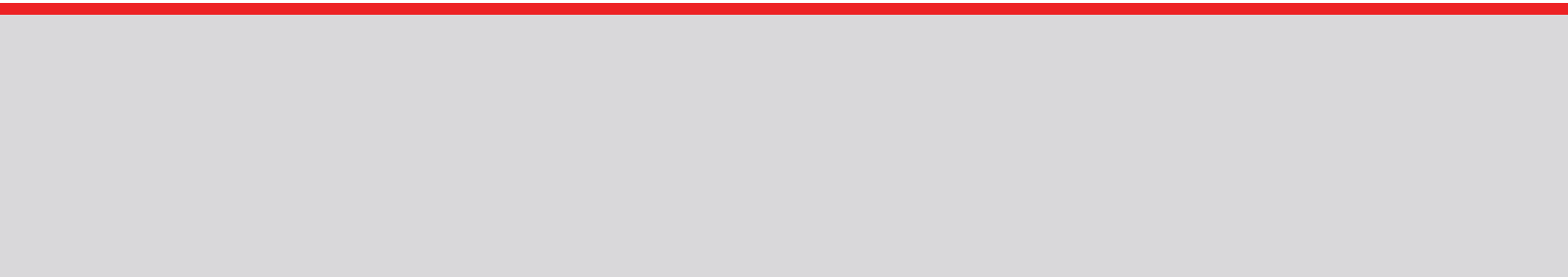


# Appendix A

Consultation





# CORRESPONDENCE FROM THE DEPARTMENT OF PLANNING AND ENVIRONMENT

**From:** Colin Phillips [mailto:Colin.Phillips@planning.nsw.gov.au]  
**Sent:** Wednesday, 12 March 2014 10:50 AM  
**To:** Howard Reed; neville@elementenvironment.com.au  
**Cc:** Margaret Kirton  
**Subject:** Re: Jandra Quarry Intensification Project - Modification Application and Background Scoping Document

Neville,

Thank you for providing the Background Scoping Document for the Jandra Quarry Intensification Project.

Overall the document has identified the planning pathway and matters that need to be addressed in an Environmental Assessment (EA) to accompany Holcim's application to modify the Jandra Quarry consent (DA 231-10-99).

NSW Planning and Infrastructure (P&I) will not be providing specific Director-General's requirements for the EA to accompany Holcim's modification application and will therefore not be consulting with other agencies about the content of the EA.

Holcim is encouraged to consult directly with relevant agencies during the preparation of the EA and ensure that it engages in an effective program of consultation with its neighbours.

I would be grateful if Holcim would conduct a search of its records to locate documentation that indicates the value of the application fee that was paid for the original Development Application (DA 231-10-99).

Following are P&I comments on material presented in the Scoping Document, which must be addressed in the EA.

1. Be aware of changes in the names used for government agencies.
  - The Department of Planning and Infrastructure is no longer a stand-alone department and is now named "NSW Planning and Infrastructure"
  - The Scoping Document references OEH as having produced air quality criteria and I suspect that this should be a reference to the EPA.
2. Please ensure the EA specifically describes the types of vegetation proposed to be cleared and the area of each vegetation type proposed to be cleared in hectares.
3. Consider measures to mitigate the loss of native vegetation and habitat values (such as tree hollows).
4. Ensure that socio-economic matters are assessed in thorough manner. The Scoping document identifies these matters as being "low risk". However, these are important matters that should be given due weight (and quantification, wherever possible) in the EA.
5. As consent is being sought for a 30 year period, the consent is likely to be in force at the time of quarry closure. The EA must contain conceptual quarry closure information about the process to be employed at that time to determine final land use(s) and decommissioning.

Once the EA has been produced, please forward one hard copy and 2 copies on disk to P&I. the EA will be checked to see if it is suitable to be placed on exhibition. Should this be the case, Holcim (or its consultant) will be asked by P&I to distribute hard and CD copies of the EA to exhibition locations and government agencies so as to be available in a coordinated manner with the exhibition of the EA.

Should you have any questions about this, please contact myself in the near term.

In the longer term Margaret Kirton is likely to be P&I's point of contact.

Regards

**Colin Phillips**

**Senior Planner, Mining Projects**

**NSW Planning & Infrastructure**

**GPO Box 39 | Sydney NSW 2001**

**T 02 9228 6483 E [colin.phillips@planning.nsw.gov.au](mailto:colin.phillips@planning.nsw.gov.au)**



# CORRESPONDENCE FROM ROADS AND MARITIME

**From:** TAMHANE Ashish [mailto:Ashish.TAMHANE@rms.nsw.gov.au]  
**Sent:** Friday, 13 June 2014 3:36 PM  
**To:** neville@elementenvironment.com.au  
**Subject:** RE: Jandra Quarry Intensification Project - Traffic Impact Assessment

Hi Neville,

I did have a look at the Traffic Impact Assessment (TIA). As such the TIA appears to be OK. However it is noted that the traffic volumes used in the report are based on 2011 counts. It would have better to have fresh counts undertaken to analyse the impact of the proposed project.

We will review and assess the TIA in detail during the EA exhibition stage.

Regards

Ash Tamhane  
A/Manager Land Use  
Network Management | Journey Management  
T 02 4924 0688 M 0400 913 781  
[www.rms.nsw.gov.au](http://www.rms.nsw.gov.au)  
***Every journey matters***

**Roads and Maritime Services**  
Level 1 59 Darby and Queen Sts Newcastle NSW 2300

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**From:** neville@elementenvironment.com.au [mailto:neville@elementenvironment.com.au]  
**Sent:** Monday, 16 June 2014 3:50 PM  
**To:** 'ashish.tamhane@rms.nsw.gov.au'  
**Cc:** Terry Lawrence  
**Subject:** Jandra Quarry Intensification Project - Traffic Impact Assessment - Comment from RMS

Hi Ash

Thanks for your email dated Friday 13 June 2014, much appreciated. I have discussed your comment about the age of the traffic counts with Terry Lawrence (Director of Transport and Urban Planning and author of the TIA) and he has advised that:

- The count data is only just 3 years old. When the RTA now RMS were still publishing AADT traffic volume data for state roads, this was always 2-3 years old, when first published. The count data that was used was a little over 2 years old when the traffic assessment commenced. It is therefore considered that the traffic count data used is not out of date;
- There has been no major changes to the land use in the area that would substantially alter the base traffic volumes collected for the Highway or the quarry;
- While the Highway upgrade works to the south around Bulahdelah have been completed, they are unlikely to have changed/increased the usage of the Pacific Highway adjacent the quarry. The highway has always been the fastest & most attractive road route in the area for

traffic travelling between Newcastle & Taree & the coastal communities in between. The recent upgrade works to the south would not have seen traffic transferring from other routes such as the Lakes Way.

- There has been no change to the quarry's operation & traffic generation since 2011.

If you require further clarity on the above, Terry (copied on this email) is happy to give you a ring to discuss further. Please advise on a time and date that suites you and I will advise Terry to contact you then.

Kind regards,

Neville.

**Neville Hattingh**

Director



m 0404 252 265

e [neville@elementenvironment.com.au](mailto:neville@elementenvironment.com.au)

w [www.elementenvironment.com.au](http://www.elementenvironment.com.au)

PO Box 1563, Warriewood, NSW, 2102





Your reference: DA 231-10-99  
Our reference: DOC14/90371-01; EF14/11214  
Contact: Steve Lewer, 4908 6814

Mr Neville Hattingh  
Director  
Element Environment  
PO Box 1563  
WARRIEWOOD NSW 2102

Dear Mr Hattingh

**RE: ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR JANDRA QUARRY INTENSIFICATION PROJECT - GREATER TAREE LOCAL GOVERNMENT AREA**

I refer to your e-mail dated 26 May 2014 requesting that the Office of Environment and Heritage (OEH) review the Background Scoping Document and associated reports for the Jandra Quarry Intensification Project. OEH understands that the proposal is a modification being assessed under Section 75W of the *Environmental Planning and Assessment Act 1979* and that you have been advised to consult with other agencies with respect to the preparation of the Environmental Assessment (EA).

OEH has not undertaken a review of the draft documents provided. The best way to ensure that the final EA meets OEH's requirements is check these documents against OEH's recommended Secretary's Environmental Assessment Requirements (**Attachment 1**). Please ensure that the final EA, once submitted, is sufficiently comprehensive to enable OEH to determine the extent of the impact(s) of the proposal. In carrying out the assessment, the please refer to the relevant guidelines listed in **Appendix 1 and 2** and any relevant best practice management guidelines.

When assessing the final application, OEH will require one hard and one electronic (CD) copy of the EA for assessment.

If you have any questions concerning this advice, please contact Steve Lewer, Regional Biodiversity Conservation Officer, on 4908 6814.

Yours sincerely

6 JUN 2014

**RICHARD BATH**  
**Senior Team Leader Planning, Hunter Central Coast Region**  
**Regional Operations**

Enclosures: Attachment 1

cc: Colin Phillips, Department of Planning and Environment, GPO Box 39, Sydney, 2001

**ATTACHMENT 1**

**OEH RECOMMENDED SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS  
FOR JANDRA QUARRY INTENSIFICATION QUARRY PROJECT – GREATER TAREE LGA**

**TABLE OF CONTENTS**

<b><u>1</u></b>	<b><u>Environmental impacts of the project</u></b> .....	<b>1</b>
<b><u>2</u></b>	<b><u>The Proposal</u></b> .....	<b>1</b>
<b><u>3</u></b>	<b><u>Flooding</u></b> .....	<b>1</b>
<b><u>4</u></b>	<b><u>Aboriginal Cultural Heritage</u></b> .....	<b>2</b>
<b><u>5</u></b>	<b><u>Biodiversity</u></b> .....	<b>4</b>
	<b><u>APPENDIX 1 – GUIDANCE MATERIAL</u></b> .....	<b>10</b>
	<b><u>APPENDIX 2 – BIOBANKING INFORMATION CHECKLIST</u></b> .....	<b>12</b>

2008 01/01



## **Environmental impacts of the project**

Impacts related to the following environmental issues need to be assessed, quantified and reported on:

- Flooding
- Aboriginal cultural heritage
- Biodiversity (including threatened species, populations ecological communities and their habitat)
- National Park estate.

The Environmental Assessment (EA) should address the specific requirements outlined below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is at **Appendix 1**.

## **The Proposal**

The objectives of the proposal should be clearly stated and refer to:

- the size, scale and type of the activity / development;
- all anticipated environment impacts, both direct and indirect, including level of vegetation / habitat clearing;
- threatened species, populations, ecological communities and / or habitats impacted upon;
- the staging and timing of the proposal; and
- the proposal's relationship to any other proposal and/or developments.

## **SPECIFIC ISSUES**

### **Flooding**

The EA should include an assessment of the following (where applicable) referring to the guidelines in Appendix 1:

#### **Assessment of existing flood behaviour and impact of Sea Level Rise and Climate Change**

Provide an assessment of all flood risks on the site (for the full range of floods including events greater than the 1 in 100 year design flood up to the probable maximum flood) from all the flood mechanisms acting singly or in combination and having consideration of any relevant provisions of the NSW Floodplain Development Manual 2005. The assessment should include the flood levels, velocities, the hydraulic categories and flood hazards. Tidal inundation, hazard and hydraulic category mapping should be provided. The assessment should be undertaken under current sea level conditions and with a projected sea level rise (SLR) of 0.90m. A sensitivity assessment to assess the impact of an increase in rainfall intensity of 10%, 20% and 30% due to climate change for the 1 in 100 year event with the projected SLR should be undertaken.

#### **Assessment of potential impacts of the proposed development**

The EA needs to provide full details of the flood assessment and modelling undertaken in determining any design flood levels (if applicable), including the 1 in 100 year flood levels. As such the EA must provide an assessment to determine the potential impacts of the proposed development (including fill) on the flood

behaviour at the site and any impacts on adjacent land (for the full range of floods including events greater than the 1 in 100 year design flood up to the probable maximum flood) based on the current sea level and with a projected SLR of 0.9m. This shall include any impacts on drainage (at the site and on adjacent land) and redirection of flow, velocities, flood levels, hazards and hydraulic categories. A sensitivity assessment should be undertaken to assess the impact of the development with an increase in rainfall intensity of 10%, 20% and 30% due to climate change and with SLR for the 1 in 100 year flood event.

The potential impacts of the development on flooding should take into consideration any potential ecological changes/ impacts on adjacent areas.

### **Emergency management measures and evacuation**

Address emergency management, evacuation and access, including contingency measures for floods greater than the 1 in 100 year flood event. These matters are to be discussed with and have concurrence of Council and the SES. Additionally, the assessment will need to indicate whether the proposal is likely to result in unsustainable social and economic costs to the community as a consequence of flooding.

### **Sea Level Rise and Ecosystem Migration**

Having regard to the existing and proposed topography of the land, assess the impact of the proposed development on the capacity for ecosystem migration for mean sea levels of up to 0.9m above 1990 levels.

### **Additional Information**

The assessment will also need to address:

1. Whether the proposal is consistent with any floodplain risk management plans.
2. Whether the proposal is compatible with the flood hazard of the land.
3. Whether the proposal will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

## **1 Aboriginal Cultural Heritage**

OEH recommends that the following Aboriginal cultural heritage issues be addressed by the proponent in preparing the EA.

### **Existing Aboriginal cultural heritage values**

OEH acknowledges the existence of numerous registered Aboriginal sites in the regional locality. These include burials, isolated finds, camp sites, artefact scatters and potential artefact deposits. It is also acknowledged that the project area contains landforms which have yielded a significant volume of evidence of Aboriginal occupation. It is therefore recommended that the proponent consider any potential impacts of the proposal on these known Aboriginal sites/objects, the sensitivity and significance of these sites to the traditional Aboriginal knowledge holders and any relationship that may exist between these sites and any Aboriginal cultural heritage values of the project area.

### **Potential impacts of the project on Aboriginal cultural heritage values**

#### **Standard requirements:**

1. The EA must address and document the information requirements set out in the *'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW'* (Office of Environment



and Heritage 2011). This document is available from Office of Environment and Heritage upon request or on OEH's website at:

[www.environment.nsw.gov.au/licences/investassessesreport.htm](http://www.environment.nsw.gov.au/licences/investassessesreport.htm) .

2. The EA must include surveys by suitably qualified archaeological and geomorphological consultants in consultation with all of the local Aboriginal knowledge holders.
3. The EA should identify the nature and extent of foreseeable impacts on Aboriginal cultural heritage values across the project area and clearly articulate strategies proposed to avoid/minimise these impacts. If impacts are proposed as part of the final development, clear justification for such impacts should be provided.
4. The EA must assess and document the archaeological and Aboriginal significance of the project area's Aboriginal cultural heritage values.
5. Describe the actions that will be taken to avoid or mitigate impacts of the project on Aboriginal cultural heritage values. This must include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. Any proposed methodology for Aboriginal cultural heritage investigation should reflect best practice standards recommended by OEH in the '*Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (2010)*' and the '*Code of Practice for Archaeological Investigations of Objects in New South Wales (2010)*'.
6. The EA must provide documentary evidence to demonstrate that effective community consultation with Aboriginal communities has been undertaken in assessing impacts, developing protection and mitigation options and making final recommendations. OEH supports broad-based Aboriginal community consultation and as a guide OEH's '*Aboriginal cultural heritage consultation requirements for proponents 2010*' provides a useful model to follow. This requirement is available on OEH's website at: [www.environment.nsw.gov.au/licences/consultation.htm](http://www.environment.nsw.gov.au/licences/consultation.htm).
7. If impacts on Aboriginal cultural heritage values are proposed as part of the final development, an assessment of the proposed impacts in the context of '*inter generational equity*' and cumulative impact must be undertaken. This assessment must examine both cultural and archaeological perspectives equally at both the local and regional levels, with consideration given to the site level and broader landscape level.

**Note:** If the EA is relying on past surveys it is critical to confirm that the surveys are consistent with the requirements of the above State Significant Development project application guidelines. Further, whilst there may be no requirement for obtaining an Aboriginal Heritage Impact Permit (AHIP) under Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act) for state significant development projects approved under the provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), there are other sections of the NPW Act which remain valid. This includes the requirement to obtain a Care Agreement for salvaged objects (Section 85) and reporting to OEH on the status of new or impacted Aboriginal sites (Section 89A).

In addressing these requirements, the applicant must refer to the following documents:

- i. Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (Department of Planning, 2005). These guidelines identify the factors to be considered in Aboriginal cultural heritage assessments for development proposals under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).
- ii. Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH, 2010) [www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf](http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf).
- iii. These guidelines identify the factors to be considered in Aboriginal cultural heritage assessments for development proposals under Part 4 of the (EP&A Act).
- iv. Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH, 2010) - [www.environment.nsw.gov.au/licences/consultation.htm](http://www.environment.nsw.gov.au/licences/consultation.htm). This link further explains the consultation



requirements that are set out in clause 80C of the National Parks and Wildlife Regulation 2009. The process set out in this document must be followed and documented in the EA.

- v. Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (OEH, 2010) - [www.environment.nsw.gov.au/licences/archinvestigations.htm](http://www.environment.nsw.gov.au/licences/archinvestigations.htm). The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.

Note:

1. An Aboriginal Site Impact Recording Form must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through archaeological investigations required or permitted through these environmental assessment requirements.  
([www.environment.nsw.gov.au/licences/DECCA\\_HIMS\\_Site\\_Recording\\_Form.htm](http://www.environment.nsw.gov.au/licences/DECCA_HIMS_Site_Recording_Form.htm))
2. Under Section 89A of the National Parks and Wildlife Act 1974, it is an offence for a person not to notify OEH of the location of any Aboriginal object the person becomes aware of, not already recorded on the AHIMS. An AHIMS Site Recording Form should be completed and submitted to the AHIMS Registrar ([www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm](http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm)) for each Aboriginal site found during investigations.

## Biodiversity

OEH's requirements on assessing the biodiversity at the development site and how to appropriately offset harm to threatened biota are provided below.

Biodiversity impacts can be assessed using **either** the BioBanking Assessment Methodology (scenario 1) or a detailed biodiversity assessment (scenario 2). The requirements for each of these approaches are detailed below.

The BioBanking Assessment Methodology can be used **either** to obtain a BioBanking statement, or to assess impacts of a proposal and to determine required offsets without obtaining a statement. In the latter instances, if the required credits are not available for offsetting, appropriate alternative options may be developed in consultation with the OEH and in accordance with OEH policy.

### **Scenario 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM DECC 2008):**

1. Where a BioBanking Statement is being sought under Part 7A of the *Threatened Species Conservation Act 1995* (TSC Act), the assessment must be undertaken by an accredited BioBanking assessor (as specified under Section 142B (1)(c) of the TSC Act) and done in accordance with the BioBanking Assessment Methodology (DECC 2008) utilising both the (i) '*BioBanking Assessment Methodology and Credit Calculator Operational Manual*' (DECC 2009a; located at: [www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf](http://www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf)), and (ii) '*Assessors' guide to using the BioBanking Credit Calculator v.2*' (OEH 2012; located at [www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf](http://www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf)). To qualify for a BioBanking Statement a proposal must meet the 'improve or maintain standard'.
- 1a. The EA should include a specific Statement of Commitments that reflects all requirements of the BioBanking Statement including the number of credits required and any Director General (DG) approved variations to impact on Red Flags.
2. Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EA should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECC 2009a) and the *Assessors' guide to using the BioBanking Credit Calculator v.1* (OEH 2012).



2a. The EA should include a specific Statement of Commitments which:

- is informed by the outcomes of the proposed BioBanking assessment offset package;
  - sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;
  - if the ecosystem or species credits cannot be obtained, provides appropriate alternative options to offset expected impacts, noting that an appropriate alternative option may be developed in consultation with OEH officers and in accordance with OEH policy;
  - demonstrates how all options have been explored to avoid red flag areas;
  - submission of credit calculator files for both the development and biobank sites as outlined in Appendix 2,
  - all appropriate BioBanking assessment files (including all reports, underlying assumptions [particularly in the selection of vegetation types from the vegetation types database, placement of assessment circles, connectivity assessment etc], associated maps, field sheets etc), and any relevant expert reports (if applicable). Appendix 2 is a checklist of information required when utilising the BioBanking Assessment Methodology and can be used as a guide to the relevant information required,
  - all appropriate GIS shape files (e.g. maps, plots and transects, assessment circles, species polygons, vegetation communities),
  - geo-referenced map(s) showing the locality of the offset lands, relevant vegetation zones and management areas (if applicable),
  - legible copies of all field plot / transect data sheets for all plots entered into the credit calculator. This is the primary source of information OEH utilises to assess biometric vegetation types chosen, habitat preferences and site condition, and
  - with respect to the use of the offset policy (OEH 2011, as described below), the level or tier of offset achieved must be clearly stated and explained, and any credit variation rules which have been applied must be justified.
3. Where the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects' (OEH 2011) is being used then the proponent must stipulate which level(s) of offset is being offered. In accordance with the interim policy, justification must be provided as to why it is appropriate to apply the Tier 2 ('no net loss') or Tier 3 ('mitigated net loss') outcomes. In considering whether the mitigated net loss standard is appropriate, justification must be provided on: (i) whether the credits required by the calculator are available on the market; (ii) whether alternative offset sites (other than credits) are available on the market; and (iii) the overall cost of the offsets and whether these costs are reasonable given the circumstances'. This must be to satisfaction of and in consultation with OEH. Tier 2 and Tier 3 offset proposals will likely require a larger area of remnant vegetation to be offered in the offset package than if Tier 1 ('improve or maintain') had been met.
4. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the NPW Act or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Please refer to the [Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water](#) (DECCW 2010). OEH notes Talawahl Nature Reserve occurs within the near vicinity (i.e. 250m) of the western boundary of the proposal, and as such any direct or indirect impacts need to be documented and assessed.
5. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.



**Scenario 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology:**

1. The EA should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.
2. A field survey of the site should be conducted and documented in accordance with relevant guidelines, including:
  - [Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft](#) (DEC, 2004),
  - [Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians](#) (DECCW, 2009b), and
  - Threatened species survey and assessment guideline information on [www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm](http://www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm).

If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with OEH prior to undertaking the EA, to determine whether OEH considers that it is appropriate.

Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have:

- been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or
- utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,

unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys.

If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.

Determining the list of potential threatened species, populations and ecological communities for the site must be done in accordance with the [Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft](#) (DEC, 2004) and the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005). The OEH Threatened Species website [www.environment.nsw.gov.au/threatenedspecies/](http://www.environment.nsw.gov.au/threatenedspecies/) and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species, populations and ecological communities present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on DECCW website at [www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm](http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm), respectively) and other data sources (e.g. PlantNET [<http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm>], Online Zoological Collections of Australian Museums [[www.ozcam.org/Australian-Museum-Collection-Search](http://www.ozcam.org/Australian-Museum-Collection-Search)]), previous or nearby surveys etc.) may also be used to compile the list.

3. The EA should contain the following information as a minimum:
  - a. The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005).
  - b. Description and geo-referenced mapping of study area (and spatial data files), e.g. overlays on topographic maps, satellite images and /or aerial photos, including details of map datum, projection and zone, all survey locations, all vegetation communities, key habitat features and



reported locations of threatened species, populations and ecological communities present in the subject site and study area.

- c. Description of survey methodologies used, including timing, location and weather conditions.
  - d. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EA.
  - e. Detailed description of all vegetation communities (both forested and non-woody [e.g. derived grasslands], including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (e.g. MS-Excel) and organised by vegetation community. Copies of all plot data (quadrat / transect) sheets should also be provided.
  - f. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status.
  - g. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor.
  - h. The proposal should provide an assessment of the cumulative impacts of the proposal in relation to other nearby developments.
  - i. Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed.
  - j. Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected (see the requirements for this at point 6 below).
  - k. Provision of specific Statement of Commitments relating to biodiversity.
4. An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account:

- a. the factors identified in s.5A of the EP&A Act, and
- b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance* (DECC 2007) which is available at:  
[www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf](http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf)

5. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package must be developed in accordance with the *NSW offset principles for major projects (state significant development and infrastructure)* – available at: [www.environment.nsw.gov.au/resources/biodiversity/1480biooffspol.pdf](http://www.environment.nsw.gov.au/resources/biodiversity/1480biooffspol.pdf) (OEH, 2014a), which may be guided by the *NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects* (OEH 2011).

The seven principles of the new Offsets Policy for Major Projects are:

- a. Before offsets are considered, impacts must first be avoided and unavoidable impacts minimised through mitigation measures. Only then should offsets be considered for the remaining impacts.
- b. Offset requirements should be based on a reliable and transparent assessment of losses and gains.
- c. Offsets must be targeted to the biodiversity values being lost or to higher conservation priorities.
- d. Offsets must be additional to other legal requirements.
- e. Offsets must be enduring, enforceable and auditable.
- f. Supplementary measures can be used in lieu of offsets.
- g. Offsets can be discounted where significant social and economic benefits accrue to NSW as a consequence of the proposal.

Application of this policy requires, as per Principle 2, the use of an established assessment tool to reliably and transparently measure losses and gains for terrestrial biodiversity of the development site and any offset measures, such as:



- BioBanking Assessment Methodology (DECC 2008) utilising the (A) 'BioBanking Assessment Methodology and Credit Calculator Operational Manual' (DECC 2009a; located at: [www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf](http://www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf)), and (B) 'Assessors' guide to using the BioBanking Credit Calculator v.2' (OEH 2012; located at [www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf](http://www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf)).

The Framework for Biodiversity Assessment (FBA) tool (OEH, 2014b) is proposed to be the main assessment tool for the offsetting principles for Major Projects, but it is not yet available.

Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets and a BioBanking Statement is not being obtained, the proponent must provide a detailed biodiversity assessment to OEH and all components of the assessment must be undertaken in accordance with in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECC 2009a), the *Assessors' guide to using the BioBanking Credit Calculator v.2'* (OEH 2012) (see **Appendix 2**). Currently (until the FBA is finalised), the *NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects* (OEH 2011) may be used to guide this process.

For land-based offsets there will be the need to identify conservation mechanisms to be used to ensure the long term protection and management of the offset sites and the provision of an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

With respect to managing and conserving a proposed offset in perpetuity, OEH considers and supports the following as appropriate conservation mechanisms:

- the establishment of BioBanking sites with BioBanking agreements under the *Threatened Species Conservation Act 1995* (TSC Act);
- the dedication of land under the *National Parks and Wildlife Act 1974* (NPW Act), providing prior consultation with the National Parks and Wildlife Service;
- a Trust Agreement under the *Nature Conservation Trust Act 2001*; or
- a Planning Agreement under s93F of the *Environmental Planning and Assessment Act 1979*.

**Note:**

- OEH no longer supports public positive covenant under s88E of the *Conveyancing Act 1919* as an appropriate conservation mechanism to secure and/or manage biodiversity offsets.
- OEH has previously supported the use of conservation agreements under the NPW Act as one of the acceptable offsetting mechanisms. However, it should be noted that OEH's position on the use of conservation agreements for State Significant Projects is currently under review and this approach may no longer be an acceptable conservation outcome for this project. The Conservation Partners Program section of OEH administer the use of conservation agreements and have recently advised that for commercial developments, the preferred method of securing an offset is under the BioBanking provisions of the *Threatened Species Conservation Act 1995* (i.e. a registered BioBanking Agreement site). This is consistent with the recently revised NSW offset principles for major projects (state significant development and state significant infrastructure - [www.environment.nsw.gov.au/biocertification/offsets.htm](http://www.environment.nsw.gov.au/biocertification/offsets.htm)), in particular Offset Principle 5 which states 'for terrestrial offsets, a BioBanking Agreement or addition to the NSW national parks system are the preferred mechanisms for securing an offset site'. OEH recommends that the proponent either consider the use of a BioBanking Agreement or contact OEH's Conservation Partners Program group to determine whether or not the use of a conservation agreement for the proposed biodiversity offset area would be supported.

The NSW offset principles for major projects also allows for supplementary measures to be used if appropriate land-based offset site cannot be achieved. These may include rehabilitation of post-mined



land (OEH, 2014c) or the provision of funds for biodiversity research, recovery of threatened species or community education programs, as considered appropriate by OEH. All reasonable attempts must be made to locate appropriate offset sites before supplementary measures can be undertaken, as offset sites covered by BioBanking agreements achieve a more clearly measurable conservation gain.

The EA must demonstrate how any Offset Strategy developed for this project meets the requirements of, and is consistent with the Government's seven principles for offsetting for major projects.

6. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby National Parks and Wildlife Service estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Refer to the [Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water](#) (DECCW 2010). OEH notes Talawah Nature Reserve occurs within the near vicinity (i.e. 250m) of the western boundary of the proposal, and as such any direct or indirect impacts need to be documented and assessed.
7. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

## **References**

DEC (2004) *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities*. Draft, Department of Environment and Conservation, Hurstville; available at: [www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf](http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf)

DECC (2007) *Threatened Species Assessment Guidelines: The Assessment of Significance*. August 2007. Department of Environment and Climate Change (NSW).

DECC (2008) *BioBanking Assessment Methodology*. Department of Environment and Climate Change NSW, detailed at: [www.environment.nsw.gov.au/biobanking/index.htm](http://www.environment.nsw.gov.au/biobanking/index.htm).

DECC (2009a) *BioBanking Assessment Methodology and Credit Calculator Operational Manual*. DECC 2009/181, Department of Environment and Climate Change (NSW), Goulburn Street, Sydney, available at: [www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf](http://www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf).

DECC (2009b) *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians*. April 2009. Department of Environment and Climate Change (NSW), Goulburn Street, Sydney.

DECCW (2010) *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water*. DECCW, Sydney.

DoP (2005) *Guidelines for Threatened Species Assessment*. Department of Planning, Sydney, July 2005.

OEH (2011) *NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects*. NSW Office of Environment and Heritage, Sydney, June 2011.

OEH (2012) *Assessors' Guide to Using The BioBanking Credit Calculator V2*. Office of Environment and Heritage NSW, Sydney; April 2012, available at: [www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf](http://www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf).

OEH (2014a) *Draft NSW Biodiversity Offsets Policy for major Projects*. March 2014. OEH Office of Environment and Heritage, Sydney [www.environment.nsw.gov.au/resources/biodiversity/1480bioffspol.pdf](http://www.environment.nsw.gov.au/resources/biodiversity/1480bioffspol.pdf).

OEH (2014b) *Fact sheet: How the Framework for Biodiversity Assessment assesses loss and gain: NSW Biodiversity Offset Policy for Major Projects*. March 2014. NSW Office of Environment and Heritage, Sydney [www.environment.nsw.gov.au/resources/biodiversity/1498fbafs.pdf](http://www.environment.nsw.gov.au/resources/biodiversity/1498fbafs.pdf).

OEH (2014c) *Fact sheet: Mine site rehabilitation. NSW Biodiversity Offsets Policy for Major Projects*. March 2014. NSW Office of Environment and Heritage, Sydney [www.environment.nsw.gov.au/resources/biodiversity/14100minerehab.pdf](http://www.environment.nsw.gov.au/resources/biodiversity/14100minerehab.pdf).



## APPENDIX 1 – GUIDANCE MATERIAL

Title	Web address
<b><u>Relevant Legislation</u></b>	
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	<a href="http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/">www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/</a>
<i>Environmental Planning and Assessment Act 1979</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N">www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N</a>
<i>National Parks and Wildlife Act 1974</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N">www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N</a>
<i>Threatened Species Conservation Act 1995</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N">www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N</a>
<b><u>Aboriginal Cultural Heritage</u></b>	
Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)	Available from Department of Planning and Environment.
Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW	<a href="http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf">www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf</a>
Aboriginal Cultural Heritage Consultation Requirements for Proponents	<a href="http://www.environment.nsw.gov.au/licences/consultation.htm">www.environment.nsw.gov.au/licences/consultation.htm</a>
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales	<a href="http://www.environment.nsw.gov.au/licences/archinvestigations.htm">www.environment.nsw.gov.au/licences/archinvestigations.htm</a>
Aboriginal Site Impact Recording Form	<a href="http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm">www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm</a>
Aboriginal Heritage Information Management System (AHIMS) Registrar	<a href="http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm">www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm</a>
<b><u>Biodiversity</u></b>	
Guidelines for Threatened Species Assessment (Department of Planning, July 2005)	Available from the Department of Planning and Environment
BioBanking Assessment Methodology (DECC 2008)	<a href="http://www.environment.nsw.gov.au/biobanking/index.htm">www.environment.nsw.gov.au/biobanking/index.htm</a>
BioBanking Assessment Methodology and Credit Calculator Operation Manual (DECC, 2009a)	<a href="http://www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf">www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf</a>
Assessors' Guide To Using The BioBanking Credit Calculator V2 (OEH, 2012)	<a href="http://www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf">www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf</a>
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna -Amphibians (DECC, 2009b)	<a href="http://www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf">www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf</a>
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC 2004)	<a href="http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf">www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf</a>
OEH Threatened Species website	<a href="http://www.environment.nsw.gov.au/Threatenedspecies/">www.environment.nsw.gov.au/Threatenedspecies/</a>



Title	Web address
Atlas of NSW Wildlife	<a href="http://www.environment.nsw.gov.au/wildlifeatlas/about.htm">www.environment.nsw.gov.au/wildlifeatlas/about.htm</a>
BioBanking Threatened Species Database	<a href="http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm">www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm</a>
Vegetation Types databases	<a href="http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm">www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm</a>
PlantNET	<a href="http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm">http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm</a>
Online Zoological Collections of Australian Museums	<a href="http://www.ozcam.org/Australian-Museum-Collection-Search">www.ozcam.org/Australian-Museum-Collection-Search</a>
Threatened Species Assessment Guideline - The Assessment of Significance (DECC 2007)	<a href="http://www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf">www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf</a>
NSW offset principles for major projects (state significant development and state significant infrastructure)	<a href="http://www.environment.nsw.gov.au/biodivoffsets/biooffsetspol.htm">www.environment.nsw.gov.au/biodivoffsets/biooffsetspol.htm</a>
<b><u>OEH Estate</u></b>	
<b>Land reserved or acquired under the NPW Act</b>	
List of national parks	<a href="http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx">www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx</a>
OEH Revocation of Land Policy	<a href="http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm">www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm</a>
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW 2010)	<a href="http://www.environment.nsw.gov.au/resources/protectedareas/10509devadideccw.pdf">www.environment.nsw.gov.au/resources/protectedareas/10509devadideccw.pdf</a>



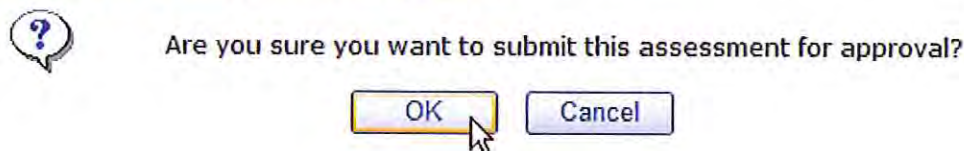
## APPENDIX 2 – BIOBANKING INFORMATION CHECKLIST

### Checklist of information required when utilising the BioBanking Assessment Methodology and Submitting BioBanking assessments to Office of Environment and Heritage using the BioBanking Credit Calculator v.2.0

The 'Assessors' Guide to Using the BioBanking Credit Calculator v.2.0' has been finalised and it is now available for download from the Office of Environment and Heritage (OEH) website [www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf](http://www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf). The guide provides information on the operation and use of the web-based BioBanking Credit Calculator v.2.0.

To submit your assessment to OEH, open your assessment in *Edit* mode. Navigate to the *Assessment details* page and select the *Submit* button in the top right hand corner. A *Submit the assessment for approval* box will appear (**Figure 1**), where you can confirm submission (*OK* button) or cancel submission (*Cancel* button). Once a case has been submitted to OEH, the status of the case will change in your *My work* tab from *Work in progress (WIP)* to *submitted*. Please note that you cannot make any edits to an assessment that has been submitted, although you will be able to view the assessment.

#### Submit the assessment for approval



**Figure 1: Submitting an assessment**

The following documentation must be submitted with your Environmental Impact Statement or Environmental Assessment report (in hard copy and soft copy):

- BioBanking Assessment Report including a list of dominant indigenous species for overstorey, mid-storey and ground cover for each vegetation type and, where required:
  - local benchmark data,
  - request for increase in gain of site value,
  - a description of the proposed development,
  - measures to avoid and mitigate the impacts of development,
  - an assessment of indirect impacts,
  - a statement of onsite measures,
  - a description of the application of the BioBanking Assessment Methodology, including details of and assumptions made in utilising the methodology, such as (but not limited to) placement of assessment circles, remnant value, connectivity and reasoning behind selection of vegetation types in the Biometric Vegetation Type database,
  - plot and transect values including a list of the indigenous plant species identified in each of the plots,
  - a description of targeted threatened flora and fauna surveys, and any general baseline surveys (incl. vegetation specific surveys). These should be also be provided schematically, and

Where required, the BioBanking Assessment Report should also include:

- expert reports,
- an application for a determination on red flag areas,
- more appropriate use of local data for vegetation types, benchmarks or threatened species,
- environmental contributions accompanied by a BioBanking Agreement Credit Report (if applicable), and

- application for deferred retirement arrangements (if applicable).
- Copies of completed field data sheets, and updated with correct plant taxonomy in instances where field names have been used.
- Maps (soft copy as A4 jpgs) of:
  - offset site / BioBanking Agreement boundary or development footprint
  - vegetation zones
  - management zones
  - and where required:
    - o existing waste
    - o existing erosion
    - o existing structures (in waterways)
- Separate shape files should be supplied for all the maps mentioned above plus:
  - plots and transects
  - assessment circles
  - species polygons
  - polygons for adjacent remnant area
  - the location or habitat area of sensitive species, and the management area related to that sensitive species (as this information cannot be displayed publicly).
- All maps must include:
  - a title (as per the names above)
  - the site's name, location and lot/DP numbers
  - the scale
  - the date it was prepared
  - a clear and unambiguous legend.

Boundaries and zones must be confirmed on the site using a GPS. This information should be digitised onto an ortho-rectified aerial photo or SPOT-5 image. Maps must be easily readable and submitted to OEH as a Geographic Information System (GIS) file that is ESRI compatible. Shape files must use GDA94 datum. Name each shape file as: 'biobank site name\_descriptor'. For example, 'Hill Farm\_photo points' or 'Hill Farm\_management zones'.

Photo points should be named A, B, C, D, E, F, G, etc. Photo points should be located in areas where change is expected (i.e. where replanting, natural regeneration, intensive weeding or other active management actions are to be carried out). As a rough guide, include at least one photo point in each management zone where active management actions will be undertaken. Boundaries and zones must be confirmed on the site using a GPS. This information should be digitised onto an ortho-rectified aerial photo or SPOT-5 image. Maps must be easily readable and submitted to OEH as a Geographic Information System (GIS) file that is ESRI compatible.

Shape files must use GDA94 datum. Name each shape file as: 'biobank/development site name\_descriptor'. For example, 'Hill Farm\_photo points' or 'Hill Farm\_management zones'.

Additional requirements for offset sites that may be required (based on liaison with OEH):

- completed BioBanking agreement management action template (provided in Word format), and
- Biodiversity Credits Pricing Spreadsheet

Once the case has been received OEH will review the data entered, and any supporting documentation. For State Significant Development (SSD), State Significant Infrastructure and residual Part 3A (under the *Environmental Planning and Assessment Act 1979*) this review will take place during the assessment of the Environmental Impact Statement or Environmental Assessment report (for Part 3A matters).



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Dear Neville

### **Jandra Quarry Intensification Project Request for comment on Background Scoping Document**

The NSW Office of Water has reviewed the Background Scoping Document for the proposed Jandra Quarry Intensification Project and provides the following key issues and comments for consideration in the preparation of the Environmental Assessment (EA).

#### **Key Issues**

NSW Office of Water requires the EA for the proposal to demonstrate the following:

1. Identification of site water demands, water sources, water disposal methods and water storage structures in the form of a water balance. The water balance is to outline the proposed water management on the site and to also include details of any water reticulation infrastructure that supplies water to and within the site.
2. An impact assessment of any proposed works within or adjacent to watercourses. Ability to achieve the principles of the *Water Management Act 2000* (WMA) and the requirements of the Guidelines for Controlled Activity Approvals. The relevant guidelines can be accessed at the following link: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>. Works on waterfront land (as defined in the WMA) may require a controlled activity approval(s).
3. Preparation of a site water management plan to integrate the proposed water balance and management for the site and to identify adequate mitigating and monitoring requirements for both water quality and water volume.
4. Existing and proposed water licensing requirements in accordance with the *Water Act 1912* and the WMA. The quarry is located within the Wallamba River Water Source under the *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009*.

#### **Groundwater**

The Background Scoping Document states:

The existing quarry is not subject to groundwater inflow and no groundwater was recorded by the geological investigations undertaken for the original EIS. The geological investigations concluded that any groundwater was likely to be located in the fractured material above the basement rock. The groundwater impact assessment concluded that there was limited

potential for groundwater flow as any groundwater would originate from subsurface flows following recent rainfall events rather than from interception of an aquifer.

Relatively shallow earthworks excavations required for the construction of the proposed new heavy vehicle access road, stormwater basin overflow diversion and expansion of the existing finished product stockpile area are unlikely to impact on groundwater.

The proposed modification will not result in any changes to the approved quarry pit in terms of both depth and disturbance area. Further consideration of flooding and groundwater is therefore not required in assessment of the potential environmental impacts associated with the proposed modification.

Based upon these comments the Office of Water is satisfied that there is no requirement for the EA to provide further assessment of potential groundwater impacts as a result of the proposal. In the event of any changes to the proposal, or should groundwater interception or extraction become likely, the proponent should liaise with the Office of Water to determine assessment and licensing requirements.

Yours sincerely



**Mitchell Isaacs**

Manager Strategic Stakeholder Liaison  
16 June 2014



