Department of Climate Change, Energy, the Environment and Water

Your ref: PAE-92937456
Our ref: DOC25/759477-6

Gracie Jackel
Environmental Assessment Officer
Dept Planning Housing & Infrastructure

Dear Gracie,

Input into Secretary's Environmental Assessment Requirements – Sunshine Estate Battery Energy Storage System, SSD-92914712

Thank you for your Major Projects Portal request dated 4 September 2025 seeking input into the Secretary's Environmental Assessment Requirements (SEARs) for the Sunshine Estate Battery Energy Storage System. The proposed development is within the Cessnock local government area.

The Conservation Programs, Heritage & Regulation Group (CPHR) of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) understands that the development of the Sunshine Estate Battery Energy Storage System (SE BESS) involves the development, construction, operation and decommissioning of this circa 120MW/480MWh Battery Energy Storage System (BESS).CPHR understands that the proposal is a State Significant Development (SSD-92914712) project under the Environmental Planning and Assessment Act 1979.

CPHR has reviewed the document Scoping Proposal, Sunshine Estate BESS, August 2025,] and has prepared Standard SEARs which are presented in **Attachment 1**. Any project-specific SEARs have been provided for this project in **Attachment 2**. Details of guidance documents are provided in **Attachment 3**.

If you have any further questions about this issue, please contact our Hunter Central Coast Planning Team at huntercentralcoast@environment.nsw.gov.au.

Yours Sincerely

Joe Thompson
Director Hunter Central Coast
Conservation Programs, Heritage & Regulation Group (CPHR)

19 September 2025

Enclosure – Attachments 1, 2 and 3

Attachment 1 - Standard Environmental Assessment Requirements

Biodiversity

1. Biodiversity impacts related to the proposed development (SSD-92914712) are to be assessed in accordance with the Biodiversity Assessment Method 2020 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 2020.
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 Biodiversity Assessment Method 2020.
3. The BDAR must include details of the measures proposed to address the offset obligation as follows;
    - 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.

4. 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

5. 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.

6. 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.

7. 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.

8. 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 erosion

9. The EIS must map the following features relevant to flooding as described in the NSW 2023 Flood Risk Management Manual including:
   a. Flood prone land.
   b. Flood planning area, the area below the flood planning level.
   c. Hydraulic categorisation (floodways and flood storage areas).

10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.

11. 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 11 above. This includes the 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

12. Modelling in the EIS must consider and document:

    a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.
    b. 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, hazards and hydraulic categories.
    c. Relevant provisions of the NSW 2023 Flood Risk Management Manual.

13. 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. Compatibility with the flood hazard of the land.
    d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
    e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
    f. 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.
    g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council.
    h. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council.
    i. Emergency management, evacuation and access, and contingency measures for the development considering the full range or 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 SES.
    j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

14. The EIS must describe the potential effects of coastal processes and hazards (within the meaning of the Coastal Management Act 2016), including sea level rise and climate change:

    a. On the proposed development
    b. Arising from the proposed development.

15. The EIS must consider have regard to any certified Coastal Management Program (or Coastal Zone Management Plan) and be consistent with the management objectives described in the Coastal Management Act 2016 and development controls for coastal management areas mapped under the State Environmental Planning Policy (Resilience and Hazards) 2021.

Attachment 2 – Project specific environmental assessment requirements

Biodiversity - nil
Water and soils - nil
Flooding and coastal erosion - The EIS must map the following feature relevant to flooding as described in the Flood hazard including Hydraulic hazard categories (H1 to H6)

Attachment 3 – Guidance material

Title	Web address
Relevant legislation	
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
SEPP (Resilience and Hazards) 2021	https://legislation.nsw.gov.au/view/whole/html/inforce/current/epi-2021-0730
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	https://www.legislation.gov.au/Series/C2004A00485
Environmental Planning and Assessment Act 1979	https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203
Fisheries Management Act 1994	https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203
Marine Estate Management Act 2014	https://legislation.nsw.gov.au/view/html/inforce/current/act-2014-072
National Parks and Wildlife Act 1974	https://legislation.nsw.gov.au/view/html/inforce/current/act-1974-080
Protection of the Environment Operations Act 1997	https://legislation.nsw.gov.au/view/html/inforce/current/act-1997-156
Water Management Act 2000	https://legislation.nsw.gov.au/view/html/inforce/current/act-2000-092
Wilderness Act 1987	https://legislation.nsw.gov.au/view/html/inforce/current/act-1987-196
Biodiversity	
Biodiversity Assessment Method 2020 & assessor resources (including legislation, manuals, BDAR templates, survey guidelines, registers and databases)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020 https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources
Guidance to assist a decision maker to determine a serious and irreversible impact	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf
Policy and guidelines for fish habitat conservation and management	https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment
Guidelines for developments adjacent to national parks and other reserves	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/development-guidelines
SEED Data Portal (access to online spatial & environmental data)	http://seed.nsw.gov.au/
Conservation Lands	
Guidelines for developments adjacent to NPWS managed lands	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/development-guidelines

Title	Web address
National parks and other lands managed by NPWS	**List** https://www.nationalparks.nsw.gov.au/visit-a-park **Spatial data** https://datasets.seed.nsw.gov.au/dataset/npws-all-managed-land **Recategorisation & adjustments** https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
Australian and New Zealand Guidelines for Fresh and Marine Water Quality	https://www.waterquality.gov.au/anz-guidelines
Water Quality Guidelines Mixing zones	https://www.waterquality.gov.au/anz-guidelines/resources/key-concepts/mixing-zones
Approved methods for the sampling and analysis of water pollutants in NSW (2022)	https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/licensing-under-poeo-act-1997/licensing-to-regulate-water-pollution/approved-methods-for-sampling-and-analysing-water-pollutants
Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions.	https://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning
Soils	
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf
National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018a).	https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf
National Acid Sulfate Soils guidance: National acid sulfate soils sampling and identification methods manual, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018b).	https://www.waterquality.gov.au/issues/acid-sulfate-soils/sampling-and-identification-methods-manual
National Acid Sulfate soils Guidance: Overview and management of monosulfidic black ooze (MBO) accumulations in waterways and wetlands, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, LA, Ward, NJ, Bush, RT, Toppler, NR, Choppala, G. 2018c)	https://www.waterquality.gov.au/issues/acid-sulfate-soils/monosulfidic-black-ooze-accumulation
National Acid sulfate soils guidance: Guidelines for the dredging of acid sulfate soil sediments and associated dredge spoil management, Department of Agriculture and Water Resources,	https://www.waterquality.gov.au/sites/default/files/documents/dredging-sediments-spoil.pdf

Title	Web address
Canberra, ACT (Simpson, SL, Mosley, L, Batley, GE and Shand P. 2018).	
National Acid Sulfate Soils Guidance: Guidance for the dewatering of acid sulfate soils in shallow groundwater environments, Department of Agriculture and Water Resources, Canberra, ACT. (Shand, P, Appleyard, S, Simpson, SL, Degens, B, Mosley, LM 2018)	*https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf*
Flooding and coastal hazards	
Coastal management	*https://www.environment.nsw.gov.au/topics/water/coasts/coastal-management*
Floodplain Risk Management Manual	*https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual*
Coastal Management Manual	*https://www.environment.nsw.gov.au/topics/water/coasts/coastal-management/manual*
NSW Climate Impact Profile	*http://climatechange.environment.nsw.gov.au/*
Floodplain Risk Management Guidelines	*http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines*
Australian Rainfall and Runoff: A Guide to Flood Estimation	*http://arr.ga.gov.au/*
Marine and Coastal Ecology	
Marine Estate Management Strategy	*https://www.marine.nsw.gov.au/marine-estate-programs/marine-estate-management-strategy*
NSW Marine Estate Threat and Risk Assessment	*https://www.marine.nsw.gov.au/marine-estate-programs/threat-and-risk-assessment*
National Light Pollution Guidelines for Wildlife including Marine Turtles, Seabirds and Migratory Shorebirds	*https://www.dcceew.gov.au/environment/biodiversity/publications/national-light-pollution-guidelines-wildlife*
NSW Marine Protected Areas	*https://www.marine.nsw.gov.au/your-marine-estate/marine-protected-areas*