Department of Planning, Housing and Infrastructure

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Project Echidna Data Centre

State Significant Development Assessment Report (SSD-47320208)

April 2024

Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Preface

This assessment report provides a record of the Department of Planning, Housing and Infrastructure's (the Department) assessment and evaluation of the State significant development (SSD) application for the Project Echidna Data Centre located at 10 Eastern Creek Drive, Eastern Creek lodged by ARUP Australia Pty Ltd. The report includes:

- an explanation of why the project is considered SSD and who the consent authority is
- an assessment of the project against government policy and statutory requirements, including mandatory considerations
- a demonstration of how matters raised by the community and other stakeholders have been considered
- an explanation of any changes made to the project during the assessment process
- an assessment of the likely environmental, social and economic impacts of the project
- an evaluation which weighs up the likely impacts and benefits of the project, having regard to the proposed mitigations, offsets, community views and expert advice; and provides a view on whether the impacts are on balance, acceptable
- a recommendation to the decision-maker, along with the reasons for the recommendation, to assist them in making an informed decision about whether development consent for the project should be granted and any conditions that should be imposed.

Executive Summary

This report details the Department of Planning, Housing and Infrastructure's (the Department) assessment of the State significant development (SSD) application submitted by ARUP Australia Pty Ltd (the Applicant) for the construction and operation of a data centre at 10 Eastern Creek Drive, Eastern Creek (SSD-47320208) in the Blacktown local government area (LGA).

Project

The SSD application seeks the construction and operation of a data centre with an operational capacity of 35.2 Megawatts (MW) including back-up power and cooling systems, diesel and lithium-ion battery storage, car parking and landscaping. Site establishment works and broader site infrastructure including internal roads and access have been granted on the site under various approvals. The approvals include a data centre facility with concept approval and stage 1 building works and a supporting substation.

The proposed development (the development) would operate 24 hours a day, seven days a week. The primary purpose of the development is for the collection, storage, processing and distribution of electronic data by cloud and content providers or government entities.

The development would be cooled using a system of evaporative cooling, air handling units (AHUs), chillers and cooling towers located on each floor of the data centre. The cooling system has been designed to maintain a constant temperature within the data halls throughout the year. Data centres also require sophisticated energy back-up systems to ensure the data centre operator's customers are always able to access their data. To this end, the development includes a system of lithium-ion batteries and diesel back-up generators designed to minimise downtime during a power outage event.

The project has a capital investment value of [redacted] and is expected to generate 100 construction jobs and 50 operational jobs. If approved, construction of the project is proposed to commence in 2024 and be completed by 2026.

Statutory context

The project is classified as State significant development (SSD) under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it involves the construction and operation of a data storage premises with a total power consumption of more than 15 MW, which meets the criteria in Clause 25 of Schedule 1 in the State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP). The Independent Planning Commission (the Commission) is the consent authority for the project under section 4.5(1) of the EP&A Act and section 2.7 of the Planning Systems SEPP as Blacktown City Council duly made a submission by way of objection.

Engagement

The Department exhibited the development application (DA) and accompanying environmental impact statement (EIS) from 8 June 2023 until 5 July 2023. During the exhibition period, the Department received:

- no submissions from the public, however received comment from a utility provider
- a submission from the local council, Blacktown City Council (Council), objecting to the project
- advice from the following government agencies and State owned corporations:
  - NSW Environment and Protection Authority (EPA)
  - Biodiversity and Conservation Division of the then Department of Planning and Environment (now Biodiversity, Conservation and Science Division of the Department of Climate Change, Energy, the Environment and Water (DCCEEW)
  - Transport for NSW
  - Fire and Rescue NSW
  - Sydney Water

No issues were raised by government agencies in their advice, however key issues were raised by Council relating to the consistency of the development with the existing concept approval, visual screening of the development from Old Wallgrove Road, car parking numbers, total site landscaping and stormwater quality. The Department requested the Applicant address the matters raised during the exhibition period in a Response to Submissions (RtS) report.

The Applicant submitted an RtS report to the Department on 19 September 2023. The submissions report was accompanied by an updated Acoustic Design Report, staff car parking calculations, updated architectural and design plans, stormwater modelling and technical note. The RtS was referred to Council and relevant government agencies for their consideration. Following further feedback and advice from Council, the Applicant provided an addendum response on 6 March 2024 seeking to close out remaining concerns. The package included, carparking layout and indicative staffing roster, landscape screening and façade treatment design and changes to landscaping for consistency with the concept approval.

Council reviewed the addendum response and subsequently advised the Department on 19 March 2024 that Council's issues had been sufficiently addressed and that Council withdraws its objection on the development. Council additionally provided recommended conditions of consent.

Assessment

The Department's assessment of the application has fully considered all relevant matters under section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development. The Department has identified the key issues for assessment as air quality, noise and visual impacts. The Department has also assessed other relevant matters, including air quality, hazards and risks, bushfire and traffic impacts.

Air Quality

Pollutant emissions from the operation of emergency back-up generators during testing or critical power failure scenarios may impact on sensitive receivers if not carefully controlled. The Applicant provided an air quality impact assessment (AQIA) that predicted the pollutant emissions of the development under both a standard operating scenario and a worst-case critical power failure scenario.

The EPA advised it had no comments on the development as the development does not constitute a scheduled activity under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act). The Department requested the Applicant update the AQIA to be prepared in accordance with the EPA's latest Approved Methods (being 2022) and assess the cumulative pollution emissions from the approved Stage 1 Building 1 and 1A, against standard and worst-case operating scenarios.

The Applicant subsequently provided an updated AQIA which modelled the predicted emission concentrations from key pollutants such as nitrogen dioxide (NO_2) and particulate matter ($PM_{2.5}$ and PM_{10}), for both operating scenarios. The AQIA predicted the pollutant emission concentrations to be well below the impact assessment criteria of the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* during standard operating scenarios but noted exceedances in cumulative particulate matter concentrations due to existing elevated background levels. The predicted emission concentrations during the worst-case scenario were predicted to significantly exceed the relevant impact assessment criteria however, the AQIA justified that any critical power failure event is deemed to be highly unlikely and would have minimal duration.

The Department's assessment considered the Applicant has sufficiently demonstrated that proposed standard operations of the development will have an acceptable incremental and cumulative impact on air quality, and that the likelihood of a critical power outage event is highly unlikely.

The Department recommended conditions of consent requiring annual emissions testing and reporting, the reporting of emergency back-up generators operation subsequent to any power outage event and the preparation and implementation of a power outage notification protocol. The Department's assessment concluded the development would not result in unacceptable air quality impacts on surrounding receivers subject to the implementation of the recommended conditions and management measures.

Noise

Noise from the operation of the data centre, including air handling units (AHU), transformers and emergency back-up generators, may impact on surrounding sensitive receivers if not carefully controlled through design and mitigation measures. The Applicant provided a noise and vibration impact assessment (NVIA) that predicted noise levels from the proposed development, comparing against the Project Noise Trigger Levels (PNTL) derived from background noise monitoring in accordance with the EPA's Noise Policy for Industry (NPfI).

The NVIA predicted the noise levels of two operating scenarios being a standard operating scenario and a worst-case critical power failure scenario. The NVIA demonstrated compliance with the PNTL at all receiver locations assessed including residential, education, commercial and industrial receivers, during all assessed time periods.

The Department has considered the Applicant's assessment and is satisfied the operation of the development will comply with the relevant project amenity noise criteria established in accordance with the NPfI. Further, the Department considers the mitigation measures identified in the acoustic report to be adequate in reducing the potential noise emissions of the development's operations.

The Department has recommended conditions of consent limiting noise emissions of the development at receiver locations and requiring the Applicant to prepare and submit a noise verification report. With these conditions in place, the Department's assessment concludes the development would not have adverse impacts on sensitive receivers.

Visual

The site is located within the Eastern Creek industrial precinct at the intersection of Old Wallgrove Road and Eastern Creek Drive. The site is immediately surrounded by warehouse and distribution centres and other light industries.

The development consists of a two-storey building with a maximum building height of 21.2 m and an overall length of approximately 135 m. The bulk and scale of the development presents potential visual impacts on local view corridors. The Applicant prepared a landscaping and visual impact assessment (LVIA) and design report to support the development application.

The Applicant met with Council and the Department to discuss recommendations for screening and design treatment options for generator exhaust flues in response to advice raised during the exhibition period. Architectural plans, the LVIA and design report were updated to incorporate the recommendations and advice provided by Council and the Department on the development. This included updates to the colour palette to reduce the bulk and scale of the development and additional landscape screening along the Old Wallgrove Road frontage.

The Department's assessment considered the development would have an acceptable impact on visual amenity on the streetscape taking into consideration the façade and design treatment measures incorporated and the existing industrial and commercial character of the area.

The Department has recommended a condition of consent be imposed requiring the Applicant to prepare and implement a Landscape Management Plan (LMP) for the life of the development to ensure adequate vegetation screening of the development is maintained. The Department's assessment concludes the development would have an acceptable impact on visual amenity subject to the recommended conditions of consent.

Conclusion

The Department's assessment concluded the impacts of the development can be mitigated and/or managed to ensure an acceptable level of environmental performance, subject to the recommended conditions of consent.

The development is not expected to have adverse noise or air quality impacts on the locality and sensitive receivers in relation to the construction and operation of the development and impacts on visual amenity are considered to be acceptable given the industrial nature of the site, subject to the implementation of the proposed mitigation measures and the recommended conditions of consent.

Consequently, the Department considers the development is in the public interest and is recommended for approval, subject to conditions.

Contents

1 Introduction

1.1 The proposal

This report details the Department of Planning, Housing and Infrastructure's (the Department) assessment of the State significant development (SSD-47320208) for the Project Echidna Data Centre. The development involves construction and operation of a data centre with an operational capacity of 35.2 megawatts (MW) at 10 Eastern Creek Drive, Eastern Creek within the Blacktown local government area (LGA).

The Department's assessment considers all documentation submitted by the Applicant, including the Environmental Impact Statement (EIS) and Response to Submissions (RTS), submissions received from the public and advice from government agencies. The Department's assessment also considers the legislation and planning instruments relevant to the site and the development.

This report describes the proposed development, surrounding environment, relevant strategic and statutory planning provisions and the issues raised in submissions. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts during construction and operation.

1.2 Project location

The subject site comprises of 56,800 square metres (m^2) of IN1 – Generial Industrial zoned land located at 10 Eastern Creek Drive, Eastern Creek in the Blacktown LGA (see **Figure 1** and **Figure 2**). The site is legally described as Lot 4001 DP 1243178 and is located approximately 40 kilometres (km) west of the Sydney central business district (CBD), 15 km west of the Parramatta CBD and 8 km south-west of the Blacktown CBD. The site is located in close proximity to the M7 Motorway to the east and the M4 Motorway to the North, including the Light Horse Interchange located approximately 2 km north-east of the site.

The site currently contains an existing data centre building and supporting substation. The development is proposed to be located on the 9,225 m^2 of vacant land on the south-western portion of the site. Preliminary earthworks and site establishment works are currently being undertaken under a separate Council approval (see section 1.4 below).

The site is immediately surrounded by warehouse and distribution centres, and other light industries including operators and companies such as DHL, Coles, Fujitsu, Jaycar Elctronics and Downer Group (see **Figure 3**).

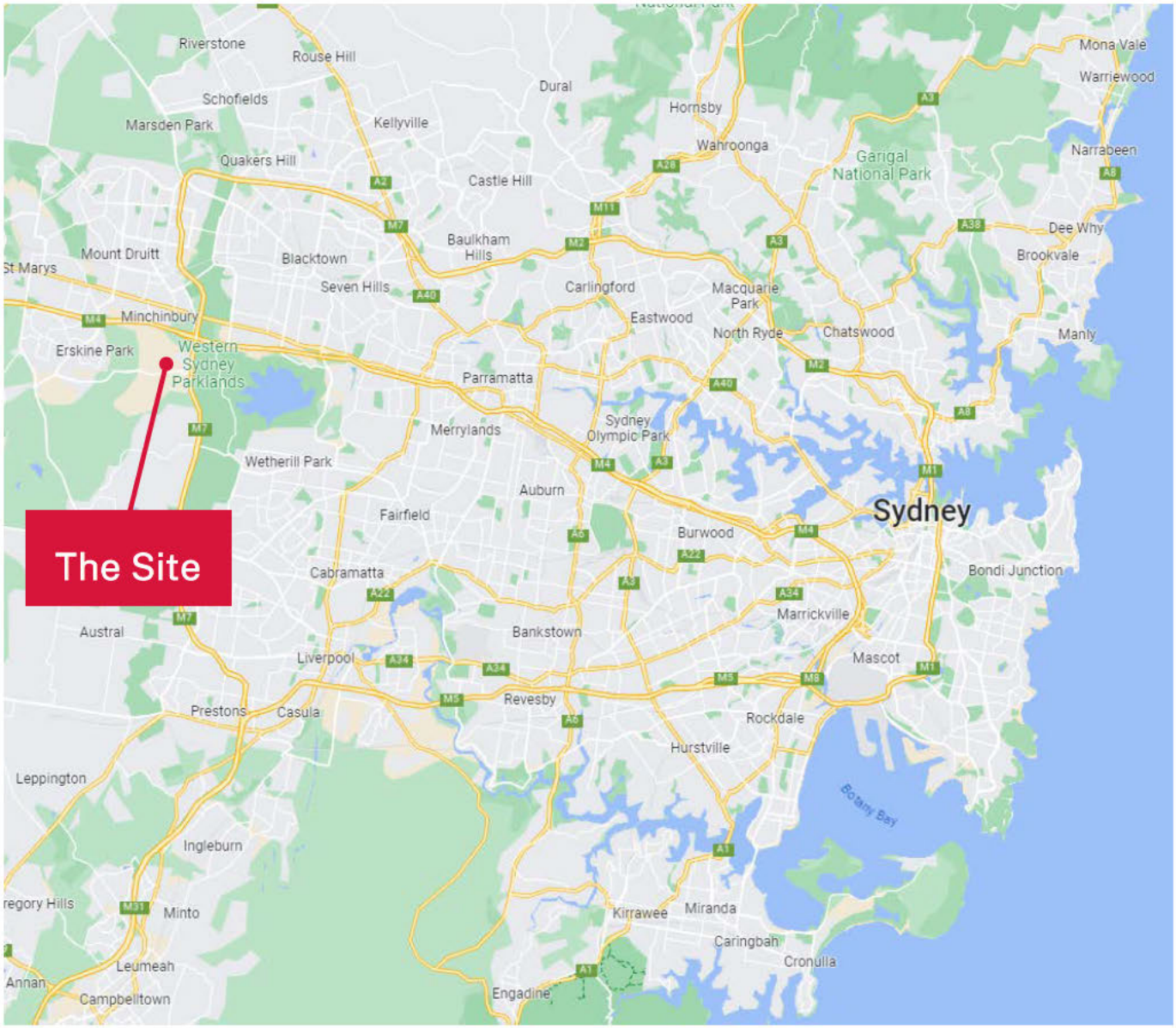

Figure 1 | Regional context map

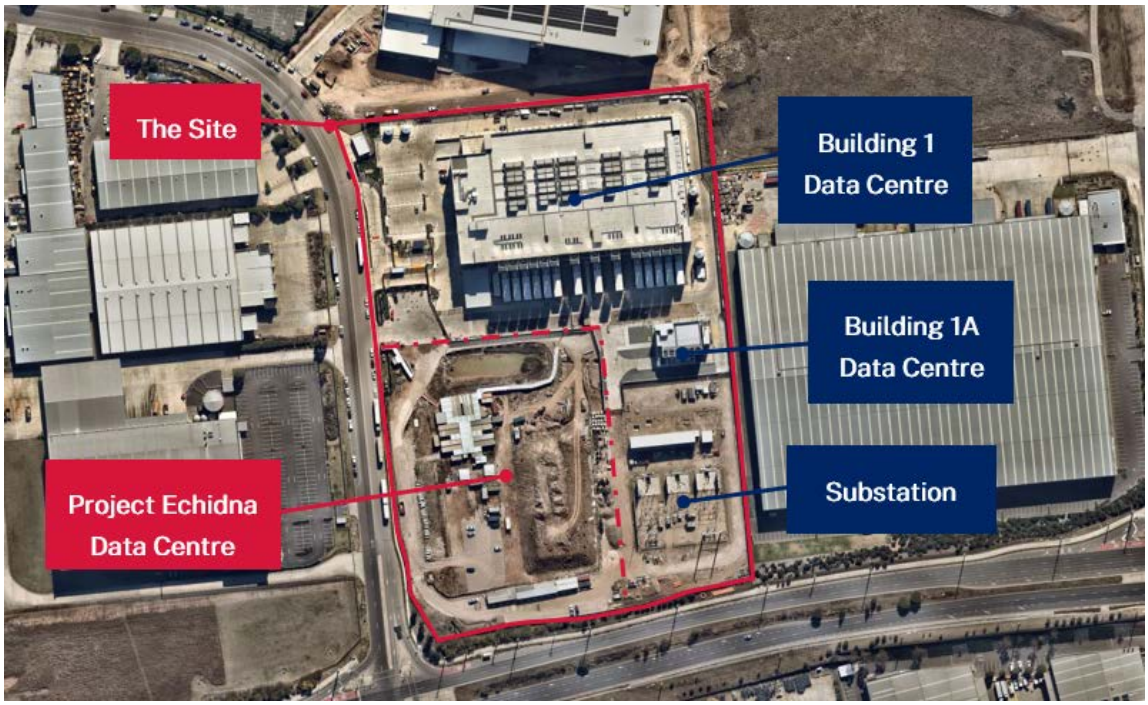

Figure 2 | The site

Figure 3 | Local context map

1.3 Project background

Data centres are places which are used by organisations to store their electronic computer applications and data. This could include personal data (such as a Facebook account or Instagram photos), corporate data (such as a business's payroll system) or sensitive government data (such as tax and Medicare records).

In recent years, there has been an increased need for new large and small-scale date centres across the State. As new technologies (such as driverless cars, faster mobile data networks and artificial intelligence) become commonplace, a significant number of new data centres will be required to store the volume of electronic data accessed and created by Australians.

The Applicant is a property development consulting firm which specialises in facilitating estate development and management for private and corporate clients across Asia Pacific. It acts on behalf of a multinational data centre operation which is seeking to expand its operations within the Sydney region. If approved, the development would be constructed and managed by the data centre operator.

Stage 1 building works for a data centre and concept approval for a stage 2 building and associated substation on the site was approved by the Sydney Central City Planning Panel in May 2020.

1.4 Related projects and works

The development is proposed to be co-located with an existing data centre development and associated substation on site. Other development approvals relevant to the site are as follows:

DA-18-00196

Development consent was granted by Blacktown City Council (Council) on 13 June 2018 for the '*Torens Title subdivision of one lot into one industrial lot and one residue lot*', creating the subject Lot 4001 DP 243178.

DA-18-00938

On 6 December 2018, Council granted development consent for '*Bulk earthworks entailing cut and fill across the site to facilitate suitable levels for a future built form*'. The approved earthworks have been completed onsite to accommodate the subject proposed development.

DA-20-01387

On 23 December 2020, Council granted development consent for the '*Installation of 4 temporary electricity kiosks for interim power supply for an approved data centre*'.

DA-22-01312

On 14 March 2023, Council granted development consent for the '*Construction of a substation and associated works in line with the Concept Approval issued for the site under SPP-19-00013, for the use by the approved data centre on the site*'.

SPP-19-00013

On 6 May 2020, the Sydney Central City Planning Panel approved the Stage 1 construction of a data centre building with carpark and a concept approval under section 4.22 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for a stage 2 expansion of the date centre into Building 2 and associated substation.

The concept approval has been modified on one occasion.

MOD-21-00447

On 30 December 2021, Council approved a modification to SPP-19-00013 for the inclusion of a microscale data centre, development staging, reduction in the size of the future substation building and additional car parking spaces.

2 Project

2.1 Project overview

The key aspects of the project are provided in detail in the Project Description chapter of the EIS and are outlined in **Table 1**.

Table 1 | Key aspects of the project

Aspect	Description
Development Summary	Construction and operation of a Data Centre with an operational capacity of 35.2 MW, including data hall fitout, associated plant and equipment, office space and car parking
Project area	56,800 m^2
Gross Floor Area (GFA)	9,225 m^2
Building height	21.2 m data centre building (two floors) and 25 m generator exhaust flues
Power Consumption	35.2 MW
Water Consumption	18.9 mega litres per annum
Earthworks and civil works	2,200 m^3 of cut and 18,900 m^3 of fill for final building levels
Ancillary Infrastructure	The operation of the development would be supported by: • Two feedlines to separate on-site substation • 19 diesel emergency back-up generators • 19 above-ground diesel fuel tanks for emerngency back-up generators with a capacity of 18.24 kilolitre (kl), 1 above-ground diesel fuel tank for vehicle fueling with a capacity of 40 kl and a total storage of 388.1 kl diesel fuel • 19 dry-type transformers • 68 evaporative cooling air handling units • 100 exhaust air fan units • 139,542 kilograms (kg) of lithium-ion batteries

Aspect	Description
Parking and manoeuvrability	6 car parking spaces, with a total of 70 site car parking spaces (stage 1) (including 4 disability parking spaces) and 6 shared bicycle parking spaces
Hours of operation	24 hours, 7 days
Construction timeframe	The development would be constructed across the following stages: • Phase 1 – Initial construction and preliminary fit-out (18 months) • Phase 2 – Final fit-out (6 months)
Capital Investment Value	[redacted]
Employment	100 full-time equivalent construction jobs and 50 full-time operational jobs

2.2 Physical layout and design

The physical layout and design of the development is shown in **Figure 4** to **Figure 6**. The data centre presents as a two-storey structure. The building is surrounded by internal access roads and landscaped areas, existing data centre buildings 1 and 1A, and existing approved site infrastructure.

The data centre floors comprise of a total of eight data halls and 27 mechanical plant rooms which support the operation of the development. Office spaces are provided on each floor along the northern element of the building. External plant including emergency back-up generators and diesel fuel storage are located in self contained units (generator yard) attached to the eastern façades of the building. In addition, a loading dock is featured on the ground floor level on the north-east corner of the building.

The development is to be constructed primarily of pre-cast concrete panels and metallic fins and louvres with a painted finish consisting of varying shades of grey. The external plant and equipment in the generator yard are to be constructed of steel and pewter grey pre-finished metals.

All heavy and light vehicles accessing the site would enter via the existing entry and exit access points located on Eastern Creek Drive adjacent to the stage 1 building including the existing car parking area. An additional two-way access driveway has been provided to the north of the development on Eastern Creek Drive to allow access for emergency vehicles, services vehicles and delivery vehicles. The development additionally includes an internal road providing circulation around the data centre building.

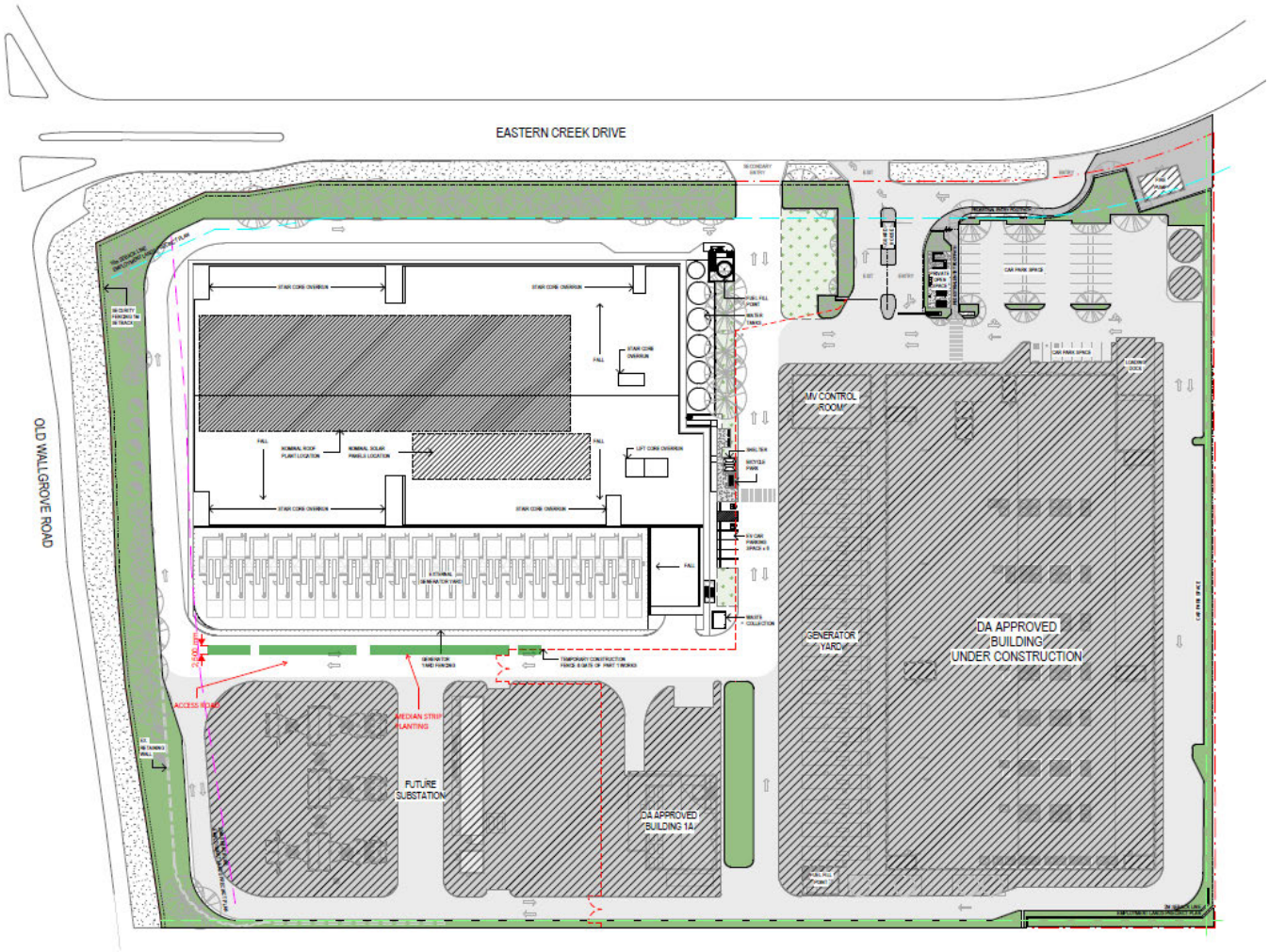

Figure 4 | Site layout

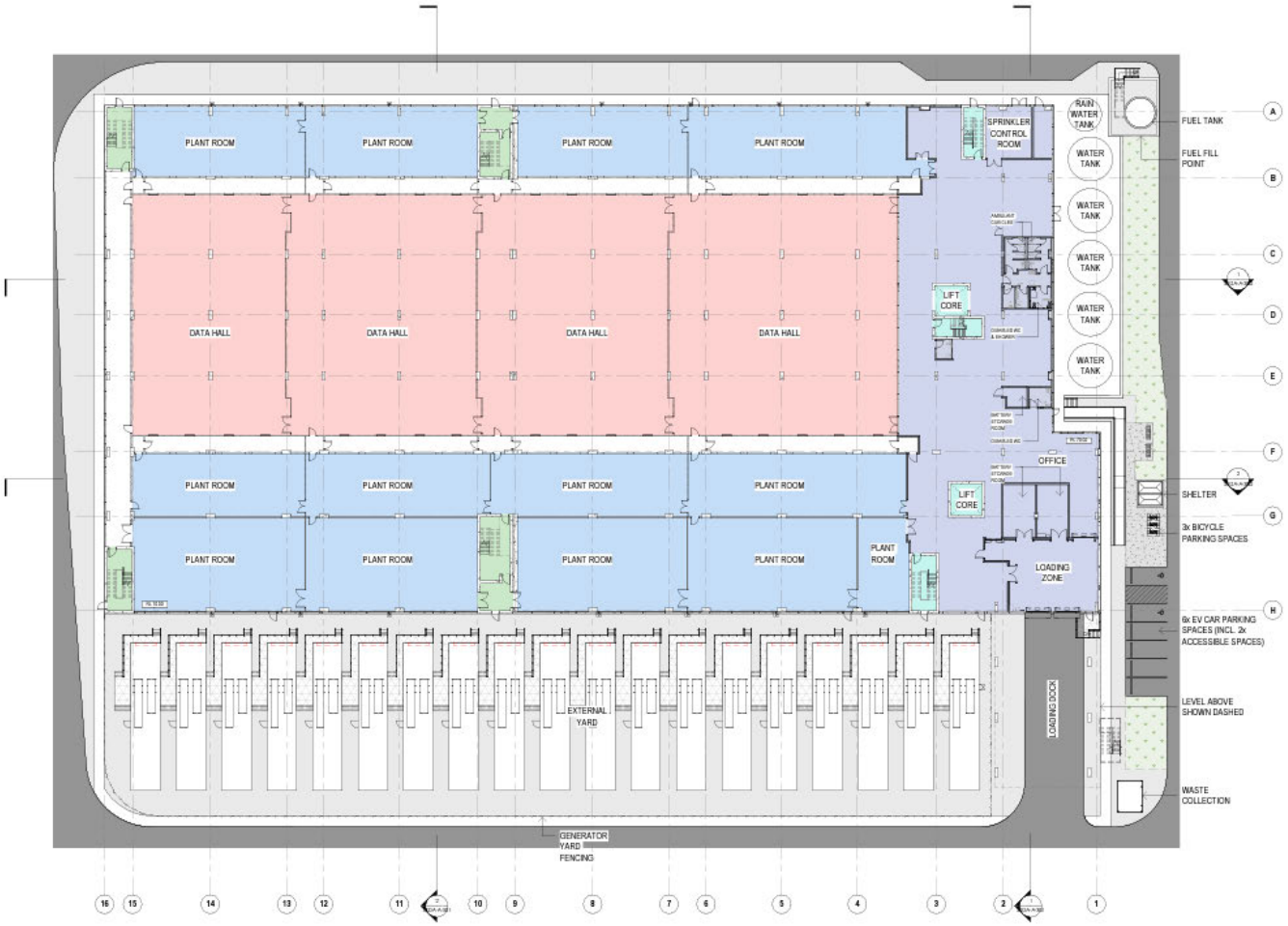

Figure 5 | Ground Floor Plan

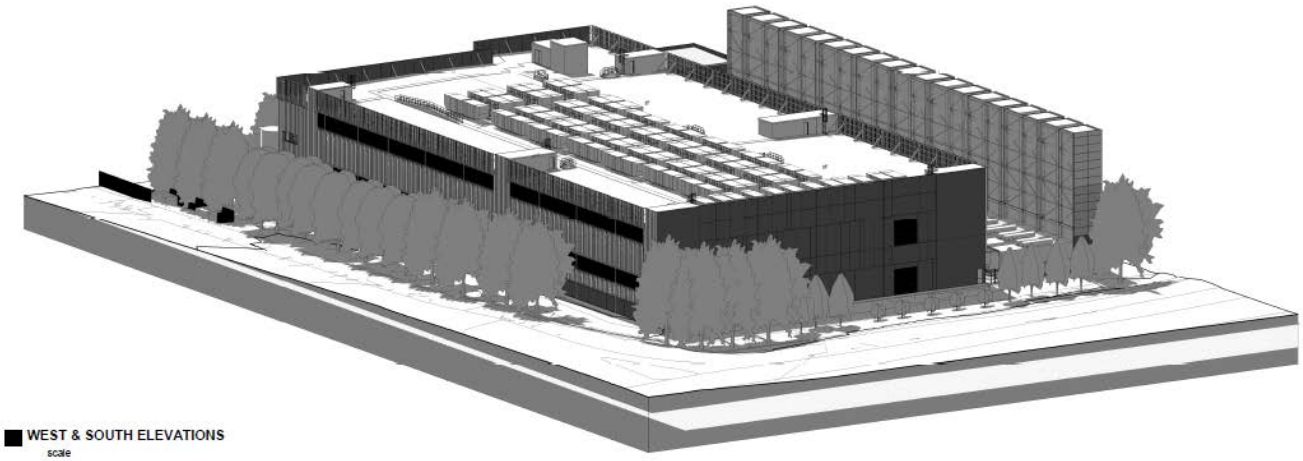

Figure 6 | Axonometric View

2.3 Uses and activities

The primary purpose of the development is for the collection, storage, processing and distribution of electronic data in associated IT hardware by cloud and content providers or government entities (the tenant/s).

The data centre operator will fit out the development's data halls with its own computer systems, server systems and networking equipment. This IT hardware would be stored in racks designed to maximise the efficiency of the space. The data centre operator will then lease storage space within these systems to its tenant/s.

The development would be cooled using a air free-cooling systems during colder months and evaporative cooling air handling units (AHUs) located on each floor of the data centre. The cooling system has been designed to maintain a constant temperature within the data halls throughout the year. The ancillary office space would be primarily used by on-site technicians, who would provide IT support to external users and undertake regular maintenance as necessary.

Data centres also require sophisticated energy back-up systems to ensure the data centre operator's customers are always able to access their data. To this end, the development includes a system of lithium-ion batteries and diesel back-up generators designed to minimise downtime during a power outage event. The Applicant may also be directed to operate the back-up generator system by the Australian Energy Market Operator (AEMO) to help prevent major blackouts from occurring across the State's electricity network.

The site is to be serviced by a 132 kilovolt (kV) transmission line to be connected to the future on-site substation to the east of the development, subject to a separate development application. In the event of a full power outage (both feeders are taken offline), lithium-ion batteries located in the data halls would provide an uninterrupted power supply until the back-up generator system reaches load. Once they have reached full load, diesel back-up generators would be used to provide continuous power to the development until power has been restored by Endeavour Energy.

To ensure the development can function during a power outage event, the Applicant would also undertake regular testing of each back-up generator. During certain tests, an artificial load would be applied to the generators using an electrical switching device. The test scenarios proposed are detailed in **Table 2** below. The generators are proposed to be tested during standard day time operations, seven days a week.

Table 2 | Generator Testing Regime

Total generators	Test Loading	Generators tested simultaneously	Testing frequency	Test duration (minutes)	Test hours per year
19	No load	3	Fortnightly	2-5	162
	70%	1	Quarterly	30	
	100%	1	Annually	60 -120	

2.4 Applicant's Need and Justification for the Development

The Applicant has justified the need for the development by highlighting the growing demand for cloud-based data storage within Greater Sydney.

The data centre operator requires a number of sites throughout Sydney that are well-connected to existing utility infrastructure, including power and optic fibre cabling. The development would help the data centre operator to expand its presence within Greater Sydney, while also supporting the ongoing demand for internet usage and data storage across the state.

In addition, the Applicant has advised the development would:

- be consistent with the site's industrial zoning
- promote industry diversification and retention of existing industrial land
- generate additional employment opportunities in western Sydney, comprising approximately 100 full-time equivalent construction jobs and 50 knowledge-intensive operational jobs.

3 Strategic context

3.1 Key strategic issues

The project is consistent with the strategies, plans and policies outlined in **Table 3** below, and therefore the Department considers it appropriate for the site.

Table 3 | Summary of government strategies, plans and policies

Strategy, plan or policy	Consistency	Comments
Greater Sydney Region Plan	Consistent	Objective 3 of the Region Plan notes that the city's infrastructure needs to be designed to adapt and transition in conjunction with future technological changes and megatrends, such as autonomous vehicles, faster internet connections and artificial intelligence. By providing additional, flexible data storage capacity within western Sydney, the development will support this objective of the Region Plan. Objective 22 highlights that attracting investment, business activity and jobs in strategic centres across Greater Sydney is essential to improve access to a wide range of jobs, goods and services close to people's homes as part of the 30-minute city. As Strategy 22.1 separately notes, attracting new, diverse business activities to future urban renewal precincts will support the creation of additional job opportunities close to residential areas. By providing new jobs within close proximity to the Blacktown CBD, the development will support this objective and its associated strategies.
Central City District Plan	Consistent	The development would assist in meeting Planning Priority C11 as it would retain and improve the efficiency of industrial-zoned land within western Sydney.
Blacktown Local Strategic Planning Statement 2020	Consistent	The development would align with Local Planning Priority 9 of the LSPS, as it would help to ensure existing industrial-zoned land within the Eastern Creek area is retained and provided with new, knowledge-intensive jobs.

4 Statutory context

4.1 Permissibility and assessment pathway

Details of the assessment pathway under which consent is sought is provided in **Table 4** below.

Table 4 | Permissibility and assessment pathway

Consideration	Description
Permissibility	**Permissible with consent** • The site is zoned IN1 – General Industrial (now known as E4 – General Industrial) under the State Environmental Planning Policy (Industry and Employment) 2021 (Industry and Employment SEPP). Under clause 2.31 of the State Environmental Planning Policy (Transport and Infrastructure) 2021, development for the purpose of a data storage premises may be carried out by any person with consent on the land in an IN1 zone.
Assessment pathway	**State significant development** • The development is State significant development pursuant to section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it involves the construction and operation of a data centre with a total power consumption of more than 15 MW, which meets the criteria in Clause 25 of Schedule 1 in State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP).
Consent authority	**Independent Planning Commission** • The Independent Planning Commission (the Commission) is the declared consent authority under section 4.5(a) of the EP&A Act and section 2.7(1) of the Planning Systems SEPP. • The Commission is designated as the consent authority for the development under section 4.5 of the EP&A Act and section 2.7 of the Planning Systems SEPP because Council had duly made an objection in accordance with the EP&A Act. • No public submissions were received on the development and no reportable political donations were made by the Applicant in the last two years.

Consideration	Description
Decision Maker	Executive Director • On 14 June 2022, the Chair of the Commission delegated the functions to determine SSD applications to the Executive Director, Energy, Resources and Industry Assessments where: - the application has not already been referred by the Planning Secretary to the Comission for the determination as at the date of the delegation; - the application is for SSD for which the Commission is declared to be the consent authority only by operation of Section 2.7(1)(a) of the Planning Systems SEPP; and - Council has advised in writing to the Department that its objection has been resolved. • While Council originally objected to the SSD application, Council advised the Department in writing on 19 March 2024 that it has withdrawn its objection to the development. • Accordingly, the application can be determined by the Executive Director, Energy, Resources and Industry Assessments, under delegation.

4.2 Other approvals and authorisations

Should development consent be granted, other approvals may be required to carry out the development. Section 4.42 of the EP&A Act lists a number of approvals that cannot be refused if required to carry out the development and that must be given in a manner that is substantially consistent with any development consent.

In the case of the proposed development, there are no additional approvals required. However, the Department has consulted with and considered the advice of the relevant public authorities in its assessment of the development and included suitable conditions in the recommended consent.

4.3 Mandatory matters for consideration

4.3.1 Matters of consideration required by the EP&A Act

Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a development application. The Department's consideration of these matters is shown in **Table 5** below.

Table 5 | Matters for consideration

Matter for consideration	Department's assessment
Environmental planning instruments, proposed instruments, development control plans & planning agreements	Appendix C
EP&A Regulation	Appendix C
Likely impacts	**Section 6** - Assessment
Suitability of the site	**Section 1.3** - Project background, **Section 3** - Strategic Context and **Section 6** - Assessment
Public submissions	**Section 5** - Engagement & **Section 6** - Assessment
Public interest	**Section 5** - Engagement, **Section 6** - Assessment & **Section 7** - Evaluation

4.3.2 Objects of the EP&A Act

In determining the application, the consent authority should consider whether the project is consistent with the relevant objects of the EP&A Act (s 1.3) including the principles of ecologically sustainable development. Consideration of those factors is described in **Appendix C**.

As a result of the analyses in **Appendix C**, the Department is satisfied that the development is consistent with the objects of the EP&A Act and the principles of ecologically sustainable development (ESD).

4.3.3 Biodiversity development assessment report

Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all SSD applications to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the project is not likely to have any significant impact on biodiversity values (as identified in the BC Act and in the *Biodiversity Conservation Regulation 2017*).

A BDAR waiver request was submitted to the Department on July 2022. The Environment Agency Head and the Director, Industry Assessments as delegate of the Planning Secretary, determined that the development is not likely to have any significant impact on biodiversity values. A BDAR waiver was granted on 29 February 2024.

4.4 Matters of National Environmental Significance

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), assessment and approval is required from the Commonwealth Government if a development is likely to impact on a matter of national environmental significance (MNES), as it is considered to be a 'controlled action'. The EIS for the development included a preliminary assessment of the MNES in relation to the development and concluded the development would not impact on any of these matters and is therefore not a 'controlled action'. As such, the Applicant determined a referral to the Commonwealth Government was not required.

5 Engagement

5.1 Exhibition of the EIS

The Applicant, as required by the Planning Secretary's Environmental Assessment Requirements (SEARs), undertook consultation with relevant local and State authorities as well as the community and affected landowners. The Department undertook further consultation with these stakeholders during the exhibition of the EIS and throughout the assessment of the application. These consultation activities are described in detail in the following sections.

5.1.1 Public exhibition of the EIS

After accepting the development application and EIS, the Department:

- publicly exhibited the project from 8 June 2023 until 5 July 2023 on the Major Projects portal
- notified occupiers and landowners in the vicinity of the site about the public exhibition by letter
- notified and invited comment from relevant government agencies and council name.

During the exhibition period, the Department received a submission from Blacktown City Council (Council) and advice from five government agencies. No public submissions from individuals and/or special interests groups were received by the Department during the exhibition period.

5.1.2 Summary of advice received from government agencies

The Department received advice from five government agencies on the EIS.

A summary of the agency advice is provided in **Table 6**. A link to the full copy of the advice is provided in **Appendix C.**

Table 6 | Summary of agency advice

Agency	Advice summary
NSW Environment Protection Authority (EPA)	EPA reviewed the EIS and advised it has no comment on the SSDA as the development does not constitute a Scheduled Activity under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act), is not being undertaken by or on behalf of a NSW Public Authority, and the site is not regulated by the EPA under the *Contaminated Land Management Act 1997* (CLM Act).

Agency	Advice summary
Transport for NSW (TfNSW)	TfNSW raised no objections to the development subject to recommended conditions of consent. TfNSW provided recommended conditions of consent relating to the preparation of a Construction Traffic Management Plan (CTMP), Green Travel Plan (GTP), and obtaining a Road Occupancy Licence (ROL) for any construction works that may impact on Old Wallgrove Road traffic flows.
The then Biodiversity and Conservation Division (BCD)	The then BCD (now the Biodivesity, Conservation and Science group of the Department of Climate Change, the Environment, Energy and Water) reviewed the EIS and raised no objections to the development. However, BCD provided advice requesting the flood risk assessment to assess overland flow for events larger than the 1% AEP up to and including the probable maximum event.
Fire and Rescue NSW (FRNSW)	FRNSW raised no objections to the development in its advice. FRNSW provided recommendations including the preparation of a Fire Safety Study (FSS), Emergency Plan based on the findings of the FSS and an Emergency Services Information Package (ESIP).
Sydney Water	Sydney Water raised no objections to the development and provided standard recommendations regarding Compliance Certificates, building plan approval, water servicing and wastewater servicing.

5.1.3 Summary of council submissions

Blacktown City Council initially objected to the development, raising concern regarding the consistency of the building design with the concept approval including building height and fill. Council additionally raised concern for visual screening from Old Wallgrove Road, cumulative car parking numbers, total site landscaping and insufficient drainage and water quality information.

5.2 Response to submissions

Following the public exhibition period, the Department requested the Applicant to respond to the issues raised in submissions and the advice received from government agencies. The Applicant provided a Response to Submissions (RTS) report to the Department on 19 September 2023 (see **Appendix A**). The submissions report was accompanied by an updated Acoustic Design Report, staff car parking calculations, updated architectural and design plans, stormwater modelling and technical note.

The Department published the submissions report on the NSW planning portal and forwarded the RTS to relevant government agencies and local council(s) for comment.

5.2.1 Summary of agency advice on submissions report

Further advice was provided from BCD and Blacktown City Council on the submission report. A summary of the advice is provided in **Table 7**. A link to the full copy of the advice is provided in **Appendix C**.

Table 7 | Advice on submissions report

Agency	Advice summary
Council	Council reviewed the submissions report and retained its objection requesting further clarification on total site car parking numbers, revised setbacks, site landscaping and visual screening.
BCD	BCD reviewed the submissions report and advised it is satisfied the Applicant has adequately addressed its previous comments relating to flood assessment issues.

5.3 Request for further information

On 29 September 2023, the Department requested the Applicant to provide further information to provide an updated Air Quality Impact Assessment (AQIA) which addresses applicable limits, performance criteria and methods of the EPA's '*Approved methods for the modelling and assessment of air pollutants*' 2022 (EPA Approved Methods).

Additional information was also requested on 17 October 2023, in relation to visual impacts including the consideration for redesign or additional screening of the proposed generator flues and plant on the eastern façade of the development.

On 30 October 2023, the Applicant submitted an updated AQIA prepared in accordance with the EPA Approved Methods 2022.

On 12 December 2023, the Applicant submitted additional information which included additional 3D visual renders of the generator flues featuring additional visual mitigation, additional vegetation screening, car park layout with supporting staff numbers and demonstration of total site landscaping.

Council reviewed the additional information and advised it was satisfied with the additional information in respesct to additional visual mitigation and vegetation screening of the generator flues. However, Council maintained its objection in respect to total site landscaping and consistency with the concept approval.

On 6 March 2024, the Applicant provided an addendum response which provided median strip planting on-site to demonstrate consistency with the concept approval.

Council reviewed the addendum response and on 19 March 2024 confirmed that Council's issues had now been satisfied and formally withdrew its objection on the development.

6 Assessment

The Department has considered the EIS, the issues raised in the submissions, the Applicant's submission report and supplementary information in its assessment of the development. The Department considers the key assessment issues are air quality, noise, and design and visual impacts.

A number of other issues have also been considered. These issues are considered to be relatively minor and are assessed in **Table 6** under Section **6.5**.

6.1 Air Quality

The construction and operation of the development has the potential to result in air quality impacts to surrounding sensitive receivers. The development is anticipated to generate the following emissions:

- particulate matter and dust emissions generated during demolition and construction works
- exhaust emissions associated with the testing and operation of the development's back-up generator system.

The Applicant provided an AQIA which was prepared in accordance with the EPA Approved Methods 2017. The Department requested the AQIA to be updated to be prepared in accordance with the EPA Approved Methods 2022. In addition, the Department requested the AQIA to assess the cumulative pollution emissions from the already approved Stage 1 Building 1 and 1A, against standard and worst-case operating scenarios.

The Applicant subsequently provided an updated AQIA to address the Department's comments. The updated AQIA provides an assessment of potential air quality impacts at representative sensitive receivers surrounding the site (see **Figure 7**), including a mix of residential, industrial and commercial receivers.

Figure 7 | Receiver Locations

6.1.1 Construction Impacts

Construction of the development would be carried out across a period of 24-months, over two phases.

The updated AQIA found that the sensitivity of the surrounding area to dust and particulate emissions impacts during construction would be low, further noting the closest residential receivers to be 1.6 km south of the site boundary. The updated AQIA concluded that subject to the implementation of standard construction mitigation measures as part of a Construction Environmental Management Plan (CEMP) such as dust suppression, sediment and erosion fencing and cover and containment of stockpiles and trucks, the development would have negligible construction air quality impacts.

The Department has reviewed the updated AQIA and is satisfied air emissions associated with the construction of the development, including demolition, would be minimal subject to the preparation and implementation of a CEMP containing standard construction mitigation measures.

The Department has recommended conditions of consent requiring the Applicant to prepare and implement a CEMP for the duration of construction and to take all reasonable steps to minimise the generation of dust.

6.1.2 Operation Impacts

The updated AQIA identified key pollutants associated with the operation of the development to be nitrogen dioxide (NO_2) and particulate matter ($PM_{2.5}$ and PM_{10}). Other pollutants assessed include carbon monoxide (CO), sulfur dioxide (SO_2), Benzene and Polycyclic Aromatic Hydrocarbon (PAH). These pollutant emissions are associated with the combustion of diesel fuel by the back-up generators.

The updated AQIA considered the development's potential air quality impacts against two operating scenarios being:

- Scenario 1 – 'Worst case' operating scenario – All back-up generators (19) operating concurrently under a 100% load during a critical power outage event
- Scenario 2 – Standard testing operations – Three generators operating concurrently at no load (conservatively assumed 10% load) for 15 minutes, and one generator operating under a 100% load.

The updated AQIA noted the likelihood of a worst case scenario occurring is highly unlikely and would only occur for a short period of time. Therefore, the updated AQIA deemed it only necessary to assess the scenario 1 pollutants against short-term criterion, being averaging periods of 24 hours or less.

The updated AQIA's modelling of scenario 1 indicated cumulative exceedances of the NO_2 pollutant criterion over a 1-hour averaging period at all but four receiver locations (R1, R2, R3 & R5) assessed, exceeding the criterion of 164 micrograms per cubic meter ($\mu g/m^3$) at one commercial receiver (C5) with a predicted cumulative concentration of 589.5 $\mu g/m^3$ (259% exceedance), a concentration of 382.1 $\mu g/m^3$ (133%) at one industrial receiver (I2) and a concentration of 204.8 $\mu g/m^3$ (25%) at one residential receiver (R8). The updated AQIA additionally identified the development would comply with the $PM_{2.5}$ and PM_{10} criterion at all but two commercial receivers (C4 & C5) for $PM_{2.5}$ over a 24-hour averaging period.

All other pollutants assessed against the worst case operating scenario demonstrated compliance with the relevant pollutant criteria, with the exception of minor exceedances of the SO_2 criteria at three commercial receivers (C2, C3 and C5).

The modelling of scenario 2 predicted no exceedances of the relevant assessment criterion for NO_2, $PM_{2.5}$ and PM_{10}, CO, SO_2, Benzene and PAH pollutants at all assessed receiver locations. The updated

AQIA concluded that the development including, generator maintenance testing would not significantly impact on air quality.

The Department notes the development under standard operations described as scenario 2, is predicted to comply with the relevant pollutant emissions criterion at all receivers for all pollutants.

The Department considers the development could potentially present significant air quality impacts under the conservative worst case operating scenario defined as scenario 1. However, the Department accepts that the likelihood of a critical power outage event requiring the simultaneous operation of all 19 emergency back-up generators for a period greater than the 1 hour averaging period assessed, would be highly unlikely.

Nonetheless, the Department recommends conditions of consent requiring annual emissions testing and reporting, and the reporting of emergency back-up generators operation subsequent to any power outage event in which they are operational. The Department considers that emissions testing and reporting will ensure that maintenance and monitoring of the emergency back-up generators performance are adequate and capable of managing pollutant emissions. Furthermore, reporting will allow for opportunity to identify any further mitigation measures to be implemented to reduce emissions.

In addition, the Department has recommended a condition of consent requiring the Applicant to prepare and implement an emissions monitoring procedure which describes the procedure for monitoring emissions in accordance with the EPA's *Approved Methods* 2022, measures to be implemented to minimise the duration of power outage events and actions to be undertaken in the event of any exceedances to the pollutant emissions criterion. A condition has also been recommended for the preparation and implementation of a power outage notification protocol describing the steps that will be taken to notify neighbouring properties in the event of a power outage event exceeding 30 minutes in duration.

6.1.3 Conclusion

The Department's assessment concludes the air emissions associated with the construction of the development would be minimal and will be appropriately managed through the preparation of a CEMP and the implementation of reasonable steps to minimise dust generation.

In addition, the Department's assessment concludes the Applicant has sufficiently demonstrated that proposed standard operations of the development will have an acceptable cumulative impact on air quality and is in compliance with the relevant emissions pollutant criterion.

Furthermore, the Department accepts the likelihood of a critical power outage event to be highly unlikely and the potential impacts of such an event can be appropriately managed through the recommended conditions of consent including the testing of emissions performance, pollutant

monitoring and the continual implementation of management and mitigation measures to further reduce pollutant emissions throughout the life of the development.

Therefore, the Department is satisfied that subject to the implementation of the recommended conditions and management measures, the construction and operation of the development would not result in unacceptable air quality impacts on surrounding receivers.

6.2 Noise Impacts

The construction and 24-hour operation of the development has the potential to emit noise and vibration, which could impact on the acoustic amenity of the surrounding area.

The development would involve the construction of a two-storey data centre building with ancillary office space across a 24-month period. Working hours are proposed between 7:00am and 6:00pm Monday to Friday, between 8:00am and 1:00pm on Saturday and no works on Sundays or public holidays in line with the standard construction hours in the EPA's Interim Construction Noise Guideline (ICNG) (DECC, 2009).

The development's main operational noise sources include the water cooled chillers, hybrid dry coolers and emergency back-up generators. Other sources of operational noise include vehicle movements to and from the site and manoeuvring around the site.

The EIS included a Noise and Vibration Impact Assessment (NVIA) prepared by the Applicant, which considered both construction and operational noise impacts. During consultation on the EIS, no comments were made regarding noise impacts by Council in its advice.

The Department requested the Applicant provide further information including the cumulative assessment of approved Buildings 1, 1A and substation on-site. In addition, the Department requested that assessment of generator testing during the night-time period be provided.

The Applicant subsequently provided a separate Acoustic Report to assess cumulative and night-time operational impacts at the receiver locations identified in **Figure 8**.

Figure 8 | Assessed Receiver Locations

6.2.1 Construction Impacts

The NVIA noted the primary construction activities of the development include site establishment and excavation, foundations, pavement and road works, building construction and plant installation and connection.

Major plant and equipment to be used during the construction of the development would include 20 tonne (t) trucks, 30 t excavators, jack hammer, grader, concrete pumps and power hand tools.

The acoustic report modelled the predicted noise generation for each construction stage and compared it against the standard construction hours Noise Management Levels (NMLs) for sensitive receivers applied in accordance with the ICNG. The acoustic report predicted that construction noise would be below the NML criteria at all residential receivers assessed, however there would be exceedances to the NMLs at adjacent commercial and industrial receivers of up to 10 dB if unmitigated. The NIA noted the predictions were conservative and do not represent constant noise emissions that would be experienced on a daily basis but during site establishment, foundation and pavement works only.

The NVIA concluded that noise management measures should be implemented for the construction of the development and detailed in a Construction Noise Management Plan (CNMP). Recommended noise management measures to reduce construction noise include location of plant and equipment

away from boundaries, use of site sheds and temporary noise enclosure structures, use of low-noise construction equipment and the undertaking of consultation with adjacent landowners and occupiers to notify of scheduled works.

The EPA and Council raised no concerns regarding construction noise impacts in its advice during the exhibition period.

The Department has considered the information supplied by the Applicant and is satisfied construction noise impacts of the development would be minimal on residential receivers. The Department is additionally satisfied that the implementation of mitigation and management measures to reduce construction noise impacts will have an acceptable impact on surrounding commercial and industrial receivers.

To ensure construction noise is appropriately managed in accordance with the ICNG and the Applicant's predictions, the Department has recommended conditions requiring the preparation and implementation of a CNVMP.

6.2.2 Operation Impacts

The NVIA provided a quantitative assessment of operational noise impacts, including noise associated with the proposed cooling system and the testing of back-up generators. The acoustic report modelled the development's operations under two standard operational scenarios and one worst case emergency scenario as follows:

- Standard Full Load Operational Scenario: all hybrid dry coolers, water cooled chillers operating at 100% load, and one generators operating at 100% load;
- Standard No Load Operational Scenario: all hybrid dry coolers and water cooled chillers operating at 100% load, and three generators operating at no load; and
- Emergency Scenario: all hybrid dry coolers, water cooled chillers and generators operating at 100% load during a critical power failure event.

The acoustic report applied an amenity noise criterion to identified receiver types including residential, commerical and industrial receivers in accordance with the NPfI for day, evening and night periods.

The acoustic report modelled the predicted noise emissions of the development's standard operations during noise-enhancing meteorological conditions against the relevant amenity noise criterion. The modelling included the cumulative noise from previously approved Building 1, Building 1A and the site substation. The modelling assessed the development against the night-time noise criterion, to demonstrate that total site operations would achieve compliance at all receivers assessed during each time period. The Acoustic Report justified that compliance with the night-time criteria assumed

the development's compliance with the day and evening noise criteria as the night-time criteria is the most stringent. The highest predicted noise impacts at any one receiver for each receiver typology is outlined in **Table 8**.

Table 8 | Standard Operations – Predicted Noise Levels (Night-time)

Receiver Type	Criterion (dBA)	Predicted Noise levels (dBA)	
	Night-time	Full Load	No Load
Residential	38	38	38
Commercial	63	61	61
Industrial	68	68	60

The Acoustic Report additionally modelled the worst-case emergency scenario against the project amenity noise criterion to simulate a critical power-failure event. The acoustic report predicted the development would maintain compliance with the relevant project amenity noise criterion at all receiver locations assessed over a 15-minute averaging period. As previously noted by the Applicant, the likelihood of a critical power outage event requiring 100% load of all supporting plant and equipment is highly unlikely to occur and, in any event, of limited duration.

The Acoustic Report recommended the implementation of acoustic attenuators on the air handling unit plant room, building envelope minimum concrete thickness, sealing of louvres, attenuators, duct apertures and penetrations. The Acoustic Report concluded the broader site can comply with the relevant noise criterion at all receiver locations during all assessed operating scenarios.

The EPA raised no concerns regarding operational noise impacts in its advice during the exhibition period. The Department has considered the Applicant's assessment and is satisfied the operation of the development will comply with the relevant project amenity noise criteria established in accordance with the NPfI. Further, the Department considers the mitigation measures identified in the acoustic report to be adequate in reducing the potential noise emissions of the development's operations.

To ensure potential noise and air quality impacts associated with the back-up generator system are appropriately managed (refer to relevant air quality section), the Department has recommended conditions of consent be imposed to ensure generators are only tested in accordance with the proposed testing regime.

The Department notes that night-time generator testing can achieve compliance with the night-time noise criteria at residential receivers. However, to ensure the development is operated in a manner that is compliant with the noise limits during all periods and given the Applicant has only assessed

the predicted compliance of the development during the night-time period, the Department has recommended a condition requiring the Applicant to submit an operational noise verification report within three months of the commencement of operation of the data centre for each stage and once fully operational, to verify the predicted noise impacts and confirm the developments compliance with the prescribed noise limits. Should any unforeseen noise impacts be identified during the noise verification study, the Applicant would be required to implement additional noise management and mitigation measures to address exceedances of the noise limits including the restriction of generator testing during the night-time period.

6.2.3 Conclusion

The Department's assessment concludes noise impacts associated with the construction of the development are acceptable and can be appropriately managed through the preparation and implementation of a CNVMP in conjunction with standard construction hours.

In addition, the Department also considers the Applicant's updated acoustic report is conservative and that operational noise generated by the development will comply with the relevant requirements of the NPfI. The Department has recommended a number of conditions to ensure the development is operated in accordance with the assumptions made in the acoustic report and the Applicant's mitigation measures.

Subject to the implementation of these conditions, the Department is satisfied the construction and operation of the development would not result in unacceptable noise impacts to surrounding sensitive receivers.

6.3 Design and Visual Impacts

6.3.1 Background

The bulk and scale of the development has the potential to have significant impacts on the visual amenity and urban character of the locality. The development site is located within an expanding industrial area of Eastern Creek, consisting primarily of warehousing and distribution centres, and light industries. The development site is subject to a Stage 1 data centre building approval (Building 1) and concept approval for the Stage 2 data centre building (Building 2) and substation. The development has been designed to be consistent with the Stage 2 concept approval for Building 2 and is similar in bulk and scale to the approved Building 1 (see **Figure 9**).

The development is orientated towards the intersection of Old Wallgrove Road, being an arterial road and Eastern Creek Drive, presenting key viewpoints from the immediate vicinity of the intersection and Old Wallgrove Road. Nearest residential receivers are located 1.6 km south in Horsley Park, 1.7

km north in Minchinbury and 2.5 km west in Erskine Park, which feature no vantage points or sightlines to the development.

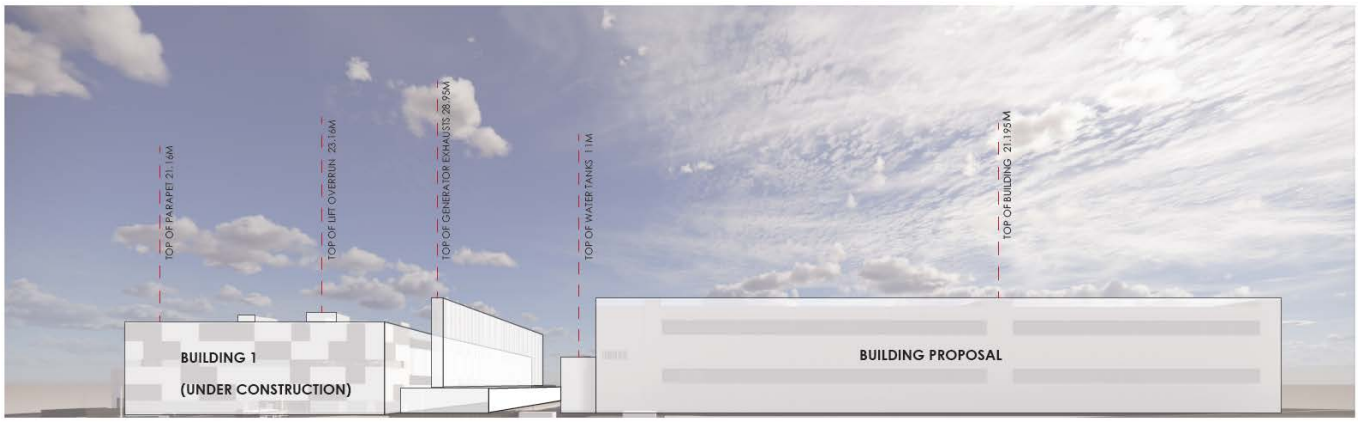

Figure 9 | Bulk and Scale Comparison

During the exhibition of the EIS, Council and the Department raised concerns with the bulk, design and presentation of the generator yard and exhaust flues onto Old Wallgrove Road. The Applicant met with Council and the Department to discuss redesign and vegetation screening options to address the visual presentation of the development. The Applicant subsequently submitted additional 3D renders, updated Landscape and Visual Impact Assessment (LVIA) and landscaping plans which demonstrated additional vegetation screening from Old Wallgrove Road and treatment of generator exhaust flues with green tonal panels.

6.3.2 Design, Bulk and Scale

The development is to consist of a two-story building with a maximum building height of 21.2 m and an overall length of approximately 135 m. The development features plant and equipment gantry along the eastern and western sides of the development which are contained behind metal profile cladding consisting of generator louvres and galvanised mesh screening. Plant and equipment such as AHUs are also located on the rooftop level and are covered by a metal profile canopy. The data centre has been orientated north to south in a staggered order to respond to the site's profile and topography and to position offices towards the street frontage.

The external colour finish of the development consists of shades of grey typical of industrial development and features vertical blades on the front façade of the development addressing Eastern Creek Drive. The sides and rear generator yard feature pre-cast concrete and metal panels. The generator flue stacks have incorporated green tonal elements to provide a soft transition and blending of plant and equipment with landscaped screening along the boundaries of the site (see **Figure 10**).

Figure 10 | Landscape Screening from View Point 11

The Applicant considers the proposed built form is typical of data centres throughout the Sydney Metropolitan Region and is consistent with other industrial development throughout the Blacktown LGA. The EIS states that the proposed height and scale of the development are in response to market trends and operational requirements for data centres including high floor to ceilings heights to accommodate operational equipment and allow for improved airflow and temperature regulation.

6.3.3 Visual Assessment

The updated LVIA included photomontages from 12 viewpoints to assess the potential visual impact of the development on the immediate locality. The selected viewpoints provide various perspectives and locations along Eastern Creek Drive and Old Wallgrove Road (see **Figure 11** & **Figure 12**).

The LVIA considered the development would not be out of place with the existing and future character of the surrounding industrial area due to the compatibility of the built form and scale and would have an acceptable visual impact on direct visual receptors including road users. The LVIA also noted that the development would be suitably screened by the proposed and exsiting landscaping along Old Wallgrove Road. The Applicant's Design Report additionally notes the development has been designed to integrate corrugated façade treatment typical of industrial development in the area and consistent with the scale and typology of development within precinct.

Figure 11 | View Point Locations

Figure 12 | View Point 8

6.3.4 Department's Consideration

The Department has considered the updated plans, LVIA and design report in conjunction with the advice provided by Council in its assessment. Council advised the proposed amendments to vegetation screening and the incorporation of additional façade treatment options to the generator flues were acceptable in mitigating the development's visual impact on the locality.

The Department notes façade treatment options including vertical blade elements and varying materials have been incorporated to provide articulation and mitigate the bulk and scale of the development on the street frontage interface. The Department also considers additional landscaping proposed along site boundaries will provide improved vegetation screening of the development, particularly plant and equipment to the rear of the development, which will mitigate visual impacts on the dual street frontages.

The Department considers the bulk and scale of the development is consistent with data centre typology and intensive warehousing and distribution facilities that are prevalent within the locality, and is consistent with approved Building 1 and Building 1A data centre built forms. The Department notes the size of the development is reflective of the objective to supply the Sydney metropolitan area's growing demand for data centre infrastructure.

Overall, the Department is satisfied the development is unlikely to have any impacts of regional significance on visual amenity due to the distance of sensitive receivers and height and scale of the development being consistent with the surrounding industrial and commercial built form within the Eastern Creek industrial precinct. Furthermore, the Department acknowledges adjacent industrial and commercial development and nearby road users to be the direct visual receivers impacted by the development which would have minimal visual impact considering the exting industrial and commcercial character of the locality.

The Department also notes Council has been satisfied with the additional landscaping provided along the Old Wallgrove Road frontage and has recommended conditions of consent relating to street tree planting.

The Department has recommended a condition of consent requiring the Applicant to prepare and implement a Landscape Management Plan (LMP) for the life of the development, including details of maintenance and management measures for the proposed landscaping to ensure adequate vegetation screening of the development is maintained.

The Department's assessment concludes the development will have an acceptable impact on visual amenity on the locality with consideration to the distance from sensitive receiver locations, façade and design treatment measures incorporated, design and built form consistency with approved structures on-site, and the existing industrial and commercial character of the locality. Moreover, visual impacts on immediate receivers including roadusers of Wallgrove Road can be appropriately managed through the recommended conditions of consent.

6.4 Other issues

The Department's consideration of other issues is summarised in **Table 9** below.

Table 9 | Assessment of other issues

Issue	Findings and conclusions	Recommended conditions
Traffic	• The development would primarily generate light vehicle movements from staff trips, delivery and servicing vehicles, which may impact on the efficiency of the surrounding road network. • The Applicant provided a Traffic and Transport Technical Report (TTTP) to describe the impacts of traffic generation on key intersections. • The TTTP conservatively predicted the development would generate a maximum of 69 vehicles per day, including 50 light vehicles for employees, 10 light vehicles for visitors and 9, 19 m Articulated Vehicles (AVs) for servicing and maintenance. • The TTTP undertook SIDRA modelling of the Old Wallgrove Road and Eastern Creek Drive intersection utilising traffic survey data. The modelling demonstrated the intersection currently operates with an A Level of Service (LoS) during the AM and PM peak periods. • The TTTP further modelled the cumulative traffic impacts of the development, which considered the traffic generation of the approved Buildings 1 and 1A. The modelling demonstrated the intersection would continue to perform at an A LoS during the AM period but would reduce to a B LoS during the PM period. • The modelling also indicated the duration of delay at the intersection during the PM period would only be increased by 3 seconds to a total of 16 seconds, representing a minor increase in intersection delay. • The TTTP also provided an assessment of contruction traffic impacts which identified a maximum of 75 construction vehicles including 18 heavy vehicles, would be generated per day during construction. • The TTTP modelled the cumulative construction traffic impacts of the development which considered the traffic generation of Buildings 1 and 1A onsite. The modelling demonstrated the intersection would have a LoS B during both the AM and PM peak periods. • TfNSW and Council reviewed the EIS and TTTP and did not raise any concerns about traffic impacts. Council and TfNSW noted the requirement for a Construction Traffic Management Plan (CTMP) and Green Travel Plan (GTP) to be prepared.	Require Applicant to: • Prepare and implement a CTMP and GTP

Issue	Findings and conclusions	Recommended conditions
	• The Department has considered the TTTP and advice from TfNSW and Council and concludes the development would result in minor additional movements and would not adversely impact on the performance of the surrounding road network. • The Department recommends conditions for managing operational traffic movements and the requirement to prepare and implement a CTMP and GTP to manage construction vehicle impacts on the road network. • With these conditions in place, the Department's assessment concludes the development would not adversely impact on the safety and efficiency of the surrounding road network.	
Parking	• The concept and stage 1 approval permitted a total of 64 carparking spaces on-site for the total site operations, including 28 spaces for Building 1, 4 spaces for Building 1A and 32 spaces for Building 2 being the subject development. • However, the TTTP determined that an additional 4 car parking spaces would be required to accommodate the parking demands of staff. That is, the Applicant has determined that a maximum of 36 of its 50 staff would be present on site at any one time. Additionally, a further 2 spaces would be required to accommodate the up to 2 site visitors per hour. This would result in a total of 6 additional spaces over that originally determined under the concept. • Council reviewed the EIS and TTTP and raised concern with the amount of car parking provided for the entire site. Council noted the provisions of the Eastern Creek Precinct Plan requires a total of 84 car parking spaces for the development based on applicable GFA rates. • The Applicant provided additional information in its RtS including further staff and car parking calculations, and an indicative staff roster to demonstrate the approved and proposed car parking was suitable for the maximum number of staff at the site, at any one given time. • Council advised its issues had been sufficiently addressed and recommended a condition of consent requiring the Applicant to provide 6 car parking spaces in addition to the existing concept approval. • The Department has considered this issue in the context of the proposed data centre use and considers the Applicant's TTTP adequately demonstrates that with the additional 6 spaces over that proposed in the concept approval, appropriate car parking provision have been made to accommodate the demands of the development.	Require the Applicant to provide a total of 64 carpakring spaces on-site.

Issue	Findings and conclusions	Recommended conditions
	• Furthermore, the Department considers the provision of car parking to be consistent with the number provided in the original concept approval and the Council's recommended condition can be appropriately captured through the approved plans and standard conditions of consent. • The Department's assessment concludes the development incorporates adequate parking spaces to manage the peak demand on site.	
Hazards	• The development includes approximately 140 tonnes of lithium-ion batteries and storage of up to 388.1 kilolitres (kL) of diesel fuel for back up power. The EIS included a report which included a preliminary risk screening in accordance with the Department's Applying SEPP 33 Guideline. • The report noted the quantities of dangerous goods stored would be below the SEPP 33 screening thresholds and therefore the development would not be considered potentially hazardous. The report noted the preparation of an Emergency Response Plan (ERP) should be undertaken for the site. • The Department's hazards specialists reviewed the report and confirmed the risk screening was appropriate and adequate information was provided on compliance with the Australian Standard for storing and handling flammable and combustible liquids. The Department noted the storage and handling of lithium-ion batteries and diesel presents special hazards which must be addressed in the detailed design of the development. • FRNSW recommended the Applicant prepare a Fire Safety Study (FSS) prior to construction and an ERP and Emergency Services Information Package (ESIP). The FSS must verify the final design of all fire safety systems complies with relevant Australian Standards and requirements for data centres. • The Department considers the hazards and risks associated with the development have been adequately considered and agrees with the recommendations made by FRNSW. The Department has recommended conditions requiring a FSS, ERP and ESIP for the development. • The Department's assessment concludes the development is consistent with the aims of the Resilience and Hazards SEPP and would not be considered a potentially hazardous industry.	Require the Applicant to: • prepare a FSS prior to construction • prepare an Emergency Response Plan and Emergency Services Information Package prior to operation • store chemicals, fuels and oils in accordance with Australian Standards • ensure the storage and transport of dangerous goods on site does not exceed the threshold quantities in *Applying SEPP 33*.
Ecologically Sustainable Development	• The Applicant provided a Ecologically Sustainable Development (ESD) and Greenhouse Gas (GHG) Report to assess the impact of the development's energy and water consumption.	Require the Applicant to: • N/A

Issue	Findings and conclusions	Recommended conditions
	Energy and GHG • The ESD Report assessed the development's operations under two scenarios being with and without emissions reduction targets of 100% renewable energy consumption by 2025. The ESD Report predicted the development would generate 280,249 tonnes of carbon dioxide equivalent (tCO2-e) in its first year of operation. • The ESD Report identified only 110.8 tCO2-e would be attributed to Scope 1 emissions generated from diesel consumption and transformer gas. The remaining 280,137 tCO2-e is attributed to Scope 2 emissions generated from the predicted electricity consumption of the development. • The ESD Report notes the development has been designed to achieve a National Australian Built Environment Rating System (NABERS) rating of 5 stars which represents 'Super Performance' and a Power Usage Effectiveness (PUE) score of 1.15, achieving a greater score than the market standard for Data Centres of 3 Star NABERS rating and a PUE score of 1.80. • The ESD Report notes that Scope 2 GHG emissions are expected to be reduced in the future with the onset of renewable energies and the endusers commitments to 100% renewable energies by 2025. • The Applicant has also committed to free cooling and supplementary evaporative cooling system to reduce dependency on refrigerants. • In addition, the ESD Report has identified building level energy meters will be incorporated to ensure equipment is operated at optimal efficiency and to enable targeted energy management strategies to reduce consumption. Water • The ESD Report predicts the development will consume approximately 20,646.7 kL of water per year. The ESD Report notes that water consumption is due to evaporative cooling systems within air handling units. • The Applicant has proposed a number of water-saving measures for the development. These include water consumption monitoring as well as metering strategies such as restricting evaporative cooling systems from operating unless ambient temperatures exceed 28.4 degrees. • Furthermore, the ESD Report notes that rainwater collection in the proposed 163,000 L rainwater tank, will be reused for evaporative cooling	

Issue	Findings and conclusions	Recommended conditions
	and landscape irrigation which is predicted to reduce potable water consumption of the development by 15%. Department's Assessment • The Department notes no concerns with GHG emissions were raised during the exhibition period of the development and Sydney Water provided standard water efficiency recommendations in its advice. • The Department considers the development has been designed with measures to reduce the development's electrical consumption and subsequent Scope 2 GHG emissions to achieve a 5 Star NABERS rating and PUE score of 1.15. • The Department also considers the Applicant has proposed appropriate measures where practicable to improve the water use efficiency of the development's operations. • Furthermore, the Department understands there is opportunity in the future for power purchasing agreements to offset power consumption with renewable energies and future delivery of recycled water to the site will be undertaken in consultation with Sydney Water by the Applicant. • The Department's assessment concludes the development has appropriately incorporated ESD principles into the design of the development to reduce energy and water consumption and is satisfied the development would have an acceptable contribution to state and national GHG emissions.	
Stormwater	• The development proposes to connect to the approved on-site stormwater system which discharges in the north-west corner of the site. • The Applicant prepared a Stormwater and Flooding Report which identified the proposed drainage points on-site and pipe network to connect to the approved stormwater system. • The report also predicted the development would achieve the total site targets for susepended solids, phosphorus, nitrogen and gross pollutants as prescribed in the Blacktown DCP. • Council reviewed the report and requested further MUSIC modelling be provided to support the predictions. This was subsequently provided by the Applicant which confirmed the development would achieve the relevant water quality targets. • The Applicant also provided additional design details of gross pollutant traps, water quality filters, rainwater tanks and drainage in response to Council's request.	Require the Applicant to: • prepare a detailed stormwater system design in accordance with Council's engineering and WSUD guidelines.

Issue	Findings and conclusions	Recommended conditions
	• Council raised no further comments in regard to stormwater. • The Department has reviewed the Applicant's stormwater report and is satisfied the development will be able to connect to the approved site stormwater system and furthermore, achieve the water quality targets of the Blacktown DCP. • It is noted Council raised no further comments and did not recommend any conditions for stormwater. • The Department recommends conditions requiring the detailed design to be in accordance with Blacktown Council's engineering and Water Sensitive Urban Design (WSUD) guidelines. • The Department's assessment concludes the development would not adversely impact on surface water quality or flows.	
Consistency with Concept Approval	• The site is subject to an existing concept approval under SPP-19-00013. The development application is required to be consistent with the concept approval in accordance with Section 4.24 of the EP&A Act. • During the exhibition period, Council raised concern the development was inconsistent with the concept plan in regard to building height, landscaping and car parking. • The Applicant's EIS, RtS and Additional Information detailed the consistency of the development with the existing concept approval. <u>Built Form</u> • A building height of 22.26 m was approved under the concept approval for Building 1 and Building 2. The development provides a building height of 21.20 m, however the generator exhaust reaches a maximum height of 25 m. • The Applicant additionally noted the generator exhaust height is less than the approved exhaust height for Building 1 of 30.3 m. • The Department is satisfied the proposed building height of the development is generally consistent with the maximum building heights of the concept approval and Building 1. <u>Landscaping</u> • Council raised concern the development would result in a net loss of vegetation and landscaping on-site. The Applicant indicated the development would provide an additional 1,522 m^2 of landscaping	N/A

Issue	Findings and conclusions	Recommended conditions
	directly surrounding the building footprint, compared to the 5,462 m^2 landscaping approved on-site. • The Applicant noted additional landscaping has been accommodated through the removal of four temporary electricity kiosks approved under DA-20-01387 which was to be decommissioned and removed upon the construction of the site substation. • The Department notes the development would not result in a reduction of landscaping to the site and that additional landscaping is the result of approved kiosks to be removed and decommissioned. • The Department considers the proposed landscaping of the development to be generally consistent with the concept approval. <u>Car parking</u> • The concept approval permitted a total of 64 car parking spaces on-site for the total site operations, including 28 spaces for Building 1, 4 spaces for Building 1A and 32 spaces for Building 2 being the subject development. • The Applicant demonstrated 32 car parking spaces would be retained for the development and provided an additional 6 car parking spaces, therefore a total of 70 car parking spaces on-site would be provided to meet the required 64 car parking spaces of the concept approval. • The Department considers the development has provided car parking consistent with the concept approval. <u>Conclusion</u> • The Department notes Council has reviewed the EIS, RtS and Additional Information provided by the Applicant and is satisfied the development is generally consistent with the SPP-19-00013 concept approval and has provided recommended conditions of consent in line with the existing concept approval conditions. • The Department's assessment concludes that the Applicant has satisfactorily demonstrated the development in its current format is generally in accordance with the SPP-19-00013 concept approval.	

Issue	Findings and conclusions	Recommended conditions
	• The Department notes any potential changes to the development through any future modification application may require a subsequent modification application to the concept approval.	

7 Evaluation

The Department's assessment has considered the relevant matters and objects of the EP&A Act, including the principles of ecologically sustainable development (**Sections 3 & 6**), advice from government agencies, local councils and public submissions (**Section 5**), and strategic government policies and plans (**Section 4**).

The Department has considered the development on its merits, taking into consideration strategic plans that guide development in the area, the EPIs that apply to the development, advice received from the relevant public authorities, including Council, and submissions from the public.

The development involves the construction and operation of a data centre with an operational capacity of 35.2 MW which will help to satisfy market demand for data storage infrastructure and capacity within Western Sydney.

In addition, the development will provide up to 100 full-time equivalent construction jobs and 50 operational jobs and represents a direct investment of [redacted] in the Blacktown LGA. The proposal is consistent with the key objectives of the Regional Plan, as it will help to facilitate technology industry development within industrial-zoned land.

None of the State government agencies, Council or the community have objected to the proposal and the Department has sought to address any issues raised through consultation with both the government authorities and the Applicant.

The Department's assessment identified the proposal could potentially have visual amenity impacts on the locality and more broadly, amenity impacts during operations, primarily around noise and air. The Department has considered the information provided in the revised NIA, AQIA, LVIA and supporting documentation and is satisfied the Applicant has designed the development to minimise these impacts. Residual impacts can be adequately mitigated and managed subject to the implementation of the Applicant's mitigation and management measures and the recommended conditions of consent.

In particular, the Department's recommended conditions include:

- the preparation of noise verification reporting to ensure the development meets the prescribed noise limits
- requirement to undertake annual emissions testing and reporting including emissions reporting of emergency back-up generator operations subsequent to any power outage event

The Department has also recommended a range of detailed conditions to address any residual hazards, traffic and contamination associated with the construction and operation of the

development. These conditions were informed by the recommendations of the relevant government agencies.

Furthermore, the Department considers the development to be consistent with the existing concept approval on site and also consistent with the industrial character of development within the precinct.

Overall, the development is consistent with the objectives of the relevant NSW Government policies and would help support the ongoing data storage needs of greater Sydney. On balance, the Department considers the development is in the public interest and the application should be approved, subject to the recommended conditions of consent.

8 Recommendation

It is recommended that the A/**Executive Director**, as delegate of the Independent Planning Commission:

- **considers** the findings and recommendations of this report
- **accepts and adopts** the findings and recommendations in this report as the reasons for making the decision to grant consent to the application
- **agrees** with the key reasons for approval listed in the notice of decision
- **grants consent** for the application in respect of Project Echidna Data Centre (SSD-47320208), subject to the conditions in the attached development consent
- **signs** the attached development consent (**Appendix D**).

Recommended by:

02/04/2024

Shaun Williams
A/Principal Planning Officer
Industry Assessments

Recommended by:

3 April 2024

Joanna Bakopanos
A/Director
Industry Assessments

9 Determination

The recommendation is **adopted** by:

5 April 2024

Chris Ritchie
A/Executive Director
Energy, Resources and Industry Assessments

Glossary

Abbreviation	Definition
AHD	Australian height datum
BCS of NSW DCCEEW	Biodiversity Conservation and Science group of the NSW Department of Climate Change, Energy, the Environment and Water (formerly Biodiversity and Conservation Division (BCD) of the former Department of Planning and Environment
CIV	Capital investment value
Council	Blacktown City Council
Department	Department of Planning, Housing and Infrastructure
Development	The development as described in the EIS and RTS for the construction and operation of a data centre with an operational capacity of 35.2 Megawatts including back-up power and cooling systems, car parking and landscaping.
EIS	Environmental impact statement titled EIS Project Echidna prepared by ARUP Australia Pty Ltd, dated 7 October 2022.
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental planning instrument
EPL	Environment protection licence
ESD	Ecologically sustainable development
FRNSW	Fire and Rescue NSW
LEP	Local environmental plan

Abbreviation	Definition
Minister	Minister for Planning and Public Spaces
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
RtS	Response to Submissions titled Project Echidna Data Centre State Significant Development Application: Response to Submissions (RtS) prepared by ARUP Australia Pty Ltd dated 7 September 2023 and Additional Response to Submissions prepared by ARUP Australia Pty Ltd dated 6 March 2024
SEARs	Planning Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning, Housing and Infrastructure
SEPP	State environmental planning policy
SSD	State significant development
TfNSW	Transport for NSW

Appendices

Appendix A – List of referenced documents

The Department has relied upon the following key documents during its assessment of the development:

Environmental Impact Statement

- Environmental impact statement titled EIS Project Echidna prepared by ARUP Australia Pty Ltd, dated 7 October 2022

Submissions

- All submissions received from relevant public authorities and the general public

Response to Submissions Report

- Project Echidna Data Centre State Significant Development Application: Response to Submissions (RtS) prepared by ARUP Australia Pty Ltd dated 7 September 2023

Additional Information

- Additional Response to Submissions prepared by ARUP Australia Pty Ltd dated 6 March 2024

Statutory Documents

- Relevant considerations under section 4.15 of the EP&A Act (see **Appendix E**)
- Relevant environmental planning instruments, policies and guidelines (see **Appendix E**)

All documents relied upon by the Department during its assessment of the application may be viewed at: insert link to major projects page project page https://www.planningportal.nsw.gov.au/major-projects/projects/project-echidna-data-centre-eastern-creek.

Appendix B – Submissions and government agency advice

All submissions and government agency advice can be found here: https://www.planningportal.nsw.gov.au/major-projects/projects/project-echidna-data-centre-eastern-creek

Appendix C – Statutory considerations

Objects of the EP&A Act

A summary of the Department's consideration of the relevant objects (found in section 1.3 of the EP&A Act) are provided in **Table 10** below.

Table 10 | Objects of the EP&A Act and how they have been considered

Object	Consideration
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The development would: • ensure the proper management and development of suitable zoned land for the economic welfare of the LGA and the State • promote social and economic welfare in the community through the provision of up to 100 construction jobs and 50 additional operational jobs in the Blacktown LGA • promote a better environment through developing on industrial zoned land and providing landscape buffer planting along Old Wallgrove Road.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	• The proposed development includes several measures to deliver ESD, including rainwater harvesting and reuse in operational processes, selection of building materials to reduce solar heat absorption and the dependency of cooling plant and equipment to subsequently reduce energy consumption.
(c) to promote the orderly and economic use and development of land,	• The development would meet the objectives of the zone by supporting and protecting existing industrial land. In addition, the development would be consistent with the existing concept approval on site. The data centre would also provide economic benefit through job creation and infrastructure investment.

Object	Consideration
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	• The Department's assessment in **Section 6** of this report demonstrates with the implementation of the recommended conditions of consent, the impacts of the development can be mitigated and/or managed to ensure the environment is protected.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	• The development is not anticipated to result in any significant impacts upon built and cultural heritage, including Aboriginal cultural heritage (refer to **Section 6**).
(g) to promote good design and amenity of the built environment,	• The development would provide good design and amenity of the built environment suitable for an industrial zone.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	• The Department has considered the development and has recommended a number of conditions of consent to ensure construction and maintenance of the development is undertaken in accordance with applicable legislation, guidelines, policies and procedures.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	• The Department publicly exhibited the application as outlined in **Section 5.1.2** of this report, which included consultation with Council and other relevant public authorities and subsequent consideration of their responses.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	• The Department publicly exhibited the application as outlined in **Section 5.1.2** of this report, which included notifying adjoining landowners/occupiers and displaying the SSD application on the Department's Major Projects website.

Ecologically sustainable development

The EP&A Act adopts the definition of ecologically sustainable development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires

the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle.
- inter-generational equity.
- conservation of biological diversity and ecological integrity.
- improved valuation, pricing and incentive mechanisms.

The Department required the Applicant to demonstrate how the principles of ESD have been incorporated into the project, including how it addresses:

- national best practice sustainable building principles to improve environmental performance and reduce ecological impact.
- projected climate change impacts.

The Applicant demonstrated the development would achieve a 5 star NABERs rating through the the implementation of ESD measures including the incorporation of evaporative cooling to reduce electricity consumption and refrigerants, and the reuse of rainwater in coolings systems to reduce potable water consumption.

Environmental Planning Instruments (EPIs)

To satisfy the requirements of section 4.15(1) of the EP&A Act, the following EPIs were considered as part of the Department's assessment:

- State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP)
- State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP)
- State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)
- State Environmental Planning Policy (Industry and Employment) 2021 (Industry and Employment SEPP)
- Blacktown Local Environmental Plan (LEP) 2015

State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP)

The Planning Systems SEPP identifies certain classes of development as SSD. The proposal is State significant development pursuant to section 4.36 of *Environmental Planning and Assessment Act 1979* (EP&A Act) because it involves development for the construction and operation of a data centre which meets the criteria in Clause 25 of Schedule 1 in the Planning Systems SEPP. The development has a

total power consumption of 35.2 MW, which meets the threshold for SSD under the Planning Systems SEPP.

State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP)

Chapter 2 of the Transport and Infrastructure SEPP aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to certain types of infrastructure development, and providing for consultation with relevant public authorities about certain types of development during the assessment process.

TfNSW and Council did not raise any concerns regarding potential traffic impacts associated with the development. The assessment found that operational traffic would be low and generally only comprise of vehicle movements from operational staff and infrequent delivery or servicing vehicles. Further, no road or driveway upgrades are needed to facilitate the development. The Department has recommended conditions of consent including implementation of a Construction Traffic Management Plan (CTMP).

State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)

Chapter 3 of the Resilience and Hazards SEPP aims to identify developments with the potential for significant off-site impacts, in terms of risk and/or offence. A development is defined as potentially hazardous and/or potentially offensive if, without mitigating measures in place, the development would have significant risk and/or adverse impact on off-site receptors.

The Applicant is seeking development consent for the construction and operation of a data centre. While the development would involve the on-site storage of up to 388.1 kL of diesel fuel at any one time, the Department notes diesel is not classified as a dangerous good under the Dangerous Goods Code. Additionally, the development would store up to 140 tonnes of packaged lithium-ion batteries. However, the Department notes the significant storage and handling of these materials present special hazards which are to be addressed in the design stage of the development.

Therefore, the Department has recommended conditions of consent requiring the Applicant to prepare a Fire Safety Study in consultation with Fire and Rescue NSW, Emergency Response Plan, ESIP and a restriction on screening thresholds of dangerous goods stored or transported to and from the development.

Chapter 4 of the Resilience and Hazards SEPP aims to provide a State-wide approach to the remediation of contaminated land. In particular, it aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying:

- under what circumstances consent is required
- the relevant considerations for consent to carry out remediation work
- the remediation works undertaken meet certain standards and notification requirements.

The Applicant has undertaken site establishment works including any remediation works under the Stage 1 and concept approval. Nonetheless, the Department has recommended conditions of consent for the implementation of an unexpected finds protocol to appropriately manage contamination in the event any unexpected finds occurs.

State Environmental Planning Policy (Industry and Employment) 2021 (Industry and Employment SEPP)

Chapter 2 of the Industry and Employment SEPP aims to protect and enhance the Western Sydney Employment Area (WSEA) for employment purposes. The Department's assessment of the development against Chapter 2 of the Industry and Employment SEPP is provided below in **Table 11**.

Table 11 | Department's Assessment of the Development against Chapter 2 of the Industry and Employment SEPP

Consideration	Proposed	Department's Comment
2.18 Existing Precinct plans under SEPP 59 A consent authority may grant consent to a development application on land without a development control plan if it is satisfeied that an existing precinct plan applied to the land before the repeal of SEPP 59	The development site is located within the existing Eastern Creek Precicnt Plan prepared under the repealed *State Environmental Planning Policy No 59 – Central Western Sydney Economic and Employment Area* (SEPP 59).	The Department is satisfied the Eastern Creek Precinct Plan applied to the development site prior to the repeal of SEPP 59. Therefore the consent authority may grant consent to the development application.
2.19 Ecologically sustainable development The consent authority must not grant consent to development on land to which this Chapter applies unless it is satisfied that the development contains measures designed to minimise — (a) the consumption of potable water, and (b) greenhouse gas emissions.	The Applicant has incorporated a number of ESD initiatives in the design of the development to reduce energy and potable water consumption and GHG emissions.	The proposed measures are satisfactory for minimising the developments consumption of potable water and energy consumption. The Department has undertaken an assessment of ESD in Section 6.4 of this report.

Consideration	Proposed	Department's Comment
2.20 Height of buildings The consent authority must not grant consent to development on land to which this Chapter applies unless it is satisfied that— (a) building heights will not adversely impact on the amenity of adjacent residential areas, and (b) site topography has been taken into consideration.	The proposed maximum building height of the development would be 21.2 m and a exhaust stack height of 25 m.	The Industry and Employment SEPP does not prescribe a height limit for the site. The Department has considered the visual impact of the proposed bulk and scale of the development at Section 6.3 and the consistency of the building height with the concept approval in Section 6.4 of this report. The Department's assessment concludes that the proposed height is generally consistent the concept approval and the immediate locality.
2.21 Rainwater harvesting The consent authority must not grant consent to development on land to which this Chapter applies unless it is satisfied that adequate arrangements will be made to connect the roof areas of buildings to such rainwater harvesting scheme (if any) as may be approved by the Secretary.	The Applicant proposes a 163,000 L rainwater tank for rainwater harvesting and reuse in evaporative cooling systems to minimise potable water consumption.	The provision of a rainwater tank and proposed use of rainwater is satisfactory.
2.24 Public utility infrastructure The consent authority must not grant consent to development on land to which this Chapter applies unless it is satisfied that any public utility infrastructure that is essential for the proposed development is available or that adequate arrangements have been made to make that infrastructure available when required.	Public utility infrastructure provided to the site under existing concept approval.	The Department notes public utility infrastructure has been provided to the site via the concept approval. Service providers were additionally consulted during the exhibition period and the Department is satisfied adequate arrangement have been made.

Consideration	Proposed	Department's Comment
2.30 Design Principles The consent authority must take into consideration whether or not: (a) the development is of a high-quality design, and (b) a variety of materials and external finishes for the external façades are incorporated, and (c) high quality landscaping is provided, and the scale and character of the development is compatible with other employment generating developments in the Precinct concerned.	The Applicant submitted a Visual Impact Assessment (VIA) assessing the potential visual impacts of the development. The proposed building would incorporate a variety of materials and finishes to provide architectural interests with high quality urban design outcome.	The Department has assessed the visual impacts of the development in Section 6.3 of this report. The Applicant has proposed a number of visual treatment options to reduce visual impact along with additional landscaping onsite to provide screening along the Old Wallgrove Road frontage. The proposed scale of the development is generally consistent with existing and under construction commerical and industrial development and development in the Eastern Creek Precinct.

Consideration	Proposed	Department's Comment
2.40 Earthworks Before granting development consent for earthworks, the consent authority must consider the following matters— (a) the likely disruption of, or detrimental effect on, existing drainage patterns and soil stability in the locality, (b) the effect of the proposed development on the likely future use or redevelopment of the land, (c) the quality of the fill or the soil to be excavated, or both, (d) the effect of the proposed development on the existing and likely amenity of adjoining properties, (e) the source of fill material and the destination of excavated material, (f) the likelihood of disturbing relics, (g) the proximity to and potential for adverse impacts on a waterway, drinking water catchment or environmentally sensitive area, (h) appropriate measures proposed to avoid, minimise or mitigate the impacts of the development, (i) the proximity to and potential for adverse impacts on a heritage item, an archaeological site, or a heritage conservation area, (j) the visual impact of earthworks as viewed from the waterways	Bulk earthworks and levelling for the site was undertaken as part of the concept approval. Minor earthworks are proposed for final building pad and land form.	Minor earthworks are proposed to establish a building pad for the development. To ensure earthworks are appropriately managed, the Department has included the requirement for an erosion and sediment control plan to be prepared prior to the commencement of construction.
2.42 Heritage conservation The consent authority must, before granting consent under this section in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned. This subsection applies regardless of whether a heritage management document is prepared under subsection (5) or a heritage conservation management plan is submitted under subsection (6)	Assessment and consideration of heritage conservation was undertaken as part of the concept approval. The Applicant provided additional documentation demonstrating the development would have no impact on heritage items or heritage conservation areas.	The Department is satisfied heritage conservation was appropriately assessed under the existing concept approval. The Department is satisfied the Applicant has sufficiently considered the impacts of the development on heritage items and heritage conservation areas.

Consideration	Proposed	Department's Comment
2.44 Stormwater, water quality and water sensitive design the consent authority must take into consideration whether— (a) water sensitive design principles are incorporated into the design of the development, and (b) riparian, stormwater and flooding measures are integrated, and (c) the stormwater management system includes all reasonable management actions to avoid adverse impacts on the land to which the development is to be carried out, adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, and (d) if a potential adverse environmental impact cannot be feasibly avoided, the development minimises and mitigates the adverse impacts of stormwater runoff on adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, and (e) the development will have an adverse impact on— (i) the water quality or quantity in a waterway, including the water entering the waterway, and (ii) the natural flow regime, including groundwater flows to a waterway, and (iii) the aquatic environment and riparian land (including aquatic and riparian species, communities, populations and habitats), and (iv) the stability of the bed, banks and shore of a waterway, and (f) the development includes measures to retain, rehabilitate and restore riparian land.	The Applicant proposed a stormwater management strategy to connect to the stormwater system on-site approved under the concept approval. The system has included water sensitive devices to treat stormwater quality.	The Department considers the proposed stormwater strategy for the development is consistent with the existing stormwater system for the site. Council has reviewed the proposed stormwater system and advised it is consistent with the stormwater and water quality design principles of the DCP. The Department has included conditions of consent requiring final stormwater design in consultation with Council.

Chapter 3 of the Industry and Employment SEPP aims to ensure that outdoor signage is compatible with the desired amenity and visual character of an area, and provides effective communication in suitable locations, that is of a high-quality design and finish. The EIS states that signage does not form part of the proposal.

Appendix D – Recommended instrument of consent

The recommended conditions of consent for SSD-47320208 can be found on the Department's website at: https://www.planningportal.nsw.gov.au/major-projects/projects/project-echidna-data-centre-eastern-creek