

**SYDNEY NORTH PLANNING PANEL
SUPPLEMENTARY ASSESSMENT REPORT**

Panel Reference	PPS-2019SNH025
DA Number	DA/101/2019
LGA	Hornsby Shire Council
Proposed Development	Rehabilitation of the existing Hornsby Quarry involving bulk earthworks (and associated civil works including construction of access tracks, drainage and retaining walls), site remediation, tree removal, revegetation work and site rehabilitation
Street Address	1X Quarry Road, 14B Dural Street, 203X Peats Ferry Road, 1X Bridge Road, 82X-98X Manor Road, 36X-38X Summers Avenue Hornsby
Applicant/Owner	Hornsby Shire Council
Date of DA lodgement	18 February 2019
Total number of Submissions Number of Unique Objections	In response to the exhibition of the Biodiversity Offsets Strategy, Vegetation Management Plan and Habitat Creation and Enhancement Plan: <ul style="list-style-type: none"> • Seven (7) submissions from individuals • Nine (9) submissions from community groups • Four (4) responses from agencies <p>In addition, the Geological Society of Australia provided a written response in relation to the Diatrema.</p>
Recommendation	Approval with conditions
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011)	Designated Development - Crushing, grinding or separating works within 250m of a residential zone not associated with the development. Item 16 of Schedule 3 of the <i>Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)</i>
List of all relevant s4.15(1)(a) matters	NIL in relation to the matters discussed in this supplementary report
List all documents submitted with this report for the Panel's consideration	<ol style="list-style-type: none"> 1. Conditions of Consent 2. Biodiversity Offsets Strategy and accompanying Vegetation Management Plan (VMP), Habitat Creation & Enhancement Plan (HCEP) and Staging Plan 3. Deferral response letter from Hornsby Council 4. Submission from Geological Society of Australia dated 14 July 2020
Report prepared by	Ellen Robertshaw, DFP Planning
Report date	20 October 2020

Summary of s4.15 matters

Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary of the assessment report?

**Refer to Assessment
Report to the Panel
on 6 May 2020**

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and

**Refer to Assessment
Report to the Panel
on 6 May 2020**

relevant recommendations summarized, in the Executive Summary of the assessment report?

e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?

Not applicable

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S7.24)?

Not applicable

Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions

Conditions

Have draft conditions been provided to the applicant for comment?

Yes

Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report



planning consultants

Supplementary Development Assessment Report

Council Ref: DA/101/2019

Panel Ref: PPS-2019SNH025

Rehabilitation of the existing Hornsby Quarry involving bulk earthworks (and associated civil works including construction of access tracks, drainage and retaining walls), site remediation, tree removal, revegetation work and site rehabilitation

Quarry Road, Hornsby

Prepared for: Hornsby Shire Council & Sydney North Planning Panel
October 2020

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3. Deferral Response Letter from Hornsby Council
4. Geological Society of Australia – written feedback

Executive Summary

Summary

1. The development application (DA) was reported to the Sydney North Planning Panel (the Panel) for determination on 6 May 2020.
2. The Panel deferred determination of the DA to enable the Applicant, Hornsby Shire Council (Council), to prepare a more detailed Biodiversity Offsets Package and Vegetation Management Plan & Habitat Creation and Enhancement Plan.
3. The Biodiversity Offsets Strategy, Vegetation Management Plan (VMP) and Habitat Creation & Enhancement Plan (HCEP) (collectively, the Biodiversity Offsets Package) were placed on public exhibition for a period of 28 days from 23 July 2020 until 21 August 2020.
4. A staging plan and letter from the Geological Society of Australia were also exhibited concurrently with the Biodiversity Offsets Package.
5. The submissions have been considered and some minor amendments to the Biodiversity Offsets Package are recommended in order to address some matters raised in the submissions.
6. Approval of the DA is recommended, subject to conditions.

Recommendation

*THAT the Sydney North Planning Panel grant Consent to Development Application No. DA/101/2019 for rehabilitation of the existing Hornsby Quarry involving bulk earthworks (and associated civil works including construction of access tracks, drainage and retaining walls), site remediation, tree removal, revegetation work and site rehabilitation at 1X Quarry Road, 14B Dural Street, 203X Peats Ferry Road, 1X Bridge Road, 82X-98X Manor Road, 36X-38X Summers Avenue Hornsby, pursuant to Section 4.16(1)(a), 4.16(4)(a) and 4.16(9) of the Environmental Planning and Assessment Act, 1979 subject to the conditions of consent detailed at **Appendix 1** to this supplementary report.*

1 Background

DA/101/2019 proposes rehabilitation of the Hornsby Quarry and relates primarily to earthworks necessary to stabilise and reshape the Quarry site to ensure the area is safe and usable for future public recreational use.

The northern spoil mound has been identified as a critical area requiring stabilisation to ensure public safety and prevent the potential loss of existing high value vegetation through localised landslip. Much of this area is steep, unstable and covered with weeds such as Pampas Grass (which is listed as a Priority Weed under the *Biosecurity Act 2016*) that are currently the source of weed seed threatening the surrounding bushland areas.

Following stabilisation earthworks, it is intended to restore the northern spoil mound with engineered soils, created using recycled natural elements, and to revegetate the area using densely planted native endemic species.

The DA identifies that the area will be revegetated with species representative of the surrounding bushland plant community types, specifically the Blue Gum Diatreme Forest (BGDF).

On 6 May 2020, DA/101/2019 was reported to the Sydney North Planning Panel (the Panel) for determination. At that meeting, the Panel resolved to defer determination of the DA and required the Applicant - Hornsby Shire Council (Council) - to submit additional information.

The additional matters to be addressed are as follows:

1. *Complete the Biodiversity Offset Package, Vegetation Management Plan, Habitat Creation and Enhancement Plan, to the level of detail described in the Deferred Commencement Conditions in the Assessment Report and submit those documents for public exhibition and finalisation.*
2. *Provide a definitive plan outlining protection measures, including the extent and scheduling of works, for the maximum possible buffer zone around the Powerful Owl breeding pair's roosting tree in the Northern Spoil Mound, and submit this plan for public exhibition and finalisation.*
3. *Provide additional information regarding staging of the project. The Staging Plan should address works, stabilisation, rehabilitation and revegetation required in each stage as well as how each stage relates to other stages across the site.*
4. *Provide further information on the Volcanic Diatreme located on the eastern face of the quarry void. The Diatreme must be clearly identified on relevant plans and cross sections and the Panel needs advice from the Applicant regarding how the Diatreme is incorporated in the proposal in terms of the level of fill, treatment, rehabilitation and protection whilst appropriately reflecting its geological significance. The Panel recommends this work be undertaken in consultation with geological societies who have the appropriate expertise in this field.*
5. *Make any subsequent changes to the proposed rehabilitation of the Hornsby Quarry as a result of the above.*

Pursuant to deferment Item 1, a Biodiversity Offset Package comprising a Biodiversity Offset Strategy, Vegetation Management Plan and Habitat Creation and Enhancement Plan, together with a staging plan, were exhibited for public comment for a period of 28 days from 23 July 2020 until 21 August 2020.

During the preparation of the Biodiversity Offset Package, separate consultation was undertaken with the Geological Society of Australia in relation to the Hornsby Quarry Diatreme (in response to deferment Item 4). The written response from the Geological Society of Australia was placed on exhibition concurrently with the other documentation.

Those who lodged a submission in relation to the exhibition of the DA were notified of the submission of the additional information as well as land owners within the vicinity of the site who were notified in relation to the original DA.

1 Background

In addition, relevant government agencies were also notified of the submission of the additional information and invited to comment.

The response to each of the deferment items is discussed in the report, together with the submissions received in response to the notification of the additional information.

This report is a supplementary report and is to be read in conjunction with the Planning Assessment report in relation to DA/101/2019 which was considered by the SNPP at its meeting held on 6 May 2020.

2 Response to Reasons for Deferral

2.1 Decision of Sydney North Planning Panel

On 6 May 2020, DA/101/2019 was reported to the Panel for determination. At that meeting, the Panel resolved to defer determination of the DA and required the Applicant to submit additional information. Each of the reasons for deferral are addressed in detail below.

2.2 Biodiversity Offsets Strategy, Vegetation Management Plan, Habitat Creation and Enhancement Plan

1. *Complete the Biodiversity Offset Package, Vegetation Management Plan, Habitat Creation and Enhancement Plan, to the level of detail described in the Deferred Commencement Conditions in the Assessment Report and submit those documents for public exhibition and finalisation.*

The Applicant has prepared a Biodiversity Offsets Strategy and a Vegetation Management Plan (VMP) and Habitat Creation & Enhancement Plan (HCEP). These documents collectively comprise the Biodiversity Offsets Package.

The various components of the Biodiversity Offsets Package are discussed below and a copy of the individual documents is provided at **Appendix 2** to this report.

2.2.1 Biodiversity Offsets Strategy

Introduction

A Biodiversity Offsets Strategy has been prepared by Council which identifies various mechanisms available for achieving offsets and includes a recommendation as to what is considered to be the more suitable offset mechanism to be used in order to provide the best environmental outcomes for the Hornsby Quarry site in perpetuity. The Biodiversity Offsets Strategy also outlines the offsetting actions to be implemented to adequately offset impacts on biodiversity values.

Prior to the preparation of the Environmental Impact Statement (EIS) for the Hornsby Quarry Rehabilitation project, the OEH provided input in relation to the Secretary's Environmental Assessment Requirements (SEARs) outlining the requirements regarding biodiversity and offsetting that were required to be addressed. In relation to Biodiversity, OEH stated the following:

OEH further recommends that the proposal be designed to avoid and minimise impacts on biodiversity and offset remaining direct and indirect biodiversity impacts. In determining an appropriate offset package, it is recommended that the EIS:

- a. Accord with the 13 OEH offsetting principles (see Section 5.2 for detail) available at <http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.thm>*
- b. Use the BioBanking Assessment Method (OEH, 2014) to determine the quantum of offsets required to compensate for those remaining biodiversity impacts, including credit report.*
- c. Identify the conservation mechanisms to be used to ensure the in-perpetuity protection and management of proposed offset sites*
- d. Include a specific Statement of Commitments for the proposed offsets package which is informed by a., b., and c. above and by any consultation with OEH.*

The Biodiversity Offset Strategy was peer reviewed by an independent environmental consultant, Cumberland Ecology, to ensure it complied with the requirements of NSW Office of Environment and Heritage (OEH).

During the assessment phase of DA/101/2019, the works relating to the project were revised and refined to reduce the extent of vegetation to be cleared. Initially it was proposed to remove 2.5 ha of native vegetation, including 0.74 ha Blue Gum High Forest (BGHF), and 3.39 ha of exotic vegetation for a total loss of 5.89 ha of vegetation and habitat. Following

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refinement of the development proposal, the extent of vegetation to be removed was reduced to a total of 3.85ha as described in **Table 1**.

Table 1 Extent of Impacts on Vegetation Communities		
Plant Community Type (PCT) and Zone ID	Description of Vegetation Community and Condition	Extent of Vegetation to be cleared (ha)
1841 & HN648	Blackbutt Gully Forest (BBGF) Moderate/good - high	0.06
1841 & HN648	Blackbutt Gully Forest (BBGF) Moderate/good - poor	0.8
1237 & HN596	Sydney Blue Gum - Blackbutt - Smooth-Barked Apple Moist Shrubby Open Forest (BGHF) (CEEC TSC/BC Act) Moderate/good-poor	0.68
	Exotic vegetation (Blackbutt Gully Forest (HN648, Low) (See Note 1)	2.31
Total area of impacted vegetation		3.85

NOTE:
1. Classified under BBAM (BioBanking Assessment Methodology)

Biodiversity Offset Options

Three biodiversity offset options were considered for this site, having regard to the feedback from OEHL in relation to the SEARs.

- Option 1: Biobanking Credits**

This option involves the purchasing and retiring of BioBanking credits to offset impacts on biodiversity.

The offsets for this option would be located off-site.
- Option 2: Create a new stewardship site and sale of credits**

This option involves the creation of a new stewardship site within the Hornsby Quarry, Old Mans Valley and Hornsby Park precinct and the sale of credits generated to fund future management actions.
- Option 3: Local Offsets**

This option involves the development and implementation of a Biodiversity Offset Strategy in accordance with Council's Green Offsets Code 2015.

The pros and cons of each option are summarised in the Biodiversity Offsets Strategy. The summary is reproduced in **Table 2** below.

Table 2 Offsetting Option Comparison			
	Option 1	Option 2	Option 3
Location of offsets	Off site	On site	On site
Ongoing maintenance	N/A	Implementation of VMP as part of the BSA (Biodiversity Stewardship Agreement)	Implementation of VMP as part of the VCA (Voluntary Conservation Agreement)
Site Suitability	N/A	Site contains some high biodiversity conservation values. Incorporate conservation works with park development.	Site contains some high biodiversity conservation values. Incorporate conservation works with park development.

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Table 2 Offsetting Option Comparison			
	Option 1	Option 2	Option 3
		Connectivity with National Park	Connectivity with National Park
Time	Availability of credits – may not be available for some time	Time required to set up the BSA. Credit purchase could occur immediately	VCA set up
Cost	Credit purchase costs	BSA set up costs. Credit purchase costs	VCA set up costs. VMP development and implementation
Ongoing funding	N/A Once credits are purchased there are no further offset costs	Reliant on the sale of credits achieving the Total Fund Deposit (TFD) which would guarantee annual payments from BCT.	Requires recurrent expenditure from Council.
OEH offsetting principles	BSA is a recognised offsetting strategy	BSA is a recognised offsetting strategy	GOC (Green Offsets Code) is consistent with the principles of OEH.
BBAM	Used to determine credit requirements	Used to determine credit requirements	Used to determine extent of impacts
In perpetuity protection	Credits purchased generated from a BSA	BSA provides in-perpetuity protection of the offset site	VCA provides in-perpetuity protection of the offset site.
Statement of Commitment	Condition of consent would outline credit requirements	Condition of consent would outline credit requirements including creation of stewardship site and BSA	Condition of consent would outline credit requirements in accordance with the GOC including VCA, VMP and recurrent funding
Benefits	Potential ease of compliance with SEARs through BOS. Recognised offsetting method	Offset occurs locally on-site. Conservation of BGHF on diatreme soils. Total Fund Deposit would fund ongoing management costs. There is potential that the sale of any surplus credits generated on the site could produce a profit. Council would dictate credit prices for required offsets.	Offset occurs locally on-site Conservation of BGHF on diatreme soils Not reliant on external parties for credit sales Greater flexibility in the VCA for passive recreational and commercial activities, infrastructure, tracks and trails within the conservation site
Limitations	Availability of credits required is limited and could take time to source. Large upfront costs when purchasing credits, price dictated by an open market. Council would still require ongoing funding for implementation of a VMP as part of the park development.	BSA set up time. If credits are purchased by Council, there are large upfront costs. Limited recreational and commercial activities permitted within the conservation site. Limited ability to vary uses within the site and to undertake adaptive management.	VCA set up time. Reliant on recurrent funding from Council.

The conservation outcomes for **Option 1** would result in the offset actions being located offsite and potentially outside of Hornsby LGA with no observable benefit to the local site or community. The purchasing of credits has large upfront costs and with no guarantee on credit availability provides uncertainty for compliance with offsetting requirements.

Option 2 would retain the offsets locally but there would be significant upfront costs. The number of credits generated from the creation of a new stewardship site is uncertain and may

2 Response to Reasons for Deferral

not achieve the quantity and type of offsetting required. This would require the purchasing of additional credits to meet with offsetting obligations.

Option 3 would ensure that all offsets occur locally, directly benefit the impact area and has a feasible financial approach to fund ongoing management of the site. Offsetting can be incorporated into the future development of the site.

Recommendation of the Biodiversity Offsets Strategy

It was determined that Option 3 provided the greatest certainty that offsets would occur locally and would directly benefit the impact area with funding required over time, rather than the up-front costs associated with Option 2.

Under Option 3, ongoing management of the offset areas will be undertaken in accordance with the VMP and HCEP which will extend beyond the offset area into adjacent bushland within the Hornsby Quarry site.

Biodiversity Offsets using Council's Green Offsets Code 2015

The Green Offsets Code (GOC) uses a Conservation Significance Assessment (CSA) map to delineate different land categories of contiguous patches of vegetation communities, corridors and habitat.

Based on the extent of works, it has been assessed that approximately 0.68 ha of vegetation to be removed is mapped as Core Regional in the CSA map. The remainder of the native and exotic vegetation to be removed (3.17 ha) has been assessed as Core Local in the mapping.

The offset site proposed within this strategy comprises the same geology and vegetation communities as the impact site and is considered as a suitable offset site.

The minimum required offset area is calculated using relevant offset ratios from the GOC as shown in Tables 4 and 5 of the submitted Biodiversity Offsets Strategy. Table 5 is reproduced below and shows the total offset area required as 24.46 ha. The area to be used for the offsets is identified in the map at Appendix 1 to the Biodiversity Offsets Strategy. An extract of Appendix 1 is reproduced in **Figure 1** overleaf.

Table 5 – Area of impact and offset requirement

Conservation significance categories	Offset ratio	Area of vegetation/habitat impacted (ha)	Offset requirement
Core Regional	8	0.68	5.44
Core Local	6	3.17	19.02
Total offset requirement			24.46 ha

Implementation of the Biodiversity Offsets Strategy

Having determined that the most appropriate offset mechanism is where the offsets are delivered locally and managed and protected in-perpetuity, it has also been determined that the quarry and surrounding lands are a suitable offset recipient site.

Accordingly, the VMP and HCEP have been prepared to direct the ongoing management of the offset areas, with these plans extending beyond the offset area to include the bushland adjacent to the Hornsby Quarry site.

In-perpetuity protection of the offset areas will be provided by a Voluntary Conservation Agreement (VCA) between Hornsby Council and the NSW Biodiversity Conservation Trust (BCT). The VCA will apply to the offset area and additional lands managed under the VMP and HCEP and will include the VMP and HCEP.

The management actions before, during and after works relating to this DA take place are detailed in the VMP and HCEP.

The Biodiversity Offsets Strategy sets up the mechanism for achieving the best environmental outcomes for the Quarry.

2 Response to Reasons for Deferral

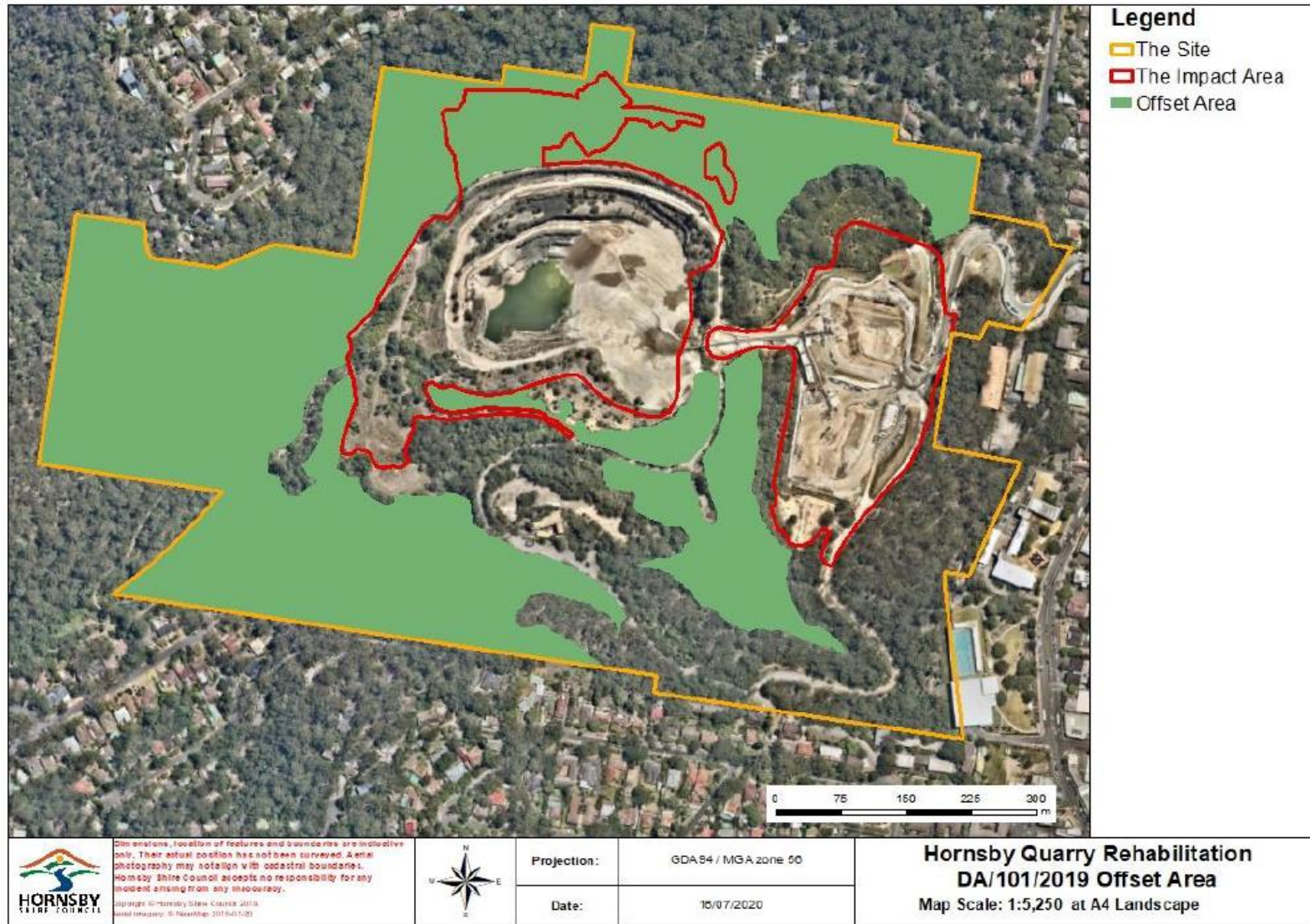


Figure 1 Extract from Appendix 1 of Hornsby Quarry Rehabilitation – Biodiversity Offsets Strategy

2 Response to Reasons for Deferral

BCT has been consulted in relation to the project and members of BCT also undertook an inspection of the Quarry and its environs on 2 September 2020.

BCT has provided feedback to Council and has agreed to enter into an agreement with Council in relation to the Biodiversity Offsets Strategy.

Whilst this agreement might take up to 18 months to finalised¹, the management actions detailed in the VMP and HCEP can be implemented in the interim. In this regard, it is recommended that the VMP and HCEP be finalised prior to issue of the first Construction Certificate (incorporating amendments as detailed elsewhere in this report) or prior to the commencement of any works on site (whichever occurs first) and that the requirements of the VMP and HCEP be adhered to before, during and post construction works. Conditions of consent requiring the above have been recommended in **Appendix 1** to this Supplementary Report.

The final Biodiversity Offsets Package will form part of the agreement with BCT and the conditions of the agreement will be registered on title of the land to the Biodiversity Offsets Package apply.

Commitments

The Biodiversity Offsets Strategy includes the following commitments by Council:

1. *To create a Voluntary Conservation Agreement for the land managed under the Vegetation Management Plan, including the offset area, in partnership with the Biodiversity Conservation Trust. The minimum offset area must be calculated in accordance with Council's Green Offsets Code and in accordance with Tables 4 and 5 in the Biodiversity Offsets Strategy.*
2. *To develop and implement a detailed Vegetation Management Plan and Habitat Creation and Enhancement Plan for land within the Hornsby Quarry, Old Mans Valley and Hornsby Park lands including land identified as the offset area. The VMP is to be consistent with the Preliminary VMP submitted with DA/101/2019 and form part of the VCA.*
3. *To provide a guarantee of funding for the VMP through Council's ongoing budget process.*

Conclusion

There will be biodiversity impacts as a result of the works proposed under DA/101/2019. Providing local offsets to those impacts has been identified as the most appropriate way of managing the impacts as it will directly benefit the impact area and will enable funding over a longer period of time rather than significant upfront costs.

This will be best achieved through an offsets strategy in accordance with Council's Green Offsets Code.

The submitted Biodiversity Offset Strategy proposes the ongoing conservation of vegetation within the Hornsby Quarry, Old Mans Valley and Hornsby Park lands and the implementation of a VMP and HCEP for those lands. Funding for the VMP and HCEP is provided by Council through recurrent funding. The funding has been set aside as part of the overall project costs for the rehabilitation of the Quarry and its future use as community parkland.

The Biodiversity Offsets Strategy prepared by Hornsby Council has been peer reviewed by Cumberland Ecology and BCT has also been consulted and has agreed to the methodology proposed in the Strategy.

¹ The development consent issued in relation to the SSDA for the North Connex filling of the quarry void required the proponent to develop and implement a Biodiversity Offset Package within 12 months of the commencement of works

2 Response to Reasons for Deferral

The Strategy relies on the actions identified in the accompanying Vegetation Management Plan (VMP) and Habitat Creation & Enhancement Plan (HCEP) to be implemented and the actions identified in these documents will require ongoing funding from Council.

The Biodiversity Offsets Package (comprising the final Biodiversity Offsets Strategy and VMP and HCEP) will form part of the agreement with BCT and the conditions of the agreement will be registered on title of the land to the Biodiversity Offsets Package apply.

Pending finalisation of the agreement between BCT and Council in relation to the Biodiversity Offsets Package, the management actions detailed in the VMP and HCEP will be able to be implemented before, during and post construction works. Appropriate conditions of consent in this regard are recommended in **Appendix 1** to this report.

The overall project budget includes allowance for ongoing funding to undertake the identified required actions.

2.2.2 Vegetation Management Plan and Habitat Creation & Enhancement Plan

Introduction

Council has prepared a VMP and HCEP the implementation of which will achieve the outcomes identified in the Biodiversity Offsets Strategy.

The VMP and HCEP support the proposed Biodiversity Offset Strategy and the associated Voluntary Conservation Agreement (VCA) for the Quarry rehabilitation works. As previously noted, the Biodiversity Offset Strategy identifies the steps to be taken to avoid and mitigate the impacts from earthworks as a result of the DA and recommends that the residual offsetting requirements resulting from the works are undertaken locally.

Council engaged the services of an environmental consultancy, Gecko Environment Management, to assist with the preparation of the VMP and HCEP. They also consulted Dr Beth Mott who is the Powerful Owl Project Officer (Sydney) with Birdlife Australia.

The following outcomes are envisaged as a result of implementation of the VMP and HCEP:

- *protection of the native vegetation onsite with specific reference to the unique Blue Gum Diatreme Forest and connection with the Berowra Valley National Park*
- *protection of existing fauna known and predicted to occupy the area prior, during and post the proposed earthworks*
- *restoration and conservation of the connectivity of native vegetation and habitat corridors in-perpetuity*
- *sustainably establish native vegetation and associated ecological processes to a condition representative of the surrounding plant communities, with particular emphasis in areas where there has been major disturbance or areas that require stabilisation works*
- *establishment of an adaptive management program for the natural areas of the Site to ensure ecological condition is maintained and improved*
- *improved integration of ecological management and habitat protection with the objectives of appropriate recreation pursuits such as walking and riding*

The VMP and HCEP found that, despite the quarry environment having been highly modified due to historic mining activities, a high level of habitat value exists. The quarry and adjacent bushland has been identified as providing roosting, nesting, sheltering and foraging sites for arboreal, herpetofauna (reptiles), mammals, microbats and birds, including a pair of Powerful Owl which have been successfully breeding within trees on the northern spoil mound in recent years.

The VMP includes measures which aim to mitigate potential direct, indirect and cumulative impacts from the earthworks proposed under the DA. The mitigation management actions

2 Response to Reasons for Deferral

that have been proposed rely upon ongoing management of existing vegetation due to its importance in supporting the existing fauna on-site.

The VMP recognises the importance of riparian areas as wildlife corridors and the weed species, including Privet, as roosting areas. The staging and location of weed treatment has been itemised in the management action tables of the VMP.

The VMP and HCEP also includes recommendations with respect to the staging of earthworks on the northern spoil mound works zone to avoid the breeding cycle of the Powerful Owl. The staging program has been prepared in consultation with Dr Beth Mott of Birdlife Australia.

Works will not be undertaken within the recommended exclusion zones if a breeding pair are occupying a nest on the quarry site.

Habitat Management

Rehabilitation of the Quarry requires clearing of vegetation within some of the works zones (referred to as Impact Areas in the VMP and HCEP) as part of the earthworks.

To mitigate the impacts of the removal of vegetation, it is proposed to undertake vegetation management of the bushland surrounding the quarry.

The VMP and HCEP identifies the mechanisms to be implemented to regenerate and revegetate areas of the quarry site.

Management actions to achieve these outcomes include:

- *protect existing vegetation that is providing a buffer along the Impact Area interface prior to, and during construction regardless of species*
- *when planning and designing future work for possible structural or safety issues, prioritised rehabilitation is required to reinstate buffers*
- *strategically plan a staged approach to the timing, location and extent of weed removal through best practice bush regeneration throughout the site*
- *propagate from locally sourced plant material*
- *engineer site soils to reflect benchmark data for both plant communities as a medium for revegetation within the Impact Area*
- *revegetate with locally provenant species to mimic natural succession within the Impact Area and where required with the Site*
- *identify future threats to the natural environment and mitigate effects*

To implement these management actions, the Impact area (being the area within which the works identified in the DA will occur) and the Site (being the wider Quarry site) have been divided into Management Zones based on vegetation type and vegetation condition. **Figure 2** (overleaf) is an extract of Figure 6.1 from the VMP and HCEP which identifies the eleven (11) management zones.

Each management zone has been allocated management actions to be implemented and monitored. These are detailed in Appendix A of the VMP and HCEP. The results of monitoring will be key indicators for adaptive management as detailed in Appendices E and F of the VMP and HCEP.

Other management actions to be undertaken include weed control and bush regeneration.

Identification of Potential Impacts

A key threatening process (KTP) is defined under the *Biodiversity Conservation Act 2016 Act* (Table 3.2) as an action, activity or proposal that:

- *adversely affects two or more threatened species, populations or ecological communities*
- *could cause species, populations or ecological communities that are not currently threatened to become threatened.*

2 Response to Reasons for Deferral

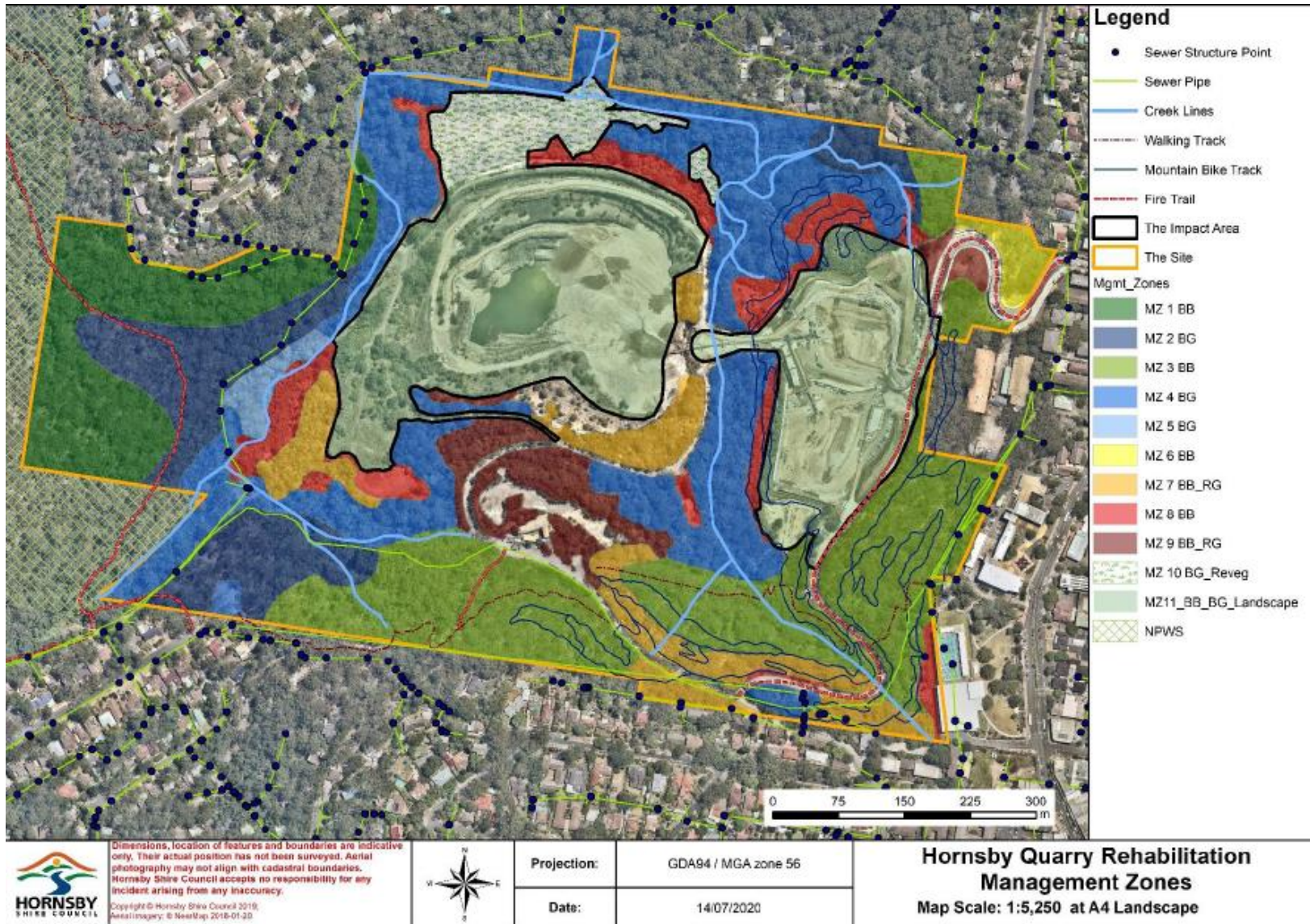


Figure 2 Extract from Figure 6.1 of VMP and HCEP identifying the Management Zones within the area to which the Biodiversity Offsets Strategy relates

2 Response to Reasons for Deferral

A number of KTPs were identified in the EIS that was submitted with the development application. Additional KTPs were identified as part of the preparation of the VMP and HCEP. These additional KTPs include:

- Bush rock removal
- Invasion and establishment of exotic vines and scrambles
- Invasion of native plant communities by African olive
- Invasion, establishment and spread of Lantana
- Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants
- Predation by the European red fox
- Predation by the feral cat

As previously discussed, most of the project area comprises highly modified landforms, soil profiles and vegetation types. The extent of earthworks and vegetation being cleared as part of the DA is within areas which have been previously modified. These areas contain exotic vegetation and regrowth native vegetation.

As noted in the original assessment report to the Panel (dated 6 May 2020), the northern spoil mound has been assessed as being geotechnically unstable and at risk of collapse (due to failed and inadequate drainage works when the spoil was initially placed there by CSR).

If the mound did collapse it would result in the loss of significantly more trees (than those that have been identified as trees to be removed as part of the proposed stabilisation works) and also a significant risk to public safety. The use of the quarry as a community parkland will not be possible unless the northern spoil mound area is stabilised.

The stabilisation work includes the removal of established exotic vegetation and some regrowth native vegetation on the mound, including the area directly adjoining the north slope of the riparian corridor.

There are potential impacts associated with the removal of vegetation from the northern spoil mound, including the exposure of the north mound riparian corridor.

Cumulative impacts as a result of competing land uses have also been identified. These include mountain bike and informal pedestrian tracks as well as the increased risk of domestic pets to the site and increased noise levels during the works.

The mountain bike tracks in particular have been identified as having the potential to have severe impacts including damage as a result of unauthorised tracks and jumps, increased erosion due to skidding and wheel spin and impacts on native fauna. Night access to sensitive areas of the quarry has also been identified as impacting on nocturnal fauna including the powerful owl.

Objective of Mitigation of Impacts

The works have been designed to minimise impacts and the identified KTPs as a result of the proposed works.

Mitigation of Impacts - General

The mitigation methods proposed in the VMP and HCEP are aimed to reduce the extent of impacts caused by the works to be undertaken under the DA and to restore the ecological functions and qualities of the quarry site.

The mitigation measures include revegetation with fast growing flowering species which will provide habitat for pollinators, retained timber which will provide habitat as it decomposes and protection, conservation and restoration of vegetation over the quarry site generally.

2 Response to Reasons for Deferral

The proposed management actions are intended to maintain a high level of habitat on site. The management actions identified in the VMP include:

- Retention, enhancement and/or creation of wildlife buffers along the interface of management zones.
- Protection and creation of permanent water areas.
- Providing nesting boxes to offset tree losses.
- Retention of natural elements including rocks, live and dead timber (including intact hollows) which provide habitat of a variety of fauna.

Mitigation of Impacts - Powerful Owl

A breeding pair of Powerful Owl roosts, forages and nests in tree hollows within the quarry and has successfully raised young on site. The north, east and western areas of the quarry site constitute key habitat for the Powerful Owl.

The VMP and HCEP notes that the Powerful Owl is highly sensitive to disturbance and vegetation clearing. It has been known to be affected by the removal of vegetation, vibration, dust and loud noise associated with earthworks. Any clearing or earthworks between April and October within 100m of known nesting trees will increase the risk of the owls abandoning the nest site and their chicks. Clearing the vegetation adjacent to the riparian wildlife corridor behind the mound will remove a key roosting area.

The following mitigation measure to protect the Powerful Owl have been developed in consultation with Birdlife Australia:

- *any clearing or Earthworks disturbance within 100m of an active breeding tree during April to October period should be avoided on site*
- *chain sawing or mulching must not be carried out an hour before sunset, an hour after sunrise or within 50m of identified roost sites*
- *chain sawing or mulching must not be carried out an hour before sunset, an hour after sunrise or within 100m of identified nest trees during April to October*
- *canopy connection and horizontal perching branches 4-10 cm diameter should be retained above tracks to accommodate 'hop-scotching' movement along flight ways*
- *midstorey vegetation should be retained or weeds species strategically treated based on roosting and fledging requirements with riparian wildlife corridors and adjacent woodland within 50m of riparian corridors to be a priority*
- *creek and wildlife buffer distances to be maintained, particularly in sensitive areas*
- *creek crossings for public use should be limited, maintained and fixed where possible*

The identified mitigation measures in the VMP and HCEP includes imprecise terminology such as “should” and “where possible”.

It is recommended that the wording in the VMP and HCEP be amended to ensure the language relating to the mitigation measures is definite, e.g. replace “should” with “must”.

The unclear language is not limited to the mitigation measures relating to the Powerful Owl; it has been used (in places) throughout the VMP and HCEP. It is recommended that the VMP and HCEP be revised in its entirety to ensure the language used is unambiguous and explicit particularly in relation to the actions that will be taken.

Protection of bushland during construction

The VMP and HCEP also identifies bushland and habitat protection measures which will be implemented prior to commencement of works and during the works. These measures will be required to be implemented prior to construction earthworks and will be required to be

2 Response to Reasons for Deferral

documented in the Construction and Environment Management Plan (CEMP) which will be required to be submitted to Council's Compliance Team for review and written approval prior to commencement of any works on the site.

The protection measures include:

- Installation of fencing to limit access to bushland to authorised personnel only during construction. The CEMP requires all construction personnel to participate in an induction process prior to commencement of works on the site.
- Installation of tree protection measures around all trees to be retained. The VMP and HCEP identifies that wherever possible, habitat trees should be identified, retained and protected.
- Measures to manage fauna during vegetation clearing including inspections by a wildlife spotter/catcher to identify the most appropriate timing for works to be undertaken. The VMP and HCEP also identifies the unacceptable measures relating to vegetation removal. The construction personnel induction protocols also include protocols for managing injured wildlife.

The VMP and HCEP detail that a licensed wildlife spotter/catcher will be engaged for the duration of any vegetation clearing and development activities or process undertaken onsite.

The VMP and HCEP refer to the wildlife spotter/catcher being 'licensed'. It is recommended that the license of the nominated wildlife spotter/catcher be required to be provided to Council's Compliance Team for review and verification prior to commencement of works.

- Avoiding vegetation clearing and earthworks within the identified exclusion zone between April to October to avoid times when the Powerful Owl is roosting and breeding.
- The VMP and HCEP also recommends that, whenever possible, vegetation clearing should be scheduled for mid to late summer so that:
 - *impacts on nesting and hatching avifauna and herpetofauna are minimized (greatest impacts in spring)*
 - *likelihood of detection and capture of fauna is increased*
 - *wildlife load reduction measures are most productive*
- Preservation of tree hollows and other habitat features. Where these cannot be preserved in situ they will be relocated to appropriate habitat that is to be retained.

The VMP and HCEP also indicate that other important habitat features such as fallen logs, log piles, rock piles and outcrops will also be preserved *as much as possible*. As previously noted, given the ecological significance of the quarry area, such habitat features are critical for the purposes of preserving the biodiversity of the area and therefore, it is recommended that the VMP and HCEP be amended to include definitive terminology and language. Where preservation of these habitat features is not possible, the VMP and HCEP must identify the remediation action that will be taken.

- Identification of habitat features on a map to be prepared by a wildlife spotter/catcher.
- Wildlife handling and relocation.
- Retention of material for reuse elsewhere on the site.

Revegetation

The VMP and HCEP identify that all plant material to be used for revegetation will be local provenant species sourced from similar Plant Community Types (PCTs) including the neighbouring BGDF.

2 Response to Reasons for Deferral

Revegetation will comprise tree canopy, mid storey/understorey shrubs and groundcovers and ground layer planting.

Timing of planting will be subject to the completion of the earthworks program but ideally planting will be undertaken in Autumn to enable the plants to establish prior to hot Summer weather conditions.

Appendix B to the VMP and HCEP is a list of suitable species which are currently being propagated by Council's community nursery which has NIASA accreditation and EcoHort Certification².

The VMP and HCEP also includes details of how the site will be prepared for revegetation including earthworks and soil production.

A maintenance regime for revegetated areas is also included.

Monitoring and Reporting

Monitoring will be necessary to ensure the aims and objectives of the VMP and HCEP are met. The VMP and HCEP details the methodologies to be implemented with respect to monitoring and reporting and timeframes for undertaking the monitoring and reporting.

The VMP and HCEP indicates that monitoring will be carried out on an annual basis to assess the response of the site to works, to the use of the Site as a parkland and to document any successes or threats that have occurred. The results of monitoring will be used to plan future works as part of an adaptive management process.

Monitoring methods including fauna surveys, citizen science projects, rapid data points³ and vegetation condition, photo monitoring points which will be set up prior to commencement of works, revegetation monitoring and maintenance of a tree register.

An annual report will be prepared to consolidate the monitoring results and works undertaken. This report will be submitted to BCT for their review. The report will also address performance criteria, describe successes and failures and include short and long term recommendations for future works.

Implementation

Hornsby Shire Council will be responsible for the implementation of the VMP and HCEP however there will be oversight of the outcomes by BCT as a result of the Conservation Agreement with that organisation and the commitments made under the Biodiversity Offsets Strategy.

The management of the bushland areas will be assigned to Council's Natural Resources Branch.

2.2.3 Conclusion

The VMP and HCEP provides the detailed management actions required to be undertaken on the site to ensure the biodiversity for the quarry site is protected and enhanced. The aim of the VMP and HCEP is to detail the mechanisms and management actions required to be implemented *to protect, enhance and conserve a high level of ecological function within the Site now and in-perpetuity through building ecosystem resilience.*

The VMP and HCEP has been prepared in consultation with Gecko Environmental Management, and Dr Beth Mott, a Powerful Owl specialist with Birdlife Australia.

² EcoHort is the national nursery industry Environmental Management System (EMS) for production nurseries, growing media manufacturers and greenlife markets. The program is designed to assist NIASA Accredited businesses further improve their business sustainability whilst addressing environmental and natural resource management responsibilities.[Source: <https://nurseryproductionfms.com.au/ecohort-certification/>]

³ The rapid data points collected by Kleinfelder in 2016/17 will be revisited prior to the commencement of works and the points which best indicate change over time will be determined. These points will provide relevant baseline data against which changes can be measured.

2 Response to Reasons for Deferral

It is considered that the submitted VMP and HCEP provide a robust framework however some refinement of the documents is warranted particularly with respect to the use of definitive language with respect to various actions.

Subject to the refinement of the documents as recommended, it is considered that the implementation of the actions as detailed in these reports, together will compliance with the recommended conditions of the development consent, will achieve the aims and objectives as set out in the VMP and HCEP.

2.3 Powerful Owl

Item 2 of the SNPP's reasons for deferral of determination of DA/101/2019 is as follows:

2. *Provide a definitive plan outlining protection measures, including the extent and scheduling of works, for the maximum possible buffer zone around the Powerful Owl breeding pair's roosting tree in the Northern Spoil Mound, and submit this plan for public exhibition and finalisation*

The protection measures relating to the Powerful Owl roosting trees on the Northern Spoil Mound are detailed in the VMP and HCEP which have been described in detailed in **Section 2.2** of this report.

The VMP and HCEP has been prepared in consultation with Dr Beth Mott of Birdlife Australia and the recommendations and actions with respect to minimising and mitigating impacts on the Powerful Owls and their habitat are documented in that report.

The VMP and HCEP incorporates measures for the protection and habitat creation for the Powerful Owls, during the earthworks and operational phase of the development. Recommendations include staging of earthworks with consideration to the Owl's breeding cycle and the implementation of exclusion zones around roosting trees. Post works habitat creation and appropriate vegetation management practises are also included.

The protection measures in the VMP and HCEP include exclusion zones and an undertaking that no works will not be undertaken within the recommended exclusion zones if a breeding pair are occupying a nest on the quarry site.

The VMP and HCEP limits the exclusion zones with respect to trees used by the breeding pair of Powerful Owls to the quarry site. The Powerful Owls might nest in trees adjacent to but outside the quarry site.

It is recommended that the parameters of the VMP and HCEP as it relates to the protection measures associated with the Powerful Owl be amended to include investigation of all trees within nominated exclusion zone regardless of the location of these trees.

The staging plan for works avoids any works within the vicinity of the northern spoil mound, being the location of nesting trees used by the Powerful Owls, within the period from April to October. The staging of works is discussed in **Section 2.4** of this report.

2.4 Staging of Works

3. *Provide additional information regarding staging of the project. The Staging Plan should address works, stabilisation, rehabilitation and revegetation required in each stage as well as how each stage relates to other stages across the site.*

A Staging Plan has been prepared by the Applicant which demonstrates that earthworks will not be undertaken within the recommended Powerful Owl exclusion zones if a breeding pair are occupying a nest on quarry site. The Staging Plan also details the revegetation works commencing prior to, during and after earthworks construction. The Staging Plan is included as part of the VMP and HCEP and is reproduced over page at **Figure 3**.

Figure 4 (over page) is a plan showing the location of the various works zones within the quarry. These works zones are referenced in the Staging Plan.

2 Response to Reasons for Deferral

HORNSBY QUARRY BULK EARTHWORKS STAGING PLAN																																				
DESCRIPTION	2020												2021												2022											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Biodiversity Offset Package																																				
Vegetation Management Plan (VMP)																																				
Habitat Creation and Enhancement Plan (HCEP)																																				
Eastern Diatreme face (including consultation with Geological Society of Australia)																																				
Sydney North Planning Panel Meeting																																				
Construction (Quarry including Western Platform & South West Fill Area)																																				
Construction (Northern Spoil Mound - Powerful Owl Exclusion Zone) **																																				
Construction (Northern Spoil Mound - Outside Powerful Owl Exclusion Zone)																																				
Construction (Old Mans Valley)																																				
Hornsby Park Implementation of VMP																																				
Hornsby Park Implementation of HCEP																																				

**** NOTE**
Management and construction works associated with the Powerful Owl exclusion zone are to be undertaken strictly in accordance with the requirements of the Vegetation Management Plan.

Figure 3 Staging Plan for Hornsby Quarry Bulk Earthworks and Rehabilitation Plan

2 Response to Reasons for Deferral



Figure 4 Location of Works Zones within Hornsby Quarry

2 Response to Reasons for Deferral

2.5 Hornsby Quarry Diatreme

4. *Provide further information on the Volcanic Diatreme located on the eastern face of the quarry void. The Diatreme must be clearly identified on relevant plans and cross sections and the Panel needs advice from the Applicant regarding how the Diatreme is incorporated in the proposal in terms of the level of fill, treatment, rehabilitation and protection whilst appropriately reflecting its geological significance. The Panel recommends this work be undertaken in consultation with geological societies who have the appropriate expertise in this field.*

On 10 June 2020, Dr Ian Percival, representing the Geoheritage Subcommittee, NSW Division of the Geological Society of Australia (GSA), and a local geologist (a member of STEP Inc) visited the quarry site. The author of this report also attended this site visit.

At the site visit, the geological experts acknowledged that the works proposed as part of the DA would result in more of the diatreme being exposed which was considered a positive outcome.

Following that site visit, GSA provided a written submission (dated 14 July 2020), a copy of which is included at **Appendix 3** to this report. This submission was included as part of the notification documentation in relation to the Biodiversity Offsets Strategy and accompanying VMP and HCEP.

As part of the future detailed design work in relation to next phase of works for the quarry (being the development of the community parkland), Council may wish to consult with GSA so that the objectives sought by them (GSA) with respect to ensuring the significance of the diatreme is able to be appreciated and protected in perpetuity are able to be accommodated. GSA has also indicated that it would be interested in understanding how access to the diatreme for students and experts for study purposes might be able to be facilitated as part of the future community parkland development plans.

2.6 Changes to the Proposed Development

5. *Make any subsequent changes to the proposed rehabilitation of the Hornsby Quarry as a result of the above.*

No changes to the location of the works/impact areas or the extent of works is required as a result of the more detailed VMP and HCEP plan and the Biodiversity Offsets Strategy or as a result of the submissions received in relation to notification of these documents.

The submissions received are discussed in **Section 3** of this report.

3 Submissions

3.1 Notification of Supplementary Documentation

Consistent with the Deferral Decision of the SNPP on 6 May 2020, the Biodiversity Offsets Package was notified to:

- All residents notified in relation to DA/101/2019.
- All individuals and community groups who provided a submission in relation to DA/101/2019.
- All agencies who provided feedback and General Terms of Approval in relation to DA/101/2019.

This additional information was notified for a period of 28 days from 23 July 2020 until 21 August 2020.

Those who lodged a submission in relation to the exhibition of the DA were notified of the submission of the additional information as well as land owners within the vicinity of the site who were notified in relation to the original DA. In addition, relevant government agencies were also notified of the submission of the additional information and invited to comment.

3.1.1 Agency Submissions

The agencies who were consulted in relation to the Biodiversity Offsets Package and the feedback provided (where received) is detailed in **Table 3**.

Agency	Response	Assessment
Transport for NSW	No comments	Nil
Rural Fire Service of NSW	No specific objections Requested that advice previously provided continue to be applied	The GTAs issued by RFS on 1 April 2019 are to continue to be applied
EPA	No comments	Decision not required; previous response remains applicable
NRAR	Decision not required	Hornsby Council exempt as public authority

3.1.2 Geological Society of Australia

GSA provided a written submission following a site visit to the quarry on 10 June 2020. The GSA submission was notified concurrently with the Biodiversity Offsets Package.

The submission provided by GSA is discussed in **Section 2.5** of this report.

3.1.3 Community Submissions

A total of seven (7) submissions were lodged by individuals in relation to notification of the Biodiversity Offsets Package and nine (9) submissions were also received from community groups.

Table 4 is a summary of the issues raised in these submissions together with a response to those issues.

Some of the matters raised in the submissions warrant minor amendments to the VMP and HCEP. It is recommended that these amendments be made prior to issue of the first Construction Certificate or prior to commencement of works on the site.

3 Submissions

Table 4 Community Submissions – Summary of Submissions and Response

Issue	Details	No. of submissions	Response
Seed collection	Targeted for March. Needs to be undertaken over a longer period to capture all species	2	Council has advised that seeds will be harvested following Florabank Guidelines (Section 7). Council currently has seed in stock for Blackbutt Gully Forest species. Future seed collection will be ongoing and all year around.
	Recommend that seed collection from areas with a warmer climate be considered (as a combat for climate change), not just replanting of local provenance plants	2	This comment is noted, however, this will not be included at this stage due to the objective of retaining local provenance.
Biodiversity Offsets Strategy	Disagree with the Biodiversity Offsets Strategy which involves off site works. Recommend that BOS occur within the quarry property	1	Offsetting on-site under a Conservation Agreement through the Biodiversity Conservation Trust (BCT) is the nominated offset strategy.
	Powerful Owl Coalition (POC) supports selection of voluntary conservation agreement and on-site offsets	1	Noted.
Funding	How can ongoing funding to implement Biodiversity Offsets Strategy and VMP be guaranteed? Object to option of a levy on ratepayers	6	Funding for the Offset Strategy has been included as a part of the overall project budget. The Council will enter into an agreement with BCT and this will include the registration of a covenant on the title of the land to which the Biodiversity Offsets Strategy applies. This will ensure that ongoing funding commitments for the implementation mechanisms identified in the Vegetation Management Plan and Habitat Creation and Enhancement Plan are met.
	Agreed that Option 3 (local offsets using Green Offsets Code and Voluntary Conservation Agreement) is the best option	3	Noted.
Timeframes	What are the timeframes for implementation of the VMP and HCEP	1	Implementation is dependent on favourable determination of the Development Application (DA). The Plan will be audited annually, with a major review every five (5) years.
	No evidence that works will actually be undertaken	1	Management Action and Performance Criteria Tables (VMP Appendix A - p92-7 and Appendix F - p108-11, respectively) specify the type of works required and the timing of work outcomes. Annual reports have been scheduled to provide evidence of works, response to works and recommendations for implementing future works. In addition, the Biodiversity Conservation Trust will undertake annual audits to ensure Management Action requirements, as part of the Conservation Agreement, are met.
Powerful Owl	No works within exclusion zone is too late once breeding pair are occupying the nest. Works need to cease before nesting commences	3	Noted. The staging plan included in the deferral submission identifies this and it is compliant with guidelines and Birdlife Australia advice.
	Location of lookout is too close to powerful owl nesting location	1	Final park embellishments, such as lookouts, are not part of the works associated with this DA. The final scope and location of park embellishments will be subject to a separate development application.
	No disturbance of powerful owl habitat during the breeding season. Therefore there must be no work from March onwards, regardless of whether the owls are using the tree or not. POC recommends that works on the northern spoil mound should not commence until the completion	1	The documentation submitted with the deferral submission (i.e. the Biodiversity Offset Strategy that incorporates the VMP and HCEP and the Staging Plan) has been prepared in accordance with Birdlife Australia's advice in relation to the Powerful Owl. A condition of consent has been recommended required all works to be undertaken in accordance with these plans.

3 Submissions

Table 4 Community Submissions – Summary of Submissions and Response

Issue	Details	No. of submissions	Response
	of the breeding season in 2021 and until Bird Life Australia has been consulted		
	Works to be monitored by Birdlife Australia	1	Birdlife Australia has agreed to work with Council to monitor the works under this DA.
	No works within 100m of the nesting tree during the breeding season	1	Noted. Works will be undertaken in accordance with the VMP, that accompanies the Biodiversity Offset Strategy. The VMP and HCEP have been prepared with input from Birdlife Australia.
	Options for roosting trees? Retain hollow bearing trees as nest boxes are only suitable for prey species; not suitable for owls	1 2	This comment is noted and agreed. The VMP and HCEP includes options for both tree hollows and nest boxes
	Will the exclusion zones actually work? - Bike riders will still have access through the exclusion zone - Fencing is a problem for wildlife - signage won't keep people or feral animals out	3	The site will be managed in accordance with the VMP and HCEP. Whilst park embellishments are subject to a future development application, no mountain bike trails will be within 100m of known Powerful Owl nesting trees.
	Performance criteria actions for protection - recommendations of POC	1	It is agreed the VMP and HCEP should be amended to incorporate the following additional management actions and performance criteria for the whole site: (i) Pest Management (ii) Nest Box Management Action A condition of consent to this effect is recommended
Bike Tracks	Bike Tracks should not be located in offset areas as they create too much damage	1	All mountain bike tracks will be removed from nominated offset areas.
	Agree that the plans need to include actions to remediate the impacts of the mountain bikes and tracks	1	Noted
	Tracks to be carefully designed to reduce impacts	1	The final scope and location of park embellishments will be subject to a separate future development application.
	NO extension to bike trails development due to damage caused by existing tracks - weed infestation	5	The final scope and location of park embellishments will be subject to a separate future development application.
	Night access (including for walkers) should be prohibited due to impacts on nocturnal wildlife, including the powerful owl	1	The final scope and location of park embellishments will be subject to a separate future development application, however, the impacts of night time activities on nocturnal wildlife are acknowledged in the VMP and HCEP.
	Bike tracks through Blue Gum Diatreme Forest is causing damage	2	Noted. The VMP and HCEP will direct the future management of the site including tracks and trails.
	More tracks needed, preferably linked to H2O (Sydney Water site at Westleigh?)	1	The final scope and location of park embellishments will be subject to a separate future development application.
South West Mound	Disputes that vegetation community on SW mound is Blackbutt Gully Forest. Consulting Arboriculture	2	The vegetation community types on site (including the South West Mound) were classified using the BioBanking Assessment Methodology (BBAM) established under Part 7A of the NSW <i>Threatened Species Conservation Act 1995</i> .

3 Submissions

Table 4 Community Submissions – Summary of Submissions and Response

Issue	Details	No. of submissions	Response
	Tree Survey states that this vegetation is Blue Gum Diatreme Forest		The BioBanking Scheme has since been replaced by the Biodiversity Offsets Scheme and the Biodiversity Assessment Methodology (BAM) under the <i>Biodiversity Conservation Act 2016</i> . The results of both methodologies produced the same Plant Community Types as mapped in the report. The Arboriculture Tree Survey was undertaken to assess individual tree attributes not the Plant Community Type. Bush regeneration works will aim to enhance the integrity of existing stands of Blue Gums as well as areas mapped as Blue Gum Diatreme Forest.
Wildlife Buffer	Bike tracks/Trail bike tracks should not be located in the wildlife buffer area NB - It is assumed that the reference to a trail bike track is a reference to the mountain bike tracks	2	The final scope and location of park embellishments will be subject to a separate future development application.
Fauna management during works	Fauna management strategies need to be put in place to ensure wildlife is protected during works.	1	Refer to Section 5 of the VMP.
Baiting	Baits should not be used to manage feral animals Feral animals to be controlled using poisoning that does not result in secondary poisoning	3	Agreed. Feral animal control will be undertaken in accordance with Council's Feral Animal Control policies. This will be included in Management Action and Performance Criteria to be addressed as part of the amendments to the VMP and HCEP.
Planning controls	No reference to HDCP 2013 in either the VMP or the HC&EP	1	It is not necessary for the VMP to refer to Hornsby's Development Control Plan. The VMP does however refer to the zoning of the land parcels as per Hornsby LEP 2013 (Refer Section 1.6 of the VMP).
Stronger commitments and more details	Level of detail is disappointing. Need to use stronger language - 'must' and 'will' rather than 'should'. Recommend stronger wording be required as condition of consent	7	Noted. It is recommended that the language contained in the VMP and HCEP should be more definitive. A condition of consent requiring the VMP and HCEP to be amended to address this is recommended.
Council's VMP Guidelines	The VMP has not been prepared having regard to Council's own VMP guidelines	1	The VMP for this project is consistent with the Conservation Agreement Requirements as per its aim.
Lookout	Clearing of vegetation for proposed lookout is inappropriate Bike paths and lookout should not be located anywhere near the nesting tree	4	Clearing of some vegetation is required to enable site stabilisation works to be undertaken and the site made safe. The final scope and location of park embellishments will be subject to a separate future development application.
Staging of works		1	A staging plan was submitted with the Hornsby Quarry Rehabilitation DA Deferral Submission Report. This is discussed in Section 2.4 of this report.
Impacts on wildlife due to increased activity	Too much human activity = reduced wildlife.	1	Noted. This and other similar matters will be considered as part of any future development application for the community parkland.
Future Uses	No sporting activities, no night lighting	1	The final scope and location of park embellishments will be subject to a separate future development application.
	Excessive noise generation due to quarry geography	1	Noted. The final scope and location of park embellishments will be subject to a separate future development application.

3 Submissions

Table 4 Community Submissions – Summary of Submissions and Response

Issue	Details	No. of submissions	Response
	Facilities for disabled persons	1	Noted. The final scope and location of park embellishments will be subject to a separate future development application.
Inadequate research	Birds within the quarry have not been included in the listing of species. Some of these species are listed as vulnerable. Impacts on these species also need to be considered	3	Previous surveys by Kleinfelder and GHD were both focused over the summer period (four surveys in total). Gecko Environment Management was engaged following the Sydney North Planning Panel deferral decision and they have undertaken two additional observational surveys. The survey efforts and documentation will be enhanced with an ongoing monitoring program incorporating increased spatial and temporal sampling. A winter 2020 survey has recently been completed and a summer survey has been scheduled. Species list submission through the Citizen Science program will also be encouraged.
Northern Spoil Mound	As few trees as possible should be removed	1	Agreed. Trees being removed are required to be removed to make the site safe.
	Trees must not be removed from the Northern spoil mound and the SW spoil mound	1	
Privet control	Appropriate species (rainforest substitute native seedlings) will control spread of privet	1	Noted and agreed.
	Privet removal should occur when powerful owls are not present	1	Noted and agreed.
Crushing Plant	Can be removed; potential source of contaminants	1	The final scope and location of park embellishments will be subject to a separate future development application.
Transfer of land to Berowra Valley NP	Council owned land on the eastern side of Joe's Mountain (where there are no sewer lines) be transferred to BVNP to ensure its protection	1	In perpetuity protection of the site will be ensured by the implementation of a Conservation Agreement under the Biodiversity Conservation Act between Biodiversity Conservation Trust and Hornsby Shire Council.
Tree removal	No further tree removal. North Connex has already removed too many	1	Some clearing of vegetation is required to enable site stabilisation works to be undertaken and the site to be made safe. The area of impact has been minimised as far as possible.
Diatreme	Fill obscuring the diatreme should be removed.	1	Noted. The works will result in more of the diatreme face being exposed than currently visible. The Geological Society of Australia has supported Council's approach. It is recommended that Council consult with GSA as part of the detailed design work for the community parkland.
	Happy with levels of fill and water level	12	Noted.
	Diatreme should be promoted.	1	Noted. The earthworks are a precursor to making the area safe for the public and the potential future use of the quarry as community parkland. This will facilitate more people being aware of the diatreme.
Impacts on Blue Gum Diatreme Forest	Last remaining one in the world Objections to the amount of BGHF being removed	2	The works have been designed to minimise the loss of Blue Gum Diatreme Forest. Any vegetation being removed is to allow for stabilisation works to make the site safe.
Extent of work	Concerned about extent of work on Northern mound and SW spoil mound	1	Extent of works on the northern mound is for site stabilisation that will make the site safe for the general public. The works on the northern mound and south-west fill areas have been minimised as far as possible to reduce the impacts and extent of vegetation to be removed.
VMP and HCEP	Welcome concepts proposed in plans	1	Noted.
	Some issues with grammar and spelling - proof reading recommended	2	Noted.

3 Submissions

Table 4 Community Submissions – Summary of Submissions and Response

Issue	Details	No. of submissions	Response
	Monitoring - 'Recovery Wheel' methodology recommended in lieu of National Trust methodology	2	Noted. The implementation, monitoring, evaluation and planning processes set out in the VMP have been prepared based on current available data and best practice to establish an adaptive environmental management strategy. Council has advised that it seek to ensure best practice environmental management is undertaken throughout the lifespan of the project. The BCT will also have oversight of the project and the works will be audited by BCT.
	Agree with 5 yearly review of plans - must be mandatory, not discretionary	2	Noted. BCT will have oversight of the project.
	Fire not mentioned as management tool	1	Council has advised that fire can be a useful and valuable tool in bushland restoration. Fire has been listed as a possible weed control method (Section 6.3 of the VMP and HCEP). The use of fire as a potential vegetation management mechanism would be undertaken in accordance with a bushfire management plan for the site.
	References to 'climber' to be clarified	1	'Climber' is a climbing weed species. There is one species listed as a priority weed at a State level (<i>Biosecurity Act 2016</i>) and four weeds listed of Region concern (page 35) on the quarry site. Due to their spreading mechanisms and their ability to grow into the canopy of forests, these weeds will be treated as a priority.
	Additional habitat features to be created	1	Noted.
Reference Sites	Reference sites to include nearby diatremes and sheltered valleys to increase range of species for revegetation	2	Noted.
Species Selection	Concerned about the limited number of species selected especially from local rainforest and wet sclerophyll communities	2	The species list has been provided by Council's nursery as those that are readily available and have been successfully used in Council's revegetation projects within the two plant communities. Many of the Blue Gum Diatreme Forest species listed are highly suitable for rainforest and wet sclerophyll communities.
Unauthorised works	Works being undertaken without approval	2	No works have been undertaken without approval. Recent excavation works on site were undertaken by Lend Lease and involved the removal of concrete that had been buried in Old Mans Valley as part of the NorthConnex Project. The approval for the NorthConnex Project was issued by the NSW Government. The works were not undertaken by Council and were not part of the works that are subject to the development application currently before the Sydney North Planning Panel.
Unqualified workers	Need to have appropriately qualified experts on hand whilst works are taking place, e.g. WIRES	1	The current VMP include in Section 5.1.3 'Licensed wildlife spotter/catchers must be engaged for any vegetation clearing and development activities or process undertaken onsite'. Construction personnel will also be required to undertake mandatory induction prior to commencement of works. This will include protocols relating to management of injured wildlife.
	POC recommends that Birdlife Australia be engaged as a consultant throughout the project	1	Birdlife Australia has agreed to work with Council for the duration of the project.

4 Conclusion

In accordance with the reasons for deferral provided by the Sydney North Planning Panel following its review of DA/101/2019 at the meeting held on 6 May 2020, additional material has been prepared and exhibited.

The additional material comprised:

- A Biodiversity Offsets Strategy
- A Vegetation Management Plan (VMP) and Habitat Creation & Enhancement Plan (HCEP)
- A written submission from the Geological Society of Australia
- A Staging Plan

This material was notified for a period of 28 days to all person who were notified in relation to the original development application (DA), those who made a submission in relation to the original DA and relevant government agencies.

As a result of that notification, a total of four (4) responses were received from agencies, together with sixteen (16) submissions from the community, comprising seven (7) from individuals and nine (9) from community groups.

Some of the matters raised in the submissions warrant minor amendments to the VMP and HCEP. The amendments to these documents do not require renotification.

No amendments to the extent or nature of the works proposed under DA/101/2019 as considered by the Panel at the meeting of 6 May 2020 are proposed or required as a result of this additional material.

Subject to conditions of consent, the works proposed as part of DA/101/2019 are satisfactory.

Accordingly, it is recommended:

1. *THAT the Sydney North Planning Panel grant Consent to Development Application No. DA/101/2019 for rehabilitation of the existing Hornsby Quarry involving bulk earthworks (and associated civil works including construction of access tracks, drainage and retaining walls), site remediation, tree removal, revegetation work and site rehabilitation at 1X Quarry Road, 14B Dural Street, 203X Peats Ferry Road, 1X Bridge Road, 82X-98X Manor Road, 36X-38X Summers Avenue Hornsby, pursuant to Section 4.16(1)(a), 4.16(4)(a) and 4.16(9) of the Environmental Planning and Assessment Act, 1979 subject to the conditions of consent detailed at **Appendix 1** to this supplementary report.*