



Our ref: DOC20/501170
Senders ref: SSD 10472

Ms Emily Dickson
Planning and Assessment Group
Department of Planning, Industry and Environment
4 Parramatta Square
12 Darcy Street
Parramatta NSW 2150

Dear Ms Dickson

Subject: Request for Secretary's Environmental Assessment Requirements (SEARs) for the Expansion of the Museum Discovery Centre (SSD-10472)

Thank you for your email received on 12 June 2020, requesting input from the Environment, Energy and Science Group (EES) in the Department of Planning, Industry and Environment on the SEARs for the proposed expansion of the Museums Discovery Centre (SSD-10472) at 2 Green Road, Castle Hill.

EES has reviewed the information prepared by Milestone P/L dated 11 June 2020 and provides recommendations for the SEARs in the Attachment.

Should you have any queries regarding this matter, please contact Marnie Stewart, Senior Project Officer Planning on 9995 6868 or Marnie.stewart@environment.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink that reads 'S. Harrison'.

24/06/20

Susan Harrison
Senior Team Leader Planning
Greater Sydney Branch
Climate Change and Sustainability

Attachment – EES Environmental Assessment Requirements

<p>Aboriginal cultural heritage</p> <ol style="list-style-type: none">1. Identify and describe the Aboriginal cultural heritage values that exist across the whole area that would be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011).2. Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.3. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH. <p>Note that due diligence is not an appropriate assessment, an ACHAR is required.</p>
<p>Biodiversity</p> <ol style="list-style-type: none">4. Biodiversity impacts related to the proposed development are to be assessed in accordance with Section 7.9 of the Biodiversity Conservation Act 2017 the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the Biodiversity Conservation Act 2016 (s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and Biodiversity Assessment Method, including an assessment of the impacts of the proposal (including an assessment of impacts prescribed by the regulations).5. 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 Biodiversity Assessment Method.6. The BDAR must include details of the measures proposed to address the offset obligation as follows:<ul style="list-style-type: none">• The total number and classes of biodiversity credits required to be retired for the development/project;• The number and classes of like-for-like biodiversity credits proposed to be retired;

- The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;
- Any proposal to fund a biodiversity conservation action;
- Any proposal to conduct ecological rehabilitation (if a mining project);
- Any proposal to make a payment to the Biodiversity Conservation Fund.

If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.

7. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM.
8. 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

9. 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

10. 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 <http://www.environment.nsw.gov.au/research-and->

11. 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.
 - c. Consistency with any relevant certified Coastal Management Program (or Coastal Zone Management Plan).

12. 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 and coastal hazards

13. 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.

14. 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.

15. 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.

16. 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.

17. 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 affection 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.