Finally, and most importantly, we are still assessing the suitability of the proposed approach of utilising BioBanking credits for the offsets sites as opposed to BAM credits. TfNSW advised that DPIE Planning and Assessment (P&A) Group will liaise with us about the interpretation of their approval conditions.

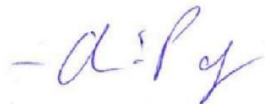
In conclusion, we consider the current BOP meets the general intent for achieving the offset requirements but warrants the progression of the above aspects before considering it is fully complete. We are willing to assist TfNSW and P&A where possible to bring the BOP to finality and secure the required offsets.

As discussed recently, TfNSW should give due regard to an alternate pathway for meeting credit obligations that involves a review of the credit equivalence reasonableness. Coupled with this, we also understand that the BAM Calculator is due to be updated and this may also have implications for the

number of credits generated at your proposed BSA sites. As such, the combination of reduced impact areas, review of credit equivalency and updated BAM calculator outputs is likely to be of benefit to TfNSW when finalising the BOP and meeting the biodiversity offset approval conditions.

If you have any further questions in relation to this matter, please contact me on 4224 4180 or by email, chris.page@environment.nsw.gov.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'C. Page'.

Chris Page
Senior Team Leader, Planning (Illawarra)
South East Branch
Biodiversity and Conservation Division

Stables, Mark

From: Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>
Sent: Wednesday, October 14, 2020 12:49 PM
To: Vanessa.Allen@environment.nsw.gov.au
Cc: Peter Hawkins; COOPER, Jacob; CHISHOLM, Shannon
Subject: RE: APRb - EEC Impact Reduction

Hi Vanessa,

Monday 19/10 at 10.00am would suit us. If you could meet us at the TfNSW site office we can run through a quick visitors induction first and then head out with FH from there.

I will send a calendar invite out shortly.

Peter

0408 190 418

From: Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>
Date: 12 October 2020 at 11:10:50 am AEDT
To: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Subject: RE: APRb - EEC Impact Reduction

Thanks Peter

Can we organise a date for a site inspection? Monday 19/10 @ 10am, or Tuesday 20/10 @ 11.30am would work for me.
Or the following week, I'm available on Monday 26/10.

From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Saturday, 10 October 2020 11:00 AM
To: Chris Page <Chris.Page@environment.nsw.gov.au>
Cc: Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>; Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; 'Peter Chudleigh' <peter.chudleigh@cardno.com.au>; Graham Roche <Graham.ROCHE@transport.nsw.gov.au>
Subject: APRb - EEC Impact Reduction

Chris,

Please see attached a letter describing the reduced impacts to EECs as part of the Albion Park Rail bypass project. Please have a look at the letter and figures that show a reduced impact of approximately 3 hectares of EEC. TfNSW would like to add this information into the updated Biodiversity Offset Package to be taken into account whilst determining the offset requirements.

TfNSW would also welcome the attendance of EES personnel to site to independently verify the assessment made by TfNSW in relation to each portion of EEC that has not been impacted as part of the project.

Peter Hawkins
Project Development Manager
Regional Project Delivery
Infrastructure and Place
Transport for NSW

T 02 4221 2582 | M 0429 504 605
1914 Illawarra Hwy, Albion Park Rail NSW, 2527



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Stables, Mark

From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Wednesday, November 25, 2020 11:08 AM
To: Vanessa Allen
Cc: Peter Chudleigh; 'Peter Chudleigh'; Graham Roche; Chris Page
Subject: Shape files for APRb
Attachments: SHP.ZIP

Vanessa,

Please find attached the shape files for the reduced impact from the clearing reduction from the Albion Park Rail bypass. If you could please review this and get back to me if you think there is anything that you have any questions.

Thanks,

Peter Hawkins
Project Development Manager
Regional Project Delivery
Infrastructure and Place
Transport for NSW

T 02 4221 2582 | M 0429 504 605
1914 Illawarra Hwy, Albion Park Rail NSW, 2527



**Transport
for NSW**

9 October 2020

Chris Page
Senior Team Leader, Planning (Illawarra)
Biodiversity and Conservation Division
Department of Planning, Industry and Environment
Level 3, 84 Crown Street
Wollongong NSW 2500

Via email: chris.page@environment.nsw.gov.au

Dear Chris,

Albion Park Rail bypass SSI 6878 – Reduction in disturbed areas for Plant Community Types defined as Endangered Ecological Communities

Transport for NSW (TfNSW) is currently delivering the Albion Park Rail bypass project (the project) at Albion Park Rail, south of Wollongong in NSW.

The project commenced construction on 7 January 2019 and has a forecast completion date of 2022.

Clearing and grubbing of vegetation within the project boundary has recently been completed. The completion of these activities has allowed TfNSW to make an assessment of the actual native vegetation disturbance areas compared to the assessed native vegetation disturbance areas as approved in the Environmental Impact Statement (EIS) as amended by the Submission and Preferred Infrastructure Report (SPIR).

The purpose of this letter is to inform the Environment, Energy and Science (EES) Group of the Department of Planning, Infrastructure and Environment of the actual native vegetation disturbance areas for three Plant Community Types (PCTs) defined as Endangered Ecological Communities (EEC), in order to set the areas to be offset as part of the Biodiversity Offset Package for the project.

The three PCTs and their common community name which have had reduced disturbance areas from that which was assessed and approved under the EIS amended by the SPIR are:

- PCT 781 Coastal freshwater lagoons of the Sydney Basin and South East Corner
- PCT 1326 Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion
- PCT 1232 Swamp Oak-Prickly Tea Tree – Swamp Paperbark swamp forest on coastal floodplains, Sydney Basin Bioregion and South East Corner Bioregion.

Table 1 below summarises the assessed and approved disturbed areas under the EIS as amended by the SPIR, the actual disturbed areas from construction and net reduction in disturbed area for each of the PCTs.

Table 1 PCT area assessment

Plant Community Type		Disturbed area assessed and approved under the EIS amended by the SPIR (m ²)	Actual disturbed area from construction (m ²)	Net reduction in disturbed area (m ²)
PCT 781	781_03A	5918.638	2546.858	3371.78
	781_5	304.557	0	304.557
	781_6	170.03	0	170.03
	781_7A	25733.127	14201.637	11531.49
Total for PCT 781		71870.921	56493.064	15377.857
PCT 1232	1232_04	3003.967	310.542	2693.425
	1232_05A	2474.136	382.676	2091.46
Total for PCT 1232		5478.103	693.218	4784.885
PCT 1326	1326_05	1905.063	1076.164	828.899
	1326_09A	3265.541	2442.371	823.17
	1326_14	1800.101	1492.481	307.62
	1326_16A	9686.084	5633.484	4052.6
	1326_19	116.07	0	116.07
	1326_22A	23441.11	20051.528	3389.58
	1326_23A	9156.788	8828.858	327.93
Total for PCT 1326		50543.124	40697.253	9845.87

The actual disturbed area from construction for each of the PCTs in Table 1 was determined by ground survey by TfNSW and equates to a total saving of approximately 3 hectares of EECs. The results of this survey work are presented in the survey model output plans appended to this letter.

For the PCT 781 survey model output plans the area bounded by the orange line represents the actual disturbed area from construction and the area bounded by the magenta line represents the undisturbed area.

For the PCT 1326 survey model output plans the area bounded by the orange line represents the actual disturbed area from construction and the area bounded by the green line represents the undisturbed area.

For the PCT 1232 survey model output plans the area bounded by the orange line represents the actual disturbed area from construction and the area bounded by the aqua line represents the undisturbed area.

TfNSW seeks the concurrence of EES for determination of the actual disturbed area from construction for the three PCTs and the use of these reduced areas as part of the Biodiversity Offset Package for the project.

TfNSW would also welcome the attendance of EES personnel to site to independently verify the assessment made by TfNSW in relation to each PCT.

Please contact Peter Hawkins on 0429 504 605 or by email peter.hawkins@transport.nsw.gov.au if you require any further information or to arrange a time to attend the site.

Yours sincerely



Peter Hawkins
Transport for NSW Project Development Manager
Albion Park Rail bypass

Enc.

Survey model output plans for PCT 781

Survey model output plans for PCT 1232

Survey model output plans for PCT 1326

Albion Park Rail bypass SSI 6878 - updated biodiversity credit requirements (based on letter from Transport NSW 9th October 2020)

PCT ID	PCT name	Landscape value score	new impact area (ha)	Current site value	Future site value	Loss in site value	Offset multiplier	Updated credit requirement	Previous impact area	Previous credit requirement
781	Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion	23.9	5.65	46.38	0	46.38	3.00	230	7.2	293
1326	Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion	23.9	4.07	58.85	0	58.85	3.00	204	6.76	338
1232	Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion	23.9	0.07	24.48	0	24.48	3.00	2	0.2	4

Prepared by John Seidel Manager Ecosystem Assessment 22/2/2021

Stables, Mark

From: Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>
Sent: Thursday, January 28, 2021 2:12 PM
To: Peter Hawkins
Cc: Chris Page; Peter Chudleigh
Subject: RE: APRb - EEC Impact Reduction
Attachments: APRb_S2_Reduction in disturbed area for PCTs defined as EECs.pdf

Hi Peter

I wish to confirm that we support a reduction to your credit obligation as proposed in the attached document and verified during our site visit on 19/10/2020.

As discussed over the phone today, we do not require the areas referred to in my email below be removed from the revised credit calculation. However we recommend that TfNSW consider rehabilitation works in these areas. This would be a voluntary measure on the part of TfNSW to aid in mitigating indirect impacts and fragmentation of vegetation as a result of the final clearing footprint.

It is noted that indirect impact assessment was broadly covered in the BAR, however the changes to the final clearing footprint have resulted in changed (and reduced) impacts for which site specific mitigation measures can be considered.

If you wish to discuss this matter further, please let me know.

Regards, Vanessa

Vanessa Allen
Senior Conservation Planning Officer

Biodiversity and Conservation Division | Department of Planning, Industry and Environment

T 02 42244186 | E Vanessa.Allen@environment.nsw.gov.au
Level 1, 84 Crown street, Wollongong NSW 2500
PO Box 514, Wollongong NSW 2520
www.dpie.nsw.gov.au



The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Thursday, 21 January 2021 3:10 PM
To: Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>
Cc: Chris Page <Chris.Page@environment.nsw.gov.au>; Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>
Subject: RE: APRb - EEC Impact Reduction

Hi Vanessa,

I am keen to get the recalculation of the credit impacts undertaken so that we can finalise the offset obligation and Biodiversity Offset Package I flicked this off to WSP and they have provided a response below, the area that we are talking about provided below is all up about a 0.5ha, so not inconsequential. I would be interested in your thoughts if we need to take it out of the reassessment we can let me know.

With reference to items 1 and 2 from your email below, TfNSW can confirm that indirect impacts to biodiversity and the vegetation communities within the project area were considered and assessed as part of the Biodiversity Assessment Report for the project. I have attached the construction and operational phase indirect impact assessments pages from the APRb BAR for reference.

TfNSW can confirm that the outcomes onsite are consistent with the assessment from the BAR and as witnessed in our joint inspection on 19 October 2020, actual impacts are far less than that originally assessed and approved.

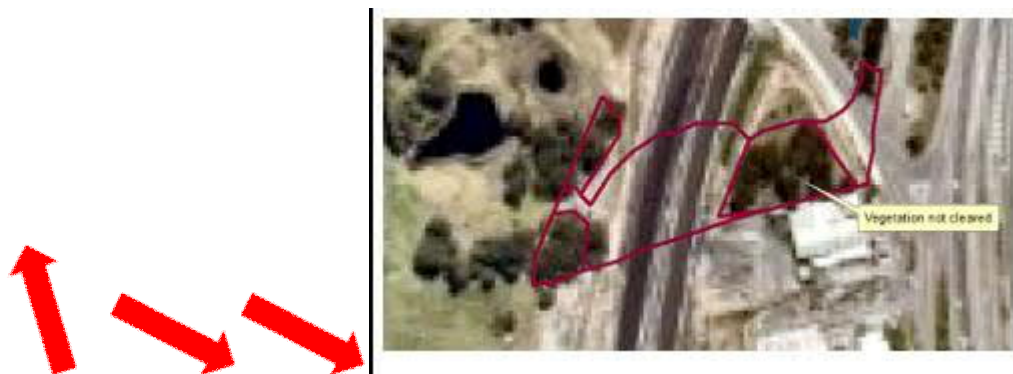
The BAR used the BioBanking Assessment Methodology which required the project to demonstrate minimisation of indirect impacts on biodiversity values using reasonable onsite measures and also included fragmentation in the assessment of the vegetation connectivity and landscape score. TfNSW therefore understands that indirect impacts and fragmentation have already been assessed and approved legislatively for the project and shouldn't require reassessment.

In light of this could EES reconsider the recommendation for revegetation/rehabilitation to the specific retained areas in question?

Happy to discuss further if need be.

Thanks again,

For 1326_16A Area of retained veg highlighted by red arrows = 4052.6 m²



For 1326_09A Area of retained veg highlighted by red arrows = 823.17 m²



Peter Hawkins

Project Development Manager – **Transport for NSW** - T 02 4221 2582 M 0429 504 605

From: Vanessa Allen [<mailto:Vanessa.Allen@environment.nsw.gov.au>]

Sent: Thursday, 3 December 2020 11:39 AM

To: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>

Cc: Chris Page <Chris.Page@environment.nsw.gov.au>

Subject: RE: APRb - EEC Impact Reduction

Hi Peter

I refer to your letter dated 9 October 2020 regarding reduction in vegetation clearing areas during the Albion Park Bypass construction. Clearing works for the Bypass have now been completed. This has allowed an assessment of the actual native vegetation disturbance areas compared to the assessed native vegetation disturbance areas as approved in the Environmental Impact Statement (EIS) and amended in the Submission and Preferred Infrastructure Report (SPIR). TfNSW are seeking a reduction in their credit obligation to align with actual clearing footprints.

We undertook a site inspection of all reduced clearing areas with TfNSW personnel on 19/10/2020 and we have also reviewed provided maps.

We support the reduction in clearing areas and commend the efforts made by TfNSW and the contractor to protect this vegetation. We generally concur with the proposal, whilst noting that post-approval re-assessment of biodiversity impacts requires consideration. We therefore offer the following comments:

1. Reference map: 1326_16A

Vegetation as shown on this map has been severely fragmented as a result of the roadworks and is now surrounded by large roads and an existing industrial area. Potential for indirect impacts and edge effects from surrounding development mean the viability of this vegetation is compromised. We suggest this area and adjacent areas on the western side of the bypass be investigated for rehabilitation/revegetation to improve the retained vegetation's integrity.

Before clearing

After clearing



2. Reference map: 1326_09A

Vegetation as shown in this map has been severely fragmented as a result of the roadworks. Potential for indirect impacts and edge effects from surrounding development mean the viability of this vegetation is compromised. We suggest this area be investigated for rehabilitation/revegetation to improve the retained vegetation's integrity.

Before clearing



After clearing



3. Reference map: 1232_04

An area of vegetation (not a threatened ecological community) occurs across the road from the area shown as 1232_04. We understand this area was given approval for clearing but then subsequently retained. You could consider adding this patch to your reduced area data. Again, rehabilitation/revegetation surrounding this area could be investigated.

Before clearing



After clearing



If you wish to discuss this matter further, please let me know.

Regards, Vanessa

Vanessa Allen
Senior Conservation Planning Officer

Biodiversity and Conservation Division | Department of Planning, Industry and Environment

T 02 42244186 | E Vanessa.Allen@environment.nsw.gov.au
Level 1, 84 Crown street, Wollongong NSW 2500
PO Box 514, Wollongong NSW 2520
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From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Saturday, 10 October 2020 11:00 AM
To: Chris Page <Chris.Page@environment.nsw.gov.au>
Cc: Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>; Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; 'Peter Chudleigh' <peter.chudleigh@cardno.com.au>; Graham Roche <Graham.ROCHE@transport.nsw.gov.au>
Subject: APRb - EEC Impact Reduction

Chris,

Please see attached a letter describing the reduced impacts to EECs as part of the Albion Park Rail bypass project. Please have a look at the letter and figures that show a reduced impact of approximately 3 hectares of EEC. TfNSW would like to add this information into the updated Biodiversity Offset Package to be taken into account whilst determining the offset requirements.

TfNSW would also welcome the attendance of EES personnel to site to independently verify the assessment made by TfNSW in relation to each portion of EEC that has not been impacted as part of the project.

Peter Hawkins
Project Development Manager
Regional Project Delivery
Infrastructure and Place
Transport for NSW

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Stables, Mark

From: Vanessa Owen <Vanessa.Owen@environment.nsw.gov.au>
Sent: Tuesday, March 9, 2021 4:14 PM
To: Peter Hawkins
Cc: Peter Chudleigh; Stables, Mark; Lee McCourt; Vanessa Allen; Chris Page
Subject: RE: HPE CM: RE: GIS question

Hi Peter,

Thanks for getting together all this information.

One of the PCTs you've had a reduced obligation for- 1232- has two different management zones. One generates 19 credits (which you have applied for an equivalency for), the other management zone generates 4 credits (which you haven't applied for in your application).

The reduced credit obligation has decreased PCT1232 from 4 to 2 credits, however it's from the management zone that you didn't apply for a credit equivalence for.

I'm checking to see if your credit obligation for PCT1232 should still be reduced by 2 for the management zone where you have applied for the credit equivalence- or if the area avoided (and hence your reduced credit obligation) was from the management zone where you didn't require a credit equivalence for anyway (so can be discarded).

It might be easier to discuss over the phone?

Regards,
Vanessa

Vanessa Owen
Senior Project Officer, Ecosystem Programs

Biodiversity and Conservation Division | Department of Planning, Industry and Environment
T 02 4927 3116 | [E vanessa.owen@environment.nsw.gov.au](mailto:Vanessa.Owen@environment.nsw.gov.au)
Level 2, 26 Honeysuckle Drive NEWCASTLE NSW 2300
www.dpie.nsw.gov.au



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From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Thursday, 4 March 2021 4:04 PM
To: Vanessa Owen <Vanessa.Owen@environment.nsw.gov.au>
Cc: Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; Stables, Mark <Mark.Stables@wsp.com>; Lee McCourt <Lee.McCourt@planning.nsw.gov.au>; Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>; Chris Page <Chris.Page@environment.nsw.gov.au>
Subject: HPE CM: RE: GIS question

Vanessa,

Thanks for the updated reasonable equivalence as discussed John Seidel (Manager, Ecosystem Assessment) has recalculated the impact credits for the project which has adjusted the credit requirements for the project. Please find attached the adjusted credit requirement for PCT 781, 1326 and 1232. Our consultant has also revaluated the offset sites as the offset calculator has been updated again recently, I have attached the credit report summaries so that you can see the exact credits that we are anticipating that we will get from the sites (see table below). I understand the offsets generated has fluctuated a little with the changes to the calculator however the premise that the project team has been working on that these offset sites are great offset sites for the impacted ecosystems is still evident.

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Croom Reserve	67	8	0	0	110
Dunmore Wetlands	0	0	52	1	0
Yallah Tafe	67	17	0	15	9
Total	134	25	52	16	119

Can you please finalise the reasonable equivalence (in the same format as the last draft please) with the attached information so that we can finalise the projects Biodiversity Offset Package.

If you have any questions please give me a call.

Peter Hawkins

Project Development Manager – Transport for NSW - T 02 4221 2582 M 0429 504 605

From: Vanessa Owen [<mailto:Vanessa.Owen@environment.nsw.gov.au>]

Sent: Friday, 15 January 2021 2:58 PM

To: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>

Subject: FW: GIS question

Hi Peter,

Hope you had a great Christmas break.

I'm following up on the email below- would you like another meeting to discuss, or are you satisfied this revised draft covers the scenarios you require?

Regards,

Vanessa

Vanessa Owen

Senior Project Officer, Ecosystem Programs

Biodiversity and Conservation Division | Department of Planning, Industry and Environment

T 02 4927 3116 | E vanessa.owen@environment.nsw.gov.au

Level 2, 26 Honeysuckle Drive NEWCASTLE NSW 2300

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From: Vanessa Owen

Sent: Friday, 18 December 2020 4:54 PM

To: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>

Cc: Phil Wood <Phil.Wood@environment.nsw.gov.au>; Lucian McElwain <Lucian.McElwain@environment.nsw.gov.au>;

Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; Graham Roche <Graham.ROCHE@transport.nsw.gov.au>

Subject: RE: GIS question

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Regards,
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From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>

Sent: Thursday, 3 December 2020 12:14 PM

To: Vanessa Owen <Vanessa.Owen@environment.nsw.gov.au>

Cc: Phil Wood <Phil.Wood@environment.nsw.gov.au>; Lucian McElwain <Lucian.McElwain@environment.nsw.gov.au>;

Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; Graham Roche <Graham.ROCHE@transport.nsw.gov.au>

Subject: RE: GIS question

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See attached GIS data for Tafe I can confirm that there is no Chorizema at Dunmore Wetlands.

Peter Hawkins

Project Development Manager – **Transport for NSW** - T 02 4221 2582 M 0429 504 605

From: Vanessa Owen [<mailto:Vanessa.Owen@environment.nsw.gov.au>]

Sent: Thursday, 26 November 2020 2:41 PM

To: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>

Cc: Phil Wood <Phil.Wood@environment.nsw.gov.au>; Lucian McElwain <Lucian.McElwain@environment.nsw.gov.au>

Subject: GIS question

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The files you sent included vegetation mapping for Dunmore Wetland and Croom Reserve, however there were no vegetation mapping files for Yallah TAFE- are these available?

The files you sent had points showing location of Chorizema parviflorum (Eastern Flame Pea) at Croom Reserve only. I wouldn't think this species would occur at Dunmore Wetland (based on habitat), so I don't think there's anything missing from this data set. However I wasn't sure if this species occurred at Yallah TAFE?

So based on what you gave me, I can calculate the number of credits your credit obligation would be for Eastern Flame Pea if you retire credits from a Biodiversity Stewardship site at Croom Reserve.

If you also wanted me to do this for Yallah TAFE, can you please provide the GIS vegetation mapping and point data.

Can you please confirm that Eastern Flame Pea doesn't occur at Dunmore Wetland.

Regards,

Vanessa

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Stables, Mark

From: Vanessa Owen <Vanessa.Owen@environment.nsw.gov.au>
Sent: Thursday, March 18, 2021 11:10 AM
To: Peter Hawkins
Cc: Peter Chudleigh; Stables, Mark; Lee McCourt; Vanessa Allen; Chris Page
Subject: RE: HPE CM: RE: GIS question

Hi Peter,

Thanks for the clarification.

Given that the reduction in impact was for both Zone 2 (2091m2) and 7 (2693m2), and totalled two credits, we have allocated on credit of the reduced obligation to Zone 2 and one credit of the reduced obligation for Zone 7.

I've sent your credit equivalence for approval. The approval process takes approximately 3-4 weeks.

Regards,
Vanessa

Vanessa Owen
Senior Project Officer, Ecosystem Programs

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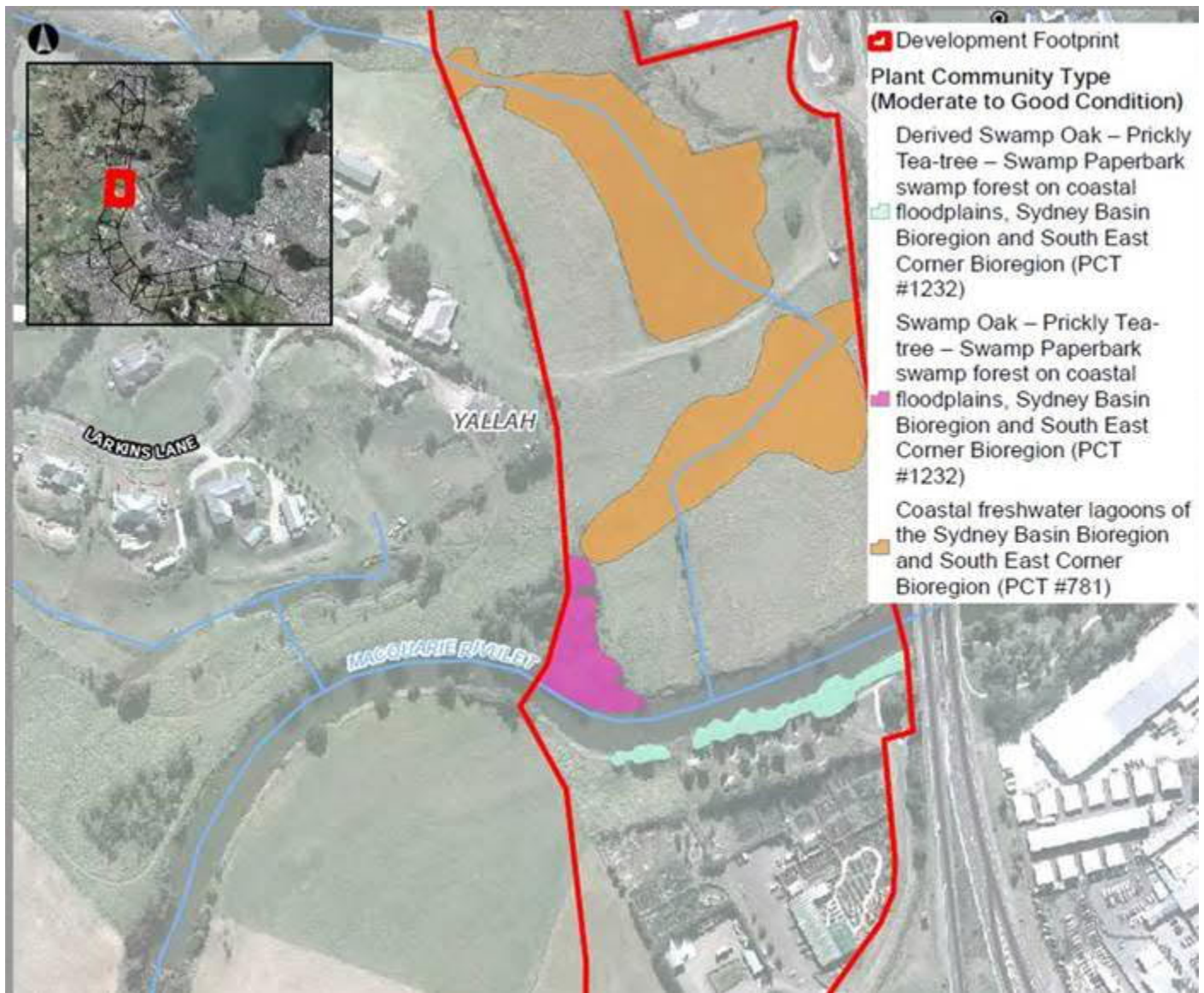
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From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Wednesday, 10 March 2021 10:29 AM
To: Vanessa Owen <Vanessa.Owen@environment.nsw.gov.au>
Cc: Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; Stables, Mark <Mark.Stables@wsp.com>; Lee McCourt <Lee.McCourt@planning.nsw.gov.au>; Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>; Chris Page <Chris.Page@environment.nsw.gov.au>
Subject: [WARNING: UNSCANNABLE EXTRACTION FAILED]RE: HPE CM: RE: GIS question

Vanessa,

Thanks for picking this up, it is a little convoluted, based on the addendum biodiversity assessment report (attached) that is referenced in the approval there are two stands of PCT 1232 see below.

This is Zone ID2 (requiring 19 credits)



This is Zone ID7 (requiring 4 credits)



#12317

Swamp Oak – Prickly Tea-tree – Swamp Paperbark swamp forest on coastal floodplains, Sydney Basin Bioregion and South East Corner Bioregion (PCT #1232)

Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion (PCT #781)

Woollybutt – White Stringybark – Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion (PCT #1326)

Sydney Blue Gum x Bangalay - Lilly pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (PCT 1245)

The vegetation in Zone 7 did not conform to the EEC and therefore did not require offsetting however the veg in Zone 2 did (see addendum report table 5-1 the highlighted zones). The reduction in impact was for both Zone 2 (2091m2) and 7 (2693m2). See attached the letter showing the reduction.

So I guess the next step is to go back to John Seidel and ask him to reduce the Zone 2 impacts by the 2091m2 and recalculate the credits but leave the Zone 7 ones as we do not need to offset for these.

Let me know if there is a more preferred way to do this or whether you think I have missed something.

Thanks,

Peter Hawkins

Project Development Manager – **Transport for NSW** - T 02 4221 2582 M 0429 504 605

From: Vanessa Owen [<mailto:Vanessa.Owen@environment.nsw.gov.au>]

Sent: Tuesday, 9 March 2021 4:14 PM

To: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>

Cc: Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; Stables, Mark <Mark.Stables@wsp.com>; Lee McCourt <Lee.McCourt@planning.nsw.gov.au>; Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>; Chris Page <Chris.Page@environment.nsw.gov.au>

Subject: RE: HPE CM: RE: GIS question

Hi Peter,

Thanks for getting together all this information.

One of the PCTs you've had a reduced obligation for- 1232- has two different management zones. One generates 19 credits (which you have applied for an equivalency for), the other management zone generates 4 credits (which you haven't applied for in your application).

The reduced credit obligation has decreased PCT1232 from 4 to 2 credits, however it's from the management zone that you didn't apply for a credit equivalence for.

I'm checking to see if your credit obligation for PCT1232 should still be reduced by 2 for the management zone where you have applied for the credit equivalence- or if the area avoided (and hence your reduced credit obligation) was from the management zone where you didn't require a credit equivalence for anyway (so can be discarded).

It might be easier to discuss over the phone?

Regards,
Vanessa

Vanessa Owen
Senior Project Officer, Ecosystem Programs

Biodiversity and Conservation Division | Department of Planning, Industry and Environment
T 02 4927 3116 | E vanessa.owen@environment.nsw.gov.au
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From: Peter Hawkins <Peter.HAWKINS@transport.nsw.gov.au>
Sent: Thursday, 4 March 2021 4:04 PM
To: Vanessa Owen <Vanessa.Owen@environment.nsw.gov.au>
Cc: Peter Chudleigh <Peter.Chudleigh@transport.nsw.gov.au>; Stables, Mark <Mark.Stables@wsp.com>; Lee McCourt <Lee.McCourt@planning.nsw.gov.au>; Vanessa Allen <Vanessa.Allen@environment.nsw.gov.au>; Chris Page <Chris.Page@environment.nsw.gov.au>
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Appendix F

Statement of assessment of reasonable equivalence of biodiversity credits

Statement of assessment of reasonable equivalence of biodiversity credits

A delegate of the Environment Agency Head of the Department of Planning Industry and Environment has determined that the number of biodiversity credits required to be retired under the *Threatened Species Conservation Act 1995 (TSC Act)* as part of the development consent listed in Part 1, are reasonably equivalent to the number and class of biodiversity credits under the *Biodiversity Conservation Act 2016 (BC Act)* set out in Part 2.

This document outlines that determination, made in accordance with clause 22(3) of the *Biodiversity Conservation (Savings and Transitional) Regulation 2017*.

Part 1 Existing statutory obligation to retire credits

Request made by:	Transport for NSW (ABN 18 804 239 602)
Date received	3 rd September 2020 ¹
Development Consent number	SSI 6878
Development name	Albion Park Rail Bypass

Existing statutory obligation reference	Biodiversity credit name (Plant Community Type name and ID, or threatened species name)	IBRA sub region	Number of credits in obligation ²	Number of credits applied for
SSI 6878	Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion (SR669)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	338 204	204

¹ A previous statement of reasonable equivalence was issued 9 October 2019 (DOC19/831307-1) which included a full recalculation of species and ecosystem credits. A further application to re-assess the statement of reasonable equivalence in relation to SR669, SR536 and SR649 was received on 3 September 2020.

² In March 2020, Transport for NSW negotiated with Planning and Assessment and Ecosystem Assessment Team a reduced credit obligation (DOC21/164174). The reduced credit obligation was the result of a smaller area of land being cleared than the area stated in the consent and was developed in consultation with Biodiversity and Conservation Division (DOC21/149890). For completeness and to minimise additional request, this credit equivalence considers both the original entire credit obligation and the reduced credit obligation. Strikethrough indicates original credit obligation.

Existing statutory obligation reference	Biodiversity credit name (Plant Community Type name and ID, or threatened species name)	IBRA sub region	Number of credits in obligation ²	Number of credits applied for
SSI 6878	Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion (SR536)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	293 230	230
1231	Swamp Mahogany swamp sclerophyll forest on coastal lowlands of the Sydney Basin Bioregion and South East Corner Bioregion (SR648)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	24	0 ³
SSI 6878	Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion (SR649)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	19 18	18
SSI 6878	Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion (SR649)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	4 3	0 ⁴

³ Although there is a credit obligation associated with SR648 in the Biobanking calculator case 0035/2017/4688MP, the applicant has advised that consent conditions do not include a credit obligation for SR468. In consultation with the applicant this credit equivalence does not include SR468.

⁴ Although there is a credit obligation associated with SR649 in the Biobanking calculator case 0035/2017/4688MP, the applicant has advised that consent conditions do not include a credit obligation for SR469. In consultation with the applicant this credit equivalence does not include SR469.

SSI 6878	Forest Red Gum - Thin-leaved Stringybark grassy woodland on coastal lowlands, southern Sydney Basin Bioregion (SR545)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	1	35 ⁵
SSI 6878	Forest Red Gum - Thin-leaved Stringybark grassy woodland on coastal lowlands, southern Sydney Basin Bioregion (SR545)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	825	
SSI 6878	Forest Red Gum - Thin-leaved Stringybark grassy woodland on coastal lowlands, southern Sydney Basin Bioregion (SR545)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	17	
SSI 6878	Forest Red Gum - Thin-leaved Stringybark grassy woodland on coastal lowlands, southern Sydney Basin Bioregion (SR545)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	17	0 ⁶
SSI 6878	River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion (SR606)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	3	0 ⁷

⁵ Although there is a credit obligation of 843 associated with SR545 in the Biobanking calculator case 0035/2017/4688MP, the applicant has advised that consent conditions only require a credit obligation of 35 for SR545. In consultation with the applicant this credit equivalence is for 35 credits of SR545.

⁶ Although there is a credit obligation of 843 associated with SR545 in the Biobanking calculator case 0035/2017/4688MP, the applicant has advised that consent conditions only require a credit obligation of 35 for SR545. In consultation with the applicant this credit equivalence is for 35 credits of SR545.

⁷ Although there is a credit obligation associated with SR606 in the Biobanking calculator case 0035/2017/4688MP, the applicant has advised that consent conditions do not include a credit obligation for SR606. In consultation with the applicant this credit equivalence does not include SR606.

SSI 6878	Sydney Blue Gum x Bangalay-Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (SR652)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	19 ⁸	19
SSI 6878	Sydney Blue Gum x Bangalay-Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (SR652)	Illawarra and any subregion that adjoins the IBRA subregion in which the development occurs	3	
SSI 6878	<i>Chorizema parviflorum</i> (Eastern Flame Pea) Endangered Population	N/A	1725	1725

⁸ Although there is a credit obligation of 22 associated with SR652 in the Biobanking calculator case 0035/2017/4688MP, the applicant has advised that consent conditions only require a credit obligation of 19 for SR652. In consultation with the applicant this credit equivalence is for 19 credits of SR652.

Part 2 Determination of reasonable equivalence

The number and class of biodiversity credits that are reasonably equivalent under the BC Act are:

Ecosystem Credits

- Name of Plant Community Type:** Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion (PCT 1326)

Number of ecosystem credits required if applicant pays into Biodiversity Conservation Fund⁹	249 ¹⁰ 149 ¹¹	
Total number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant	128	
Number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant- per site	Croom Reserve (Site 1)	87
	Dunmore Wetland	Not applicable - no credits generated at Dunmore Wetland
	Yallah TAFE (Site 23)	41
Offset trading group	Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (Commonwealth CEEC)	
Vegetation class	Coastal valley grassy woodlands	
Vegetation formation	Grassy woodlands	
Hollow bearing trees	Vegetation containing hollow bearing trees	
IBRA¹² subregion	Illawarra subregion or an adjoining subregion as the impacted site or any such subregion that is within 100km of the outer edge of the impacted site	

⁹ Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

¹⁰ Strikethrough indicates original credit obligation

¹¹ Matching credits are available on the BioBanking Credits Register from BioBanking Agreement ID BA 421 however the applicant has contacted the credit owners and the credits are already committed and not for sale. A full recalculation of the number of credits has therefore been undertaken.

¹² Interim Biogeographic Regionalisation for Australia

2. **Name of Plant Community Type:** Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion (PCT 781)

Number of ecosystem credits required if applicant pays into Biodiversity Conservation Fund¹³	209 ¹⁴ 163 ¹⁵	
Total number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant	37	
Number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant- per site	Croom Reserve (Site 1)	Not applicable- no credits generated at Croom Reserve (Site 1)
	Dunmore Wetland	37
	Yallah TAFE (Site 23)	Not applicable- no credits generated at Yallah TAFE (Site 23)
Offset trading group	Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (EEC)	
Vegetation class	Coastal freshwater lagoons	
Vegetation formation	Freshwater wetlands	
Hollow bearing trees	Not applicable	
IBRA¹⁶ subregion	Illawarra subregion or an adjoining subregion as the impacted site or any such subregion that is within 100km of the outer edge of the impacted site	

¹³ Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

¹⁴ Strikethrough indicates original credit obligation.

¹⁵ Matching credits are available on the BioBanking Credits Register from BioBanking Agreement ID BA 420; however the applicant has contacted the credit owners and has not received a reply for over four months. A full recalculation of the number of credits has therefore been undertaken.

¹⁶ Interim Biogeographic Regionalisation for Australia

3. **Name of Plant Community Type:** Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion (PCT1232)

Number of ecosystem credits required if applicant pays into Biodiversity Conservation Fund¹⁷	10 ¹⁸ ¹⁹	
Total number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant	15	
Number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant - per site	Croom Reserve (Site 1)	Not applicable- no credits generated at Croom Reserve (Site 1)
	Dunmore Wetland	5
	Yallah TAFE (Site 23)	10
Offset trading group	River Flat Eucalypt Forest on Coastal Floodplains (EEC)	
Vegetation class	Coastal swamp forests	
Vegetation formation	Forested wetlands	
Hollow bearing trees	Not applicable	
IBRA²⁰ subregion	Illawarra subregion or an adjoining subregion as the impacted site or any such subregion that is within 100km of the outer edge of the impacted site	

¹⁷ Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

¹⁸ Strikethrough indicates original credit obligation

¹⁹ Matching credits are available on the BioBanking Credits Register from BioBanking Agreement ID BA 420 however the applicant has contacted the credit owners and has not received a reply for over four months. A full recalculation of the number of credits has therefore been undertaken.

²⁰ Interim Biogeographic Regionalisation for Australia

4. **Name of Plant Community Type:** Forest Red Gum - Thin-leaved Stringybark grassy woodland on coastal lowlands, southern Sydney Basin Bioregion (PCT 838)

Number of ecosystem credits required if applicant pays into Biodiversity Conservation Fund²¹	35 ²²	
Total number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant	33	
Number of ecosystem credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant - per site	Croom Reserve (Site 1)	10
	Dunmore Wetland	Not applicable- no credits generated at Dunmore Wetland
	Yallah TAFE (Site 23)	23
Offset trading group	Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion (Commonwealth CEEC)	
Vegetation class	Coastal valley grassy woodlands	
Vegetation formation	Grassy woodlands	
Hollow bearing trees	Not applicable	
IBRA²³ subregion	Illawarra subregion or an adjoining subregion as the impacted site or any such subregion that is within 100km of the outer edge of the impacted site	

²¹ Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

²² Matching credits are available on the BioBanking Credits Register from BioBanking Agreement ID BA 221 and BA203. In accordance with the approved methodology there has been no recalculation of the number of credits.

²³ Interim Biogeographic Regionalisation for Australia

5. **Name of Plant Community Type:** Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (PCT 1245)

Number of ecosystem credits required if applicant pays into Biodiversity Conservation Fund²⁴	19 ²⁵
Number of ecosystem credits required if applicant retires credit from offset site BA445 (owned by applicant)	10
Offset trading group	North Coast wet sclerophyll forests with a percent cleared value <50%
Vegetation class	North Coast Wet Sclerophyll forests
Vegetation formation	Wet Sclerophyll forests
Hollow bearing trees	Not applicable
IBRA²⁶ subregion	Illawarra subregion or an adjoining subregion as the impacted site or any such subregion that is within 100km of the outer edge of the impacted site

²⁴ Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of remaining ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of ecosystem credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.

²⁵ Matching credits are available on the BioBanking Credits Register from BioBanking Agreement ID BA 221, BA 421, BA 445 (site owned by RMS), BA 369 (Credits but not site owned by RMS), BA 272. If payment is made into the Biodiversity Conservation Fund or if credits from BA 445 are not retired to meet the obligation, the number of credits to be retired is equivalent to the number of credits in the credit obligation.

²⁶ Interim Biogeographic Regionalisation for Australia

Species Credits

1. **Name of threatened species:** *Chorizema parviflorum* (Eastern Flame Pea) Endangered Population

Number of ecosystem credits required if applicant pays into Biodiversity Conservation Fund²⁷	230	
Total number of species credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant	144	
Number of species credits required if applicant retires credits from Biodiversity Stewardship site owned by applicant - per site	Croom Reserve (Site 1)	133
	Dunmore Wetland	Not applicable- no credits generated at Dunmore Wetland
	Yallah TAFE (Site 23)	11

This statement was issued on 19/05/2021.

Authorised by:



MICHELLE CHUNG
Director Biodiversity Offsets Scheme
Department of Planning Industry and Environment
 Delegate of the Environment Agency Head

²⁷ Should the credit obligation not be entirely discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of remaining species credits required if the applicant pays into the Biodiversity Conservation Fund shall be a proportion of the credit obligation. For example, if 90% of the credit obligation is discharged by retirement of credits from Biodiversity Stewardship sites owned by the applicant, then the number of species credits required if the applicant pays into the Biodiversity Conservation Fund for the remainder of the credit obligation is 10% of the credit obligation.