



DOC26/148818-5

22 March 2026

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Department of Planning, Housing and Infrastructure

Via: NSW Major Project Planning portal

**EPA's Recommended Secretary's Environmental Assessment Requirements
NEXTDC S4 Data Centre (Phase 2), Horsley Park – SSD-108864209**

Dear Shaun,

I am writing in response to your request for the NSW Environment Protection Authority's (EPA's) Secretary's Environmental Assessment Requirements (SEARs) for the proposed NEXTDC S4 Data Centre - Phase 2 at 6 Johnston Crescent, Horsley Park (Lot 306 in DP1275011) (the Site).

The EPA understands the proposal is for construction and operation of a data centre consisting of:

- Power consumption capacity of 134.4 megawatts (MW)
- 70 diesel generator sets, each with a capacity of 3.1 MW
- Storage of 2,710kL of diesel, for 24-hour back-up power generation availability
- Storage of industrial water (on Lot 305 in DP1275011) for the purposes of mechanical cooling
- Associated works.

The EPA understands that the facility will be constructed and operated by NEXTDC, and that the site will be operational on a 24-hour, 7 day a week basis.

As part of the consideration of the proposal the EPA has reviewed the following documents:

- *Scoping Report - NEXTDC S4 Data Centre (Phase 2)- 6 Johnston Crescent, Horsley Park* (Urbis, 12 March 2026) (**Scoping Report**)
- Letter to DPHI – Recycled water approach (Daniel Howard, Chief Development Officer, Hyperscale, dated 4 February 2026) (**Recycled Water Approach**)
- *Technical Memorandum - Horsley Park - Data Centre water supply – Stage 2 - Short-term servicing assessment for NEXTDC S4 Data Centre Development in Horsley Park - Year 2028 – Revision E* (GHD, 25 November 2025)

The EPA has considered the details of the proposal and provides the recommended SEARs as **Attachment A**.

Key risk areas and information requirements for the proposal include:

NSW Environment Protection Authority

As the environmental steward and regulator of our State we are committed to a sustainable future. Join us on our mission to protect tomorrow together.

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1. Environment Protection Licence

Section 5.1 of the Scoping Report outlines that the proposal intends to store approximately 2,170kL tonnes of diesel on-site. Clause 9 (Chemical Storage), Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) outlines that the capacity to store 2000 tonnes of petroleum products is a scheduled activity which requires an Environmental Protection License (EPL).

The EPA also notes that the Scoping Report and Recycled Water Approach outlined that the proposal intends to potentially store and treat industrial water (supplied by an offsite source) on the adjacent Lot 305 in DP1275011 for the purposes of cooling the data centre infrastructure. The Recycled Water Approach suggests that 20.39ML of water will be required per day, of which 16.8ML/day can be provided by the offsite source.

The EPA recommends the Department of Planning, Housing and Infrastructure (DPHI) request that the proponent consider whether the proposed storage / treatment of industrial water sourced from offsite may trigger Clause 41 (Waste processing – non-thermal treatment) and/or Clause 42 (Waste storage) of Schedule 1 of the POEO Act.

The Proponent should be made aware that any commitments made in the environmental assessment may be formalised as approval conditions and may also be placed as formal licence conditions.

2. Air quality

An Air Quality Impact Assessment for the proposal should provide appropriate modelling for reasonable worst case impacts during construction and operation, including consideration of generator testing, routine maintenance works that require use of generators and emergency scenarios.

Where operation of back-up generators exceeds 200hrs per annum, the proposal will need to demonstrate compliance with the Group 6 emission limits in the *Protection of the Environment Operations (Clean Air) Regulation 2022*, including the NO_x limit of 450mg/Nm³.

In accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2022), the proposal must demonstrate that operations will not result in any additional exceedances of the impact assessment criteria and that best management practices will be implemented. Regarding the emergency scenario, the potential for local and regional air quality impacts on sensitive receptors is a key concern, and the proposal should consider whether these impacts can be practicably prevented or minimised. The proponent has an obligation under the POEO Act to operated plant and equipment by such practical means as necessary to prevent or minimise air pollution.

3. Noise

The Noise and Vibration Impact Assessment (NVIA) for the proposal should include detailed assessment of impacts on sensitive receivers, particularly nearby residential, and include consideration of appropriate criteria for both internal and external spaces.

The NVIA should also include a detailed assessment of all mitigation investigated and assessed according to the feasible and reasonable framework in the Noise Policy for Industry 2017 (NPfI), including addressing emergency operation of the generators and cumulative impacts with other land uses.

Additional details in this regard have been included in Sections 5.4 – 5.9 in Attachment A.

4. Cumulative impacts

The potential for cumulative air and noise impacts in the surrounding area is a key issue, and the AQIA and NVIA for the proposal will need to provide detailed quantitative assessments on potential for cumulative impacts, including potential overlapping of operational and construction impacts for later stages. The EIS should clearly detail the proposed staging, including plant that is proposed as part of each stage, to assist with assessment of cumulative impacts.

In carrying out the assessment, the proponent should refer to the relevant guidelines listed, as well as any relevant industry codes of practice and best practice management guidelines.

Section 3.3 of the Scoping Report provides an outline of the approved and known possible future developments which may be relevant in the cumulative impact assessment of the proposal.

5. Contamination

The Scoping Report outlines that an asbestos contamination containment cell has been established beneath the Site to manage contamination identified during the site establishment and subdivision activities.

The containment cell is managed in accordance with *Long-Term Environmental Management Plan, Horsely Park Stage 3 Containment Cell* (ERM, 8 April 2024) (LTEMP) and was subject to a Site Audit Statement 0301-2012 (SAS), issued by NSW accredited site auditor James Davis on 10 May 2024. The SAS states that, in the opinion of the site auditor, the Site is suitable for commercial/industrial use, subject to the compliance with the LTEMP.

The Proponent should include information on how the LTEMP will be complied with during both construction and operation of the data centre, if approved.

Please contact Sam Waskett at environmentprotection.planning@epa.nsw.gov.au if you have any questions about this matter.

Yours sincerely,



CHRISTIE JACKSON
Unit Head – Environment Protection Planning
NSW Environment Protection Authority

ATTACHMENT A

EPA's Recommended Secretary's Environmental Assessment Requirements NEXTDC S4 Data Centre (Phase 2), Horsley Park – SSD-108864209

1. Environmental impacts of the project

- 1.1. The description should include the following for both the construction and operation of the project:
 - a. Details of the premises covered by the project including any relationship with any existing Environment Protection Licences
 - b. the layout of all the physical elements of the project within the project area, including all buildings, structures, works, haulage activities, pollution controls, stockpile and material handling areas, sealed and unsealed areas, landscaping and open space.
 - c. all mitigation measures that will be built into the physical layout and design of the project (such as noise walls)
 - d. any ancillary infrastructure for which approval is being sought (such as upgrades to utilities or surrounding roads)
 - e. identify those components of the physical layout and design that may change during the detailed design of the project, and set clear limits within which this change may occur without requiring amendments to the DA or modifications to the development consent if the project is approved
 - f. plans showing the layout and design in plan-view and cross section.
- 1.2. Identify any likely interactions between the development and any existing/approved developments and land uses in the area.
- 1.3. Identify all sensitive receivers likely to be affected by the development using clear maps/plans, including key landform areas, such as conservation areas and waterways.
- 1.4. Identify all potential environmental emissions, assess the likely environmental impacts, and describe the proposed mitigation measures to minimise environmental pollution to achieve compliance with relevant environmental legislation, policies, and guidelines.
- 1.5. The EIS must accurately summarise the key findings of the detailed technical studies in the appendices of the EIS and use suitable cross-referencing to reduce repetition between the two parts of the EIS.

2. EPA Licensing and Approval Requirements

- 2.1. Identify all approvals and licences required under environment protection legislation including details of all scheduled activities under schedule 1 of the *Protection of the Environment Operations Act 1997*.
- 2.2. Outline how the proposal and its environmental protection measures would be implemented and managed so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (e.g. outline of an environmental management plan).

3. Construction Works

- 3.1. The EIS must include detail of the construction works including:
 - a. any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site).
 - b. Identify, characterise and classify the following in accordance with the EPA's *Waste Classification Guidelines (2014)*:

- i. all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste;
- ii. all waste that is to be removed to an offsite location, including proposed quantities. Include the commitment to ensure this waste is taken to a facility that can lawfully receive it.

Note: The EPA's *Waste Classification Guidelines (2014)* are available at: <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste>

- c. construction timetable and staging; hours of construction; proposed construction methods.
 - d. environment protection measures, including noise mitigation measures - in accordance with the Interim Construction Noise Guideline (DECC, 2009), dust control measures and erosion, and sediment control measures- in accordance with Managing urban stormwater: Soils and construction, vol. 1 (Landcom 2004).
- 3.2. Include a site diagram showing the site layout and location of environmental controls.
- 3.3. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC, 2009). These are available at: <https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/construction-noise>

4. Air issues

- 4.1. The EIS must demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the POEO Act and the *Protection of the Environment Operations (Clean Air) Regulation 2022*. This consideration should include section 129 of the POEO Act concerning control of "offensive odour".
- 4.2. The EIS must include an air quality impact assessment (AQIA). The AQIA must be carried out in accordance with the document, *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2022). These are available at: <https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/approved-methods-for-the-modelling-and-assessment-of-air-pollutants>
- 4.3. The EIS must detail emission control techniques/practices that will be employed at the site and identify how the proposed control techniques/practices will meet the requirements of the POEO Act, *POEO (Clean Air) Regulation* (2022) and criteria within *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2022).

5. Noise and Vibration

The EIS must assess the following noise and vibration aspects of the proposed development:

- 5.1. Operational and construction activities on the premises that maybe considered vibration intensive should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). These are available at: <https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/assessing-vibration>
- 5.2. If blasting is required for any reasons during the construction or operational stage of the proposed development, blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC, 1990). These are available at: <https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/construction-noise>
- 5.3. Operational noise from noise intensive activities to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Noise Policy for Industry* (EPA, 2017). Available at: [https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-\(2017\)](https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017))

- 5.4. Detailed identification of sensitive receiver locations in the schools should be provided. Receiver locations include areas such as classrooms, outdoor learning areas, recreation areas, sleeping rooms (for child-care) and medical facilities.
- 5.5. Any external to internal noise corrections should be supported by robust evidence, preferably using noise measurements. All assumptions used in the input and calculation of noise levels must be supported by evidence demonstrating that they are appropriate and where appropriate be supported by measurements.
- 5.6. All operation noise, inclusive of any and all generator usage including during emergency scenarios is to be assessed according to the NPfI. Any mitigation proposed should follow the hierarchy of controls in the Noise Policy for Industry (NPfI) – i.e. using mitigation at the source first followed by path controls and at-receiver controls considered as a last resort.
- 5.7. A detailed assessment of all mitigation investigated should be provided and assessed according to the feasible and reasonable framework in the NPfI, including emergency operation of the generators.
- 5.8. The assessment should address all applicable aspects of the Noise Policy for Industry, including assessment of annoying characteristics according to Fact Sheet C of the NPfI. The EPA notes that low frequency noise assessment must demonstrate that the low frequency aspects cannot be mitigated prior to applying any correction factor.
- 5.9. If applicable, noise on public roads from increased road traffic generated by land use developments other than road projects should be assessed using the guidelines contained in the *NSW Road Noise Policy* (EPA, 2011) and associated application notes. Available at: <https://www.epa.nsw.gov.au/your-environment/noise/transport-noise>.

6. Waste, chemicals and hazardous materials and radiation

The EIS must assess the following waste, chemical and hazardous materials related aspects of the proposed development:

- 6.1. Assess and describe all aspects of waste generation, management and disposal associated with the proposed development.
- 6.2. Demonstrate compliance with all regulatory requirements outlined in the POEO Act and associated waste regulations.
- 6.3. Outline contingency plans for any event that may result in environmental harm, such as excessive stockpiling of material, or dirty water volumes exceeding the storage capacity available on-site.
- 6.4. Demonstrate that appropriate spill containment will be provided for storage, filling and loading of all fuels and other chemicals to be used on site, in accordance with all relevant Australian Standards, and/or NSW EPA's *Storing and Handling of Liquids: Environment Protection-Participants Manual* (DECC, 2007).
- 6.5. Demonstrate compliance with Part 9.3E of the POEO Act for the use of any industrial chemicals, including details of activities involving Schedule 6 or Schedule 7 chemicals listed on the IChEMS register. Additionally, demonstrate a system for periodic review to ensure that any new IChEMS Register requirements are incorporated.
- 6.6. Assess and describe any potential risks relating to all known and potential contaminants of concern (CoC) including per- and polyfluoroalkyl substances (PFAS) that may be associated with the proposed development and if applicable, how they will be mitigated. Consideration should be given to potential health and environment related impacts caused by the CoC. The assessment should consider various sources, receptors and exposure pathways including but not limited to ingestion (drinking water and food consumption), inhalation, and dermal contact.

- 6.7. Identify the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste and Sustainable Materials Strategy 2041 Stage 1: 2021-2027*. Available at: <https://www.epa.nsw.gov.au/Your-environment/Recycling-and-reuse/Strategic-direction-for-waste-in-NSW/Waste-and-Sustainable-Materials-Strategy>.

7. Water

The EIS surface water quality assessment must:

- 7.1. Demonstrate that all practical measures to prevent, control, abate or mitigate water pollution have been implemented, including a description of options that were explored (such as reuse to avoid a discharge or treatment).
- 7.2. Provide details of the proposal that are essential for predicting and assessing potential impacts to receiving waters. This could include (but is not limited to):
 - a. Site layout, including details of the existing and proposed water management system.
 - b. Drainage map for the entire site identifying sub-catchments, flow paths, drainage infrastructure, design sizing of structures, water storages, discharge points, and any potential flow paths to receiving waters.
 - c. How stormwater will be managed in all phases of the project. Information should include, where appropriate, measures to avoid or minimise erosion, leachate generation, and sediment mobilisation at the site.
 - d. Any in-water activities (such as piling or dredging).
- 7.3. Include water balance(s) for ground and surface water, including any intake and discharge locations, volumes, frequency and duration.
- 7.4. Identify and estimate the quality and quantity of all pollutants that may be introduced into the water cycle by source and discharge point, including residual discharges after mitigation measures are implemented. This should be undertaken for construction and operational phases.
- 7.5. Include a water pollution impact assessment undertaken consistent with the guidance available at <https://www.epa.nsw.gov.au/your-environment/water/managing-water-pollution-in-nsw/environment-protection-licensing/water-pollution-discharge-assessments>. The level of assessment should be commensurate with the risk to the environment and human health.
- 7.6. Describe any surface water quality monitoring programs, including proposed monitoring locations, frequency and indicators of surface water quality. Analytical limits of reporting should have regard to any identified guideline values. Water quality monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (2004) available at: [Approved methods for the sampling and analysis of water pollutants in NSW | EPA](#)
- 7.7. The EIS must describe how stormwater will be managed in all phases of the project, including details of how stormwater and runoff will be managed to minimise pollution. Information should include measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site. The EIS should consider the guidelines *Managing urban stormwater: soils and construction*, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC, 2008).

8. Groundwater

- 8.1. Provide details of the project that are essential for predicting and assessing impacts to groundwater with a description of the existing environment, including:
 - a. Geological, topographical, and hydrogeological resource descriptions, maps, and cross-sections.

- b. Assessment of groundwater quality, users of groundwater, existing bores including depths and construction, assessment of local land use.
- c. A hydrogeological interpretation of water-bearing geological units, depth to water table, groundwater gradient, Conceptual hydrogeological model, assessment of groundwater dependent ecosystems.
- d. Site map and cross-sections showing and characterising any proposed excavations and spoil emplacement (relative to water table) with topography.
- e. Proposed groundwater monitoring program.
- f. Assessment should be in accordance with Groundwater assessment toolbox for major projects in NSW - Overview document (DPE, 2022) - https://water.nsw.gov.au/data/assets/pdf_file/0004/507613/Groundwater-assessment-toolbox-for-major-projects-in-NSW.pdf

9. Soils

- 9.1. The EIS should include an assessment of the potential impacts on soil and land resources should be undertaken, being guided by the *Soil and Landscape Issues in Environmental Impact Assessment* (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to:
 - a. Soil erosion and sediment transport- in accordance with *Managing urban stormwater: Soils and construction, vol. 1* (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C Unsealed Roads; D Main Roles) (DECC2008).
 - b. Mass movement (landslides) – in accordance with *Landslide risk management guidelines* presented in *the Australian Geomechanics Society* (2007).
 - c. Urban and regional salinity – guidance given in the *Local Government Salinity Initiative* booklets which includes *Site Investigation for Urban Salinity* (DLWC, 2002).
- 9.2. A description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. Where required, add any specific assessment requirements relevant to the project.

10. Contamination

- 10.1. The EIS must include information that confirms that the proposed development will not impact the asbestos containment cell located beneath the site and outlines how the requirements of *Long-Term Environmental Management Plan, Horsely Park Stage 3 Containment Cell* (ERM, 8 April 2024) will be complied with during both construction and operational phases.

11. Climate Change

- 11.1. Provide estimate of greenhouse gas (GHG) emissions for the project by carrying out a Greenhouse Gas Assessment consistent with the most recent version of the EPA's Greenhouse Gas Assessment Guide for Large Emitters (GHG guide) that is available on the EPA's website. The GHG estimate is to confirm if the project is likely to result in 25,000 tonnes or more of scope 1 and 2 emissions (CO₂-e), in any financial year during the operational life of the project. Input data and assumptions used to estimate GHG should be accompanied by supporting evidence.

Note: Where the proponent believes that certain requirements from the GHG guide are not applicable, the proponent may indicate that in the EIS but must provide sufficient justification.