



Our ref: DOC20/585748  
Senders ref: SSD-8530563

Ms Mary Ellen Trimble  
Student Para Planner  
Planning and Assessment Group  
[maryellen.Trimble@planning.nsw.gov.au](mailto:maryellen.Trimble@planning.nsw.gov.au)

Dear Mary Ellen

**Request for SEARs - Gunnedah Waste Facility (SSD-8530563)**

I refer to your email dated 17 July 2020 seeking input into the Department of Planning, Industry and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the Gunnedah Waste Facility (SSD-8530563).

The Biodiversity and Conservation Division (BCD) has considered your request and provides SEARs for the proposed development in **Attachments A and B**.

BCD recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Water and soils
3. Flooding

BCD note the proponent's intent to submit a BDAR waiver for the project. BCD will review this application upon submission. In the absence of the BDAR waiver application BCD provides our standard set of assessment requirements.

**Please note** that as of 1 July 2020 Aboriginal cultural heritage responsibilities previously performed by BCD Planning teams have been transferred to the Heritage Division of the Department of Premier and Cabinet. Any questions or requests for formal Aboriginal cultural heritage assessment requirements should be directed to [heritagemailbox@environment.nsw.gov.au](mailto:heritagemailbox@environment.nsw.gov.au), phone 02 9873 8500 or mail Heritage NSW, Department of Premier and Cabinet, Locked Bag 5020 Parramatta NSW 2124.

If you have any questions about this advice, please do not hesitate to contact David Geering, Senior Conservation Planning Officer, via [david.geering@environment.nsw.gov.au](mailto:david.geering@environment.nsw.gov.au) or (02) 6883 5335.

Yours sincerely,

A handwritten signature in cursive script that reads "Samantha Wynn".

**Samantha Wynn**  
**Senior Team Leader Planning North West**  
**Biodiversity and Conservation Division**

21 July 2020

Attachment A - Environmental Assessment Requirements

Attachment B - Guidance Material

## Standard Environmental Assessment Requirements

OEH	Office of Environment and Heritage (now Biodiversity and Conservation Division)
BCD	Biodiversity and Conservation Division of the NSW Department of Planning, Industry and Environment, formerly OEH
The Department	NSW Department of Planning, Industry and Environment
NPWS	National Parks and Wildlife Service

<p><b>Biodiversity</b></p> <ol style="list-style-type: none"> <li>1. Biodiversity impacts related to the proposed development are to be assessed in accordance with <a href="#">Section 7.9 of the Biodiversity Conservation Act 2017</a> the <a href="#">Biodiversity Assessment Method</a> and documented in a <a href="#">Biodiversity Development Assessment Report (BDAR)</a>. The BDAR must include information in the form detailed in the <i>Biodiversity Conservation Act 2016</i> (s6.12), <i>Biodiversity Conservation Regulation 2017</i> (s6.8) and <a href="#">Biodiversity Assessment Method</a>, unless the Department determine that the proposed development is not likely to have any significant impacts on biodiversity values.</li> <li>2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the <a href="#">Biodiversity Assessment Method</a>.</li> <li>3. The BDAR must include details of the measures proposed to address the offset obligation as follows; <ul style="list-style-type: none"> <li>• The total number and classes of biodiversity credits required to be retired for the development/project;</li> <li>• The number and classes of like-for-like biodiversity credits proposed to be retired;</li> <li>• The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;</li> <li>• Any proposal to fund a <a href="#">biodiversity conservation action</a>;</li> <li>• Any proposal to conduct ecological rehabilitation (if a mining project);</li> <li>• Any proposal to make a payment to the Biodiversity Conservation Fund.</li> </ul> <p>If seeking approval to use the variation rules, the BDAR must contain details of the <a href="#">reasonable steps</a> that have been taken to obtain requisite like-for-like biodiversity credits.</p> </li> <li>4. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM.</li> </ol>
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5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.

### **Water and soils**

6. The EIS must map the following features relevant to water and soils including:

- a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
- b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method).
- c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
- d. Groundwater.
- e. Groundwater dependent ecosystems.
- f. Proposed intake and discharge locations.

7. The EIS must describe background conditions for any water resource likely to be affected by the development, including:

- a. Existing surface and groundwater.
- b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
- c. Water Quality Objectives (as endorsed by the NSW Government <http://www.environment.nsw.gov.au/ieo/index.htm>) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
- d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the [ANZECC \(2000\) Guidelines for Fresh and Marine Water Quality](#) and/or local objectives, criteria or targets endorsed by the NSW Government.
- e. [Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions](#)

8. The EIS must assess the impacts of the development on water quality, including:

- a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction.
- b. Identification of proposed monitoring of water quality.

9. The EIS must assess the impact of the development on hydrology, including:

- a. Water balance including quantity, quality and source.
- b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.

- c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
- d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches).
- e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
- f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options.
- g. Identification of proposed monitoring of hydrological attributes.

### **Flooding**

10. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:

- a. Flood prone land.
- b. Flood planning area, the area below the flood planning level.
- c. Hydraulic categorisation (floodways and flood storage areas).
- d. Flood hazard

11. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event.

12. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:

- a. Current flood behaviour for a range of design events as identified in 14 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

13. Modelling in the EIS must consider and document:

- a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
- b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood.
- c. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazard categories and hydraulic categories.

d. Relevant provisions of the NSW Floodplain Development Manual 2005.

14. The EIS must assess the impacts on the proposed development on flood behaviour, including:

- a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
- b. Consistency with Council floodplain risk management plans.
- c. Consistency with any Rural Floodplain Management Plans.
- d. Compatibility with the flood hazard of the land.
- e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
- f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
- g. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
- h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.
- i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council.
- j. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the NSW SES.
- k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

## Guidance Material

Title	Web address
<b><u>Relevant Legislation</u></b>	
<i>Biodiversity Conservation Act 2016</i>	<a href="https://www.legislation.nsw.gov.au/#/view/act/2016/63/full">https://www.legislation.nsw.gov.au/#/view/act/2016/63/full</a>
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	<a href="http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/">http://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">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N</a>
<i>Fisheries Management Act 1994</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N</a>
<i>Marine Parks Act 1997</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+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">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N</a>
<i>Protection of the Environment Operations Act 1997</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N</a>
<i>Water Management Act 2000</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N</a>
<i>Wilderness Act 1987</i>	<a href="http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N">http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N</a>
<b><u>Biodiversity</u></b>	
Biodiversity Assessment Method (OEH, 2017)	<a href="https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298079/Biodiversity-Assessment-Method-May-2017.pdf">https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298079/Biodiversity-Assessment-Method-May-2017.pdf</a>
Biodiversity Development Assessment Report	<a href="https://www.legislation.nsw.gov.au/#/view/act/2016/63/part6/div3/sec6.12">https://www.legislation.nsw.gov.au/#/view/act/2016/63/part6/div3/sec6.12</a>
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	<a href="https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298198/Serious-and-Irreversible-Impact-Guidance.PDF">https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298198/Serious-and-Irreversible-Impact-Guidance.PDF</a>
Accreditation Scheme for Application of the Biodiversity Assessment Metho Order 2017	<a href="https://www.legislation.nsw.gov.au/regulations/2017-471.pdf">https://www.legislation.nsw.gov.au/regulations/2017-471.pdf</a>
Biodiversity conservation actions	<a href="http://www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf">www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf</a>
Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	<a href="http://www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf">www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf</a>
The Department's Threatened Species Website	<a href="http://www.environment.nsw.gov.au/threatenedspecies/">www.environment.nsw.gov.au/threatenedspecies/</a>
NSW BioNet (Atlas of NSW Wildlife)	<a href="http://www.bionet.nsw.gov.au/">www.bionet.nsw.gov.au/</a>

Title	Web address
NSW guide to surveying threatened plants (OEH 2016)	<a href="http://www.environment.nsw.gov.au/resources/threatenedspecies/160129-threatened-plants-survey-guide.pdf">www.environment.nsw.gov.au/resources/threatenedspecies/160129-threatened-plants-survey-guide.pdf</a>
The Department's threatened species survey and assessment guideline information	<a href="http://www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm">www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm</a>
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	<a href="http://www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm">www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm</a>
The Departments Data Portal (access to online spatial data)	<a href="http://data.environment.nsw.gov.au/">http://data.environment.nsw.gov.au/</a>
Fisheries NSW policies and guidelines	<a href="http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation">http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation</a>
List of national parks	<a href="http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx">http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx</a>
Revocation, recategorisation and road adjustment policy (OEH, 2012)	<a href="http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm">http://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/protectedareas/developmentadjoiningdecc.htm">http://www.environment.nsw.gov.au/protectedareas/developmentadjoiningdecc.htm</a>
<b><u>Water and Soils</u></b>	
<b>Acid sulphate soils</b>	
Acid Sulfate Soils Planning Maps via Data.NSW	<a href="http://data.nsw.gov.au/data/">http://data.nsw.gov.au/data/</a>
Acid Sulfate Soils Manual (Stone et al. 1998)	<a href="http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf">http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf</a>
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	<a href="http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf">http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf</a> This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
<b>Flooding</b>	
Floodplain development manual	<a href="http://www.environment.nsw.gov.au/floodplains/manual.htm">http://www.environment.nsw.gov.au/floodplains/manual.htm</a>
NSW Climate Impact Profile	<a href="http://climatechange.environment.nsw.gov.au/">http://climatechange.environment.nsw.gov.au/</a>
Climate Change Impacts and Risk Management	<a href="#">Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation</a>
<b>Water</b>	
Water Quality Objectives	<a href="http://www.environment.nsw.gov.au/ieo/index.htm">http://www.environment.nsw.gov.au/ieo/index.htm</a>
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	<a href="http://www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1">www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1</a>

Title	Web address
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	<a href="http://deccnet/water/resources/AWQGuidance7.pdf">http://deccnet/water/resources/AWQGuidance7.pdf</a>
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	<a href="http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf">http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf</a>