



Talavera Road Data Centre Campus Expansion

State Significant Development Assessment
SSD-24299707

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Glossary

Abbreviation	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
AEMO	Australian Energy Market Operator
AEP	Annual exceedance probability
AHU	Air Handling Unit
Applicant	Macquarie Data Centres Pty Ltd
AV	Articulated Vehicle
BC Act	<i>Biodiversity Conservation Act 2016</i>
BDAR	Biodiversity Development Assessment Report
CIV	Capital Investment Value
Commission	Independent Planning Commission
Council	City of Ryde Council
DCP	Development Control Plan
Department	Department of Planning and Environment
Development	An expansion to an existing data centre located at 17-23 Talavera Road, Macquarie Park
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation 2000	Environmental Planning and Assessment Regulation 2000
EP&A Regulation 2021	Environmental Planning and Assessment Regulation 2021
EPA	Environment Protection Authority
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
FERMP	Flood Emergency Response Management Plan
FRNSW	Fire and Rescue NSW

Abbreviation	Definition
GCC	Greater Cities Commission
GFA	Gross Floor Area
GPT	Gross Pollutant Trap
Infrastructure SEPP	State Environmental Planning Policy (Infrastructure) 2007
IT	Information Technology
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
NABERS	National Australian Built Environment Rating System
NDP	<i>North District Plan (GSC, 2018)</i>
NSW	New South Wales
OSD	On-site detention
PMF	Probable maximum flood
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PUE	Power Usage Efficiency
Region Plan	<i>Greater Sydney Region Plan: A Metropolis of Three Cities (GSC, 2018)</i>
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP 33	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
Site	17-23 Talavera Road, Macquarie Park
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TfNSW	Transport for NSW
VIA	Visual impact assessment

Executive Summary

This report details the Department of Planning and Environment's (the Department's) assessment of a State significant development (SSD) application for the Talavera Road Data Centre Campus Expansion (SSD-24299707). Macquarie Data Centres Pty Ltd (the Applicant) proposes an expansion to an existing data centre located at 17-23 Talavera Road, Macquarie Park in the City of Ryde local government area (LGA).

The Applicant is an Australian-based data centre operator, specialising in the delivery of secure, sovereign data storage services to Fortune 500 companies, large multi-national organisations and federal government agencies. It currently operates five facilities across Canberra and Greater Sydney.

The site has an area of approximately 2 hectares and is located 12 kilometres (km) north-west of the Sydney central business district (CBD) and 12 km north-east of the Parramatta CBD. The site is currently occupied by a data centre campus, which has been in operation since 2012. Several alterations and additions have been made to this facility over the past 10 years, with the most recent expansion having been completed in early 2022.

The nearest residential receivers are located approximately 310 m to the north-east of the site at 25 Fontenoy Road, Macquarie Park. The main residential areas within Macquarie Park are located approximately 310 m to the north-east and 500 m to the west of the site, respectively.

In late 2019, the Applicant obtained development consent from the NSW Land and Environment Court (by way of a Section 34 agreement) for alterations and additions to an existing data centre on the site across two separate stages (LDA2018/0322).

Construction of Stage 1 of LDA2018/0322 was completed in March 2022. The Applicant has since decided not to proceed with Stage 2 of the project. Instead, the subject SSD application seeks to replace the Stage 2 works with a larger, eight-storey extension to the existing data centre building.

Proposed development

The SSD application seeks development consent to construct and operate an expansion to the existing data centre, comprising additional data halls, associated office space, supporting infrastructure, new handstand areas (including relocated driveways and parking areas) and landscaping.

The SSD application originally sought consent to construct the data centre expansion over an existing Council-owned stormwater pipe and associated easement which traverses the site. The design of the expansion included a 12.5 m high undercroft area along the length of the easement to provide access to the existing pipe and proposed to relocate the 'future' stormwater easement to run around the perimeter of the new expansion's footprint. This approach was similar to that taken for LDA2018/0322

Due to concerns raised by Council regarding the impact of the development upon its stormwater assets, the Applicant made the decision to amend the development application to include relocation of the existing stormwater pipe and the associated easement.

An amended application was subsequently lodged in accordance with clause 55AA of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation 2000) and proposed the construction of a new 2,100 mm stormwater pipe around the perimeter of the expanded data centre, to replace the existing stormwater pipe traversing the site. As the undercroft area would no longer be

required (due to the stormwater pipe being relocated), the Applicant took the opportunity to make several minor changes to the design of the 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 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 development would see the site's overall power consumption increase from 28 MW to 66 MW, while the number of diesel back-up generators on-site would increase from 16 to 37.

The proposed expansion would allow the Applicant to further improve the operational efficiency of its existing data centre, while continuing to support the ongoing demand for sovereign and security-certified data storage space from government authorities and private businesses across Sydney.

Statutory context

The development is classified as SSD 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 10 MW, which meets the criteria in clause 25 of Schedule 1 in the former State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

Typically, the Minister for Planning and Public Spaces would be the consent authority for such SSD applications. However, as a political donation disclosure statement has been made by the Applicant and Council has objected to the proposal, the Independent Planning Commission (the Commission) is the designated consent authority for the development, pursuant to section 4.5 of the EP&A Act and clause 8A of the SRD SEPP.

Engagement

The Department exhibited the SSD application and the Environmental Impact Statement (EIS) for the development from 18 November 2021 until 15 December 2021. During the exhibition period, the Department received one submission from Council and advice from five government authorities. Of the submissions and advice received, only Council objected to the development. No submissions were received from members of the public.

Council's concerns primarily related to the design of the data centre expansion, including its location over the existing underground stormwater pipe and associated easement which traverses the site. As a result, Council advised the Department that it did not support the development in its current form and requested the Applicant be required to relocate the stormwater pipe and easement to run around the perimeter of the expanded data centre, prior to the commencement of construction of the proposed expansion.

Following the conclusion of the exhibition period, the Department met with Council and the Applicant on multiple occasions to discuss the concerns raised in Council's submission. The Department also sought advice from its Chief Engineer regarding the design of the data centre expansion, including any potential impacts upon the existing stormwater pipe.

In order to help resolve the impasse between both parties, the Department suggested Council and the Applicant consider whether the SSD application could be amended to include the construction of a new stormwater pipe around the perimeter of the expanded data centre.

Following further discussions between the two parties regarding the detailed design/ funding arrangements for the new stormwater pipe, the Applicant requested to amend its SSD application to include the relocation of the existing stormwater pipe and easement. The request was accompanied by an Amendment Report, which was prepared with regard to the Department's *State significant development guidelines – Preparing a submissions report* guideline.

The amended application was not publicly exhibited, as the Department was satisfied any potential environmental impacts associated with the proposed changes would be minor when compared to the development as originally proposed, however it was made publicly available on the Department's website.

Assessment

The Department's assessment of the SSD 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 key environmental issues associated with the development related to noise and vibration, air quality and stormwater and flooding impacts.

Noise and Vibration

Construction of the data centre is expected to take around 21 months with the noisiest construction works to intermittently occur during the first phase (around 6 months duration). Elevated noise is also predicted periodically throughout the entire construction phase at the adjoining Excelsia College (a tertiary education provider). No exceedances are predicted for other sensitive receivers.

While the Applicant has sought to undertake construction and fit-out of the development during extended construction hours, the Department has considered this in the context of nearby operating facilities and the predicted elevated noise levels and has concluded these extended hours of construction are likely to interfere with the convenience and comfort of these receivers and, consequently cannot be supported at this point in time.

Overall, the Department accepts elevated construction noise will only be experienced intermittently throughout the construction program and will stay below the highly-affect noise level of 75 dBA. In order to ensure construction noise is appropriately managed during standard construction hours, the Department has recommended conditions requiring the preparation and implementation of a detailed construction noise and vibration management plan (CNVMP) for the development. As part of the CNVMP, the Applicant will need to consult with adjoining commercial and education receivers (including Excelsia College) when developing detailed management measures for noisy works at the site.

With regard to operational noise, the Department has carefully considered the Applicant's acoustic report and is satisfied the development would comply with the relevant requirements of the *Noise Policy*

for *Industry* (EPA, 2017). The Department has recommended conditions that require the development to comply with the predictions in the noise assessment

Air Quality

The Department is satisfied the revised air quality assessment has adopted a conservative approach for the assessment of potential impacts associated with the construction and operation of the development. While the assessment has predicted potential exceedances of the relevant air quality impact assessment criteria for particulate matter and nitrogen dioxide (NO₂) at several nearby sensitive receivers during a power outage event, the Department accepts the likelihood of such exceedances occurring is extremely small (once every 92 years for particulate matter and once every 2,920 years for NO₂ emissions).

In addition, the Department is satisfied that typical day-to-day operations at the site (including testing of the back-up generators) would not result in any exceedances of the relevant air quality criteria at all nearby sensitive receivers.

The Department has recommended conditions of consent which require the Applicant to prepare a Construction Environmental Management Plan (CEMP) and implement all reasonable steps to minimise dust. A robust monitoring and reporting framework would also be put in place to manage the testing and operation of the back-up generator system. Should the likelihood of a power outage event occurring become more frequent in the future, the Applicant would be required to retrofit additional air pollution emission controls to the back-up generator system.

Stormwater and Flooding

Finally, the Department notes the relocation of the existing stormwater pipe and sewer main has been a key issue throughout the assessment process and has been the subject of extensive discussions between Council, the Applicant and the landowner. As a result of this process, the Applicant has committed to undertaking the relocation works as part of the SSD application and at no cost to Council. This commitment has been formalised via a signed Deed of Agreement between the aforementioned parties, and the associated works will be completed prior to the commencement of operation of the development.

The Department has recommended several conditions to ensure the relocation works are carried out in accordance with the signed Deed of Agreement.

With regard to stormwater management, the Department has reviewed the proposed stormwater management system and is satisfied that it is capable of managing the volume and quality of stormwater which would be generated by the development. In addition, any potential stormwater impacts during construction can be managed via the proposed erosion and sediment control measures. The Department has recommended conditions to ensure the stormwater management system is upgraded prior to the commencement of operation of the development, and that the identified erosion and sediment control measures are implemented for the duration of construction works.

The Department has also carefully considered the findings of the updated flood assessment and is satisfied the development would not result in significant additional flooding impacts beyond those currently experienced within the surrounding area and would not adversely impact upon the site's function as an overland flow path. The Department has subsequently recommended conditions to ensure the development is constructed in accordance with the proposed finished flood levels and that

a comprehensive Flood Emergency Response Management Plan is implemented to manage refuge and evacuation protocols for the site.

Subject to the implementation of these conditions and the commitments made by the Applicant, the Department is satisfied the environmental impacts can be adequately managed and would not result in adverse impacts upon the amenity of the surrounding area.

Conclusion

The Department's assessment concludes the potential 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. In summary, the development would:

- provide up to 610 construction jobs and 20 additional knowledge-intensive operational jobs within the Macquarie Park business precinct
- help satisfy market demand through the provision of additional, flexible data storage capacity within the Eastern Economic Corridor
- be consistent with the objectives of the relevant strategic planning framework, including the *Greater Sydney Region Plan – A Metropolis of Three Cities*, the *North District Plan* and Council's *Local Strategic Planning Statement*.

Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

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1 Introduction

1.1 The Department's assessment

- 1.1.1 This report details the Department of Planning and Environment's (Department's) assessment of a State significant development (SSD) application for the Talavera Road Data Centre Campus Expansion (SSD-24299707). The proposed development (the development) involves an expansion to an existing data centre located at 17-23 Talavera Road, Macquarie Park in the City of Ryde local government area (LGA) (see **Figure 1**).
- 1.1.2 The Department's assessment considers all documentation submitted by Macquarie Data Centres Pty Ltd (the Applicant), including the Environmental Impact Statement (EIS), Amendment Report and additional information, and the advice and submissions received from government authorities and utility providers. The Department's assessment also considers the legislation and planning instruments relevant to the site and the development.
- 1.1.3 This report describes the development, surrounding environment, relevant strategic and statutory planning provisions and the issues raised in submissions and government advice. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts during construction and operation.
- 1.1.4 The Department's assessment of the Talavera Road Data Centre Campus Expansion has concluded the development is in the public interest and should be approved, subject to conditions.

1.2 Development background

- 1.2.1 The Applicant is seeking development consent to expand an existing data centre. The proposed expansion would include an eight-storey extension to the existing data storage building, new office space, supporting infrastructure, new hardstand areas (including relocation of the existing perimeter access road and on-site parking areas) and landscaping. The development would involve the storage of electronic data in associated information technology (IT) hardware and would operate 24 hours a day, seven days a week.
- 1.2.2 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).
- 1.2.3 In recent years, there has been an increased need for new, small and large-scale data 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.
- 1.2.4 The Applicant is an Australian-based data centre operator, specialising in the delivery of secure, sovereign data storage services to Fortune 500 companies, large multi-national organisations and federal government agencies. It currently operates five facilities across Canberra and Greater Sydney.

1.2.5 The Applicant has experienced significant growth over the past 20 years, and its facilities are designed to comply with the federal Attorney-General's *Protective Security Policy Framework* for IT facilities. The proposed expansion would allow the Applicant to more than double its IT load capacity within Macquarie Park, while continuing to provide secure, reliable data storage services to its clients.



Figure 1 | Regional context

1.3 Site description

1.3.1 The site comprises approximately 2 hectares (ha) of business-zoned land located at 17-23 Talavera Road, Macquarie Park in the City of Ryde LGA (the site). The site is legally described as Lot 527 DP 752035 and Part Lot 3 DP 1043041, and is located 12 kilometres (km) north-west of the Sydney central business district (CBD) and approximately 12 km north-east of the Parramatta CBD (see **Figure 1**).

1.3.2 The site can be accessed via Talavera Road and is approximately three minutes' drive from the on-ramp to the M2 Motorway (see **Figure 2**).

1.3.3 The site is currently occupied by a data centre campus, which has been in operation since 2012. Several alterations and additions have been made to this facility over the past 10 years, with the most recent expansion having been completed in early 2022 (see **Section 1.5**).

1.3.4 Planted native and exotic tree species are primarily located along the north-western and south-western boundaries of the site. The site does not contain any items of heritage significance and is not located within a designated heritage conservation area.

1.3.5 The site is impacted by several existing easements and underground assets, including:

- an underground, 1,800 millimetre (mm) stormwater pipe and associated 3.5 metre (m) wide easement running diagonally across the site, from the south-eastern corner to the north-western corner

- an underground, 300 mm sewer main traversing the south-western corner of the site
- an overland stormwater flow path and associated restriction on the use of land which runs parallel to the site's north-western boundary (see **Figure 3**).

1.3.6 The 1,800 mm stormwater pipe is owned by City of Ryde Council (Council), while the 300 mm sewer main is owned by Sydney Water.

1.4 Surrounding land uses

1.4.1 The site is located in the Macquarie Park business precinct and is surrounded by a range of land uses, including:

- a multi-level carpark and the Macquarie Park Data Centre (SSD-10467, currently under construction), located to the north-west
- Talavera Road and a commercial office complex known as the Talavera Corporate Centre, located to the north-east
- a four-storey commercial building, located to the south-east
- Johnson & Johnson's Macquarie Park campus and a tertiary education provider known as Excelsia College, located to the south-west (see **Figure 2**).

1.4.2 The nearest residential receivers are located approximately 310 m to the north-east of the site at 25 Fontenoy Road, Macquarie Park (see **Figure 2**). The main residential areas within Macquarie Park are located approximately 310 m to the north-east and 500 m to the west of the site, respectively.

1.5 Related approvals

1.5.1 On 20 September 2019, development consent was granted by the NSW Land and Environment Court (by way of a Section 34 agreement) for alterations and additions to the existing data centre at the site (LDA2018/0322). The consent permits:

- removal of 32 trees and site preparation works
- construction and operation of Stage 1 of the project, comprising:
 - a data centre building extension with an overall height of 45 m and a gross floor area (GFA) of 6,731 square metres (m²)
 - provision of 101 car parking spaces
- construction and operation of Stage 2 of the project, comprising:
 - a further building extension with an overall height of 45 m and a GFA of 6,731 m² (overall GFA of 13,462 m²)
 - removal of 30 car parking spaces (71 spaces remaining).
- associated infrastructure and landscaping (see **Figure 4**).

1.5.2 As both stages of the project would have been located over Council's existing stormwater pipe and easement, the design included a 12.5 m high undercroft area (that is, an access corridor that is free from columns and any other structural building elements) along the length of the easement to facilitate future maintenance/ reconstruction works undertaken by Council.

1.5.3 During its assessment of the development application, Council advised it did not support this arrangement, as the location and design of the two building extensions would restrict access to the easement and adversely impact upon Council's ability to maintain and/or replace the stormwater pipe.

- 1.5.4 As part of the Section 34 conciliation process, the Applicant and Council reached an agreement to allow the project to proceed, subject to a new 'future' stormwater easement being provided around the perimeter of the Stage 2 extension. The new easement provides Council with the ability to relocate the existing stormwater pipe outside of the data centre's footprint, if/ when funds become available via Council's stormwater infrastructure program (see **Figure 5**).

Status of LDA2018/0322

- 1.5.5 Construction of Stage 1 of the project (as approved under LDA2018/0322) commenced in December 2019 and was completed in March 2022.
- 1.5.6 Under condition 32 of the development consent, the Applicant was required to make a monetary contribution under section 7.11 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for each stage of the project. At the time of determination of LDA2018/0322, the relevant contributions were as follows:
- Stage 1 – \$626,798.61
 - Stage 2 – \$504,144.01.
- 1.5.7 The section 7.11 contribution for Stage 1 was paid by the Applicant prior to the issue of a Construction Certificate for that stage. While construction of Stage 2 has not commenced, the Applicant has previously entered into a 'works in kind' agreement with Council to offset the section 7.11 contribution for Stage 2.
- 1.5.8 Instead of a monetary contribution, this agreement required the Applicant to deliver public domain improvement works along Talavera Road on behalf of Council. These works were completed by the Applicant in late 2021, and cost approximately \$865,734 (around \$360,000 more than required of the section 7.11 plan).
- 1.5.9 Following the guidance in Council's Development Control Plan 2014 - Part: 4.5 Macquarie Park Corridor, LDA2018/0322 was also supported by a Voluntary Planning Agreement (VPA), which provided Council with a monetary contribution of \$795,000 in exchange for access to the bonus height incentive (45 m) offered under clause 6.9 of the City of Ryde Local Environmental Plan (LEP) 2014. The monetary contribution was paid to Council upon execution of the VPA, which occurred on 22 October 2019.
- 1.5.10 Under this development consent, the Applicant has contributed a total of \$1,421,798.61 in addition to public domain improvement works along Talavera Road. These contributions covered both stages, although Stage 2 has not commenced.

Relationship to the subject SSD application

- 1.5.11 The subject SSD application seeks to replace Stage 2 of the works approved under LDA2018/0322 with a larger, eight-storey extension to the existing data centre building.
- 1.5.12 The SSD application would maintain the access and parking arrangements which were previously approved under LDA2018/0322 (see **Section 2.3**).
- 1.5.13 The Applicant is also seeking to offset any developer contributions applicable to the subject SSD application, on the basis that the monetary value of these contributions is covered by the Stage 2 'works in kind' agreement which was executed under LDA2018/0322 (see **Section 6.5**).

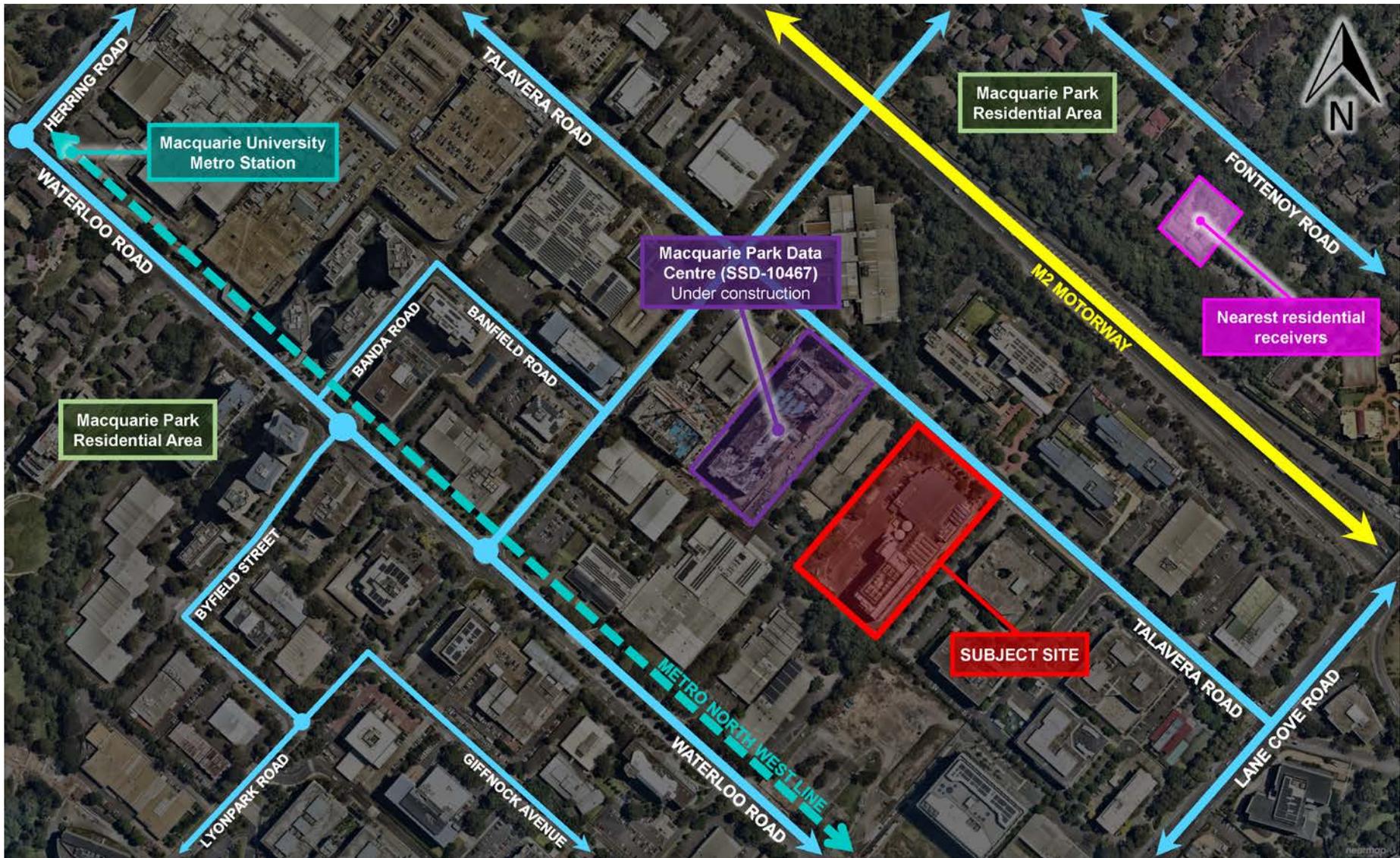


Figure 2 | Site and immediate surrounds

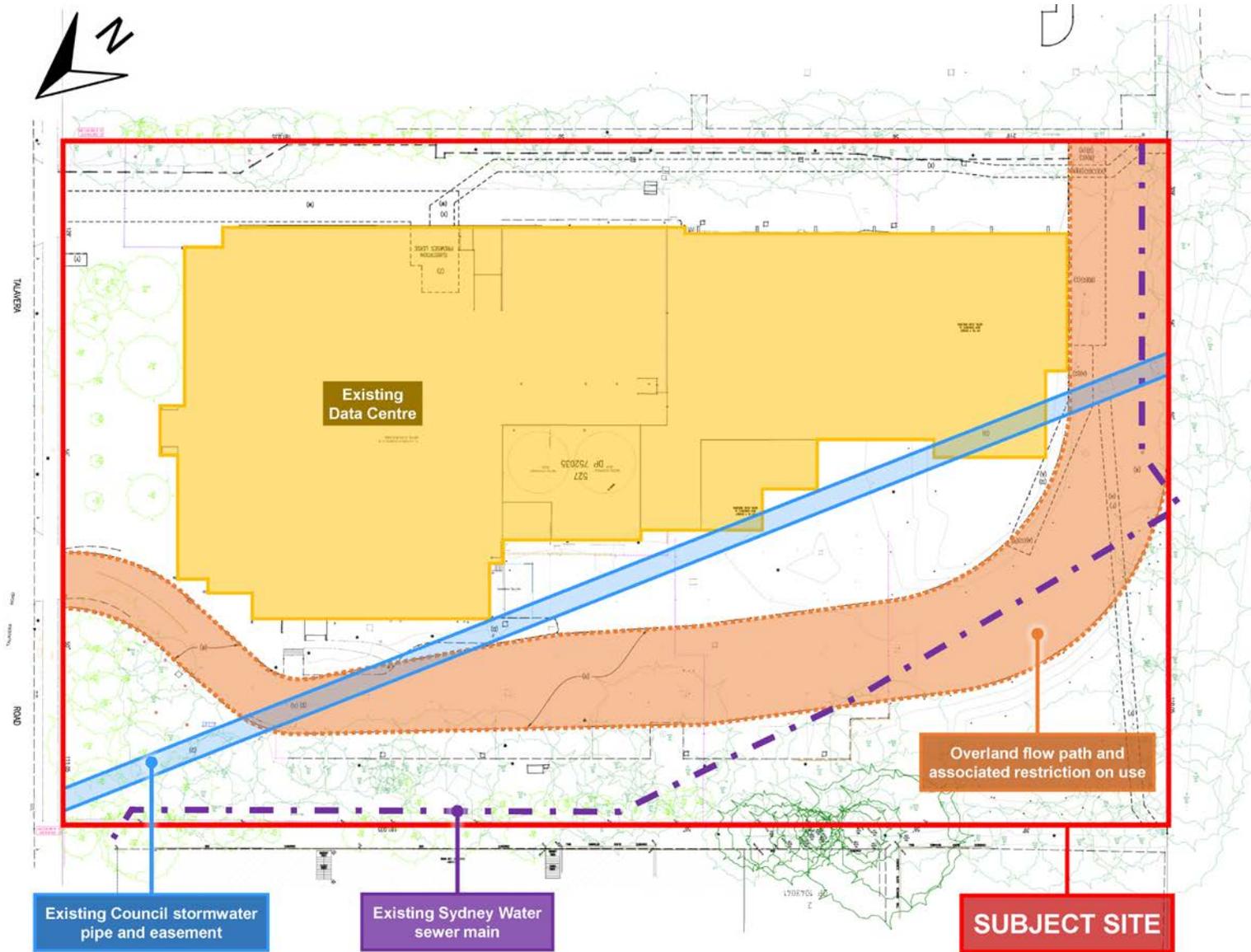


Figure 3 | Current survey plan, with key restrictions highlighted



Figure 4 | Previous development approvals and their relationship to the current proposal

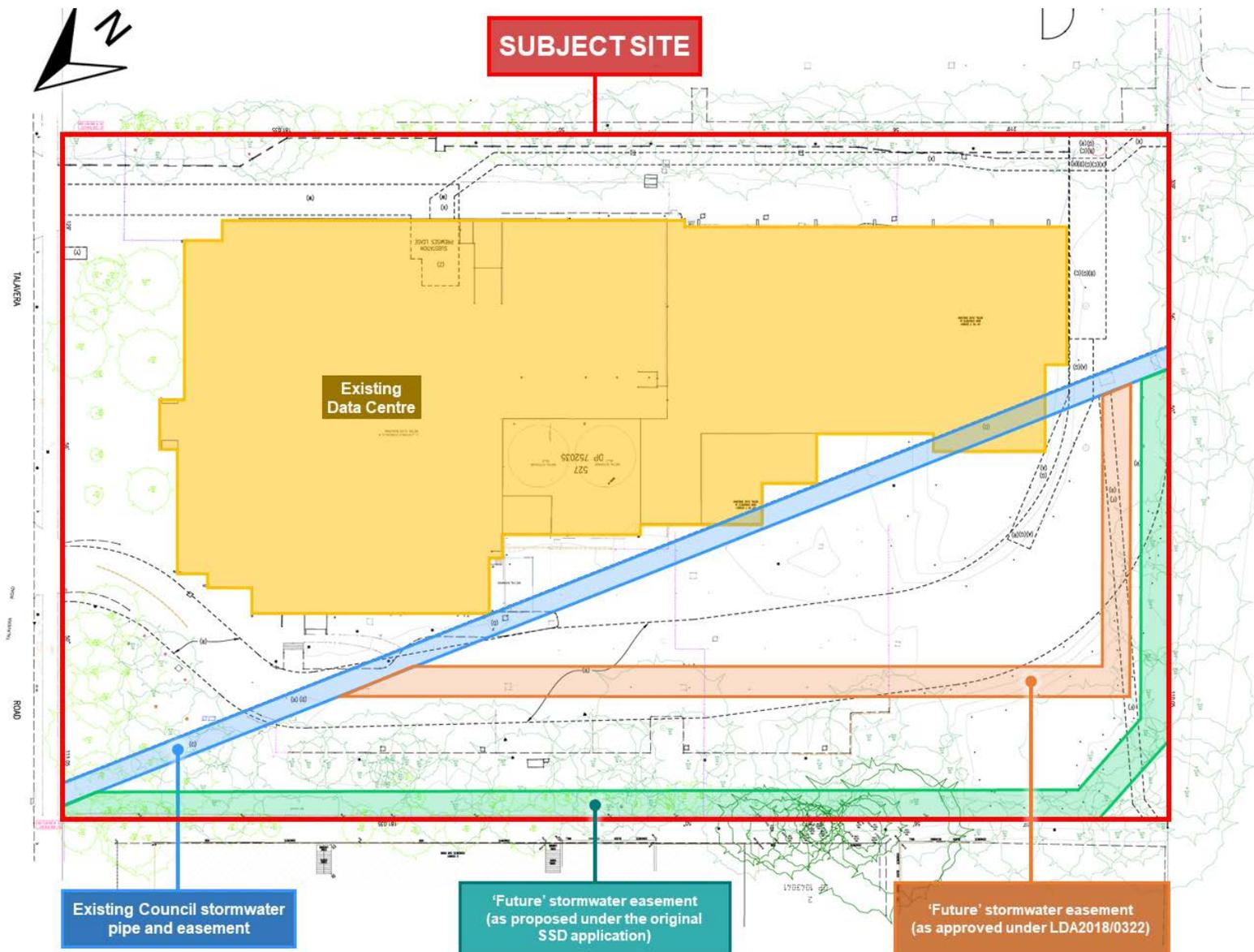


Figure 5 | Location of the 'future' stormwater easement, as approved under LDA2018/0322 and as proposed under the original SSD application

2 Development

2.1 Original application

- 2.1.1 The development application originally sought consent to construct the data centre expansion over the existing Council-owned stormwater pipe and associated easement. In order to maintain a similar approach to that which was approved under LDA2018/0322, the design of the expansion included a 12.5 m high undercroft area along the length of the stormwater easement for access/maintenance purposes.
- 2.1.2 The application also sought to extend the 'future' stormwater easement approved under LDA2018/0322 to run around the development's larger building footprint. As part of the terms of this easement, Council would have the option to relocate the existing stormwater pipe to the new easement, if/when funds became available via Council's stormwater infrastructure program (see **Figure 5**).
- 2.1.3 During the exhibition period (see **Section 5**), Council objected to the location of the proposed expansion, on the basis that it would restrict Council's ability to maintain the pipe, increase the costs associated with any future maintenance/relocation works and subsequently increase the risk and liability to Council with no inherent benefit to the local community. Council maintained that the Applicant should be required to relocate the stormwater pipe and the associated easement prior to the development being constructed.
- 2.1.4 Following extensive consultation with Council and the Department, the Applicant made the decision to amend the development to include relocation of the existing stormwater pipe and the associated easement.
- 2.1.5 The Applicant subsequently sought and obtained the agreement of the Director, Industry Assessments, as delegate of the Independent Planning Commission (the Commission) to amend the application in accordance with clause 55AA of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation 2000) (see **Section 4.4**).
- 2.1.6 The amended application proposed the construction of a new 2,100 mm stormwater pipe around the perimeter of the expanded data centre, to replace the existing stormwater pipe traversing the site.
- 2.1.7 Several other minor changes were also made to the design of the development, including:
- reconstruction of an existing Sydney Water sewer main which intersects with the alignment of the new stormwater pipe
 - removal of four trees from an adjacent property (Part Lot 3 DP 1043041) to facilitate the alignment of the new stormwater pipe
 - a subsequent amendment to the boundary of the SSD application to include Part Lot 3 DP 1043041
 - a reduction in the height of the undercroft area, facilitating amendments to the overall height of Level 1 (from 5.5 m to 8.6 m) and the introduction of a further level to the expansion (Level 1B)
 - relocation of 10 back-up generators from Level 6 to Level 1
 - additional data hall space on the ground floor and levels 1, 1B, 2 and 6.

2.2 Amended application

2.2.1 The assessment undertaken herein is based on the amended application. The main components of the development are summarised in **Table 1**, shown in **Figure 6** to **Figure 9**, and described in full in the documentation referenced in **Appendix A** of this report.

Table 1 | Main components of the development

Aspect	Description
Development summary	Construction and 24-hour operation of an expansion to a data centre, including associated office space, supporting infrastructure and services, car parking and landscaping
Site area	20,094 m ²
Gross floor area (GFA)	16,142 m ²
Building height	45 m
Power consumption	38 megawatts (MW)
Earthworks	The development would require: <ul style="list-style-type: none"> • 799 m³ of cut • 692 m³ of fill
Stormwater pipe relocation	The development would involve the relocation of Council's existing stormwater pipe and easement to run along the site's south-western and north-western boundaries, at no cost to Council
Vegetation clearing	Removal of up to 83 trees (including 4 trees on land not owned by the Applicant, which may be impacted by the new stormwater pipe)
Ancillary infrastructure	The operation of the expansion (including during a power outage event) would be supported by: <ul style="list-style-type: none"> • two new Ausgrid transmission feeders (33 kilovolts (kV)) • 150 fan wall units, located on each level • 60 air handling units (AHUs), located in plant rooms on each level • 16 water pumps, located on Level 1 • 8 chillers, located on Level 1 • 8 cooling towers, located on the roof • up to 316,800 kilograms (kg) of lithium-ion batteries, located within battery cabinets • 20 x 3.3 MW diesel back-up generators, located on Level 1 and the roof • 1 x 0.2 MW diesel back-up generator, located on the roof • diesel fuel storage for up to 461,000 litres (L)
Stormwater management system	The site's existing stormwater management system was approved under LDA2018/0322 and was designed to achieve Council's pollutant reduction targets. It includes: <ul style="list-style-type: none"> • a piped stormwater drainage system across the entire site

Aspect	Description
	<ul style="list-style-type: none"> two on-site detention (OSD) tanks with a total volume of 302 m³, which discharges to Council's existing stormwater pipe two gross pollutant traps (GPTs) and 10 stormwater cartridge filters to treat stormwater prior to discharge from the site <p>The development would include the following upgrades to the site's stormwater management system:</p> <ul style="list-style-type: none"> construction of a new pit and pipe network, connecting into the site's existing system removal of one GPT (to maintain 150 mm freeboard to the stormwater pits during minor flood events) installation of 20 additional stormwater cartridge filters within the new pit and pipe network
Parking and manoeuvrability	<p>The development would be accessed via two existing vehicular crossings off Talavera Road. It would provide:</p> <ul style="list-style-type: none"> 67 staff parking spaces four accessible spaces 12 bicycle stands. <p>The development would also provide manoeuvrability for a 19 m articulated vehicle (AV) around the data centre building</p>
Landscaping	<p>Landscaping would comprise:</p> <ul style="list-style-type: none"> the retention of 61 trees planting of 83 endemic/native trees across the site installation of a green wall to screen the northern fire tank area from Talavera Road enhanced landscaping zones along the site's northern, eastern and southern boundaries, comprising a variety of trees, shrubs and layered ground covers
Construction timeframe	<p>Earthworks, stormwater infrastructure and civil works: 6 months</p> <p>Structural piling: 3 months</p> <p>Construction of the expansion building: 6 months</p> <p>Fit-out of operational plant and equipment: 9 months</p>
Hours of operation	24 hours a day, seven days a week
Employment	610 construction jobs and 20 additional operational jobs
Capital investment value (CIV)	\$332,032,973

2.3 Physical layout and design

2.3.1 The physical layout and design of the development is shown in **Figure 6** to **Figure 9** below. The proposed expansion presents as an eight-storey extension to the west of the existing data centre, and would be surrounded by an access road and new landscaping. The expansion has

been set back approximately 45 m from Talavera Road to help minimise its bulk and scale when viewed from the streetscape.

- 2.3.2 Level 1 of the expansion would primarily contain general plant areas and the development's diesel back-up generators, while levels 2 to 5 would contain most of the development's data halls, office space and electrical plant areas. The remainder of the development's back-up generators would be located on the roof of the proposed expansion, along with several electrical plant rooms and a single data hall.
- 2.3.3 The development's façade would be constructed from precast concrete panels in blue, with some black and white 'highlight' panels used to provide visual interest. Vertical louvres and expressed metal framing would also be used to create a clear separation between the main data centre building and those areas dedicated to office/plant space. The colours, materials and finishes proposed to be used in the development's façade have been designed to be durable, high quality and low maintenance.
- 2.3.4 All 8.8 m medium rigid vehicles (MRVs) and light vehicles accessing the site would enter and exit via a two-way driveway off Talavera Road, located in the north-western corner of the site. Access would be controlled via a security intercom and retractable bollards.
- 2.3.5 All other heavy vehicles, including 12.5 m heavy rigid vehicles (HRVs) and 19 m AVs, would enter via the north-eastern driveway, travel around the perimeter of the site and then exit via the north-western driveway.
- 2.3.6 Light vehicles would primarily park in the area located beneath the proposed building expansion. While the development would result in a reduction in overall parking spaces at the site (from 101 spaces to 71 spaces), an identical reduction was previously approved as part of Stage 2 of LDA2018/0322, as the site has a low traffic generation rate when compared to other land uses within Macquarie Park.

2.4 Process description

- 2.4.1 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).
- 2.4.2 The Applicant intends to lease space within the expansion's data halls to its tenant/s, who will undertake the fit-out of this space with their own computer systems, server systems and networking equipment. This IT hardware would be stored in racks designed to maximise the efficiency of the space.
- 2.4.3 The development would be cooled using a system of 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. 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.
- 2.4.4 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.

- 2.4.5 The site would be serviced by two additional underground feeder cables (33 kV each) from Ausgrid's existing power cable beneath Talavera Road. In the event of a full power outage (all site feeders are taken offline), lithium-ion batteries located in plant storage rooms would provide an uninterrupted power supply until the back-up generator system reaches full load.
- 2.4.6 Once they have reached full load, 21 diesel back-up generators would be used to provide continuous power to the development until power has been restored by Ausgrid. The Applicant anticipates that, on average, the back-up generators would be used to generate power for up to 34 minutes every 10 years (based on similar facility located in Eastern Creek).
- 2.4.7 To ensure the development can function during a power outage event, the Applicant would also undertake regular testing of each back-up generator. During such tests, an artificial load would be applied to the generators using an electrical switching device. Each back-up generator would be tested at maximum load for up to 60 minutes each quarter.
- 2.4.8 The generators would only be tested one at a time, and all testing would occur between the hours of 9:00 am to 4:00 pm on weekdays.

2.5 Comparison with the existing data centre campus

- 2.5.1 The development involves the expansion of an existing data centre campus, which has been progressively developed since 2011. A comparison between the existing campus and the development is provided in **Table 2** below.

Table 2 | Comparison of the existing and proposed development

Item	Existing site	SSD application	Total
Power consumption	28 MW	38 MW	66 MW
GFA	11,103 m ²	16,142 m ²	27,245 m ²
Building height	45 m	45 m	-
Number of back-up generators	16	21	37
Diesel fuel storage capacity	220,400 L	461,000 L	681,400 L
Staff	29	20	49
Parking spaces	101	71	71 ¹

¹ The parking reduction proposed under the SSD application is consistent with the reduction which was approved under Stage 2 of LDA 2018/0322.

2.6 Applicant's need and justification for the development

- 2.6.1 The Applicant has justified the need for the development by highlighting the growing demand for secure data storage and cloud-based infrastructure at a regional, State and national level.
- 2.6.2 The ongoing impact of the COVID-19 pandemic has radically changed the way Australians live and work and has driven a significant increase in demand for data storage services within the Sydney region. In recent years, the NSW government has recognised the importance of providing critical, national infrastructure such as data centres to enable the rapid digitalisation of the Australian economy.
- 2.6.3 In addition, the federal government has identified cyber security as one of six priority sectors within its *Industry Growth Centres Initiative* and has increasingly stressed the need for new sovereign and security-certified data storage space to be provided across the country.
- 2.6.4 The proposed expansion would allow the Applicant to further improve the operational efficiency of its existing data centre, while continuing to support the ongoing demand for secure, reliable data storage services from government authorities and private businesses.
- 2.6.5 In addition, the Applicant has advised that the development would:
- be consistent with the site's business park zoning and the strategic direction of the Macquarie Park business precinct as a digital innovation hub
 - generate additional employment opportunities in the Eastern Economic Corridor, comprising approximately 610 construction jobs and up to 20 additional knowledge-intensive operational jobs
 - provide a considered, sustainable design that is sympathetic to the surrounding area.

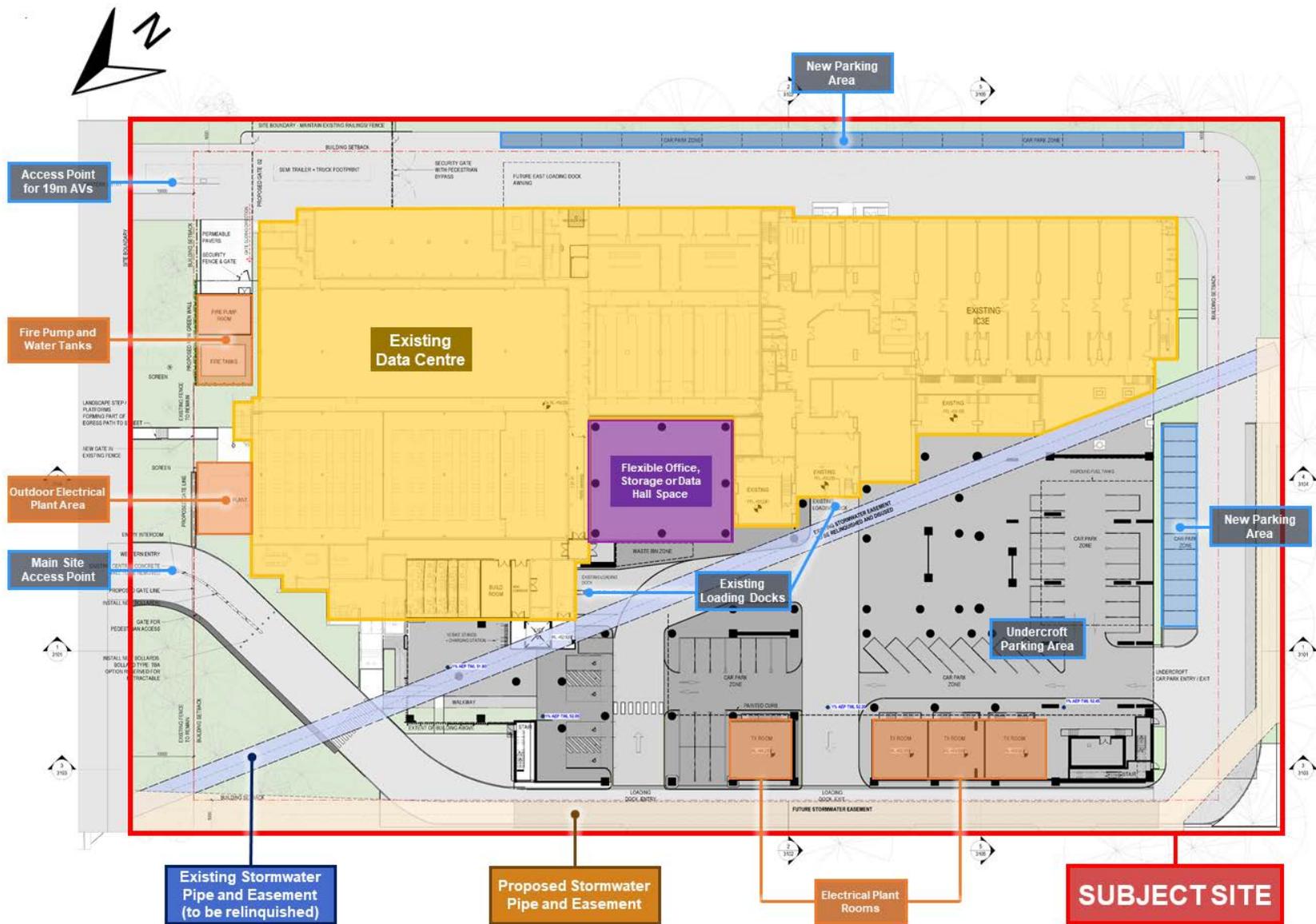


Figure 6 | Development layout (Ground floor)



Figure 7 | Typical development layout (Levels 3-5)

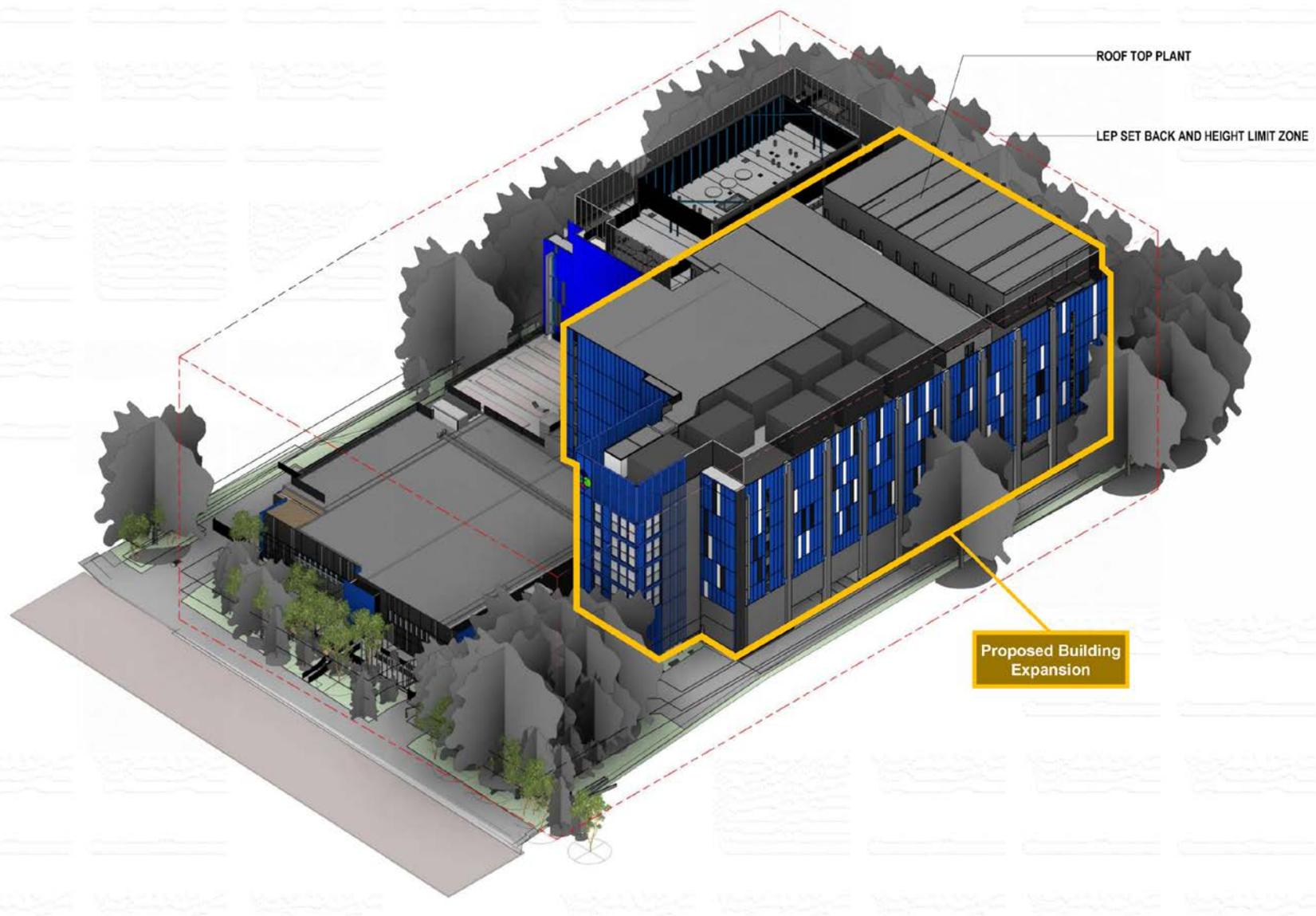


Figure 8 | 3D model of the site, with the development outlined in orange

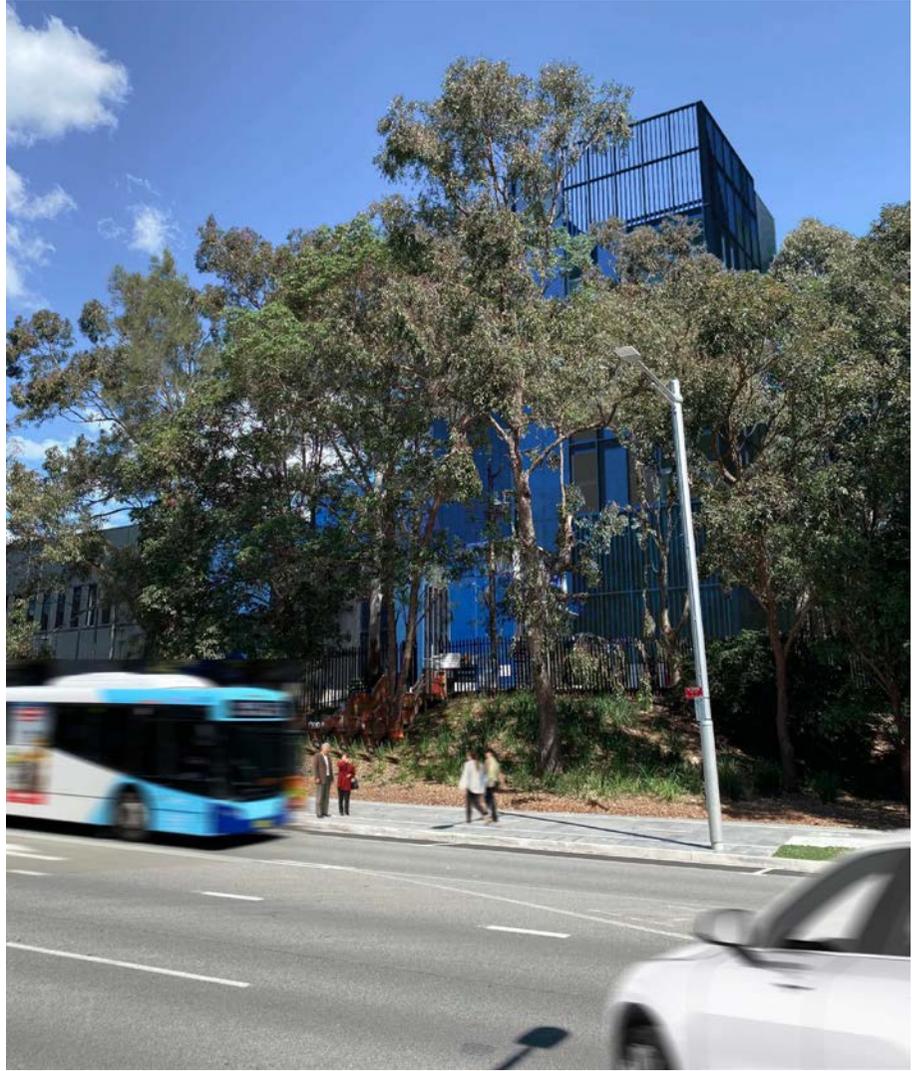


Figure 9 | Indicative views of the development, as seen from Talavera Road

3 Strategic Context

3.1 Greater Sydney Region Plan

3.1.1 In March 2018, the Greater Cities Commission (GCC) released the *Greater Sydney Region Plan: A Metropolis of Three Cities* (the Region Plan) which forms part of the integrated planning framework for Greater Sydney (see **Figure 10**). The Region Plan is built on a vision of three cities: the Western Parkland City, the Central River City and the Eastern Harbour City. The 40-year vision to 2056 brings new thinking to land use and transport patterns to boost Greater Sydney’s liveability, productivity and sustainability by spreading the benefits of growth.

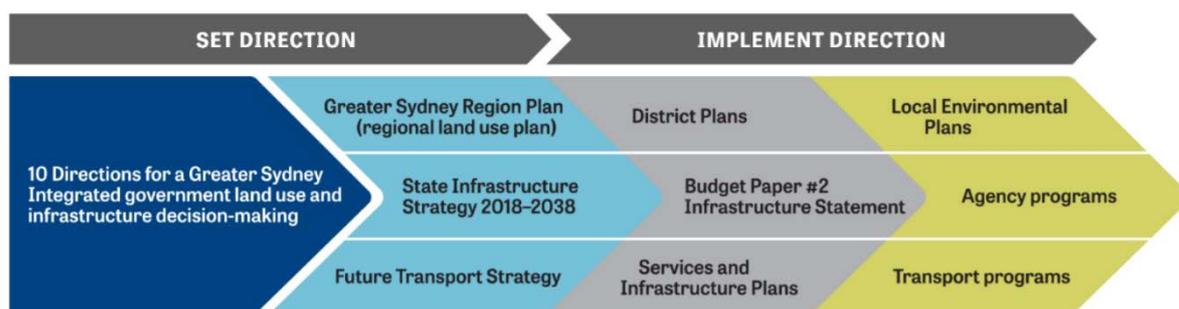


Figure 10 | Integrated Planning for Greater Sydney

3.1.2 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 the Eastern Economic Corridor, the development will support this objective of the Region Plan.

3.1.3 Objective 22 highlights that the retention and growth of existing and new commercial business precincts is essential to grow jobs and promote investment within Greater Sydney. As Strategy 22.1 separately notes, attracting new, diverse business activities to existing centres such as Macquarie Park will support the creation of additional job opportunities close to residential areas. By providing new jobs within close proximity to the Macquarie University metro station and the broader Eastern Economic Corridor, the development will support this objective and its associated strategies.

3.2 North District Plan

3.2.1 The GCC has released six district plans encompassing Greater Sydney, which guide the delivery of the Region Plan. The subject site is located within the North District, which forms a large part of the Eastern Harbour City.

3.2.2 The *North District Plan* (NDP) is a 20-year plan to manage economic, social and environmental matters in and around northern Sydney and the Eastern Economic Corridor. It is a guide for implementing the Region Plan at a district level and is a bridge between regional and local planning.

- 3.2.3 The development would assist in meeting actions 33, 36 and 39 of the NDP as it would provide new construction and knowledge-intensive operational jobs close to transport links and areas of high population growth, and further support Sydney's status as a global city.
- 3.2.4 The development would also assist in meeting actions 46 to 49 of the NDP as it would retain and improve the efficiency of employment-zoned land in the Eastern Economic Corridor, while providing an appropriate buffer to surrounding residential receivers.

3.3 Local Strategic Planning Statement

- 3.3.1 Council's *Planning Ryde – Local Strategic Planning Statement 2020* (LSPS) establishes the land-use planning framework for the City of Ryde LGA and provides a direct link between the NDP and the priorities outlined in Council's *Community Strategic Plan*.
- 3.3.2 The LSPS identifies the challenges and opportunities for the LGA, in the context of a growing population, improving liveability, changing climate, heritage constraints and traffic congestion. The document sets out planning priorities, objectives and actions to provide for City of Ryde's future needs while protecting its natural features and history.
- 3.3.3 The development would align with Planning Priorities EM1 to EM3 of the LSPS, through the provision of a new data centre and up to 20 additional knowledge-intensive operational jobs within the heart of the Macquarie Park business precinct.
- 3.3.4 The development would also align with Planning Priority M2 of the LSPS, as both the initial capital investment associated with the expansion and the ongoing costs associated with regular plant/equipment renewal will help to maintain the economic viability and longevity of the Macquarie Park business precinct.

4 Statutory Context

4.1 State significance

4.1.1 The proposal is State significant development pursuant to section 4.36 of the EP&A Act because it involves an expansion to an existing data centre with a total power consumption of more than 10 MW and for which the Planning Secretary's environmental assessment requirements were issued prior to 31 May 2023, which meets the criteria in clause 25 of Schedule 1 of the former State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

4.2 Permissibility

4.2.1 The site is zoned B7 – Business Park under the City of Ryde LEP 2014. Under clause 27 of the former State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP), development for the purposes of a data storage premises may be carried out by any person with consent on land in a B7 zone.

4.3 Consent authority

4.3.1 The Commission is designated as the consent authority for the development under section 4.5 of the EP&A Act and clause 8A of the SRD SEPP. This is because:

- Council has duly made an objection in accordance with the EP&A Act
- a political donation disclosure statement has been made by the Applicant.

4.4 Amended development application

4.4.1 Under section 55AA of the EP&A Regulation 2000, a development application may be varied by the Applicant at any time prior to determination, but only with the agreement of the consent authority.

4.4.2 On 8 November 2022, the Applicant requested to amend its development application to include:

- construction of a new 2,100 mm stormwater pipe and associated easement around the perimeter of the expansion, to replace the existing stormwater pipe traversing the site
- reconstruction of an existing Sydney Water sewer main to facilitate the new stormwater pipe
- removal of four trees from an adjacent property (Lot 3 DP 1043041) to facilitate the new stormwater pipe
- amendments to the design of the expansion resulting from the relocation of the existing stormwater pipe.

4.4.3 The amendments were proposed to address concerns raised by Council regarding the impact of the development upon the existing stormwater pipe and easement traversing the site.

4.4.4 On 14 November 2022, the Director, Industry Assessments, as delegate of the Commission, formally accepted submission of the amended development application in accordance with clause 55AA of the EP&A Regulation 2000.

4.5 Other approvals

- 4.5.1 Should development consent be granted, other approvals may be required in order 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.
- 4.5.2 In its submission, the Environment Protection Authority (EPA) advised the development does not constitute a scheduled activity under the *Protection of the Environment Operations Act 1997* (POEO Act), and subject to conditions, an Environment Protection Licence (EPL) is not required.
- 4.5.3 No other approvals listed under that section of the EP&A Act would otherwise be required, however, the Department has consulted with and considered the advice of the relevant State government authorities and Council in its assessment of the development and included suitable conditions in the recommended consent.

4.6 Mandatory matters for consideration

- 4.6.1 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 set out in **Section 6** and **Appendix B** of this report. In summary, the Department is satisfied the development is consistent with the requirements of section 4.15 of the EP&A Act.
- 4.6.2 Under section 4.15 of the EP&A Act, the consent authority, when determining a development application, must also take into consideration the provisions of any environmental planning instrument (EPI) and draft EPI (that has been subject to public consultation and notified under the EP&A Act) that apply to the development.
- 4.6.3 Since lodgement of the DA, the majority of all NSW State Environmental Planning Policies have been consolidated into 12 policies. The consolidated SEPPs commenced on 1 March 2022, with the exception of State Environmental Planning Policy (Housing) 2021, which commenced on 26 November 2021.
- 4.6.4 The SEPP consolidation does not change the legal effect of the repealed SEPPs, as the provisions of these SEPPs have simply been transferred into the new SEPPs. Further, any reference to an old SEPP is taken to mean the same as the new SEPP.
- 4.6.5 For consistency, the Department has considered the development against the relevant provisions of several key EPIs as in force at the time the SSD application was lodged, including:
- State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)
 - State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)
 - State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)
 - State Environmental Planning Policy No. 55 – Remediation of Land
 - draft State Environmental Planning Policy (Remediation of Land)
 - the City of Ryde LEP 2014.
- 4.6.6 Development control plans (DCPs) do not apply to SSD under clause 11 of the former SRD SEPP.

4.6.7 Detailed consideration of the provisions of all EPIs that apply to the development is provided in **Appendix C** of this report. The Department is satisfied the development complies with the relevant provisions of these EPIs.

4.7 Public exhibition and notification

4.7.1 In accordance with section 2.22 and Schedule 1 to the EP&A Act, the SSD application and any accompanying information is required to be publicly exhibited for at least 28 days. The application was on public exhibition from 18 November 2021 until 15 December 2021 (28 days). Details of the exhibition process and notifications are provided in **Section 5.1** of this report.

4.7.2 The Department, as delegate of the Commission, considered the amended application differs only in minor respects from the original application and decided not to re-exhibit the amended application. The amended application was, however, made publicly available on the Department’s website and provided to Council and Sydney Water (see **Section 5.5**).

4.8 Objects of the EP&A Act

4.8.1 In determining the SSD application, the consent authority must consider whether the development is consistent with the relevant objects of the EP&A Act. These objects are detailed in section 1.3 of the EP&A Act. The Department has fully considered the objects of the EP&A Act, including the encouragement of ecologically sustainable development (ESD), in its assessment of the SSD application (see **Table 3** below).

Table 3 | Considerations against the relevant objects of the EP&A Act

Object	Consideration
<p>1.3 (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,</p>	<p>The development would:</p> <ul style="list-style-type: none"> • ensure the proper management and development of suitably 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 610 construction jobs and 20 additional operational jobs in the Ryde LGA • promote a better environment through the retention of mature native trees and ensuring at least 14.8% of the site is dedicated to landscaping.
<p>1.3 (b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</p>	<p>The proposal includes several measures to deliver ESD, including:</p> <ul style="list-style-type: none"> • ensuring at least 14.8% of the site is dedicated to landscaping • installation of a green wall to screen the northern fire tank area from Talavera Road • selection of cooling and electrical plant to achieve a minimum Power Usage Efficiency (PUE) of 1.3 (equivalent to a National Australian Built

Object	Consideration
	<p>Environment Rating System (NABERS) rating of 5 stars)</p> <ul style="list-style-type: none"> the provision of up to 20 additional operational jobs within close proximity to public transport and active transport corridors.
<p>1.3 (c) to promote the orderly and economic use and development of land,</p>	<p>The development would meet the objectives of the zone by supporting and protecting land zoned for business uses. The data centre expansion would also provide economic benefit through job creation and infrastructure investment.</p>
<p>1.3 (e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</p>	<p>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.</p>
<p>1.3 (f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</p>	<p>The development is not anticipated to result in any significant impacts upon built and cultural heritage, including Aboriginal cultural heritage (refer to Section 6).</p>
<p>1.3 (g) to promote good design and amenity of the built environment,</p>	<p>The Department considers the development would provide good design and amenity of the built environment within the broader context of the Macquarie Park business precinct and the Eastern Economic Corridor.</p>
<p>1.3 (h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</p>	<p>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 (refer to Appendix B).</p>
<p>1.3 (i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</p>	<p>The Department publicly exhibited the application as outlined in Section 5.1 of this report, which included consultation with Council and other relevant State government authorities and subsequent consideration of their responses.</p>
<p>1.3 (j) to provide increased opportunity for community participation in environmental planning and assessment.</p>	<p>The Department publicly exhibited the application as outlined in Section 5.1 of this report, which included notifying adjoining landowners/occupiers and displaying the SSD application on the NSW Planning Portal.</p>

4.9 Legislative amendments

- 4.9.1 The Department notes that, since lodgement of the SSD application, the EP&A Regulation 2000 has been repealed by the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation 2021).
- 4.9.2 Under Schedule 6(3) of the 'savings, transitional and other provisions' of the EP&A Regulation 2021, the EP&A Regulation 2000 continues to apply (instead of the new EP&A Regulation 2021) to development applications which were made, but not finally determined, before 1 March 2022. As the SSD application was lodged on 12 November 2021, the application has been assessed with regard to the requirements of the EP&A Regulation 2000.

4.10 Biodiversity development assessment report

- 4.10.1 Under section 7.9(2) of the *Biodiversity Conservation Act 2016* (the BC Act), SSD applications are to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine the development is not likely to have any significant impact on biodiversity values.

Original SSD application

- 4.10.2 A BDAR waiver request was submitted to the Department prior to the SSD application being lodged on the basis that the likelihood of remnant native vegetation communities occurring at the site was extremely low and no threatened ecological communities had been previously mapped on-site.
- 4.10.3 The Environment Agency Head and the Director, Industry Assessments, as delegate of the Planning Secretary, determined the development is not likely to have any significant impact on biodiversity values. A BDAR waiver under section 7.9(2) of the BC Act was subsequently granted for the development on 28 September 2021.

Amended SSD application

- 4.10.4 As part of ongoing negotiations with Council, the Applicant advised the Department of its intention to amend the subject SSD application to include the relocation of Council's stormwater pipe to run around the data centre building (see **Section 4.4** above).
- 4.10.5 As the relocation works would require the removal of additional trees within the north-western corner of the site, the Department recommended the Applicant prepare and submit an updated BDAR waiver request for the proposal.
- 4.10.6 An updated BDAR waiver request was submitted to the Department on 12 September 2022 and included further assessment of the proposal against the eight biodiversity values contained within section 1.5 of the BC Act and clause 1.4 of the Biodiversity Conservation Regulation 2017. The updated BDAR waiver request concluded the amended development proposal would have a negligible impact upon these biodiversity values when compared to the original proposal.
- 4.10.7 The Environment Agency Head and the Director, Industry Assessments, as delegate of the Planning Secretary, subsequently determined the amended development proposal is not likely to have any significant impact on biodiversity values. A new BDAR waiver under section 7.9(2) of the BC Act was granted for the development on 24 October 2022.

4.11 Ecologically sustainable development

4.11.1 The EP&A Act adopts the definition of 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.

4.11.2 The potential environmental impacts of the development have been assessed and environmental safeguards have been recommended to manage potential impacts. Several ESD initiatives and sustainability measures are proposed to be incorporated into the design of the development, including:

- ensuring at least 14.8% of the site is dedicated to landscaping
- installation of a green wall to screen the northern fire tank area from Talavera Road
- selection of cooling and electrical plant to achieve a minimum PUE of 1.3 (equivalent to a NABERS rating of 5 stars)
- provision of up to 20 additional operational jobs within close proximity to public transport and active transport corridors.

4.11.3 As demonstrated by the Department's assessment, the development is not anticipated to have any adverse impacts on native flora or fauna, including threatened species, populations and ecological communities, and their habitats.

4.11.4 While the development would require the removal of 83 trees (including 4 trees from neighbouring properties), this vegetation is not consistent with any remnant native vegetation communities and is relatively isolated from surrounding native vegetation clusters and riparian corridors. In addition, the Applicant has committed to planting 83 new trees within the development site.

4.11.5 As such, the Department considers the development would not adversely impact on the environment and is consistent with the objects of the EP&A Act and the principles of ESD.

4.12 Commonwealth matters

4.12.1 Under the *Environment Protection and Biodiversity Conservation Act 1999*, a separate approval is required from the federal 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'.

4.12.2 The Applicant's EIS 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 federal government was not required.

5 Engagement

5.1 Consultation

5.1.1 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 then 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.

Consultation by the Applicant

5.1.2 The Applicant undertook a range of consultation activities throughout the preparation of the EIS, including:

- meeting with Council on two occasions
- distribution of an information postcard to approximately 1,500 households and businesses in the vicinity of the site
- provision of an online community information session
- establishment of a dedicated project website
- email/letter correspondence with key stakeholders, utility providers and other government authorities.

Consultation by the Department

5.1.3 After accepting the SSD application and EIS, the Department:

- made the documentation publicly available from 18 November 2021 until 15 December 2021 (28 days) on the NSW Planning Portal
- notified landowners/occupiers in the vicinity of the site about the exhibition period by letter
- notified and invited comment from relevant public authorities, utility providers and Council.

5.2 Submissions and advice

5.2.1 During the exhibition period, the Department received one submission from Council and advice from five government authorities. Of the submissions and advice received, only Council objected to the development. No submissions were received from members of the public.

5.2.2 A summary of the submissions and advice received is provided below. A link to all correspondence received during the exhibition period is provided in **Appendix A** of this report.

Key issues – Government authorities

5.2.3 **Council** objected to the development and advised the Department that it did not support the location of the proposed data centre expansion as it would unnecessarily encumber the underground stormwater pipe and associated easement which traverses the site. Council noted the Applicant should be required to relocate the stormwater pipe and easement to run around the perimeter of the expanded data centre, prior to the commencement of construction of the proposed expansion.

- 5.2.4 In addition, Council raised a number of concerns in relation to the development's design including, but not limited to:
- the removal of trees both on and in the vicinity of the site
 - the design of the development's stormwater management system
 - the impact of the development upon the existing overland flow path which traverses the site
 - the location of parking areas within the rear and side setback areas
 - the level of landscaping provided within the rear and side setback areas
 - potential visual impacts associated with the design of the development's façade.
- 5.2.5 **Fire and Rescue NSW** (FRNSW) recommended the Applicant be required to prepare a Fire Safety Study (FSS) to the satisfaction of the authority prior to the commencement of construction, and that a comprehensive Emergency Plan be prepared for the site prior to the commencement of operation.
- 5.2.6 The **EPA** advised the development does not constitute a scheduled activity under the POEO Act, and subsequently recommended a condition of consent be imposed limiting the use of the back-up generators (including for testing purposes) to a maximum of 200 hours each year.
- 5.2.7 **Transport for NSW** (TfNSW) noted that Talavera Road is a regional unclassified road and, consequently, indicated the development's access arrangements and any associated mitigation measures should be to the satisfaction of Council as the relevant roads authority.
- 5.2.8 The Department's **Biodiversity and Conservation Division** (now Environment and Heritage Group) advised it had no comments in relation to biodiversity and that the authority was satisfied that any potential flooding impacts associated with the development would be adequately addressed by the proposed management and mitigation measures.

5.3 Finalised Aboriginal cultural heritage assessment report

- 5.3.1 The development's EIS was accompanied by a draft Aboriginal Cultural Heritage Assessment Report (ACHAR), as the final round of consultation with Registered Aboriginal Parties (RAPs) overlapped with the SSD application's public exhibition period.
- 5.3.2 The finalised ACHAR was submitted to the Department on 10 December 2021, and concluded the site is of low socio-cultural, historic or aesthetic significance and is unlikely to contain any intact archaeological deposits.
- 5.3.3 This document was subsequently provided to Heritage NSW to determine whether it had adequately considered the potential impact of the development upon Aboriginal heritage values.
- 5.3.4 **Heritage NSW** concurred with the findings of the ACHAR and provided its support for all the recommendations made in relation to the management of Aboriginal cultural heritage at the site. This included the implementation of an unexpected Aboriginal finds protocol and an unexpected human remains procedure for the duration of construction works.

5.4 Post-exhibition consultation

- 5.4.1 Over the course of 2022, the Department met with Council and the Applicant on multiple occasions to discuss the level of additional information which would be required to adequately resolve the concerns raised by Council in relation to the existing stormwater pipe and easement.

- 5.4.2 The Department also sought advice from its Chief Engineer regarding the likely impact of the development upon the existing stormwater pipe, the suitability of the Applicant's flood model and the design of the development's stormwater management system.
- 5.4.3 Throughout this process, the Department emphasised that, irrespective of whether the relocation of the existing stormwater pipe formed part of the subject SSD application, an agreement would need to be reached between Council and the Applicant to facilitate the relocation of the 'future' stormwater easement which was approved under LDA2018/0322 (see **Section 1.5**).
- 5.4.4 During these meetings, the Applicant maintained that the construction of the development over the existing stormwater pipe was an acceptable design solution as:
- this arrangement would be consistent with the Section 34 agreement reached with Council for LDA2018/0322 (i.e. the existing pipe would be built over and a 'future' easement option would be provided so that the pipe could be relocated by Council at a future date)
 - the existing stormwater pipe was in good condition and would not require replacement for at least 50 years
 - the design of the undercroft area would not prevent or obstruct Council's access to the stormwater pipe or the associated easement for maintenance purposes.
- 5.4.5 In contrast, Council reiterated its position that the Applicant should be required to pay the full cost of relocating the stormwater pipe and easement, and that these works should be completed prior to the development being constructed. In addition, Council noted:
- it was unclear whether the owner of the site would be amenable to the relocation of the 'future' stormwater easement
 - it was unclear whether Sydney Water would support the 'future' stormwater easement route proposed by the Applicant, as this route would intersect with that authority's existing on-site sewer main
 - a significantly longer length of stormwater pipe would be impacted by the building's footprint (when compared to the works which were approved under LDA2018/0322)
 - while maintenance works within the proposed undercroft area may be feasible, it is not reasonable to burden Council with the cost of undertaking maintenance works in such a constrained space, under a building/ land use which would be extremely sensitive to vibration impacts.

Introduction of the stormwater relocation works into the SSD application

- 5.4.6 To resolve the impasse between both parties, the Department suggested Council and the Applicant consider whether the SSD application could be amended to include the construction of a new 2,100 mm stormwater pipe around the perimeter of the expanded data centre, to replace the existing stormwater pipe traversing the site.
- 5.4.7 To align with the approach followed under LDA2018/0322, the Department also suggested that the costs associated with the relocation works could be partly funded by Council via its stormwater infrastructure program.
- 5.4.8 Both Council and the Applicant were amenable to this approach, and subsequent discussions between the two parties focused upon the detailed engineering design for the new stormwater

pipe. Where necessary, the Chief Engineer provided further advice to the Department to facilitate resolution of outstanding queries raised by Council's engineering team.

- 5.4.9 Throughout this process, Council noted it would not be in a position to discuss any commercial arrangements regarding the relocation works (including associated cost-sharing arrangements) until the engineering design for the new pipe and easement had been finalised.
- 5.4.10 In August 2022, Council advised the Department that the draft engineering plans for the relocation works were acceptable in principle. The Applicant subsequently provided Council with a copy of a draft agreement covering the relocation works. This agreement proposed that both parties enter into a cost-sharing arrangement, whereby Council's share of the relocation costs would be offset using contribution/ fee credits for the subject SSD application and any future development applications undertaken by the Applicant.
- 5.4.11 On 7 November 2022, Council met with the Applicant and advised it did not support the proposed cost sharing arrangement. As the need for a new stormwater pipe and associated easement is being driven by the Applicant's plans to expand its existing data centre, Council reiterated that the costs associated with these works should be entirely borne by the Applicant.

5.5 Amendment report

- 5.5.1 As a result of the aforementioned discussions, the Applicant requested to amend its SSD application to include the relocation of the existing stormwater pipe and easement. This request was accepted by the Director, Industry Assessments under the delegation of the Commission (see **Section 4.4**).
- 5.5.2 The request was supported by an Amendment Report, which was prepared with regard to the Department's *State significant development guidelines – Preparing a submissions report* guideline.
- 5.5.3 Additional documentation was also provided to address the concerns raised by Council and government authorities, including:
- an updated stormwater management report, which includes detailed engineering plans for both the stormwater pipe and the sewer main relocation works
 - a structural certificate from a suitably qualified engineer, which confirms the decommissioning/grout filling of the existing stormwater pipe (once the new pipe has been constructed) would not cause any damage to existing or proposed on-site structures
 - a revised flood impact assessment, which confirms all habitable finished floor levels would be located above the 1% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) levels and that the development's location over an existing overland flow path would not result in significant flood impacts on the site or in adjacent properties
 - an updated arboricultural impact assessment, which provides clarification regarding the total number of trees which would be impacted and/or require removal to facilitate both the data centre expansion and the stormwater pipe relocation works
 - evidence of landowner's consent for the four trees located adjacent to the rear site boundary which would be impacted by the route of the new stormwater pipe
 - updated landscape plans for the development, which include an increased landscaping setback along the site's rear boundary and the proposed planting of 83 new trees to replace those which require removal.

- 5.5.4 The Amendment Report was made publicly available on the Department's website and provided to Council to consider whether it adequately addressed the outstanding issues raised. The document was also provided to Sydney Water for consideration, as the authority's existing 300 mm sewer main would need to be relocated to facilitate the stormwater pipe relocation works.
- 5.5.5 As the Amendment Report did not clearly indicate the Applicant's intention to cover all costs associated with the relocation works, **Council** reiterated its previous advice that these costs should be borne by the Applicant, and that an associated agreement between all relevant parties (including the landowner) would need to be in place before the SSD application could be determined.
- 5.5.6 **Sydney Water** confirmed that an adjustment and deviation application had already been lodged with the authority and that it had no specific objections in relation to the relocation of its existing sewer main. Sydney Water also noted the site is located within a constrained servicing area and, consequently, recommended the Applicant commence the Section 73 application process as soon as possible to prevent any future delays for the development.

5.6 Additional information

- 5.6.1 Following receipt of Council's response to the Amendment Report, the Applicant liaised with Council directly and confirmed it would pay the full cost of the stormwater pipe relocation works. This was supported by a draft agreement covering the works, which would be executed between the Applicant, Council and the site owner.
- 5.6.2 While negotiations on the agreement progressed, Council provided recommended conditions to be incorporated into any development consent. These included conditions on a range of issues such as the stormwater pipe relocation works, decommissioning of the existing pipe, the public domain, roadworks, flood management and utility and asset protection.
- 5.6.3 Following further negotiations between the three parties, a formal agreement covering the relocation of the stormwater pipe and the associated easement was executed on 7 November 2023.
- 5.6.4 The Department has considered the issues raised in submissions, the Amendment Report and the additional information provided during its assessment of the development. A summary of the Department's consideration of community views is provided in **Appendix D** of this report.

6 Assessment

- 6.1.1 The Department has considered the EIS, the issues raised in submissions and government agency advice, the Applicant's Amendment Report and additional information provided, in its assessment of the development. The Department considers the key assessment issues to be:
- noise and vibration
 - air quality
 - stormwater and flooding.
- 6.1.2 A number of other issues have also been considered. These issues are considered to be relatively minor and are assessed in **Table 9** under **Section 6.5** of this report.

6.2 Noise and vibration

- 6.2.1 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.
- 6.2.2 The development would involve the construction of an eight-storey extension to an existing data centre over a period of approximately 24 months. Construction works would be undertaken in accordance with the hours specified in **Table 4** below.
- 6.2.3 While the construction hours for minor earthworks and civil works (including the stormwater pipe relocation works) would be consistent with the recommended standard construction hours in the EPA's *Interim Construction Noise Guideline* (ICNG) (DECC, 2009), the Applicant has sought to undertake construction and fit-out of the main data centre building during extended construction hours. No works would be undertaken on public holidays.

Table 4 | Proposed construction hours

Day	Minor earthworks/civil works	Building construction and fit-out
Monday to Friday	7:00am to 6:00pm	6:00 am to 7:00 pm
Saturdays	8:00am to 1:00pm	6:00 am to 5:00 pm
Sundays	No works	7:00 am to 3:00 pm

- 6.2.4 The development's main operational noise sources include those associated with the proposed cooling system (AHUs, chillers, cooling towers, water pumps, etc) and back-up power system (diesel generators). Other sources of operational noise include vehicle movements to and from the site and manoeuvring around the main data centre building.
- 6.2.5 The original EIS included an acoustic report prepared by Renzo Tonin and Associates, which considered both construction and operational noise impacts. During consultation on the EIS, no comments were made regarding construction or operational noise impacts by Council and the EPA. However, the Department requested the Applicant provide further information to justify construction works being undertaken outside the recommended standard construction hours outlined in the ICNG, and to clarify some of the matters which informed the operational noise model.

6.2.6 The Applicant subsequently provided an updated version of the acoustic report to address these concerns. Minor updates were also made to the construction and operational noise models to reflect the introduction of the stormwater relocation works and the subsequent amendments made to the design of the proposed extension (see **Section 2.1**).

Construction

6.2.7 The Applicant's acoustic report noted that construction of the development would occur across three separate stages:

- Stage 1 (6 months) – Minor earthworks and civil works, including piling
- Stage 2 (6 months) – Construction of the main data centre building
- Stage 3 (9 months) – Fit-out of the data centre building, including associated operational plant and equipment.

6.2.8 Major plant equipment to be used during the construction works would include a vibratory roller, grader, piling rig, truck-mounted cranes, excavators, trucks and hand tools.

6.2.9 The acoustic report found the proposed construction activities would achieve compliance with the relevant noise management level (NML) at most nearby sensitive receivers, including all nearby residential receivers.

6.2.10 During the Stage 1 works, exceedances of the NML by 1-3 dB may be experienced at Receiver R22 (an adjoining commercial office building) during the Stage 1 works, particularly when noisy construction equipment is operating in close proximity to the site's southern boundary.

6.2.11 Exceedances of the NML by 2-6 dB have also been predicted at Receiver R13 (an education facility known as Excelsia College) during all construction phases. However, the Applicant noted the modelled construction scenarios are based on a 'worst case' scenario with the three noisiest pieces of equipment operating concurrently. Actual noise levels at Excelsia College are expected to vary depending on the type of works being undertaken, the proximity of the works to the southern boundary, and whether there is a direct line-of-sight between the noise source and the receiver.

6.2.12 To address construction noise impacts, the Applicant has identified a number of possible management and mitigation measures in the acoustic report, with specific emphasis placed upon establishing good relationships with potentially affected receivers for the duration of works. Such measures would include direct consultation with the operators of Excelsia College to inform the detailed design of construction mitigation measures (e.g. barriers, respite periods, etc), implementation of a comprehensive complaints management system, selection of quieter plant and alternative work methods (where reasonable and feasible), staging of construction works to prioritise the erection of solid external walls and the use of acoustic silencing devices.

6.2.13 With regard to construction risk associated with vibration intensive works, the Applicant noted compliance with vibration limits is likely to be achieved given the separation distances between the site and nearby sensitive receivers. Notwithstanding, to address and manage any unforeseen vibration impacts, the Applicant would ensure a management procedure is prepared and implemented should any vibration complaints be received.

6.2.14 As the SSD application is seeking consent for works to be undertaken outside of the standard construction hours identified in the ICNG, the Department requested the Applicant provide

further justification for the proposed construction hours. The ICNG notes that such works may only be undertaken where an applicant has demonstrated and justified a clear need to operate outside of these hours for reasons other than convenience.

- 6.2.15 The Applicant subsequently advised the Department the primary purpose of the proposed construction hours is to limit the impact of construction works on surrounding businesses, including Excelsia College. In this regard, the Applicant noted:
- minor earthworks and civil works (the noisiest construction activities) would only be carried out during standard construction hours
 - the extended construction hours would help to minimise the development's construction traffic and parking impacts on the surrounding area (including impacts associated with the delivery of large equipment)
 - the extended hours would facilitate flexible working hours and greater work hours outside of periods with a high UV index
 - the extended hours would facilitate a shorter construction timeline and earlier return to normal operations
 - Excelsia College and Receiver R22 (the closest sensitive receivers) are less likely to be operational during the extended construction hours.
- 6.2.16 The Department has considered the time and circumstances in which construction work will be carried out, as well as the volume, intensity and duration of the noise levels that will be experienced during the extended hours of construction.
- 6.2.17 The Department has also looked further into the hours of operation for nearby sensitive receivers, and notes that Excelsia College (the closest, most affected sensitive receiver) currently operates from 5:30am to 10:00pm, Mondays to Fridays and from 7:30am to 7:00pm on Saturdays.
- 6.2.18 In light of the above, the Department considers the predicted exceedances of the relevant NML at nearby commercial and education receivers (including Excelsia College) are likely to interfere with the convenience and comfort of these receivers during the extended hours of construction. Accordingly, the proposed construction hours cannot be justified at this point in time.
- 6.2.19 Overall, the Department is satisfied construction noise management levels will be met at residential receivers and notes no submissions were received from members of the public or local businesses. The Department also acknowledges the noise modelled, represents a worst-case scenario, with noise experienced at nearby businesses expected to vary throughout the course of the construction period and the proximity to the receiver. Furthermore, no receiver is predicted to be highly noise-affected (that is, experience noise above 75 dBA).
- 6.2.20 To ensure construction noise is appropriately managed, construction hours are recommended to be restricted to the standard hours outlined in the ICNG (being 7 am to 6 pm Monday Friday, 8 am to 1 pm on Saturdays and at no time on Sundays or public holidays).
- 6.2.21 While construction works would be limited to standard construction hours, the Department notes the recommended conditions of consent provide opportunity for the Applicant to request the Planning Secretary's approval for short-term 'out of hours' work such as concrete pours, where the merits of such work can be demonstrated and/or where the proposed construction activities are inaudible at nearby sensitive receivers.

6.2.22 Furthermore, the Department recommends the preparation and implementation of a construction noise and vibration management plan (CNVMP). The CNVMP will require the Applicant to consult with nearby sensitive receivers (including Excelsia College) to develop specific management measures for high noise-generating works, and would also outline how and when the general management and mitigation measures described above would be implemented during construction.

Operation

6.2.23 The acoustic report provided a quantitative assessment of operational noise impacts, including noise associated with the proposed cooling system and the regular testing of back-up generators. The Applicant's noise modelling included consideration of two worst-case 15-minute scenarios:

- Normal operations – the existing and proposed data centres operating at full capacity (excluding back-up generators)
- Generator maintenance testing – the existing and proposed data centres operating at full capacity, with one back-up generator operating at full capacity (closest generator to nearby sensitive receivers).

6.2.24 In their submissions on the EIS, both Council and the EPA did not raise any concerns in relation to operational noise. Following its review of the EIS, the Department requested the Applicant clarify the following matters:

- whether background noise measurement data obtained at Monitoring Location 2 (L2) was still relevant, as it was recorded in 2016
- whether on-site verification measurements were undertaken to verify existing site noise emissions
- why an 'emergency' scenario (all back-up generators operating during a power outage event) was not modelled in the acoustic report, particularly given this scenario was considered elsewhere as part of the air quality assessment.

6.2.25 In response, the Applicant noted the noise criteria for residential properties in the vicinity of L2 was established using the amenity criteria established in Section 2.4 of the *Noise Policy for Industry* (not the data obtained at L2), as this was the more stringent criteria.

6.2.26 The Applicant updated the acoustic report to more clearly identify where noise emissions data for on-site plant had been informed by verification measurements and where it had been sourced from the manufacturer's specifications. The noise model was also updated to reflect the changes made to the design of the proposed extension under the amended SSD application (see **Section 2.1**).

6.2.27 While the acoustic report has not considered the use of all back-up generators during a power outage event, the Applicant has highlighted that the likelihood of such an event occurring is extremely low. On average, the Applicant anticipates the back-up generators would be required to operate for a maximum of 8.2 hours each year (based on 2016-2020 data from the existing data centre at the site).

6.2.28 The updated acoustic report subsequently found the development would comply with the relevant noise criteria at all surrounding sensitive receivers during typical day-to-day operations, and subject to the implementation of the following management and mitigation measures:

- back-up generators would be tested one at a time during daylight hours
- back-up generators would be located within acoustically treated plant rooms or enclosures
- all fans would be mounted on vibration isolators and balanced in accordance with *AS 2625.4-2003 Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts* (Standards Australia, 2003).

6.2.29 The Department has carefully considered the Applicant’s assessment and is satisfied the operation of the development will comply with the relevant requirements of the *Noise Policy for Industry* at all nearby sensitive and commercial receivers.

6.2.30 To ensure potential noise and air quality impacts associated with the back-up generator system are appropriately managed (refer to **Section 6.3** below), the Department has recommended a condition of consent be imposed to ensure generators are only tested during daylight hours on weekdays and that the Applicant maintains a log of all back-up generator tests undertaken at the site.

6.2.31 The Department has also proposed operational noise limits for residential properties which are in line with the noise criteria specified in the updated acoustic report. Given the distance between the site and nearby residential areas, intermediate compliance locations (Compliance Point 1 and 2) have been established within the site’s north-eastern and south-western corners, in accordance with Section 7 of the *Noise Policy for Industry* (see **Table 5** and **Figure 10**).

Table 5 | Proposed noise limits (dB(A))

Location	Night-time period ²
	L _{Aeq} (15 minute)
Compliance Point 1 (CP1)	60
Compliance Point 2 (CP2)	60
Residential receivers in NCA01	43
Residential receivers in NCA02	43
Residential receivers in NCA03	38

6.2.32 To ensure the development is operated in a manner that is compliant with the noise limits, the Department has recommended a condition requiring the Applicant to prepare and submit a noise verification report within three months of the commencement of full operation of the data centre (being when all data storage equipment and associated infrastructure is in place and operating). 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.

² The night-time period is defined as 10pm to 7am, Monday to Saturday and 10pm to 8am on Sundays and public holidays.

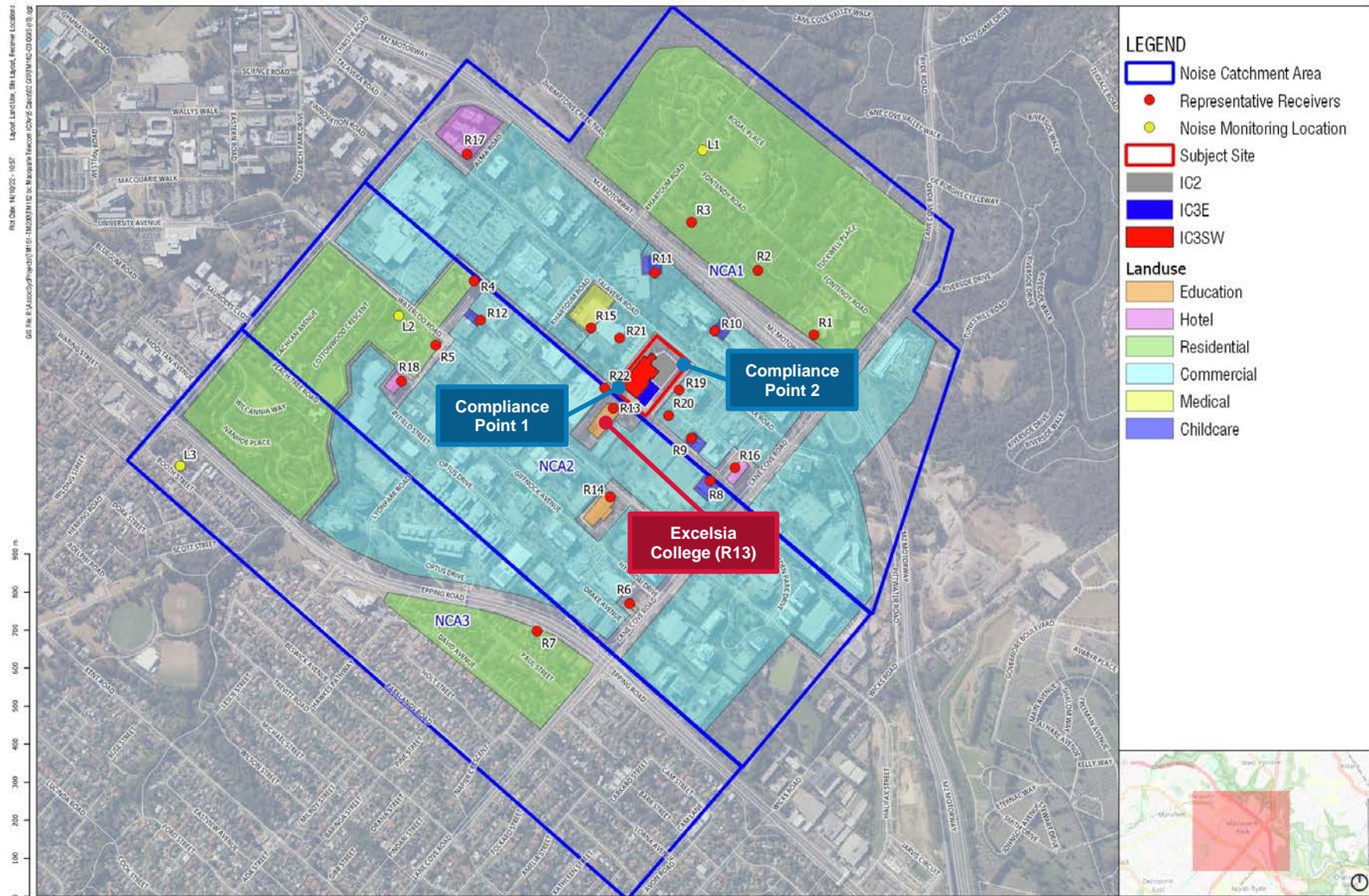


Figure 11 | Noise catchment areas (NCAs) and proposed compliance points

Conclusion

- 6.2.33 The Department's assessment concludes noise impacts associated with the construction of the development are expected to be acceptable given the assessment is worst case and can be appropriately managed through the preparation and implementation of a CNVMP in conjunction with standard construction hours.
- 6.2.34 With regard to operational impacts, the Department's assessment concludes the Applicant's updated acoustic report is conservative and that operational noise generated by the development will comply with the relevant requirements of the *Noise Policy for Industry*. The Department has recommended a number of conditions to ensure the development is operated in accordance with the assumptions adopted in the updated acoustic report and the Applicant's associated management and mitigation measures.
- 6.2.35 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 Air quality

- 6.3.1 The construction and operation of the development has the potential to result in air quality impacts to surrounding sensitive receivers.
- 6.3.2 The primary emissions from the development would include:
- particulate matter and dust emissions generated during construction works
 - potential exhaust emissions associated with the testing and operation of the development's back-up generator system.
- 6.3.3 The EIS included an air quality assessment which was prepared with regard to the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (Approved Methods). Following its review of the EIS, the Department requested the air quality assessment be updated to include consideration of potential impacts to commercial and industrial receptors (as per the requirements of the Approved Methods) and to clarify some of the assumptions which had informed the operational air quality model.
- 6.3.4 The Applicant subsequently provided a revised version of the air quality assessment to address these concerns. Minor updates were also made to the construction and operational air quality models to reflect the introduction of the stormwater relocation works and the amendments made to the number of back-up generators proposed at the site (see **Section 2.1**).
- 6.3.5 The revised air quality assessment provided an assessment of potential air quality impacts at representative sensitive receivers surrounding the site (see **Figure 12**), including a mix of residential, commercial, industrial, open space and educational receivers.

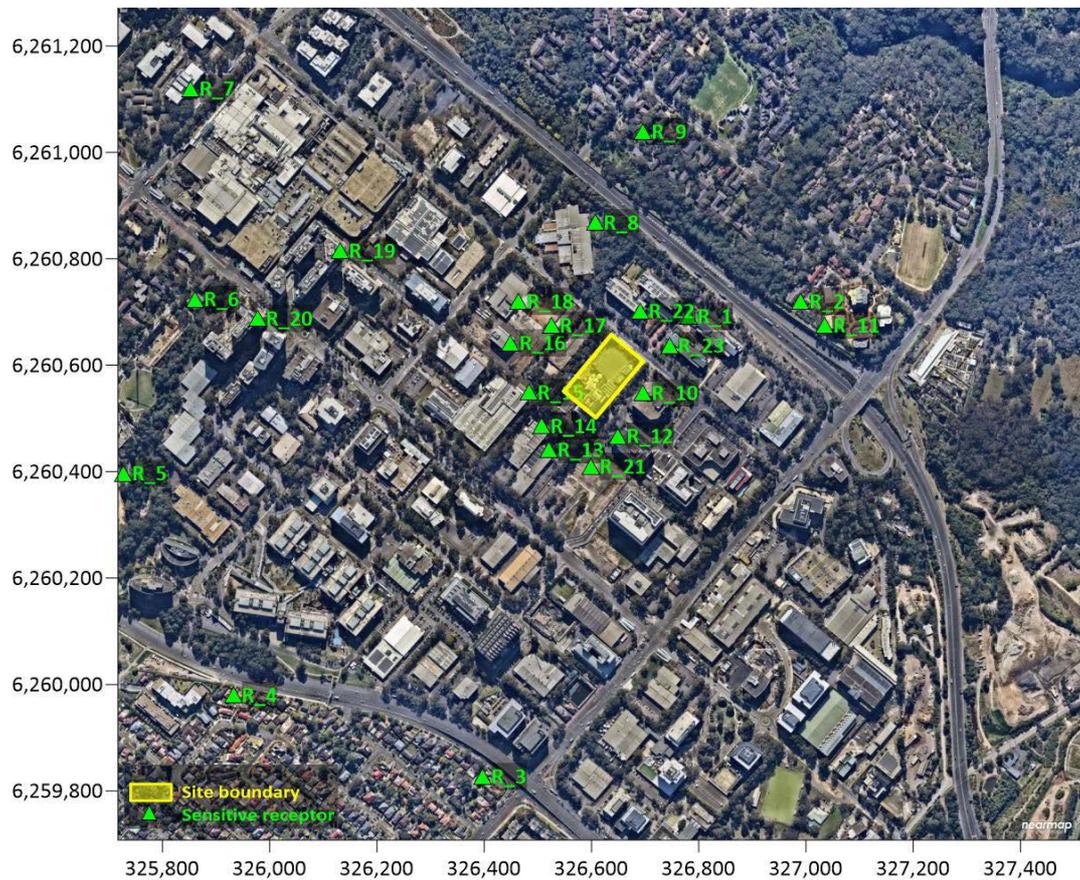


Figure 12 | Overview of sensitive receptors considered within the revised air quality assessment

Construction

- 6.3.6 During construction, dust and particulate emissions may be generated during bulk earthworks, civil works (including the installation of the new stormwater pipe) and the erection of the expansion building. Construction of the development would be carried out concurrently with the operation of the existing data centre and is expected to take up to 24 months to complete.
- 6.3.7 The revised air quality assessment concluded the sensitivity of the surrounding area to dust and particulate emission impacts during construction would be low or negligible, subject to the Applicant implementing standard mitigation measures as part of a Construction Environmental Management Plan (CEMP) for the development.
- 6.3.8 The Applicant would also undertake daily environmental inspections during construction, which would include:
- visual inspections of any airborne dust being generated on-site or being observed blowing off-site
 - ensuring there is no observable soil tracking onto the surrounding road network
 - regular inspections of the erosion and sediment control system to ensure any silt build-up is removed
 - regular inspections of stockpiles and waste storage areas to ensure no significant wind erosion occurs.
- 6.3.9 In its submissions on the EIS and Amendment Report, Council did not raise any concerns in relation to construction air quality impacts.

6.3.10 The Department has reviewed the revised air quality assessment and is satisfied air emissions associated with the construction of the development would be minimal and can be appropriately managed through the preparation and implementation of a CEMP.

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

Operation

6.3.12 Key pollutants associated with the operation of the development would be carbon monoxide (CO), oxides of nitrogen (NO_x), particulate matter (PM_{2.5} and PM₁₀), sulfur dioxide (SO₂) and polycyclic aromatic hydrocarbons (PAHs). These potential exhaust emissions are associated with the combustion of diesel fuel in the back-up generators.

6.3.13 The original air quality assessment considered the development's potential air quality impacts in the context of two realistic operating scenarios:

- 'typical operations' scenario – five back-up generators being tested concurrently for 60 minutes per day
- realistic 'worst case' scenario – all 37 back-up generators (16 existing, 21 proposed) operating concurrently during a power outage event (e.g. during severe weather events and/or planned works by electricity distributor).

6.3.14 In order to assess the operation of the generators under varying meteorological conditions and periods of elevated background pollutant concentrations, the 'typical operations' scenario conservatively assumed testing of the back-up generators is conducted every hour of the year between 9:00am and 5:00pm. In a similar manner, the realistic 'worst case' scenario has modelled all 37 back-up generators running concurrently across every hour of the year.

6.3.15 The revised air quality assessment found that no exceedances of the relevant air quality criteria were predicted at surrounding sensitive receivers for all key pollutants during the 'typical operations' scenario. In addition, the assessment noted that actual pollutant concentrations at surrounding sensitive receptors are likely to be considerably lower than predicted. This is because while the assessment assumed that up to five back-up generators would be tested at any one time, only one back-up generator would be tested at a time under the Applicant's proposed testing regime (see **Section 2.4**).

6.3.16 With regard to the realistic 'worst case' scenario, the revised assessment found that no exceedances of the relevant air quality criteria for CO, SO₂ and PAHs were predicted at nearby sensitive receptors. However, a number of exceedances were predicted for PM₁₀, PM_{2.5} and nitrogen dioxide (NO₂). These exceedances are described in further detail below.

Emergency operations – Particulate matter

6.3.17 The revised assessment predicted exceedances of the 24-hour average criteria for both PM₁₀ and PM_{2.5} at 16 nearby sensitive receptors. The five highest exceedances for PM₁₀ and PM_{2.5} are presented in **Table 6** and **Table 7**, respectively.

Table 6 | Five highest PM₁₀ exceedances during the 'worst case' scenario

Receptor	Maximum Cumulative 24-Hour Average Concentration (µg/m ³)
Receptor 10-1	92
Receptor 10-2	92
Receptor 10-3	92
Receptor 10-4	92
Receptor 10-0	91
Criteria	50

6.3.18 The receptors identified in **Table 6** represent a commercial building located adjacent to the site's eastern boundary.

Table 7 | Five highest PM_{2.5} exceedances during the 'worst case' scenario

Receptor	Maximum Cumulative 24-Hour Average Concentration (µg/m ³)
Receptor 12-2	67
Receptor 15-0	65
Receptor 15-1	65
Receptor 14	63
Receptor 10-0	62
Criteria	25

6.3.19 The receptors identified in **Table 7** represent several commercial buildings located adjacent to the site's eastern and southern boundaries.

6.3.20 In response to the aforementioned exceedances, the Applicant stressed that its assessment was extremely conservative, and assumed that emergency operations would occur during every hour of the year to account for all possible meteorological and background air quality conditions.

6.3.21 If a more realistic scenario was adopted, whereby a power outage occurred once per year during the hour that resulted in the maximum 1-hour average concentration for that day, the Applicant highlighted the likelihood of an exceedance occurring would be:

- PM₁₀ – 1 exceedance every 92 years
- PM_{2.5} – 1 exceedance every 183 years.

Emergency operations – Nitrogen dioxide

6.3.22 In addition to the above, the revised assessment predicted exceedances of the 1-hour cumulative criteria for NO₂ at 10 nearby sensitive receptors. The five highest exceedances are presented in **Table 8** below.

Table 8 | Five highest NO₂ exceedances during the 'worst case' scenario

Receptor	Cumulative 1-Hour Concentration (µg/m ³)
Receptor 17-0	218
Receptor 17-1	218
Receptor 3	182
Receptor 16-2	180
Receptor 18-0	174
Criteria	164 ^a

a. The NSW Approved Methods adopted a revised NO₂ criterion on 9 September 2022. While the previous criterion of 246 µg/m³ applies to applications lodged prior to this date, the Applicant has adopted a more stringent assessment approach for the development

6.3.23 The receptors identified in **Table 8** represent commercial buildings to the immediate north-west of the site, as well as a residential property located approximately 650 m south-east of the site, adjacent to Epping Road (Receptor 3).

6.3.24 In response to the aforementioned exceedances, the Applicant reiterated that its assessment was extremely conservative. If a more realistic scenario was adopted, whereby a power outage event lasted one hour and occurred once per year, the likelihood of an NO₂ exceedance occurring at surrounding receptors would be:

- receptor R3 – 1 exceedance every 2,920 years
- receptors R16-2, R17-0, R17-1 and R18-0 – 1 exceedance every 8,760 years.

Summary

6.3.25 The Applicant's assessment subsequently concluded the likelihood of an air quality exceedance occurring at a nearby sensitive receiver during a power outage event is extremely small. In order to manage any residual air quality impacts associated with the operation of the back-up generators, the Applicant has committed to notifying neighbouring properties should a power outage event last more than 30 minutes.

6.3.26 The Department has carefully considered the revised air quality assessment and is subsequently satisfied the Applicant has provided a conservative assessment of the air pollution emissions associated with the operation of the development.

6.3.27 The Department notes that typical operations at the site (including testing of the back-up generators) would not result in adverse air quality impacts to surrounding sensitive receptors. While the revised assessment has predicted potential exceedances of the relevant air quality impact assessment criteria for particulate matter and NO₂ at several nearby sensitive receivers during a power outage event, the Department accepts the likelihood of such exceedances occurring is extremely small.

6.3.28 The Department has subsequently recommended a number of conditions which would provide a robust monitoring, reporting and notification framework for the testing and operation of the back-up generator system. This would include:

- ensuring the back-up generators are only tested on weekdays during daylight hours
- requiring the Applicant to prepare and implement a Power Outage Notification Protocol for the development, which will outline how and when neighbouring properties would be made aware that the back-up generator system is operating
- preparation of a Back-up Generator Incident Report each time the back-up generator system is used to power the development for a period of 30 minutes or more.

6.3.29 In addition, should power outage events become more frequent in the future, the Applicant would be required to retrofit additional air pollution emission controls to the back-up generator system.

Conclusion

6.3.30 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 all reasonable steps to minimise dust generation.

6.3.31 With regard to operational impacts, the Department's assessment concludes typical operations at the site would not result in adverse air quality impacts for surrounding sensitive receivers. In addition, the Department is satisfied the actual likelihood of air quality exceedances occurring during a power outage event is extremely small.

6.3.32 The Department has subsequently recommended a number of conditions which would provide a robust monitoring and reporting framework for the testing and operation of the back-up generator system. This will help to provide the Department with a clear insight into the frequency and duration of power outage events over time, while also ensuring the ongoing operation of the development aligns with the predictions provided in the revised air quality assessment.

6.3.33 Subject to the implementation of the recommended conditions and the commitments made by the Applicant, the Department is satisfied the operation of the development would not result in adverse air quality impacts to surrounding sensitive receptors.

6.4 Stormwater and flooding

6.4.1 The site is located within the Industrial Creek catchment, which is approximately 148 ha in size and comprises mainly of industrial and commercial land uses (see **Figure 13**). During flood events greater than the 20% (1 in 5) Annual Exceedance Probability (AEP) level, both the site and the surrounding area (including Talavera Road) are subject to flooding.

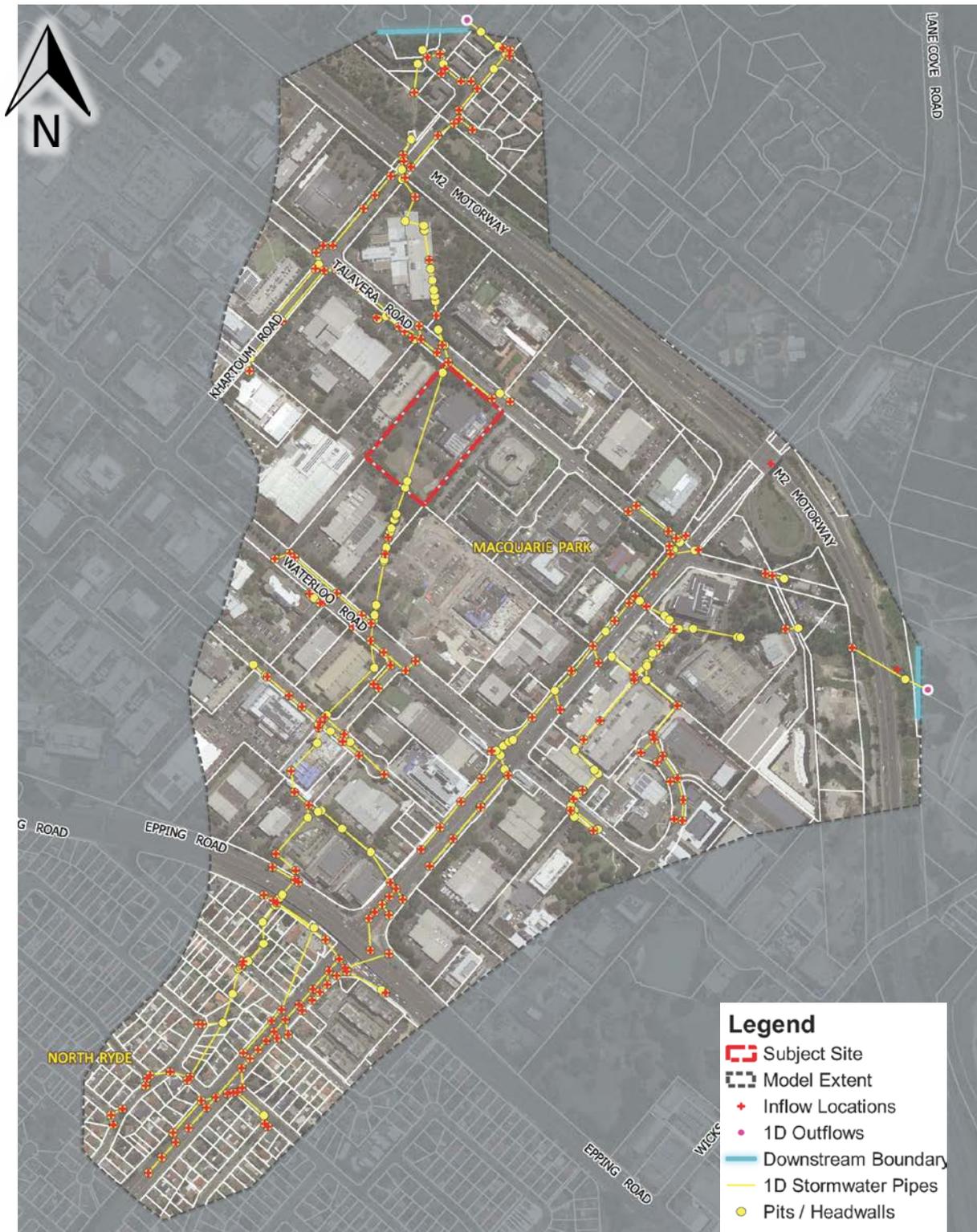


Figure 13 | Overview of the Applicant's flood model, which covers the majority of the Industrial Creek catchment

- 6.4.2 At some point in the late 1960s, Industrial Creek was enclosed and became the stormwater pipe which currently traverses the site. An overland flow path largely follows the creek's original alignment and is protected by a restriction on the use of land (see **Figure 3**).
- 6.4.3 In order to maintain the function of the overland flow path, the ground floor of the development incorporates an open car park/undercroft area to facilitate the flow of stormwater under the building. The existing on-site stormwater management system would also be upgraded to ensure all runoff from

flood events up to the 5% AEP level is captured, treated and discharged to Council's stormwater network.

- 6.4.4 The EIS included a flood assessment which assessed the potential impacts of flooding on the development for a range of flood events as well as the potential impacts of the development on flood behaviour both upstream and downstream of the subject site. The Applicant also prepared a stormwater management report which detailed the proposed amendments to the on-site stormwater management system and assessed the system's compliance with Council's pollutant load reduction targets.
- 6.4.5 Throughout the assessment process, Council raised concerns in relation to the impact of the development upon the existing stormwater pipe and easement and the on-site overland flow path. Council subsequently requested:
- the Applicant be required to relocate the stormwater pipe and easement to run around the perimeter of the expanded data centre
 - amendments be made to the methodology which informed the development's flood model
 - the proposed stormwater management system be updated to include an on-site detention (OSD) tank for the development.
- 6.4.6 Following extensive consultation with Council and the Department, the Applicant made the decision to amend the development to include relocation of the existing stormwater pipe and the associated easement (see **Section 2.1**). The Applicant also prepared updated versions of the flood assessment and stormwater management report in response to the other concerns raised by Council.

Stormwater pipe relocation

- 6.4.7 As has been mentioned elsewhere in this report, the Applicant has committed to the relocation of the existing stormwater pipe and easement to run along the site's southern and western boundaries, at no cost to Council. The new stormwater pipe would have a diameter of 2,100 mm (the existing pipe has a diameter of 1,800 mm), while the associated easement would have a width of 4.1 m (see **Figure 14**).
- 6.4.8 The alignment of the new stormwater pipe would require the reconstruction of an existing Sydney Water sewer main which traverses the south-western corner of the site. The Applicant has obtained Sydney Water's approval for these works via an accredited Water Servicing Coordinator. The proximity of the new stormwater pipe to the site's south-western boundary may also trigger the need for four additional trees to be removed from the adjoining property. The Applicant has obtained consent for their removal from the relevant landowner, if required.
- 6.4.9 As part of its Amendment Report, the Applicant undertook a hydraulic analysis of the new stormwater pipe, in order to confirm that it was capable of conveying upstream flows from the existing stormwater network. This analysis found that upstream stormwater flows during all modelled flood events (1% AEP, 5% AEP and 20% AEP) would be readily accommodated within the new 2,100 mm pipe.
- 6.4.10 At the site's northern boundary, the new stormwater pipe would connect into two existing 1,200 mm pipes which run underneath Talavera Road. The Applicant's analysis noted that this connection acts as a 'bottleneck' for Council's broader stormwater network and contributes to current flood levels within the Talavera Road corridor. Further consideration of the development's impact upon flood levels within the road corridor is provided in the 'Flooding' section below.

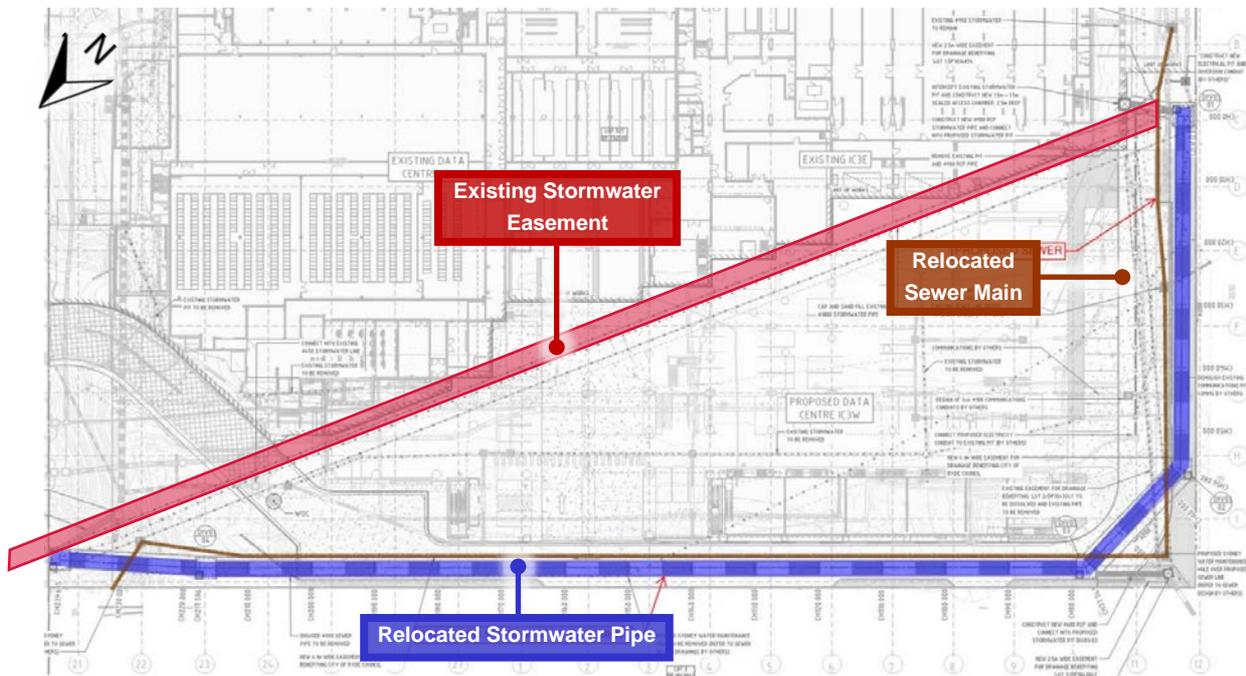


Figure 14 | Location of the relocated stormwater pipe and sewer main

- 6.4.11 The Department has carefully considered the information provided by the Applicant and is satisfied the new stormwater pipe will suitably maintain the capacity of Council’s broader stormwater network within the Industrial Creek catchment.
- 6.4.12 In addition, the Department notes that the Applicant, Council and the site owner have since entered into a formal deed of agreement covering the relocation works.
- 6.4.13 The Department has subsequently recommended a number of conditions to ensure the relocation works are carried out in accordance with the deed of agreement and the relevant requirements of Council and Sydney Water. Under this framework, the relocation works would be carried out as follows:
- Stage 1 – Construction and commissioning of the new 2,100 mm stormwater pipe, including relocation of the existing Sydney Water sewer main
 - Stage 2 – Decommissioning and grout-filling of the existing 1,800 mm stormwater pipe, and extinguishment of existing on-site stormwater easements
 - Stage 3 – Construction of the data centre expansion above the grout-filled pipe, and registration of new on-site stormwater easements.
- 6.4.14 The deed of agreement also sets out the timing of when certain construction works associated with the data centre building can occur along with the construction of the stormwater pipe and decommissioning of the existing one to ensure the protection of Council’s assets.
- 6.4.15 Under the recommended conditions of consent, the registration of all new stormwater easements would need to occur prior to the commencement of operation of the development.

Stormwater management system

- 6.4.16 The majority of the development’s stormwater management system was approved under LDA2018/0322 and has been designed to achieve Council’s pollutant reduction targets. It includes a piped stormwater drainage system, two OSD tanks with a total capacity of 302 m³ (discharging to Council’s existing stormwater tank) and a selection of GPTs and stormwater cartridge filters to treat stormwater runoff prior to discharge from the site.

- 6.4.17 The development would include the extension of the existing pit and pipe network to cover the footprint of the data centre expansion, removal of one GPT (to maintain 150 mm freeboard to the stormwater pits during minor flood events) and the installation of 20 additional stormwater cartridge filters within the new pit and pipe network.
- 6.4.18 The Applicant's stormwater management report confirmed the augmented system would continue to ensure the overall site complies with Council's pollutant reduction targets. In addition, the report noted that during the 20% AEP and 5% AEP flood events, the rate at which stormwater is discharged from the site would be less than the pre-development discharge rate during the 5% AEP flood event. Consequently, the Applicant concluded the development would satisfy Council's requirements for on-site stormwater detention.
- 6.4.19 The report also included an Erosion and Sediment Control Plan detailing the management measures which would be implemented during construction. This includes the use of sediment fencing and the installation of inlet filters to protect all existing and proposed stormwater pits from sediment runoff.
- 6.4.20 In its submission on the EIS, Council noted that while the development would increase the total area of hardstand across the site, further OSD tanks had not been incorporated into the design of the stormwater management system. Council subsequently requested the development's design be updated to include additional storage capacity.
- 6.4.21 In response, the Applicant maintained that no further OSD was required as part of the subject SSD application. This is because:
- the two existing OSD tanks were designed to accommodate runoff generated by stages 1 and 2 of LDA2018/0322
 - the subject SSD application would replace Stage 2 of the works approved under LDA2018/0322
 - while a small section of the building's roof/hardstand would bypass the OSD system, this area is inundated by overland flow during the 1% AEP flood event.
- 6.4.22 Following its review of the Amendment Report, Council did not provide any further comments in relation to OSD or the on-site stormwater management system.
- 6.4.23 The Department has reviewed the proposed stormwater management system and is satisfied that it would be appropriate for managing the stormwater quality and volumes generated by the development. Given the available capacity of the existing OSD system and the site's role as an overland flow path during flood events, the Department is satisfied that further OSD tanks are not required to support the subject SSD application.
- 6.4.24 The Department has recommended conditions to ensure the existing stormwater management system is upgraded prior to the commencement of operation of the development and in accordance with Council's requirements and the relevant Australian Standards.
- 6.4.25 The Department is also satisfied the potential stormwater impacts during construction can be managed through the implementation of the proposed sediment and erosion control measures and has incorporated these requirements into the recommended conditions of consent.

Flooding

- 6.4.26 The development's original flood assessment (as submitted with the EIS) modelled two scenarios, including the 1% AEP event and the Probable Maximum Flood (PMF) event. This modelling considered the current scenario (existing site conditions) against the proposed development scenario and was informed by both Council's adopted flood study and the flood assessment which was prepared in support of LDA2018/0322.

- 6.4.27 The original flood assessment concluded the development was unlikely to have a significant adverse flood impact on the subject site, adjacent properties or the Talavera Road corridor.
- 6.4.28 In its submission on the EIS, the Department's Biodiversity and Conservation Division advised it was satisfied that any potential flooding impacts associated with the development had been adequately addressed. While Council did not raise any specific concerns in relation to flooding, it noted the Applicant should be required to relocate the stormwater pipe and easement as part of the subject SSD application.
- 6.4.29 As discussions progressed between both parties and the Applicant indicated its intention to undertake the stormwater relocation works, Council noted that the submitted flood assessment would need to be updated to include consideration of any downstream impacts associated with the new stormwater pipe. In addition, Council requested that several changes be made to the methodology which had informed the flood assessment, so that it could undertake a more detailed review of the proposal. The Department's Chief Engineer worked closely with both parties at this time, helping to ensure all queries raised by Council's engineering team were satisfactorily addressed by the revised assessment methodology.
- 6.4.30 As a result of the above, the Applicant's Amendment Report was accompanied by an updated flood assessment, which included consideration of the potential downstream impacts associated with the stormwater pipe relocation works. The updated assessment included two additional scenarios, being the 20% AEP and 5% AEP flood events. Minor updates were also made to the flood model to reflect the design amendments made to the building's ground floor (see **Section 2.1**).
- 6.4.31 The modelling found that as a result of the increase in pipe flow capacity associated with the new 2,100 mm stormwater pipe, significant decreases in flood depths (decrease of up to 114 mm) would be experienced at adjacent properties during the 20% AEP, 5% AEP and 1% AEP events.
- 6.4.32 During the PMF event, significant decreases in flood depths would also be experienced at the property located adjacent to the site's north-western boundary (decrease of up to 240 mm) and at 19-25 Khartoum Road (decrease of up to 45 mm). While localised increases in flood depth would continue to be experienced within the Talavera Road corridor (increase of up to 250 mm), the Applicant noted this phenomenon was the result of the existing constraint caused by the two 1,200 mm stormwater pipes which run beneath Talavera Road.
- 6.4.33 The flood assessment subsequently concluded the development (as amended) is unlikely to have a significant adverse flood impact on the subject site, adjacent properties or the Talavera Road corridor. The assessment also noted the development's minimum finished floor levels (with the exception of fire safety stairwells) would be set at the 1% AEP flood level plus 300 mm of freeboard, in order to comply with the requirements of Council's DCP.
- 6.4.34 Following its review of the Amendment Report, Council did not provide any further comments in relation to flood impacts.
- 6.4.35 The Department has carefully considered the findings of the updated flood assessment in conjunction with the advice provided by its Chief Engineer and Council's engineering team and is subsequently satisfied the development would not result in significant additional flooding impacts beyond existing flood conditions. While the proposed development scenario has predicted localised flood level increases within the Talavera Road corridor during the PMF event, these increases are primarily caused by the capacity constraints present in Council's downstream stormwater network and not the development.

6.4.36 The Department also notes the site is subject to a positive covenant and restriction on the use of land associated with the on-site overland flow path. Given the findings of the updated flood assessment, the Department considers the development design is consistent with these requirements as it would allow the site to continue to function as an overland flow path.

6.4.37 The Department has recommended conditions to ensure the development is constructed in accordance with the proposed finished flood levels and that a comprehensive Flood Emergency Response Management Plan (FERMP) is implemented at the site. The FERMP would be prepared by a suitably qualified person and would include details of the refuge and evacuation protocols for all employees, contractors and visitors during flood events.

Conclusion

6.4.38 The Department’s assessment concludes any stormwater or flooding impacts associated with the development would be acceptable and can be appropriately managed via the recommended conditions of consent.

6.4.39 By relocating the existing stormwater pipe and sewer main to run around the perimeter of the subject site, the Applicant has been able to demonstrate that the development will not unnecessarily hinder access to/ maintenance of this infrastructure. This arrangement will also provide a mutually beneficial outcome for both parties when compared to the works which were approved under LDA2018/0322, as:

- the Applicant has been able to further improve the operational efficiency of its expansion
- Council will be provided with a new stormwater asset which is unencumbered by any structures over the pipe.

6.4.40 With regard to stormwater management, the Department is satisfied any potential stormwater impacts associated with the development will be minimised and managed by the Applicant through the implementation of the proposed stormwater management measures and the recommended conditions of consent.

6.4.41 With regard to flooding, the Department’s assessment concludes the development would have a negligible impact upon flood levels in and around the site, provided the proposed design measures are implemented to ensure the function of the existing overland flow path is maintained. The Department has also recommended conditions to ensure a comprehensive FERMP is implemented to govern emergency procedures for on-site workers and visitors.

6.5 Other issues

6.5.1 The Department’s assessment of other issues is provided in **Table 9** below.

Table 9 | Assessment of other issues

Findings	Recommendations
Hazards and risk	
<ul style="list-style-type: none"> • The development involves the storage of up to 316,800 kg of lithium-ion batteries and up to 681,400 L of diesel fuel as part of its back-up power system, which has the potential to result in hazard and risk impacts. • The Amendment Report included an updated Preliminary Risk Screening for the development, which identified the quantity of lithium-ion batteries and volume of diesel fuel to be stored at the site and associated fire safety 	<p>Require the Applicant to:</p> <ul style="list-style-type: none"> • prepare a FSS for the back-up power system (including the on-site generators and lithium-

Findings	Recommendations
<p>measures. The Amendment Report also noted the back-up power system would be designed to comply with the relevant Australian Standards and the requirements of FRNSW.</p> <ul style="list-style-type: none"> • The Amendment Report concluded the quantities of dangerous goods which would be stored at the site would fall below the relevant SEPP 33 screening thresholds and, consequently, the development would not be considered potentially hazardous under this SEPP. • In its submission, FRNSW requested the Applicant be required to submit a FSS for the site prior to the commencement of construction. • The primary purpose of a FSS is to ensure the proposed on-site fire prevention, detection, protection and fighting measures are appropriate for the specific fire hazards associated with the development. • FRNSW also recommended that a comprehensive Emergency Plan be prepared and implemented prior to the commencement of operation. • The primary purpose of an Emergency Plan is to document the full range of operational activities which could result in an emergency situation and identify the required actions which would be implemented by on-site staff in response to such events. • The Department concurs with the advice provided by FRNSW and has subsequently recommended the Applicant prepare and submit a FSS prior to the commencement of construction, which would inform the detailed design of the data centre's fire safety systems. • The FSS would need to be developed in consultation with FRNSW, and would detail how the development's fire safety system(s) would comply with the relevant Australian Standards and FM Global's <i>Loss Prevention Data Sheet 5-32 – Data centres and related facilities</i>. • The Department has also recommended conditions to ensure a comprehensive Emergency Plan is prepared prior to the commencement of operation, and that all chemicals, fuels and oils used at the site are stored and handled in accordance with the relevant Australian Standards and EPA guidelines. • Subject to the recommended conditions, the Department is satisfied the overall development will be designed and operated in a safe matter. • The Department's assessment concludes the development is consistent with the aims of SEPP 33 and would not be considered a potentially hazardous industry under clause 3 of this SEPP. 	<p>ion batteries), prior to the commencement of construction</p> <ul style="list-style-type: none"> • prepare an Emergency Plan for the site, prior to the commencement of operation • ensure dangerous goods stored at the site do not exceed the screening threshold quantities listed in <i>Applying SEPP 33 (DoP, 2011)</i> • ensure all chemicals, fuels and oils are stored and handled in accordance with the relevant Australian Standards and EPA guidelines.
<p>Traffic generation</p> <ul style="list-style-type: none"> • The construction and operation of the development has the potential to impact on the safety and operational performance of the surrounding road network through the generation of additional traffic movements. • The EIS included a traffic assessment and preliminary Construction Traffic Management Plan (CTMP) which assessed the development's potential traffic, access and parking impacts. The traffic assessment was prepared with 	<p>Require the Applicant to:</p> <ul style="list-style-type: none"> • prepare and implement a final CTMP during construction • implement suitable mitigation measures to

Findings	Recommendations
<p>reference to TfNSW's <i>Guide to Traffic Generating Developments</i> and the City of Ryde DCP 2014.</p> <ul style="list-style-type: none"> Minor updates were made to the traffic assessment and CTMP as part of the amended development application. 	<p>ensure the operation of the development does not impact upon the surrounding road network.</p>
<p><u>Construction</u></p> <ul style="list-style-type: none"> The preliminary CTMP noted construction of the development would generate up to 50 heavy vehicles per day during the peak of construction, including up to 14 heavy vehicle movements per hour (7 in; 7 out) during building fit-out works. During construction works, there would be a maximum of 150 workers on-site at any given time, however this would vary significantly depending on the construction stage. The existing data centre would operate with a maximum of 35 staff per day. Given the constrained nature of the site (and limited on-site parking spaces), the preliminary CTMP included a number of measures to reduce the number of construction workers who drive to the site. These measures would include the provision of an on-site tool storage facility and dissemination of public transport information via site inductions, regular management meetings and on-site signage. The Applicant would also rent parking at neighbouring sites for use by operational staff during the construction works. In their submissions on the EIS, both Council and the EPA did not raise any concerns in relation to construction traffic. The Department is satisfied construction traffic would be adequately accommodated on the existing road network, particularly given the site's proximity to public transport and the management measures which have been proposed by the Applicant. The Department has recommended a final CTMP be prepared and implemented for the duration of construction at the site. This plan will need to be prepared in consultation with Council and outline the strategies which would be implemented to minimise the number of construction staff driving to the site each day. 	
<p><u>Operation</u></p> <ul style="list-style-type: none"> The operation of the development is expected to generate up to 21 light vehicle movements per hour during the AM and PM peak periods, comprising: <ul style="list-style-type: none"> 18 vehicles in, 4 vehicles out during the AM peak period 4 vehicles in, 18 vehicles out during the PM peak period. These calculations were based on travel survey data for existing employees, which indicates that up to 77% of employees would drive to work each day. Service vehicle movements would be infrequent, with two medium rigid trucks accessing the site each week (for waste collection) and two heavy rigid trucks accessing the site per year (for general equipment deliveries). 	

- The traffic assessment included SIDRA analysis for both the Lane Cove Road / Talavera Road intersection and the Talavera Road / Khartoum Road intersection.
- The analysis found both intersections would operate with a poor level of service (LoS) through to 2036 (LoS F), regardless of whether the development was constructed.
- As the development would generate a maximum of one light vehicle movement every 2-3 minutes during the AM and PM peak periods, the traffic assessment concluded the operation of the development would have a negligible impact on the overall performance of both intersections.
- In its submission, TfNSW noted the development’s access arrangements and any associated mitigation measures would need to be to the satisfaction of Council as the relevant roads authority. However, Council did not raise any specific concerns in relation to operational traffic impacts.
- The Department has reviewed the traffic assessment and is satisfied the development’s operational traffic would be minimal and can be adequately accommodated on the local and regional road network.
- Overall, the development would generate approximately one vehicle movement every 2-3 minutes during the AM and PM peak periods, which would result in negligible impacts to surrounding intersections.

Conclusion

- The Department is satisfied the Applicant’s updated traffic assessment and preliminary CTMP provide a satisfactory estimation of the predicted traffic impacts of the development during construction and operation, and has demonstrated that these impacts would be minor and acceptable.
- The Department has recommended conditions requiring the implementation of a final CTMP and appropriate mitigation measures to ensure the traffic impacts of the development are minimised.
- The Department’s assessment concludes the local and regional road network can accommodate the predicted traffic volumes associated with the development.

Parking

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| <ul style="list-style-type: none"> • Under the City of Ryde DCP 2014, the development would be required to provide a maximum of 157 additional car parking spaces and a minimum of 7 bicycle parking spaces. • The development would align with the parking arrangements which were previously approved under LDA2018/0322, and would subsequently provide 71 car parking spaces across the site. A total of 12 bicycle parking spaces would be provided adjacent to the main building entrance in accordance with the DCP requirements. | <p>Require the Applicant to:</p> <ul style="list-style-type: none"> • prepare and implement a Workplace Travel Plan for the duration of operation • ensure car parking spaces are constructed and maintained in accordance with the |
|--|---|

Findings	Recommendations
<ul style="list-style-type: none"> • In its submission on the EIS, Council advised it did not support those car parking zones which would be located within the side and rear setback areas, particularly given that these boundaries would adjoin future roads. • In response to Council's concerns, the Applicant relocated all car parking spaces from the rear setback area to the undercroft parking area, and subsequently increased the width of the landscaping zone in this area. • With regard to the side setback, the Applicant has argued that the provision of car parking spaces in this location is an appropriate design outcome as: <ul style="list-style-type: none"> ○ the primary purpose of these spaces is to provide additional hardstand areas which can be used by truck-mounted cranes and 19 m AVs to install/replace plant equipment over the life of the development ○ the parking spaces within this area would only be used by staff and visitors during peak demand periods (i.e. during fit-out and commissioning works). • In its submission on the Amendment Report, Council did not raise any further issues in relation to car parking. • The Department has reviewed the proposed parking arrangements and is satisfied they would adequately accommodate the requirements of the development's operational staff and visitors. • The Department has recommended conditions to ensure: <ul style="list-style-type: none"> ○ a Workplace Travel Plan is prepared and implemented for the duration of operation of the development to minimise the use of on-site parking spaces by operational staff ○ car parking spaces are constructed and maintained in accordance with the relevant Australian Standards ○ a minimum of 12 bicycle parking spaces are provided to service the development, in accordance with the Applicant's commitments. • The Department's assessment concludes the development would provide appropriate parking arrangements for the entire data centre campus. 	<p>relevant Australian Standards</p> <ul style="list-style-type: none"> • provide a minimum of 12 bicycle parking spaces at the site.

Developer contributions

<ul style="list-style-type: none"> • Under Council's <i>Section 7.11 Development Contributions Plan 2020</i>, the SSD application would be subject to a developer contribution of approximately \$657,535.75. This contribution is based on: <ul style="list-style-type: none"> ○ an office GFA of 2,809 m² (office contribution rate of \$69.40 per m²) ○ a data hall/circulation GFA of 13,335 m² (light industry/industry contribution rate of \$34.69 per m²). • However, as discussed in Section 1.5 of this report, the Applicant has previously entered into a 'works in kind' agreement with Council to deliver public domain improvement works in lieu of paying a developer contribution for Stage 2 of LDA2018/0322. • The works included footpath, utility and lighting upgrades along the site's Talavera Road frontage and were delivered in late 2021. The works were valued at \$865,734.00. 	<p>No conditions are required.</p>
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Findings	Recommendations
<ul style="list-style-type: none"> As the subject SSD application would replace Stage 2 of LDA2018/0322, the Department is satisfied that adequate provision for local infrastructure has been made for the subject SSD application by way of the previous 'works in kind' agreement and are also at a value greater than the required contribution. The Department's assessment concludes no further developer contributions are required to facilitate the proposed expansion. 	
<p>Aboriginal cultural heritage</p>	
<ul style="list-style-type: none"> The development is to be constructed outside of the footprint of the existing data centre, which has the potential to impact upon Aboriginal cultural heritage values. To assess the potential for impacts on Aboriginal cultural heritage, the Applicant undertook consultation with the RAPs and submitted a finalised ACHAR following the conclusion of the exhibition period. The ACHAR found the site was not impacted by any previously unrecorded Aboriginal cultural heritage sites due to the extensive clearing/construction works which have occurred at the site over the past 50 years. In addition, none of the RAPs provided any specific comments in relation to the site's social, cultural, historic or aesthetic significance. Accordingly, the ACHAR concluded the site has a low potential for archaeological deposits, and that any unforeseen impacts can be appropriately managed through the implementation of an unexpected finds protocol during construction. In its submission, Heritage NSW advised it concurred with the findings of the ACHAR and supported all the recommendations made in relation to the management of Aboriginal cultural heritage at the site. The Department's assessment concurs with the findings of the ACHAR and concludes that given the level of disturbance at the site, it is unlikely intact Aboriginal items or sites will be encountered. The Department has recommended a condition of consent in accordance with the ACHAR's recommendations, requiring the implementation of an unexpected finds protocol during construction works. The Department's assessment concludes the development is unlikely to impact upon Aboriginal cultural heritage values, subject to the implementation of the recommended conditions of consent. 	<p>Require the Applicant to prepare and implement an Aboriginal cultural heritage unexpected finds protocol for the duration of construction.</p>
<p>Section 6.9 of the City of Ryde LEP 2014</p>	
<ul style="list-style-type: none"> Under section 6.9 of the City of Ryde LEP 2014, a consent authority may approve a development within the Macquarie Park business precinct which has an overall height of 45 m, but only if it is satisfied that: <ul style="list-style-type: none"> the development has made adequate provision for recreation areas and Council's proposed access network 	<p>No conditions are required.</p>

Findings	Recommendations
<ul style="list-style-type: none"> ○ the configuration and location of the recreation areas will be appropriate for the recreational purposes of the precinct, and ○ the configuration and location of the access network will allow a suitable level of connectivity within the precinct. ● The Department has reviewed the design of the development and is satisfied that it would comply with the requirements outlined under section 6.9 of the LEP, particularly as: <ul style="list-style-type: none"> ○ the site is not impacted by any future precinct roads or parks ○ the existing public domain located along the Talavera Road was recently upgraded as part of a 'works in kind agreement' under LDA2018/0322 ○ the development's landscaping scheme has been amended to provide a suitable transition between the eastern/southern boundaries and adjacent precinct roads (Road 1 and Road 17, both yet to be constructed). ● The Department's assessment concludes the development would be consistent with the requirements outlined under section 6.9 of the City of Ryde LEP 2014 and, consequently, the Commission may grant consent to the proposed building height of 45 m. 	

Visual

<ul style="list-style-type: none"> ● The bulk and scale of the expanded data centre has the potential to result in visual impacts for surrounding sensitive receivers. ● The Amendment Report included a visual impact assessment (VIA) for the development, which assessed the visual sensitivity and visual magnitude of the development from key viewpoints in the vicinity of the site (including public domain viewpoints on Talavera Road and residential receivers). ● The VIA found the development would largely be screened from the Talavera Road frontage by the site's existing landscaped setback. Views of the development from the north-east, west and south-west would be largely screened by the adjacent 'Athena' Data Centre (SSD-10467). ● The VIA subsequently concluded the bulk and scale of the building would not be unlike other newer buildings in the area and its overall design would be in keeping with the existing commercial character of the Macquarie Park area. ● In its submission on the EIS, Council recommended the Applicant further refine its design to help reduce the overall bulk and scale of the development. Council's suggestions included: <ul style="list-style-type: none"> ○ decreasing the perceived height of the rooftop plant level ○ setting back the rooftop screening structure to create a distinguishable 'body' and 'cap' for the development ○ providing further articulation along the rear façade to visually separate the expansion from the existing data centre. ● As part of its Amendment Report, the Applicant updated the architectural plans to provide further articulation across the rooftop plant level, using a combination of horizontal screening, precast concrete panels and stainless-steel flutes to 	<p>Require the Applicant to:</p> <ul style="list-style-type: none"> ● carry out the development in accordance with the approved architectural and landscaping plans ● ensure all on-site landscaping is maintained for the life of the development ● install all outdoor lighting in accordance with the relevant Australian Standard.
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reduce the perceived height of the building and create a clear delineation between the building and the rooftop plant screens.

- However, the Applicant noted it was not feasible to provide further articulation along the rear façade, particularly given the original intent of the proposed design was to provide a cohesive 'One Campus' facility (i.e. with no differentiation between the old and new buildings) and to ensure on-site plant can be easily installed and replaced over the life of the development.
- Following its review of the Amendment Report, Council did not raise any further concerns in relation to visual impacts.
- The Department has reviewed the revised VIA and is satisfied the visual impacts associated with the development would be minor, particularly as:
 - the design of the development is consistent with the design of the existing data centre and the commercial character of the Macquarie Park area
 - the development would be appropriately screened by the existing/proposed landscaping (see 'Landscaping' below) and surrounding buildings such as the 'Athena' Data Centre (SSD-10467)
 - the development is located a significant distance from surrounding residential receivers.
- The Department has subsequently recommended conditions of consent to ensure the development's façades are constructed in accordance with the submitted architectural plans and that on-site landscaping is installed and maintained for the life of the development. Conditions relating to the installation of fencing and outdoor lighting in accordance with the Amendment Report and the relevant Australian Standards have also been recommended.
- The Department's assessment concludes the visual impacts of the development are acceptable, subject to the recommended conditions of consent.

Landscaping

- As part of the original SSD application, the EIS noted the development would require the removal of 55 trees, primarily along the site's southern and western boundaries. To offset their removal, 47 new trees would be planted across the site (replacement ratio of 0.85:1).
- In its submission on the EIS, Council raised concerns regarding the number of trees proposed to be removed from the site, and noted it was unclear whether the 'future' stormwater easement route proposed by the Applicant would impact on trees located within adjoining properties to the south and west of the site.
- In addition, Council highlighted that further deep soil areas and increased landscaping setbacks should be provided across the site.
- As part of its Amendment Report, the Applicant clarified the amended development application (including the stormwater pipe relocation works) would require the removal of 79 trees from the site.

Require the Applicant to:

- ensure all trees to be retained at the site are protected in accordance with *AS 4970-2009 – Protection of trees on development sites* (Standards Australia, 2009)
- prepare and implement a Landscape Management Plan for the life of the development.

- These trees largely consist of native and exotic landscaping species which were planted at various times over the past 50 years.
- The proximity of the new stormwater pipe to the site's southern boundary may also trigger the need for four additional trees to be removed from the adjoining property. The Applicant has obtained consent from the adjoining landowner for their removal, and has highlighted that these trees would require removal at some point in the future anyway, as they intersect with a future precinct road.
- In addition, the Applicant provided updated landscape plans for the development, which include an increased landscaping setback along the site's rear boundary and the planting of 83 new trees to replace those which require removal/would be impacted by the development (replacement ratio of 1:1).
- The Amendment Report noted that increased landscaping setbacks were not viable along the site's eastern and western boundaries due to the footprint of the relocated stormwater pipe and the need to provide suitable hardstand areas for installing/replacing plant equipment over the life of the development.
- In its submission on the Amendment Report, Council did not raise any further issues in relation to tree removal or landscaping.
- The Department has reviewed the updated landscape plans and is subsequently satisfied that adequate new landscaping will be provided as part of the development, particularly given the constraints posed by the stormwater relocation works.
- The proposed design places particular emphasis upon maintaining a wide landscaped zone between the development and Talavera Road, along with the provision of new trees and shrubs along the site's eastern and southern boundaries.
- This focus will ensure the majority of new trees proposed at the site are located within the substantial Talavera Road setback or adjacent to future precinct roads and will help to soften the overall appearance of the development when viewed from public areas.
- The Department has recommended a condition of consent to ensure all trees to be retained at the site are protected in accordance with the relevant Australian Standard.
- The Department has also recommended the Applicant be required to prepare a Landscape Management Plan for the site, which will describe the ongoing monitoring and maintenance measures which would be implemented to manage the landscaping works.
- The Department's assessment concludes the proposed landscaping is acceptable and would help to improve the overall appearance of the site when viewed from the public domain.

7 Evaluation

- 7.1.1 The Department's assessment of the SSD 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 ESD. 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 and the advice received from the relevant government authorities, including Council.
- 7.1.2 The development involves an expansion to an existing data centre, which will help to satisfy market demand through the provision of additional, flexible data storage capacity within the Eastern Economic Corridor. In the coming years, this additional capacity will be crucial to ensure the ongoing data storage needs of greater Sydney and the State are addressed.
- 7.1.3 In addition, the development will provide up to 610 construction jobs and 20 additional knowledge-intensive operational jobs and represents a direct investment of more than \$332 million in the City of Ryde LGA. The proposal is consistent with the key objectives of the Region Plan and the NDP, as it will help to retain and improve the efficiency of employment-zoned land within the Eastern Economic Corridor.
- 7.1.4 The Department acknowledges the concerns raised by Council regarding the potential impact of the development upon the existing stormwater pipe and easement which traverses the site and has worked closely with all parties to achieve a satisfactory resolution. As a result of this process, the Applicant has committed to the relocation of the existing stormwater pipe and easement to run around the perimeter of the site. These works will be delivered prior to the construction of the data centre building and at no cost to Council.
- 7.1.5 By relocating the stormwater pipe, the Applicant has been able to refine the design of the development and subsequently obtain further improvements to the operational efficiency of its data centre campus building. The subject SSD application will also result in further benefits to Council when compared to the smaller Stage 2 expansion which was approved under LDA2018/0322, as Council will be provided with a new stormwater asset which is unencumbered by any structures.
- 7.1.6 The Department's assessment has considered noise and vibration, air quality and stormwater and flooding to be the key matters for consideration.

Noise and Vibration

- 7.1.7 The Department is satisfied construction noise management levels will be met at residential receivers and notes no submissions were received from members of the public or local businesses. Elevated noise levels above the NML are predicted at nearby commercial receptors at various times throughout the construction period (generally 1-2 dB and up to 6 dB at certain times). The Department's assessment acknowledges the noise modelled, represents a worst-case scenario, with noise experienced at nearby businesses expected to vary throughout the course of the construction period and the proximity to the receiver.
- 7.1.8 Notwithstanding, while the Applicant has sought to undertake construction and fit-out of the development during extended construction hours, the Department has considered this in the context of nearby operating facilities and the predicted elevated noise levels and has concluded these extended hours of construction are likely to interfere with the convenience and comfort of these receivers. Consequently, it cannot be supported at this point in time.

- 7.1.9 Overall, the Department accepts elevated construction noise will only be experienced intermittently throughout the construction program and will stay below the highly-affect noise level of 75 dBA. In order to ensure construction noise is appropriately managed during standard construction hours, the Department has recommended conditions requiring the preparation and implementation of a detailed construction noise and vibration management plan (CNVMP) for the development. As part of the CNVMP, the Applicant will need to consult with adjoining commercial and education receivers (including Excelsia College) when developing detailed management measures for noisy works at the site.
- 7.1.10 With regard to operational noise, the Department has carefully considered the Applicant's acoustic report and is satisfied the development would comply with the relevant requirements of the *Noise Policy for Industry* (EPA, 2017). To ensure potential noise impacts associated with the testing of the back-up generator system are appropriately managed, the Department has recommended a condition of consent be imposed to ensure generators are only tested during daylight hours on weekdays and that the Applicant maintains a log of all tests undertaken at the site. The Department has also recommended operational noise limits for nearby residential properties which are in line with the predictions provided in the acoustic report.

Air Quality

- 7.1.11 The Department is satisfied the revised air quality assessment has adopted a conservative approach for the assessment of potential impacts associated with the construction and operation of the development. While the assessment has predicted potential exceedances of the relevant air quality impact assessment criteria for particulate matter and nitrogen dioxide (NO₂) at several nearby sensitive receivers during a power outage event, the Department accepts the likelihood of such exceedances occurring is extremely small (once every 92 years for particulate matter and once every 2,920 years for NO₂ emissions).
- 7.1.12 In addition, the Department is satisfied that typical day-to-day operations at the site (including testing of the back-up generators) would not result in any exceedances of the relevant air quality criteria at all nearby sensitive receivers.
- 7.1.13 The Department has recommended conditions of consent which require the Applicant to prepare a Construction Environmental Management Plan (CEMP) and implement all reasonable steps to minimise dust. A robust monitoring and reporting framework is also recommended to manage the testing and operation of the back-up generator system. Should the likelihood of a power outage event occurring become more frequent in the future, the Applicant would be required to retrofit additional air pollution emission controls to the back-up generator system.

Stormwater and Flooding

- 7.1.14 Finally, the Department notes the relocation of the existing stormwater pipe and sewer main has been a key issue throughout the assessment process and has been the subject of extensive discussions between Council, the Applicant and the landowner. As a result of this process, the Applicant has committed to undertaking the relocation works as part of the SSD application and at no cost to Council. This commitment has been formalised via a signed Deed of Agreement between the aforementioned parties, and the associated works will be completed prior to the commencement of operation of the development.
- 7.1.15 The Department notes this would provide a mutually beneficial outcome for both the Applicant and Council when compared to the works which were approved under LDA2018/0322, as:

- the Applicant has been able to further improve the operational efficiency of its expansion by removing the constraints associated with the location of the existing stormwater pipe and easement
- Council will be provided with a new stormwater asset which is unencumbered by any structures over the pipe.

7.1.16 The Department has recommended several conditions to ensure the relocation works are carried out in accordance with the signed Deed of Agreement.

7.1.17 With regard to stormwater management, the Department has reviewed the proposed stormwater management system and is satisfied that it is capable of managing the volume and quality of stormwater which would be generated by the development. In addition, any potential stormwater impacts during construction can be managed via the proposed erosion and sediment control measures. The Department has recommended conditions to ensure the stormwater management system is upgraded prior to the commencement of operation of the development, and that the identified erosion and sediment control measures are implemented for the duration of construction works.

7.1.18 In addition, the Department has carefully considered the findings of the updated flood assessment and is satisfied the development would not result in significant additional flooding impacts beyond those currently experienced within the surrounding area and would not adversely impact upon the site's function as an overland flow path. While the Applicant's assessment has predicted localised flood level increases within the Talavera Road corridor during the Probable Maximum Flood event, these increases are the result of capacity constraints present in the surrounding stormwater network. The Department has subsequently recommended conditions to ensure the development is constructed in accordance with the proposed finished flood levels and that a comprehensive Flood Emergency Response Management Plan is implemented to manage refuge and evacuation protocols for the site.

7.1.19 The Department has also recommended a range of detailed conditions to address any residual hazards, traffic, Aboriginal cultural heritage and visual impacts associated with the construction and operation of the development. These conditions were informed by the recommendations of Council and the relevant government authorities and have been reviewed by the Applicant.

7.1.20 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 SSD application could be approved, subject to conditions.



27/11/2023

Chris Ritchie
Director
Industry Assessments



27/11/2023

Clay Preshaw
Executive Director
Energy, Resources and Industry Assessments

Appendices

Appendix A – List of documents

Appendix B – Considerations under section 4.15 of the EP&A Act

Appendix C – Consideration of environmental planning instruments

Appendix D – Key issues – Community views

Appendix E – Recommended instrument of consent

Appendix A List of documents

A.1 The Department has relied upon the following key documents during its assessment of the development:

Environmental impact statement

- the document titled Environmental Impact Statement: Talavera Road Data Centre Campus Expansion (IC3 Super West), prepared by Willowtree Planning Pty Ltd and dated 8 November 2021.

Submissions

- all submissions and advice received from Council, the relevant public authorities and utility providers.

Amendment report and response to submissions

- the document titled *Response to Submissions: Talavera Road Data Centre Campus Expansion (IC3 Super West)*, prepared by Willowtree Planning Pty Ltd and dated 8 November 2022.

Additional information

- the document titled Macquarie Park Data Centre Campus IC3 Super West, 17-23 Talavera Road, Macquarie Park – Aboriginal Cultural Heritage Assessment Report (ACHAR), prepared by Artefact Heritage Services and dated 9 December 2021
- the stormwater trunk drainage drawings titled *Civil Engineering Package Stormwater Trunk Design* prepared by Northrop and submitted to the Department on 10 November 2023.

Statutory documents

- relevant considerations under section 4.15 of the EP&A Act (see **Appendix B**)
- relevant environmental planning instruments, policies and guidelines (see **Appendix C**).

A.2 All documents relied upon by the Department during its assessment of the SSD application may be viewed at: <https://www.planningportal.nsw.gov.au/major-projects/projects/talavera-road-data-centre-campus-expansion>.

Appendix B Considerations under section 4.15 of the EP&A Act

B.1 Section 4.15 of the EP&A Act requires that the consent authority, when determining a development application, must take into consideration the matters contained in **Table 10** below.

Table 10 | Matters for consideration under section 4.15 of the EP&A Act

Matter	Consideration
<p>a) the provisions of:</p> <ul style="list-style-type: none"> i.) any environmental planning instrument, and ii.) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and iii.) any development control plan, and iiia.) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and iv.) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates, 	<p>A detailed consideration of the provisions of all environmental planning instruments (including draft instruments subject to public consultation under the EP&A Act) that apply to the development is provided in Appendix C of this report.</p> <hr/> <p>Under clause 11 of the SRD SEPP, development control plans do not apply to State significant development.</p> <hr/> <p>The Applicant has not offered to enter into an agreement at this time.</p> <hr/> <p>The Department has assessed the development in accordance with all relevant matters prescribed by the regulations, the findings of which are contained in this assessment report.</p>
<p>b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,</p>	<p>The Department has considered the likely impacts of the development in detail in Section 6 of this report. The Department concludes that all environmental impacts can be appropriately managed and mitigated through the recommended conditions of consent.</p>

Matter	Consideration
c) the suitability of the site for the development,	The development involves an expansion to an existing data centre within an established business district. The development is permissible with development consent.
d) any submissions made in accordance with this Act or the regulations,	All matters raised in submissions have been summarised in Section 5 of this report and given due consideration as part of the assessment of the development in Section 6 of this report.
e) the public interest.	<p>The development would generate up to 610 jobs during construction and approximately 20 additional full-time equivalent jobs during operation. The development is a considerable capital investment in the City of Ryde LGA that would contribute to the provision of local jobs.</p> <p>The environmental impacts of the development would be appropriately managed via the recommended conditions. On balance, the Department considers the development is in the public interest.</p>

Appendix C Consideration of environmental planning instruments

- C.1 To satisfy the requirements of section 4.15(1) of the EP&A Act, the following former EPIs were considered as part of the Department's assessment:
- State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)
 - State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)
 - State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)
 - State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
 - draft State Environmental Planning Policy (Remediation of Land) (draft Remediation SEPP)
 - Ryde Local Environmental Plan (LEP) 2014.

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

- C.2 The SRD SEPP identifies certain classes of development as SSD. The construction and operation of storage premises used for the storage of data and related information technology hardware with a total power consumption of more than 10 MW, meets the criteria of clause 25 of Schedule 1 of the SRD SEPP and is consequently classified as SSD.
- C.3 The development satisfies the criteria in clause 25 of Schedule 1 as it would involve the construction of an expansion to an existing data centre with a total power consumption of 38 MW.

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

- C.4 The ISEPP facilitates development on land that is otherwise not nominated in another EPI. Under clause 27 of the SEPP, development for the purpose of a data storage premises may be carried out by any person with consent on land within certain business and industrial zones. As the site is located on land zoned B7 – Business Park under the City of Ryde LEP 2014, the development is permissible with consent.
- C.5 Furthermore, the ISEPP aims to facilitate the effective delivery of infrastructure across the State and lists certain types of development as 'traffic generating development' which require referral to TfNSW.
- C.6 As the development would be located off an existing regional unclassified road (Talavera Road), the SSD application was referred to TfNSW for comment and consideration of traffic and accessibility traffic impacts.
- C.7 TfNSW advised the Department that the development's access arrangements and associated traffic mitigation measures should be to the satisfaction of Council as the relevant roads authority. The Department has consulted with, and considered the comments from, Council throughout its assessment of the SSD application (see **Section 6**) and has included suitable traffic-related conditions in the recommended conditions of consent.
- C.8 The Department is subsequently satisfied the development would be consistent with the relevant aspects of the ISEPP.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

- C.9 SEPP 33 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 if, without mitigating measures in place, the development would have significant risk and/or adverse impact on off-site receptors.
- C.10 The Applicant is seeking development consent for an expansion to an existing data centre. While the development would involve the on-site storage of up to 681,400 L of diesel fuel and 316,800 kg of lithium-ion batteries at any one time, the Department notes these materials are not subject to the dangerous good thresholds outlined under the *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (DoP, 2011). Consequently, the Department is satisfied the development would not be considered a potentially hazardous or potentially offensive industry under SEPP 33.
- C.11 The Department has recommended conditions to manage the storage and handling of diesel fuel at the site, and to ensure any dangerous goods stored at the site do not exceed the screening threshold quantities listed in the *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (DoP, 2011).
- C.12 The Applicant would also be required to prepare and submit a FSS for the development, which would inform the detailed design of the data centre's fire safety systems. The FSS will set out how the development's fire safety system(s), particularly in the context of the diesel back-up generators and lithium-ion batteries on-site, would comply with the relevant Australian Standards and the relevant sections of FM Global's *Loss Prevention Data Sheet 5-32 – Data centres and related facilities*.
- C.13 Subject to the implementation of these conditions, the Department is satisfied the development would be consistent with SEPP 33.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

- C.14 SEPP 55 aims to provide a State-wide approach to the remediation of contaminated land. In particular, SEPP 55 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.
- C.15 Since the 1970s, the site has been primarily used for light industrial and commercial purposes. The EIS included a Detailed Site Investigation (DSI) report for the development, which noted soils across the site comprise of brown silty clay fill and red/grey clay fill with crushed sandstone, which was likely imported during construction of the existing stormwater pipe.
- C.16 Asbestos was reported in one sample location, adjacent to the site's north-western boundary (approximate area of 25 m²). The DSI report noted this discovery was likely an isolated hotspot, and recommended the area be excavated and an asbestos clearance be issued once the material is disposed of to an appropriately licensed waste facility. Subject to the implementation of these measures, the DSI report concluded the site can be made suitable for its intended use.
- C.17 The Department has reviewed the DSI report and is satisfied the site can be suitable for its intended use as a data centre. The Department notes that, under the *Work Health and Safety Act 2011* and its associated regulations, the Applicant must ensure on-site asbestos is monitored, handled, transported and disposed of by appropriately qualified and licensed contractors in accordance with the requirements of SafeWork NSW and the relevant guidelines.

- C.18 In addition, the Department has recommended the Applicant be required to prepare and implement an Unexpected Contamination Finds Procedure to ensure any potentially contaminated material encountered during the construction works is appropriately managed.
- C.19 Subject to compliance with the above, the Department is satisfied the development would be consistent with SEPP 55.

Draft State Environmental Planning Policy (Remediation of Land) (draft Remediation SEPP)

- C.20 The draft Remediation SEPP seeks to retain the key operational framework of SEPP 55, while also adding new provisions relating to changes in categorisation and introducing modern approaches to the management of contaminated land.
- C.21 The development has been assessed against SEPP 55 (see above) and the new provisions outlined in the *Remediation of Land SEPP – Explanation of Intended Effect* (DPE, 2018), and the Department is subsequently satisfied that the development would be consistent with the draft Remediation SEPP.

City of Ryde Local Environmental Plan (LEP) 2014

- C.22 The City of Ryde LEP 2014 aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the City of Ryde LGA. It also aims to conserve and protect natural resources and foster economic, environmental and social well-being.
- C.23 The development is located on land zoned as B7 – Business Park under the City of Ryde LEP 2014. As discussed in **Section 4.2** of this report, the use of the site as a data storage premises is permissible with consent, pursuant to clause 27 of the ISEPP.
- C.24 The Department has consulted with Council throughout the assessment process and has considered all relevant provisions and those matters raised by Council in its assessment of the development (see **Section 6** of this report). The Department concludes that the development is consistent with the relevant provisions of the City of Ryde LEP 2014.

Appendix D Key issues – Community views

- D.1 The Department publicly exhibited the EIS for the development from 18 November 2021 until 15 December 2021 (28 days), and received:
- submissions from City of Ryde Council (Council) and Sydney Water
 - advice from Fire and Rescue NSW, Heritage NSW, the Environment Protection Authority, Transport for NSW and the Department's Biodiversity and Conservation Division.
- D.2 Of the submissions received, only Council objected to the development. The issues raised by Council, the relevant government authorities and the local water provider are addressed in detail in the Department's Assessment Report.
- D.3 No public submissions were received during the exhibition period, therefore there were no issues raised by the community. There are no other community views that need to be taken into consideration by the Commission when making its decision.

Appendix E Recommended instrument of consent

- E.1 The recommended conditions of consent for SSD-33781208 can be found on the Department's website at: <https://www.planningportal.nsw.gov.au/major-projects/projects/talavera-road-data-centre-campus-expansion>.