

# **MENANGLE PARK PLANNING PROPOSAL**

## **ADDENDUM TO BIODIVERSITY ASSESSMENT**

For Dahua Group Australia

August 2021



## Introduction

This addendum report has been prepared by Cumberland Ecology for Planning Proposal (PP\_2020\_CAMPB\_003\_00) which seeks to amend planning controls across the Menangle Park Urban Release Area (MPURA). The Planning Proposal is supported by a Voluntary Planning Agreement (VPA) and biodiversity reporting which details approaches to preserving important natural assets in perpetuity under zoning and other management procedures.

Dahua (the Applicant) is committed to preserving the site's important biodiversity values in perpetuity. This forms a key part of their overarching Vision for Menangle Park. A substantially improved biodiversity outcome will now be achieved compared to the original MPURA rezoning that now applies under the Campbelltown LEP 2015. Table 1 below demonstrates those additional zoned and protected areas under the Planning Proposal.

**Table 1 Ecological Outcomes (Planning Proposal vs Original Rezoning 2017)**

Ecological Outcomes	Planning Proposal (PP_2020_CAMPB_003_00)	Current LEP 2015
Total Area of lands zoned RE1 Public Recreation	1,036,653m <sup>2</sup> (103.66ha) <b>Additional area = 55,147m<sup>2</sup> (5.5ha)</b>	981,506m <sup>2</sup> (98.15ha)
Total Area of lands zoned E2 Environmental Conservation	<b>(New)</b> - 29,101m <sup>2</sup> (2.91ha)	0
Total Area of lands zoned E4 Environmental Living	<b>(New)</b> - 210,000m <sup>2</sup> (21ha)	0
Area of EBSF protected in perpetuity	1.54ha	0.35ha
Area of RFEF protected in perpetuity	10ha	4.02ha
Area of CPW contained in Conservation Reserves to be protected	13.92ha	7.75ha

The improvements proposed will:

- **Create** new local parks containing threatened Elderslie Banksia Scrub Forest (EBSF), River Flat Eucalypt Forest (RFEF) and Cumberland Plain Woodland (CPW) vegetation communities.
- **Expand** the Howes Creek riparian corridor to contain and protect threatened vegetation and habitat areas for threatened flora and additional opportunities for protection of vegetation communities in newly proposed E4 Environmental Living zones.
- **Ensure** the ongoing protection of important biodiversity values through a proposed E2 Environmental Conservation rezoning of the new parks.

## **Previous Reporting**

Cumberland Ecology's previous report (ref. 17072RP4, dated 6 November 2018) supported the lodgement of the Planning Proposal. It documented ecological site assessments' findings and identified potential ecological constraints, impacts and proposed mitigation strategies.

The assessment considered the *Threatened Species Conservation Act* (TSC Act), as the proposal at the time applied to the 'interim designated area' under the *NSW Biodiversity Conservation (Savings and Transitional) Regulation 2017*. Since the assessment, the legislative framework under the *Biodiversity Conservation Act, 2016* has come into force for the MPURA.

Additionally, the *State Environmental Planning Policy (Koala Habitat Protection) 2021* (Koala SEPP) has also now replaced SEPP 44 – Koala Habitat Protection. Campbelltown's Koala Plan of Management (CKPoM) has been adopted and now applies to the site. All future development applications (DAs) for subdivision and works must be assessed with regard to the new Koala protection plans and policies.

This addendum provides an update on the ongoing site investigations, monitoring and assessments carried out by Cumberland Ecology since 2018.

## **Modes of Ecological Assessment**

Extensive site-wide ecological assessments were prepared for the MPURA to inform the proposed zoning. This Legislation applied at the point of lodgement of the planning proposal.

A Biodiversity Certification Assessment (BCA) under the current BCA Act would have been prepared with survey and mapping of the site using Biodiversity Assessment Method (BAM), and determining the conservation outcomes first. However, the site-wide ecological assessments under the TSC Act delivered detailed mapping and has since been regularly updated with further information to enhance its accuracy and projected conservation outcomes.

The planning proposal has not been the subject of a formal Biobanking assessment under the TSC Act, although impact assessments have been prepared in the form of Species Impact Statements (SISs) under the savings provisions. Offsetting of ecological impacts using the Biobanking credit assessment calculator have been completed for the SISs.

As the savings provisions for the TSC Act have now finished any new DAs will be prepared under the requirements of the BC Act and so will utilise the BAM.

## **Biodiversity impacts have been updated and reduced following on-going surveys and mapping since 2018**

The vegetation impacts indicated by the 2018 report remain accurate (refer to Figure 1). Ongoing studies of the MPURA flora and fauna have resulted in regular updates to the mapping since 2018.

More recent mapping in 2021 has resulted in minimal changes limited to small areas of vegetation.

A small patch of River Flat Eucalypt Forest (RFEF) was reclassified to EBSF Elderslie Banksia Scrub Forest (EBSF). This is illustrated on the updated mapping (refer to Figures 2, 3 and 4). The newly classified EBSF will be conserved and managed in perpetuity within the open space Park K (refer to Figure 5).

**All mapping has been updated with additional data supplied by further ecological assessments since 2018**

Site surveys carried out since 2018 have identified minor changes to vegetation conditions resulting largely from increased rainfall in 2020 that broke the decade-long drought. A small patch of EBSF has been reclassified and is protected within the proposed local parks to be zoned RE1 Public Recreation and E2 Environmental Conservation (refer to Figures 4 and 5). These vegetation communities will be preserved and maintained in perpetuity under vegetation conservation agreements referenced in the VPA that supports the Planning Proposal.

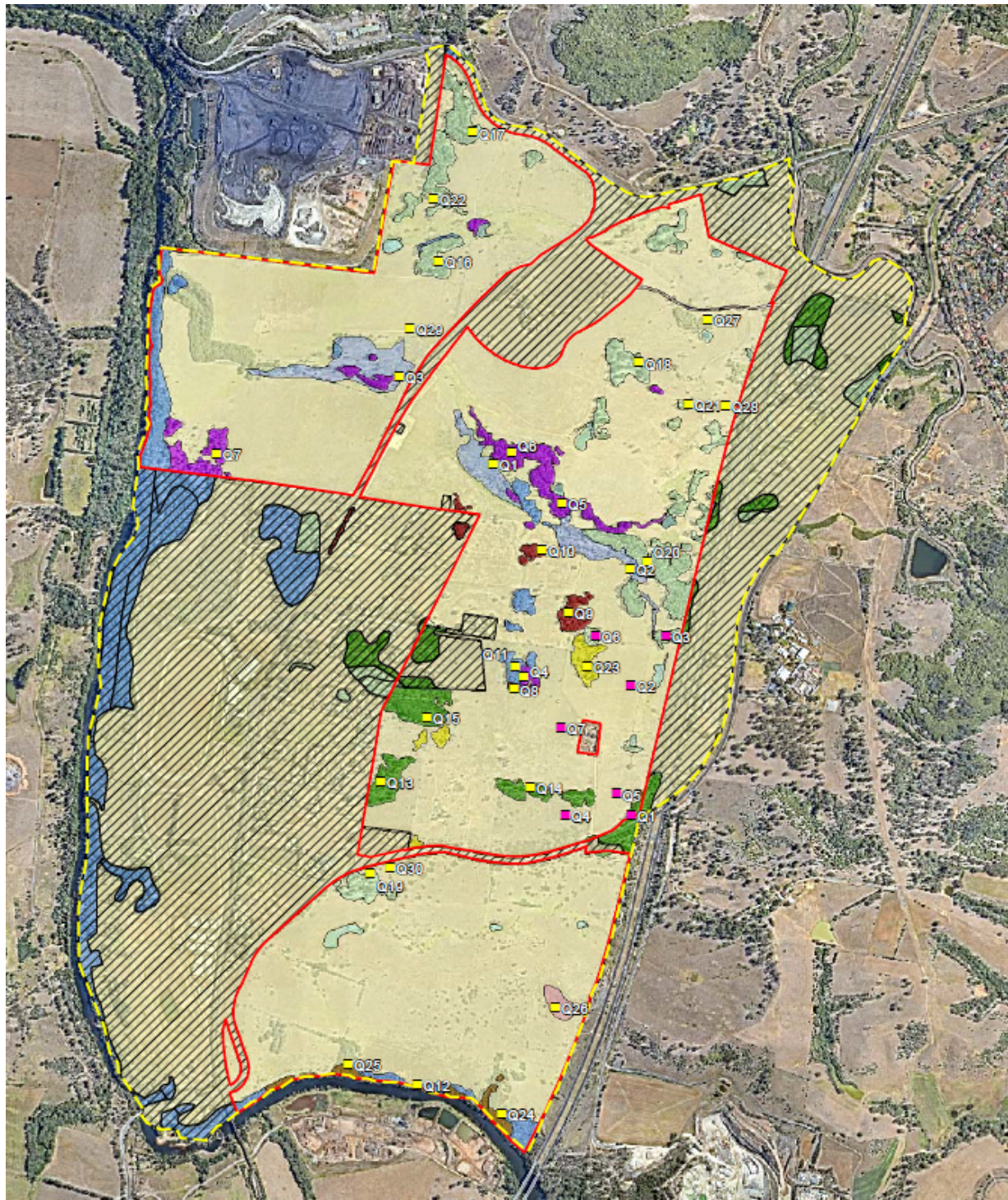
Remnant, isolated CPW vegetation now exists in a degraded state within the area to be retained as R2 Low Density Residential zoned land. Any future DA for subdivision of this part of the site will require a BAM that will identify credits to be retired to facilitate development.

Overall:

- The proposed land use zoning maps are aligned with the ecological reporting and advice provided to Dahua by Cumberland Ecology.
- High value biodiversity is contained in parks and will be the subject of perpetual protection arrangements under a RE1 or E2 zoning.
- Future impacts to lower order vegetation across the residential zoned parts of the site will comply with the BC Act and BAM.



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**Legend**



Site



Study area



OEH vegetation mapping (2013)



Flora plot (2016)



Flora plot (2017)

**Vegetation Community**



Shale Plains Woodland



Shale Hills Woodland



Shale Hills Woodland Derived Native Grassland



Elderslie Banksia Scrub Forest



River Flat Eucalypt Forest



Swamp Oak Floodplain Forest



River Oak Riparian Woodland



Freshwater Wetlands



Acacia Regrowth



Exotic Vegetation and Cleared Land

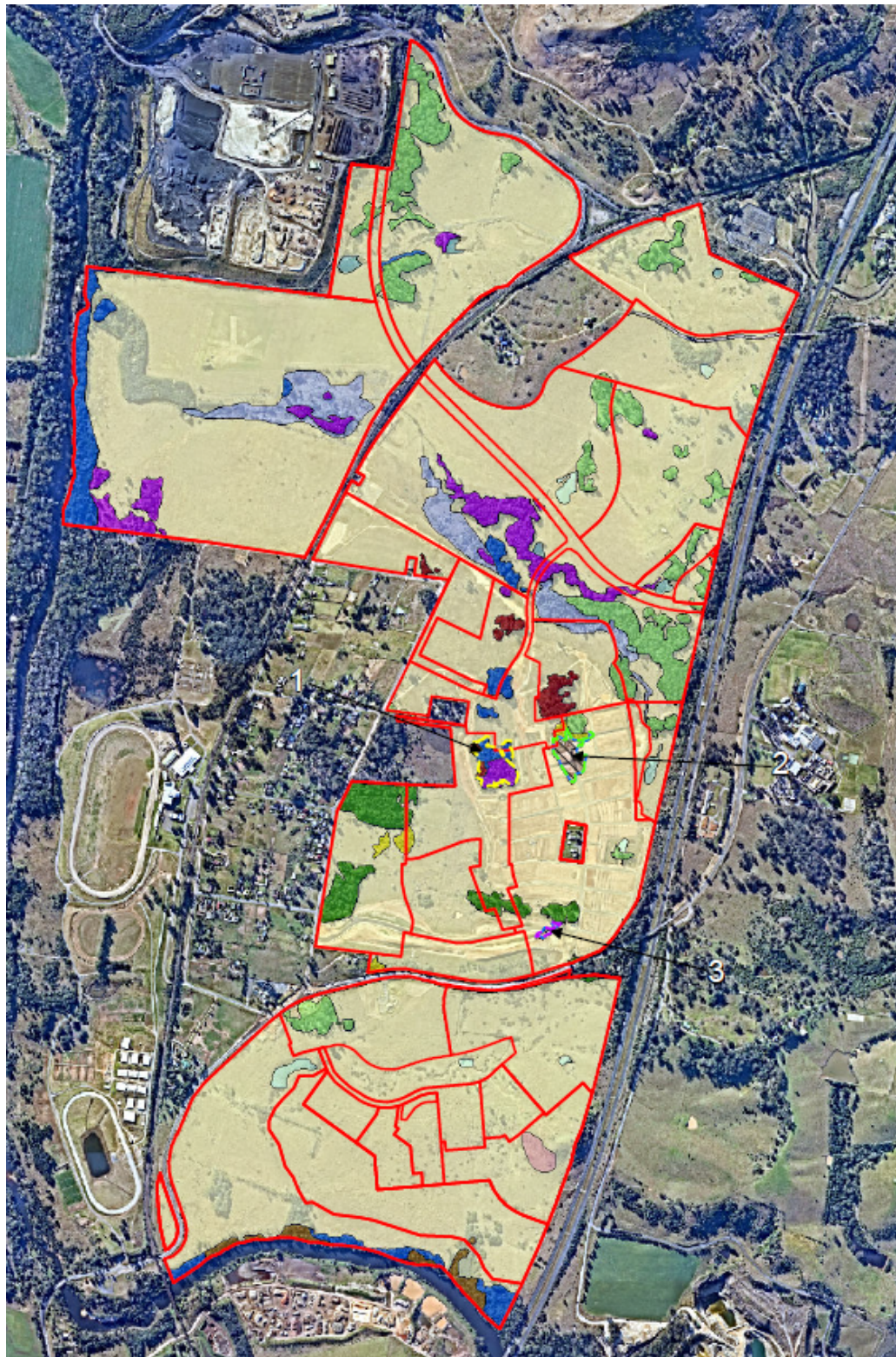


Dam

**Figure 1 2018 Vegetation Map**



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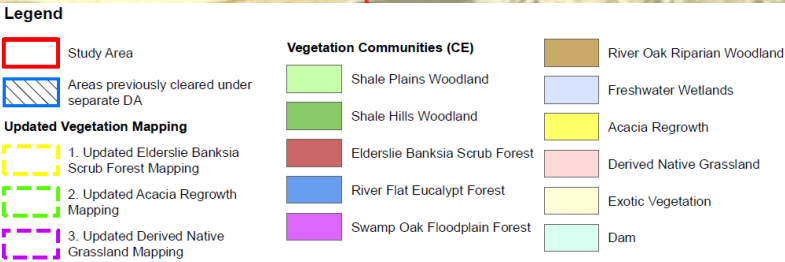
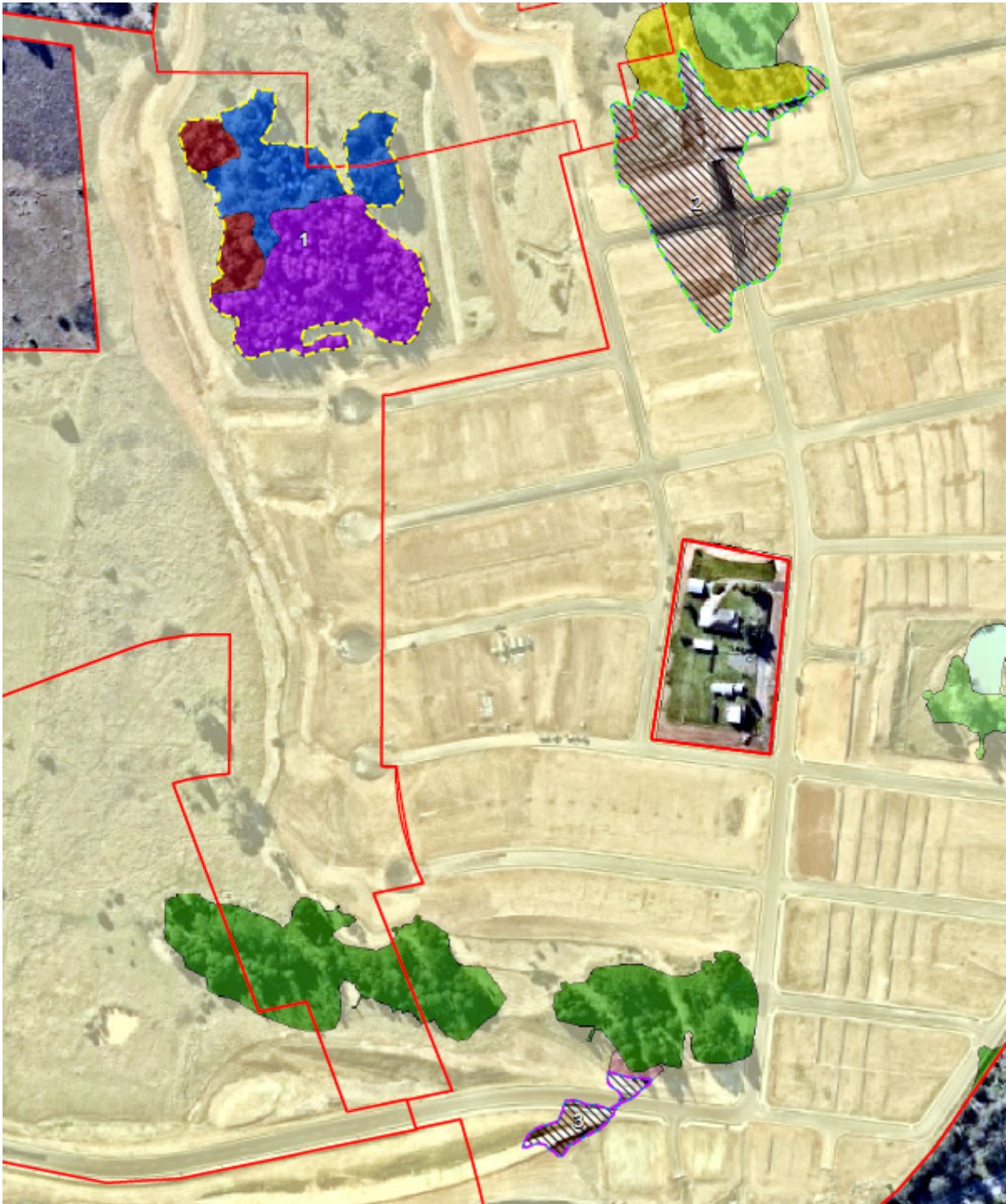
**Legend**

<span style="border: 2px solid red; display: inline-block; width: 20px; height: 10px;"></span> Study Area	<b>Vegetation Communities (CE)</b>	<span style="background-color: #8B4513; display: inline-block; width: 20px; height: 10px;"></span> River Oak Riparian Woodland
<span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, blue 2px, blue 4px); border: 1px solid blue; display: inline-block; width: 20px; height: 10px;"></span> Areas previously cleared under separate DA	<span style="background-color: #90EE90; display: inline-block; width: 20px; height: 10px;"></span> Shale Plains Woodland	<span style="background-color: #ADD8E6; display: inline-block; width: 20px; height: 10px;"></span> Freshwater Wetlands
<b>Updated Vegetation Mapping</b>	<span style="background-color: #3CB371; display: inline-block; width: 20px; height: 10px;"></span> Shale Hills Woodland	<span style="background-color: #FFFF00; display: inline-block; width: 20px; height: 10px;"></span> Acacia Regrowth
<span style="border: 2px dashed yellow; display: inline-block; width: 20px; height: 10px;"></span> 1. Updated Elderslie Banksia Scrub Forest Mapping	<span style="background-color: #8B0000; display: inline-block; width: 20px; height: 10px;"></span> Elderslie Banksia Scrub Forest	<span style="background-color: #FFB6C1; display: inline-block; width: 20px; height: 10px;"></span> Derived Native Grassland
<span style="border: 2px dashed green; display: inline-block; width: 20px; height: 10px;"></span> 2. Updated Acacia Regrowth Mapping	<span style="background-color: #4169E1; display: inline-block; width: 20px; height: 10px;"></span> River Flat Eucalypt Forest	<span style="background-color: #FFFFE0; display: inline-block; width: 20px; height: 10px;"></span> Exotic Vegetation
<span style="border: 2px dashed purple; display: inline-block; width: 20px; height: 10px;"></span> 3. Updated Derived Native Grassland Mapping	<span style="background-color: #8A2BE2; display: inline-block; width: 20px; height: 10px;"></span> Swamp Oak Floodplain Forest	<span style="background-color: #AFEEEE; display: inline-block; width: 20px; height: 10px;"></span> Dam

**Figure 2 Updated Vegetation Map**



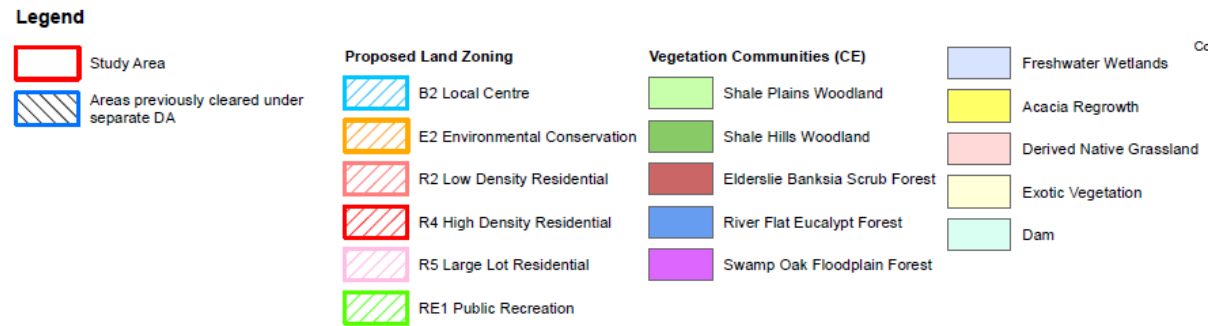
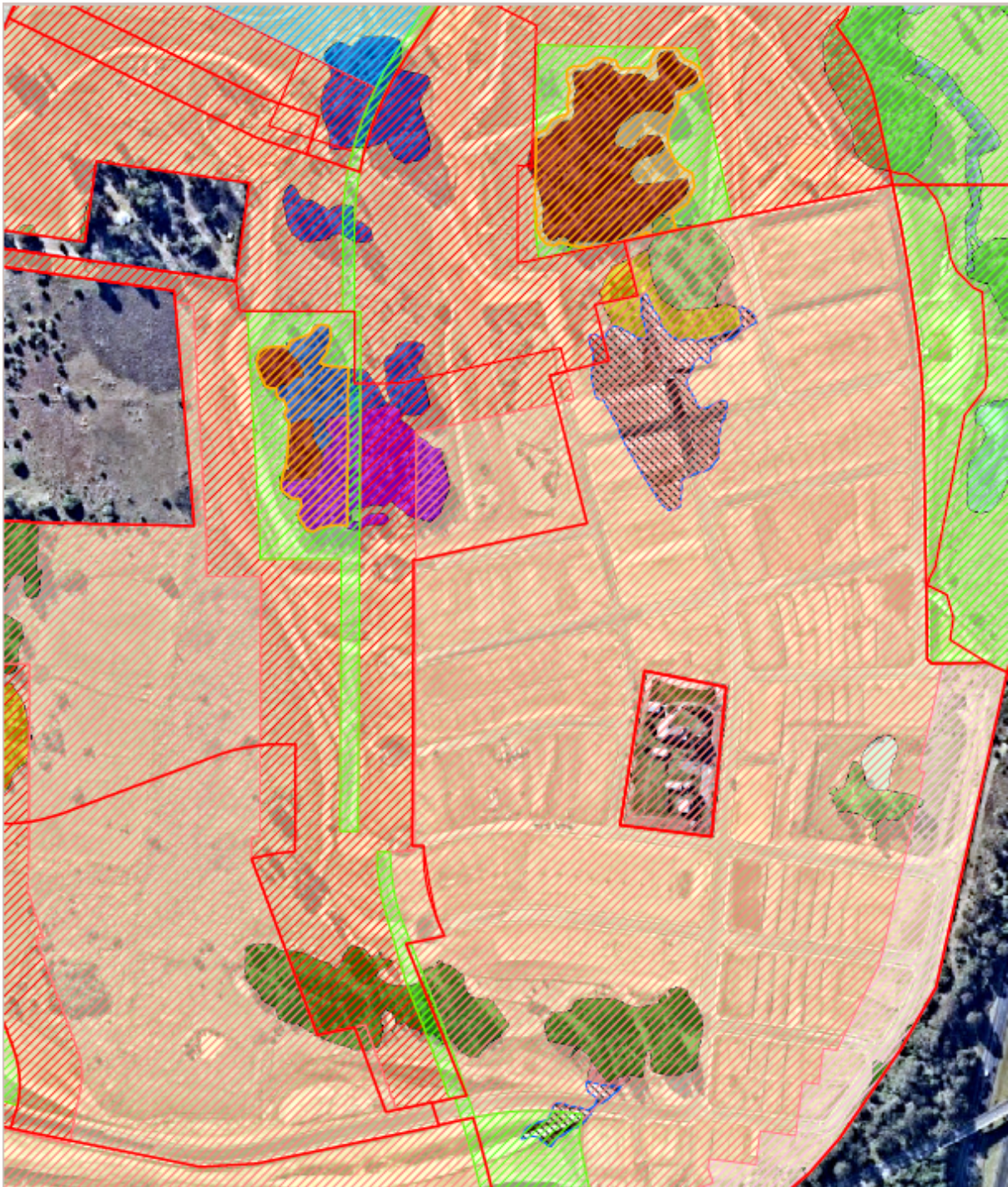
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**Figure 3 Updated Vegetation Map**



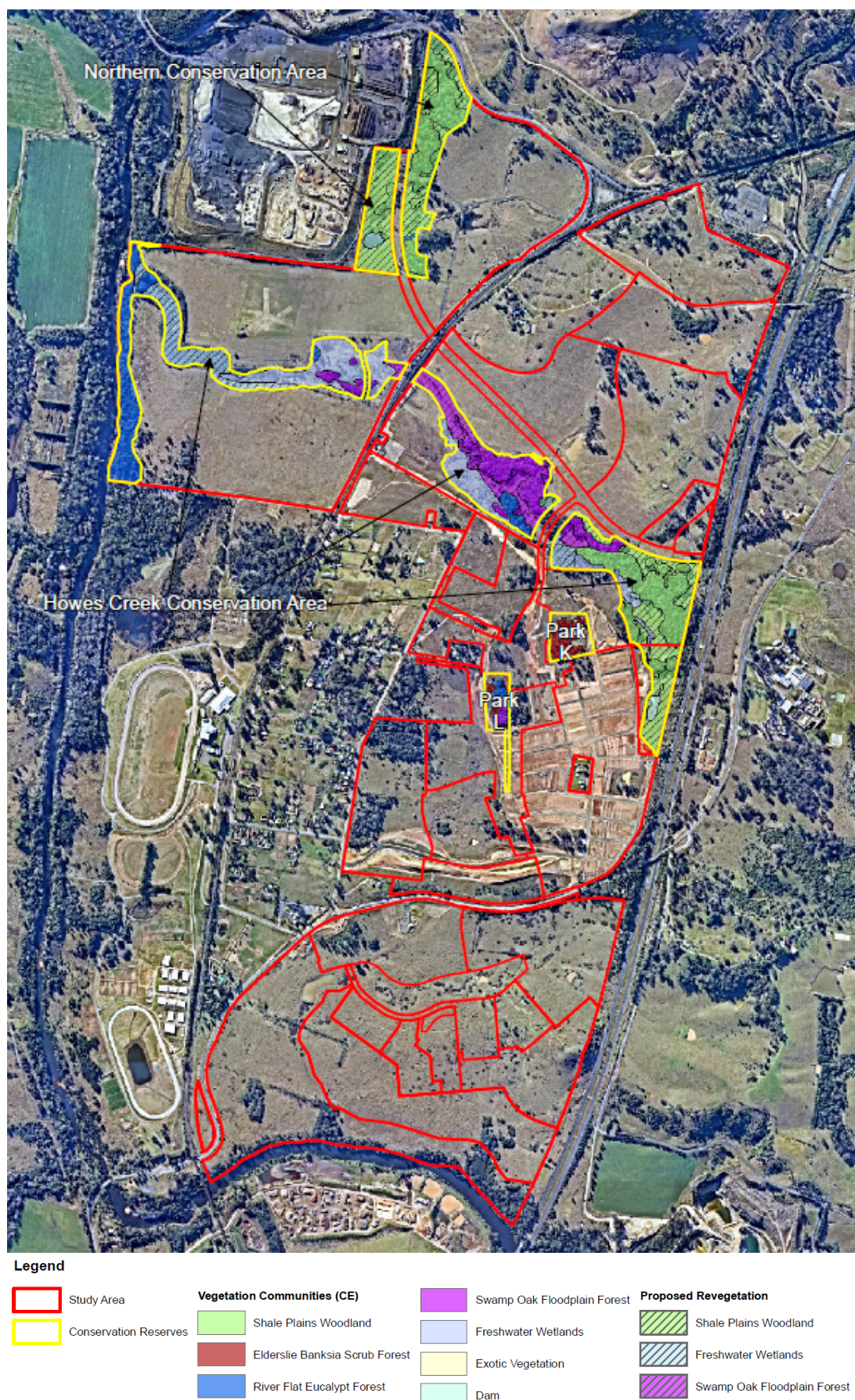
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**Figure 4 Updated Vegetation Map and Land Use Zoning**



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**Figure 5 Conservation Reserves**



### **Koala identification and reporting aligns with Koala SEPP and CKPoM requirements**

The Koala SEPP requires a VAR to be completed to ensure the Planning Proposal's Structure Plan is consistent with the CKPoM. As part of this, detailed re-mapping has taken place for all native vegetation in developable portions of the MPURA, and 20m into the mapped conservation areas.

The MPURA is not core Koala habitat mapped by the CKPoM. Some Koala feed trees exist on the site however there are no records of Koalas. The VAR work is continuing and further fieldwork to verify the earlier findings of no Koala activity will take place for future DAs.

The Structure Plan and land use zoning maps under the proposal are consistent with the requirements of the CKPoM.

### **Conservation and stewardship arrangements have been defined and updated**

The design of the conservation lands in the original Structure Plan has progressed since 2018:

- The proposed conservation areas' boundaries are clarified and two new parks for the conservation of EBSF are proposed (refer to Figure 5).
- Conservation areas have been expanded and the spine road re-aligned to reduce impacts on important vegetation including EBSF.
- All conservation areas are proposed for in perpetuity management while native vegetation will be conserved and improved through a site-wide Vegetation Management Plan (VMP).
- The largest conservation areas – Howes Creek and the Northern Parklands – are proposed to be protected under stewardship agreements.
- Parks K and L would be managed under a Vegetation Conservation Agreement (VCA).

### **Ecological mapping is updated and consistent Commonwealth and NSW requirements**

An updated ecological constraints map has been provided (Figure 6). The only change to the constraint level since 2018 is associated with the vegetation in Park K where a small area of high constraint has been added due to its re classification as EBSF.

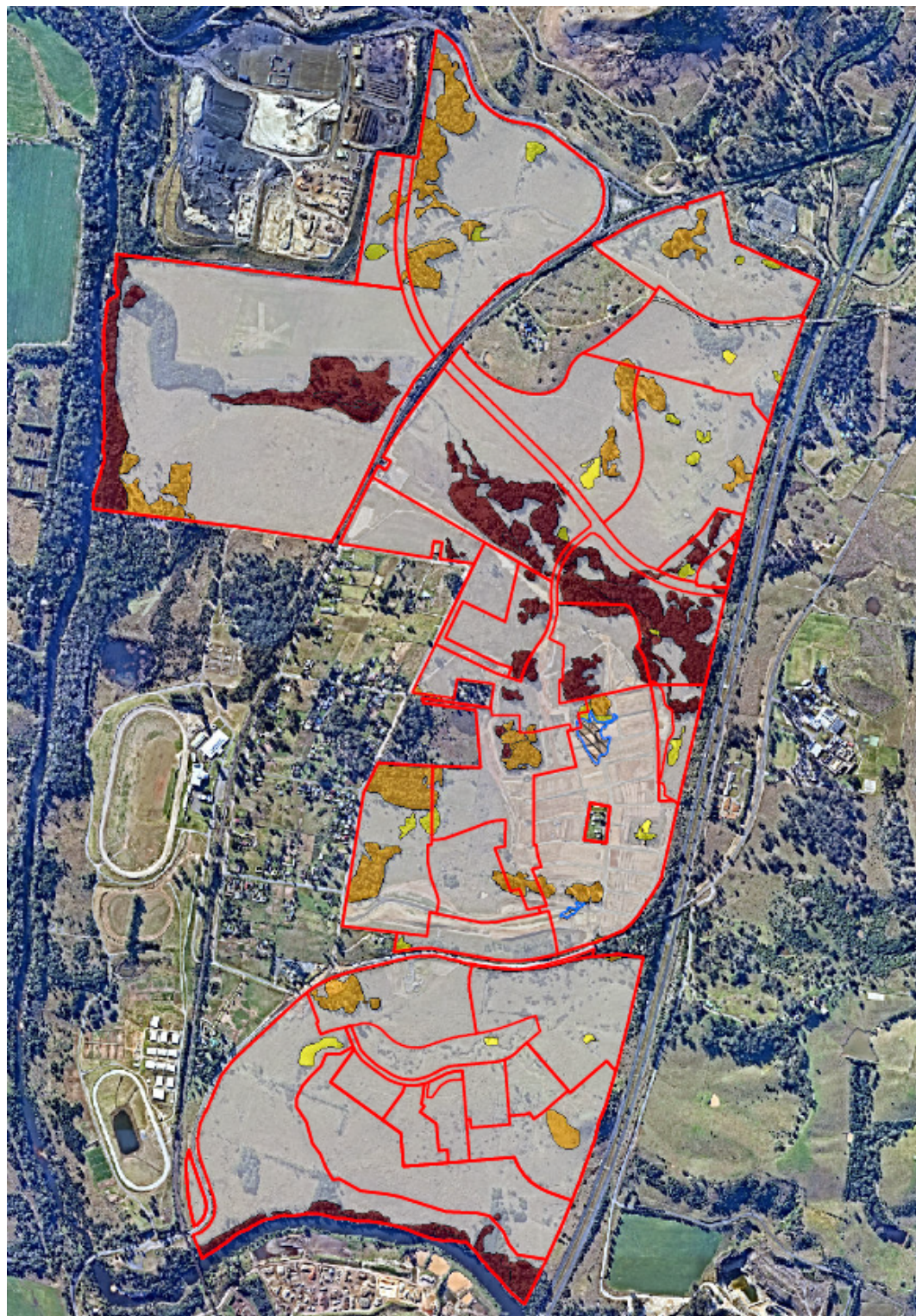
Ecological constraints were appropriately mapped in 2018 based upon the conservation status of plant community remnants, present and future connectivity and the potential for effective retention and conservation management.

Two of the endangered plant communities on MPURA (EBSF and RFEF) were listed in 2020 under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The resulting updated constraints are similar to those mapped in 2018 because all forest and woodland on the site was already listed in 2018 as endangered or critically endangered under the State's BC Act. They were therefore already mapped as having medium level conservation constraints.



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Legend



Study Area



Areas previously cleared under  
separate DA

Ecological Constraint

High

Moderate

Low

None

**Figure 6 Ecological Constraints Map**

## **Groundwater monitoring and assessments will be carried out as development proceeds**

The 2018 planning proposal recognised that groundwater and groundwater dependent ecosystems (GDEs) occur on the lower lying portions of the MPURA. The hydrological advice then, and now, is that the GDEs to be retained in conservation areas will not receive significant indirect impacts from changes to groundwater levels.

A long-term groundwater and vegetation monitoring program have nonetheless been designed in consultation with Campbelltown City Council. It proposes to monitor groundwater levels as development takes place, noting vegetation conditions and implementing mitigation if needed, to maintain appropriate groundwater levels.

Development is underway across broad areas of the MPURA, including near Parks K and L. There is no decline in vegetation condition that can be attributed to groundwater impacts.

The groundwater monitoring program will continue alongside development and future ecological impact assessment reports will have regard to groundwater and vegetation monitoring findings from the ongoing studies.

Dahua is working closely with Council to compose new provisions for the monitoring and protection of GDEs under forthcoming changes to the Menangle Park Development Control Plan (DCP). The provisions to be inserted into the DCP will include controls for new proposals to be addressed at the DA stage.

## **Reporting has been thorough requiring no major amendments since 2018**

The 2018 ecological impact assessment was thorough with all DA assessments using data less than five years old.

Changing annual conditions and increased rainfall which broke the drought in 2020 have improved vegetation. Additional flora and fauna surveys, entailing targeted surveys for threatened plant and animal species and surveys of vegetation using BAM plots, have verified earlier results. The additional work has refined data but no extra threatened species have been detected and no major changes to vegetation mapping were required.

## **Conclusion**

The information provided in this addendum report should satisfy Council and EES that the biodiversity assessments are accurate and robustly identify constraints. The updated land use zoning and other planning maps have regard for the constraints mapped in 2018 and further refined survey work since.

The changes in constraints are considered minor in the broader context of the MPURA.

The assessment and savings provisions carried out for the planning proposal under the TSC Act were correct and relevant at the time that the application was lodged with Council. The



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additional survey work undertaken since 2018 has had regard to the BAM, evidenced by the VAR prepared to demonstrate the proposal's consistency with the Koala SEPP and CKPoM.

The planning proposal demonstrates improved biodiversity outcomes for protected vegetation communities and habitat in the MPURA when compared with the current zoning of the MPURA. The original rezoning had little regard for preserving EBSF, RFEF and CPW across the developable portions of the site presently zoned R2 Low Density Residential.

Dahua's Planning Proposal has surveyed the extents of these high value biodiversity areas in detail and contained them within local parks to be zoned RE1 and E2, ensuring their preservation in perpetuity through stewardship and other management arrangements.

The recently prepared VAR and supporting information to address consistency with the Koala SEPP and CKPOM, has confirmed that the MPURA does not include core Koala habitat. Whilst it does contain areas of *potential* Koala habitat and feed trees, the VAR confirms that Koalas have not been recorded in the MPURA. Accordingly, the Planning Proposal envisages development which will not adversely impact Koala habitat or populations.

Any future DAs in the MPURA must address impacts to remnant vegetation in the proposed residential, industrial and town centre zoned areas. Under a BAM assessment, proposals must continue to demonstrate their consistency with the legislative framework under the BC Act, and offset credits where required.

The assessments prepared by Cumberland Ecology provide certainty that the quality and retention values of remnant CPW vegetation is low and capable of being impacted without significant offset under future DAs.