



Your ref: SSD-92494458
Our ref: DOC25/753273

Rachael Helsham
Environmental Assessment Officer
Department of Planning, Housing and Infrastructure
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150

17 September 2025

Subject: Request for Secretary's Environmental Assessment Requirements (SEARs) for Kamay Energy Storage (SSD-92494458) (Sutherland Shire)

Dear Rachael,

Thank you for your email received on 3 September 2025, requesting input on SEARs for the above project from the Conservation Programs, Heritage and Regulation (CPHR) Group and NSW National Parks and Wildlife Service (NPWS) of the NSW Department of Climate Change, Energy, the Environment and Water.

CPHR, in consultation with NPWS, has reviewed the Scoping Report (Ausgrid, 28 August 2025) and recommends the applicant address the requirements below and at Attachment A.

Kurnell Energy and Industry Precinct (SSD-86799993)

This State significant development application (SSDA) is in proximity to the proposed Kurnell Energy and Industry Precinct (SSD-86799993) (KEIP) which relates to the future use of portions of the Kurnell Refinery Conversion site (SSD-5544). CPHR provided its SEARs advice on KEIP on 28 July 2025.

Biodiversity

The Giant Dragonfly (*Petalura gigantea*) species was observed during biodiversity surveys for Modification 7 to the Kurnell Refinery Conversion (SSD-5544-Mod-7). The species may utilise habitats in proximity to the subject site and this SSDA may result in direct or indirect impacts on these habitats.

In relation to point 7 of the recommended biodiversity environmental assessment requirements, the minimum information and spatial data requirements are in Tables 24 and 25 of the [Biodiversity Assessment Method 2020 \(BAM\)](#). Other requirements, such as those relating to the BAM Calculator and Biodiversity Offset Assessment Management System, are detailed in the [guides, tools and databases](#) webpage.

Flooding

In reference to the Flood Risk Management SEARs in Attachment A, future use of the site for a battery energy storage system (BESS) would be classified as hazardous industry in the [Flood-prone land package](#) (2021). Sutherland Shire Council has adopted special flood consideration clause 5.22 which would require the proposed BESS, including battery pads and battery arrays, to be located outside of the probable maximum flood (PMF) extent. CPHR requests the preliminary hazard assessment also assess the flood impact to ensure protection to the PMF is achieved.

Captain Cook Drive is the only access route to the Kurnell Peninsula. CPHR requires this road's level of service not be impacted up to and including the PMF event.

Coastal management

The SSDA is located adjacent to mapped areas 'proximity area for coastal wetlands,' 'coastal wetlands,' 'coastal use area' and 'coastal environmental area' under the *State Environmental Planning Policy (Resilience and Hazards) 2021*. The SSDA must demonstrate it is consistent with the objectives of the relevant coastal management area and avoids increasing the risk of coastal hazards.

The SSDA also adjoins Towra Point Nature Reserve which is a declared Ramsar wetland under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. It is important to manage the potential impacts of the development on the ecological and hydrological integrity of the adjacent Nature Reserve and wetlands. Potential impacts on these sensitive areas and proposed management measures must be addressed in the Environmental Impact Statement (EIS).

NPWS Estate

The applicant or its consultants must seek consent from the NPWS Sydney South Area Manager via npws.sydneysouth@environment.nsw.gov.au prior to accessing land reserved under the *National Parks and Wildlife Act 1974* (NPW Act) to undertake any survey or environmental investigation to inform the preparation of the EIS.

Please contact the Greater Sydney Planning team at rog.gsrplanning@environment.nsw.gov.au should you have any queries regarding this advice.

Yours sincerely



Louisa Clark
Director, Greater Sydney Branch
Regional Delivery
Conservation Programs, Heritage and Regulation Group

Biodiversity
1. The biodiversity values and impacts of the proposed development are to be assessed in accordance with Section 7.9 of the <i>Biodiversity Conservation Act 2016</i> (BC Act), the Biodiversity Assessment Method 2020 (BAM) and documented in a biodiversity development assessment report (BDAR). The BDAR must be prepared using the approved BDAR template and include information in the form detailed in the BC Act (s.6.12), <i>Biodiversity Conservation Regulation 2017</i> (s.6.8) and the BAM, including an assessment of the impacts of the proposal (including an assessment of impacts prescribed by the regulations). 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 BAM. 3. The BDAR must assess the impacts associated with all ancillary infrastructure, including the transport route road upgrades where applicable. 4. The BDAR must include an assessment of potential direct and indirect impacts on the Giant Dragonfly (<i>Petalura gigantea</i>). Note that the recording of the species may be too recent for the BAM to automatically include this species as a candidate species credit species. 5. The BDAR must include an assessment for serious and irreversible impacts (SAIL) in accordance with Section 9.1 of the BAM. 6. The BDAR must include details of the measures proposed to address the offset obligation in accordance with the BC Act as follows: • The total number and classes of biodiversity credits required to be retired for the development/project. • Any proposal to make a payment to the Biodiversity Conservation Fund. 7. The BDAR must be submitted with all spatial data associated with the survey and assessment as per 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 s.6.10 of the BC Act and be BAM-compliant within 14 days of submission.
Flood Risk Management
9. The EIS must include a flood impact and risk assessment (FIRA) prepared in accordance with the Flood Risk Management Guideline LU01 Flood impact and risk assessment. The FIRA is to be prepared by suitably qualified engineers with experience in flood risk management in NSW. As a minimum the FIRA must: • Address the relevant provisions of the NSW Flood Risk Management Manual (2023) and toolkit, and include existing flood mapping, planning controls, government studies, information and requirements. • Assess the full range of flood behaviour, flood constraints and risk for the existing scenario on the site and its surrounding areas for the full range of events, including 10% Annual Exceedance Probability (AEP), 5% AEP, 1% AEP, 0.5% AEP or 0.2% AEP and probable maximum flood (PMF). The hydrological and hydraulic models developed by the consultant must be compatible with the Kurnell Floodplain Risk Management Study and Plan (WMA Water, 2013). Also verify the models against this study for the full range of flooding. • Assess the post development scenario(s) for flood behaviour, constraints and risk on the site and its surrounding areas for the full range of abovementioned events. Details of the development must be included in the verified models. Identify all proposed discharge points and determine capacity to accept flow. Existing discharge points to Quibray Bay and Towra Point

Nature Reserve are highly constrained due to current tailwater levels and must be accounted for in the flood models.

- Provide flood mapping of the 1% AEP and PMF extents for existing conditions and post development scenarios.
- Identify and describe the flood constraints on the land (floodways, flood storage, flood hazard and emergency response issues) for the full range of abovementioned events, for both regional flooding and local flooding.
- Assess the appropriateness of the development or development types for the location based on the flood constraints on the land.
- Identify the impacts of the development on flood behaviour and risk for the full range of abovementioned flood events.
- Identify and assess the adequacy of management measures and controls to:
 - a. effectively address flood constraints to ensure the flood risks to the proposed development and its users are acceptable
 - b. minimise on-site and off-site flood impacts, including access along Captain Cook Drive which must not be impacted up to and including the PMF event
 - c. manage flood and associated emergency management impacts due to the development on the existing substation, existing communities and individual property owners and occupiers
 - d. demonstrate the proposed battery energy storage system (BESS) and any proposed hazardous and offensive land uses on-site would be located outside of the PMF extent
 - e. assess flood risk on wastewater and firefighting water management facilities at the site and provide appropriate mitigation strategies
 - f. protect 'proximity area for coastal wetlands,' 'coastal wetlands' and Towra Point Nature Reserve from discharge of sediment generated from earthworks during flood events.
- Address flood-related emergency response issues and site access arrangements, in accordance with [Flood Risk Management Guideline EM01 Support for Emergency Management Planning](#).
- Assess the impact of climate change on future flood behaviour in accordance with Australian Rainfall and Runoff Version 4.2 and Section 2.6 of the [Flood Risk Management Guideline FB01 Understanding and managing flood risk](#).

Note: Flood modelling is to be undertaken by a suitably qualified engineer consistent with Council's requirements and Australian Rainfall and Runoff. Flood behaviour includes flood volume, extent, depth, level, velocity, duration, rate of rise, flood function and hazard. Flood risk is a function of flood behaviour, exposure and vulnerability for each element at risk. Impacts of flooding include changes to flood behaviour and risks to the community including emergency management response for the community.

Coastal management

10. The EIS must address potential impacts on 'proximity area for coastal wetlands,' and 'coastal wetlands' mapped under the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP) and Towra Point Nature Reserve (Ramsar Wetland) and include proposed management measures.
11. The EIS must demonstrate in accordance with the Resilience and Hazards SEPP that the proposed development:
 - Is consistent with the objectives of the relevant coastal management area
 - Avoids increasing the risk of coastal hazards (for example, erosion and inundation)
 - Aligns with the [Coastal Design Guidelines](#) (Department of Planning, Housing and Infrastructure, 2023) and relevant local planning instruments.

Water and soils

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

- Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
- Rivers, streams, wetlands, estuaries (as described in s.4.2 of the BAM).
- Wetlands as described in s.4.2 of the BAM.
- Groundwater.
- Groundwater dependent ecosystems.
- Proposed intake and discharge locations.

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

- Existing surface and groundwater.
- Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
- Water Quality Objectives (as endorsed by the NSW Government) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
- Indicators and trigger values/criteria for the environmental values identified above 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.
- [Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions](#)

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

- Water balance including quantity, quality and source.
- Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
- Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
- 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).
- Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
- 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.
- Identification of proposed monitoring of hydrological attributes.

National Parks and Wildlife Estate

15. The EIS must:

- include an assessment of the nature, extent and duration of any potential direct or indirect and cumulative impacts on the nearby parks, namely Towra Point Nature Reserve, addressing all matters outlined in the [Developments adjacent to National Parks and Wildlife Service lands - Guidelines for consent and planning authorities \(DPIE 2020\)](#) including:
 - a. recognition of the natural, cultural and social values attached to that land
 - b. recognition of the impacts, including direct, indirect and cumulative impacts as they relate to the environmental values of that land, its location, and greater landscape connectivity
 - c. extent of the direct, indirect and cumulative impacts on that land
 - d. duration of the direct, indirect and cumulative impacts on the interface, the greater environmental values and the reserves connectivity in the landscape to other reserved land.
- identify measures proposed to prevent, control, abate, minimise and manage any potential direct and indirect impacts on the nature reserve, including an evaluation of the effectiveness and reliability of the proposed measures
- quantify any residual impacts to the nature reserve
- be prepared in consultation with NPWS with initial contact via npws.envplanningadvice@environment.nsw.gov.au.

End of Submission