URBIS

PROPOSED HELIPAD 89-151 OLD CASTLEREAGH ROAD, CASTLEREAGH

Environmental Impact Statement

Prepared for

HELIPORT DEVELOPERS PTY LTD

25 October 2021

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director	John Wynne
Consultant	John Booth
Project Code	P0023242
Report Number	FINAL

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CONTENTS

FIGURES

PICTURES

TABLES

SIGNED DECLARATION

SUBMISSION OF ENVIRONMENTAL IMPACT STATEMENT

Environmental Assessment prepared by:

Names:	**John Wynne (Director)** BTRP (University of Melbourne) Grad Dip Business – Property (RMIT) Fellow of the Planning Institute of Australia **John Booth (Consultant)** BPLAN (HONS) (University of New South Wales) Member of the Planning Institute of Australia
Address:	Urbis Pty Ltd Level 8, 123 Pitt Street Sydney NSW 2000
In respect of:	SEAR No 1604 89-151 Old Castlereagh Road Castlereagh NSW 2749

Applicant and Land Details:

Applicant:	**Heliport Developers Pty Ltd** ABN: 34 003 476 800
Applicant address	89-151 Old Castlereagh Road, Castlereagh NSW 2749
Land to be developed:	89-151 Old Castlereagh Road Castlereagh NSW 2749
Legal description:	Lot 2 DP 1013504
Project Summary	Proposed use and development of a Helipad.

We certify that the content of the Environmental Impact Statement, to the best of our knowledge, has been prepared:

- In accordance with the Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.
- Contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which that statement relates.
- The information contained in this statement is neither false nor misleading.

Name/Position: Signature: Date:	John Wynne  25 October 2021	John Booth  25 October 2021

GLOSSARY AND ABBREVIATIONS

Reference	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
AQIA	Air Quality Impact Assessment
ARI	Average Recurrence Interval
BAM	Biodiversity Assessment Method
BC Act	*Biodiversity Conservation Act 2016*
BC Reg	*Biodiversity Conservation Regulation 2017*
BDAR	Biodiversity Development Assessment Report
CEEC	Critically Endangered Ecological Community
CDA	Concept Development Application
CEMP	Construction Environmental Management Plan
CMP	Construction Management Plan
CTMP	Construction Traffic Environmental Plan
DCP	Development Control Plan
DPIE	NSW Department of Planning, Industry and Environment
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA Regulation	*Environmental Planning and Assessment Regulation 2000*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
HIPAP	Hazardous Industry Planning Advisory Paper
LEP	Local Environmental Plan
MNES	Matters of National Environmental Significance
NRAR	Natural Resource Access Regulator
OEMP	Operational Environmental Management Plan
PBP	Planning for Bushfire Protection

Reference	Description
PCT	Plant Community Type
POM	Plan of Management
PSI	Preliminary Site Investigation
SAII	Serious and Irreversible Impacts
SARs	Commonwealth Supplementary Assessment Requirements
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
Site	Lot 2 DP 1013504
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2009*
SSD	State Significant Development
SSDA	State Significant Development Application
TIA	Traffic Impact Assessment
UXO	Unexploded Ordnance
VIS	Vegetation Integrity Score
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

The Environmental Impact Statement (**EIS**) has been prepared on behalf of Heliports Developers Pty Ltd in support of a State Significant Development Application (**SSDA**) for a proposed helipad at 89-151 Old Castlereagh Road, Castlereagh.

This EIS has been prepared in response to the Secretary's environmental assessment requirements (**SEARs**) issued on 25 August 2021 under clause 3 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (**EP&A Regulation**) and section 4.15 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).

Specifically, this DA is seeking consent for the construction and operation of a helipad facility at the subject site, comprising the following:

- Demolition of two existing single storey sheds and hardstand extending beyond the footprint of the sheds.
- Demolition of one small single storey shed and associated pavement.
- Removal of one existing inground water storage tank.
- Removal of one flood light.
- Removal of 12 trees.
- Reinstatement of grass turf in locations of removed hardstands and pavement.
- Construction of new concrete hardstand in location of existing concrete hardstands.
- Reuse of existing warehouse for helicopter maintenance and storage (hanger).
- Installation of new lighting as required for the FATO.
- Installation of new above ground aviation fuel tank.
- Minor earthworks associated with the above works.

The operational details of the proposed helipad are as follows:

- A maximum of 25 flights per day.
- 7 days per week operation.
- Operating hours from First light to 10:00pm, with the bulk of activities between 8:00am and 5:30pm.

The proposed development has an estimated capital investment value (**CIV**) of $1.1 million as defined under clause 3 of the EP&A Regulations.

Under Schedule 1 of the *State Environmental Planning Policy (State and Regional Development 2011)*, development for the purpose of air transport facilities that has a CIV of more than $30 million is classified as State Significant Development (**SSD**). As the proposal is less than $30 million the application is not classified as SSD.

However, as the site is located within Tourism zoned land under the *State environmental Planning Policy (Penrith Lakes Scheme) 1989* (**Penrith Lakes SEPP**), The Minister is the consent authority for the proposal in accordance with Part 1 clause 6(a) of the Penrith Lakes SEPP. Accordingly, this DA is being lodged with the DPIE seeking development consent for the construction and operation of a helipad.

PROJECT HISTORY

Sydney Helicopters are a commercial helicopter operator who have been providing chartered flights, tours and emergency services around the Sydney Metropolitan Area and greater NSW since 1985 operating out of their current site located at 25 Wentworth Street, Clyde.

The proposal accommodates the relocation of the long-standing Sydney Helicopters operation that has been disrupted by the resumption of its current site at Granville for the Sydney Metro Project. Approval of the

helipad is essential to facilitate the relocation and survival of the Sydney Helicopters operation and the essential services they provide.

After an extensive 10-month review of potential sites and ongoing discussion with Sydney Metro and consultation with both Transport for NSW (**TfNSW**) and the Greater Sydney Commission (**GSC**), who oversee government land assets in the Western Sydney area, the landholding at 89-151 Old Castlereagh Road, Castlereagh was identified as the most suitable location for Sydney Helicopters to continue its operation. Sydney Helicopters and its related entity Aerotech Sydney is now seeking to relocate their operation to the site within the Penrith Lakes Scheme Locality.

STRATEGIC CONTEXT

The proposal has also been assessment in accordance with its consistency with the key planning objectives, priorities and actions outlined within relevant strategic land use and transport planning policies including:

- NSW Premier Priorities;
- *Greater Sydney Region Plan: A Metropolis of Three Cities*;
- Our Greater Sydney 2056: Western City District Plan; and
- Hawkesbury-Nepean Valley Flood Risk Management Strategy.

STATUTORY CONTEXT

This EIS considers the relevant regulatory framework applicable to the site and the proposal and contains an assessment of the proposal against the following statutory controls and regulatory instruments:

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2000*
- *State Environmental Planning Policy (Penrith Lakes Scheme) 1989*
- *State Environmental Planning Policy No 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No 55 – Remediation of Land*;
- *National Airports Safeguarding Framework*;
- *CAAP 92-2(2) Guidelines for the Establishment and Operation of Onshore Helicopter Land Sites*;
- *Penrith Local Environmental Plan 2011*.

Schedule 1 clause 20 of the *Protection of the Environment Operations Act 1997* (**POEO Act**) notes that Helicopter-related activities, meaning the landing, taking-off or parking of helicopters (including the use of terminals and the use of buildings for the parking, servicing or maintenance of helicopters), being an activity that is conducted within 1 kilometre of a dwelling not associated with the landing, taking-off or parking of helicopters, is a scheduled activity which required environmental licensing. The Applicant has an existing environment protection licences (**EPL**) and has commenced engagement with the NSW Environment Protection Agency about the transferring of the license from the existing facility to the new site at the Penrith Lakes.

COMMUNITY & STAKEHOLDER ENGAGEMENT

Community and stakeholder engagement has been undertaken by Sydney Helicopters in the preparation of the DA. Given the designation of the proposal under Section 4.10 of the EP&A Act and the specific requirements around safe airspace, concentrated engagement has been undertaken with the following groups, with particular focus on ensuring the safety of any future protected airspaces from the future Western Sydney Airport (**WSA**):

- Airservices Australia;
- Civil Aviation Safety Authority; and
- Western Sydney Airport.

In addition to the above groups, and the additional ones identified within the SEARs, Sydney Helicopters has also undertaken considerable consultation with the following stakeholders:

- Penrith City Council – previous meetings and concurrence from Warwick Winn, General Manager of Penrith Council dated 15 April 2020 confirming support from Council for the proposal;
- NSW Rural Fire Service – Concurrence from Rob Rogers, Deputy Commissioner of the RFS confirmed support for the application dated 28 April 2020, noting the proposed location of the new facility would be of considerable benefit and a strategic aviation asset for the RFS;
- Sydney Metro - correspondence on 27 March 2020 notes that Sydney Metro is providing Sydney Helicopters ongoing support as a result of the forced acquisition by agreeing to reimburse all reasonable associated costs with the relocation to the new site. Noting that the relocation and approval of a new facility is time sensitive as a result of Sydney Metro's requirements to access the Granville site, Sydney Metro are fully supportive of the proposal; and
- Penrith Lakes Development Corporation – Following an initial Noise Impact Assessment undertaken at the Site on 8 May 2020 accompanied by members of the PLDC to make an evaluation of the proposed facility and provide an assessment of potential noise impacts, Jacqueline Vozzo, CEO of PLDC confirmed the PLDC's board supports the proposal in principle.

ENVIRONMENTAL IMPACT ASSESSMENT

This EIS assesses the proposed development in relation to relevant planning instruments and policies and considers the likely environmental impacts of the proposal, including:

- Noise & Vibration;
- Airspace Safety;
- Biodiversity;
- Aboriginal Heritage;
- Soil & Water;
- Traffic & Transport;
- Air Quality;
- Flooding;
- Hazard & Risk;
- Non-Aboriginal Heritage;
- Visual Impact; and
- Waste Management.

Few mitigation measures have been identified as being required to reduce the low level of anticipated impacts. Recommended mitigation measures for the assessed issues are:

- Noise & Vibration:
  - Construction should be undertaken within the appropriate hours:
    - Monday to Friday7 am to 6 pm.
    - Saturday 8 am to 1 pm.
    - No work on Sundays or public holidays.
  - Where practicable, any excavation required should be completed using rock saws as opposed to pneumatic hammers.
  - If piling is required for the hardstand, use of augured, CFA or bored piling should be used rather than impact piling.

  - Turn off plant that is not being used.
  - Locate noisy plant away from potentially noise affected neighbours or behind barriers, such as sheds or walls.
- Aboriginal Heritage:
  - The ADD report should be kept as evidence of the Due Diligence process having been applied to the subject area.
  - It is recommended that the proposed works under the revised scope can proceed with the Archaeological Finds Procedure in place.
  - A request should be filed with the Department of Planning, Industry and Environment to waive the Aboriginal heritage SEARs based on the outcome of the ADD.
  - If a waiver is granted, the development may proceed with caution, subject to the appropriate archaeological chance finds and human remains procedures, as detailed in **Appendix G**.
- Soil & Water:
  - Surface water runoff during construction will be managed via sediment and erosion control measures in accordance with the industry standard 'blue book', including sediment fences and re-turfing disturbed areas as soon as possible.
  - Raingardens are effective in the removal of most pollutants including suspended solids, nitrogen, phosphorous, heavy metals and hydrocarbons.
  - Risk of large fuel or oil leaks are to be mitigated through the use of self-bunded fuel storage units.
  - Runoff from the proposed works, once discharged into the existing stormwater network, will enter an existing dam on the property before travelling over 70m to Penrith Lakes (in events where the dam overtops). Therefore, the impact on the Penrith Lakes is considered negligible.
- Traffic & Transport:
  - Traffic control would be required to manage and regulate traffic movements into and out of the site during construction.
  - Disruption to road users would be kept to a minimum by scheduling intensive delivery activities outside of peak network hours.
  - Construction and delivery vehicles would be restricted to using Old Castlereagh Road, Castlereagh Road, M4 Motorway, Great Western Motorway and Mulgoa Road.
- Air Quality:
  - Communication management of aircraft movements.
  - Record or all dust and air quality complaints and exceptional incidents.
  - Perform daily on-site and off-site inspections where receptors are nearby.
  - Plan the site layout so machinery and dust causing activities are located away from receptors.
  - Ensure all on-road vehicles comply with relevant vehicle emission standards and manage idling.
- Waste Management:
  - Waste management measures, including waste servicing, waste avoidance, re-use and recycling, communication strategies, signage, monitoring, and reporting are to be implemented in the operational phase of the development.
- Hazard & Risk:
  - The site does not operate as a facility that sends and receives DGs. It uses consumable amounts of DGs in small volume packages. Fuel is expected to use 250,000 L a year resulting in nine deliveries per year which is below the transport threshold for flammable liquids.

Each of the recommended mitigation measures has been reviewed in detail and it is considered that they can be incorporated as conditions of consent and implemented during the demolition, construction and operational phases of the development.

EVALUATION OF PROJECT

The EIS demonstrates the proposal will not result in any significant departures from applicable controls or unreasonable environmental effects. The proposed development is considered appropriate and reasonable based on the following:

- The proposed use and operation is consistent with the intended use of the Tourism zoned land within the Penrith Lakes and will be synergistic with other approved uses within the area.
- The proposal will not result in any significant change to the approved built form on the site.
- Operational impacts have been assessed to fall below the required thresholds of relevant industry criteria.
- Mitigation measures have been identified to ensure the minimal impacts resulting will be reduced as much as possible to protect the amenity of surrounding sensitive land uses.
- The proposal will enable Sydney Helicopters to relocate its existing facility from its current site at Granville which has been resumed under the Sydney Metro project and allow Sydney's oldest commercial helicopter flight service continue operation.
- The proposal has been assessed as being consistent with the relevant statutory requirements including the EP&A Act, relevant SEPPs, and EPI's.
- No issues were raised in relation to the proposed use and operation during the pre-lodgement consultation with community and agencies.

In view of the above, it is submitted that the proposal is in the public interest and should be approved subject to appropriate consent conditions.

1. INTRODUCTION

1.1. PROJECT OVERVIEW

This Environmental Impact Statement (**EIS**) has been prepared by Urbis Pty Ltd (**Urbis**) on behalf of Heliport Developers Pty Ltd (**Sydney Helicopters**)(**the Applicant**) in support of a Development Application (**DA**) for a Helipad (**the proposed development**) at 89-151 Old Castlereagh Road, Castlereagh (**the site**).

This EIS has been prepared in response to the Secretary's environmental assessment requirements (**SEARs**) issued 25 August 2021 under clause 3 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (**EP&A Regulations**) and section 4.15 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).

Figure 1 Local Context

Source: Urbis, 2020

1.2. THE SUBJECT SITE

The site subject to this application is located at 89-151 Old Castlereagh Road, Castlereagh and is legally identified as Lot 2 DP 1013504. The site is 11.26-ha in area and is located within the Penrith Lakes Scheme (**PLS**). The PLS was created in 1981 by the three major shareholders of the site at the time being Boral, Holcim, and Hanson to create the Penrith Lakes Development Corporation (**PLDC**) for the purpose of securing access to the sand and gravel resources within the scheme area.

The PLS occupies 1935-hectare (**ha**) adjoining the Blue Mountains World Heritage Area and adjacent to the Hawkesbury/Nepean river system. The project is a joint venture between the Corporation and the NSW State Government to adaptively reuse the near exhausted quarry as a major recreational facility for the population of Western Sydney. Further detail and site-specific constraints are detailed in **Section 2**.

1.3. PROPOSED DEVELOPMENT

The DA seeks consent for the construction and operation of a Helipad with a maximum of 25 aircraft vehicle movements per day. The Helipad facility is to be comprised of the following:

- Demolition of 2 single-storey sheds and integrated hardstand extending beyond the footprint of the sheds.
- Demolition of one single storey shed and associated pavement.
- Removal of one inground tank.
- Removal of one flood light.
- Removal of 12 trees.
- Reinstatement of grass turf in locations of removed hardstands and pavement.
- New concrete hardstand in the location of existing concrete hardstands.
- New lighting as required for the Final Approach and Take off (FATO).
- Minor earthworks and tree removal are also proposed as part of the development to facilitate the delivery of the Helipad.

A site layout plan is provided within **Appendix B** for reference.

The proposed development has an estimated capital investment value (**CIV**) of $1.1 million as defined under clause 3 of the EP&A Regulations.

Under Schedule 1 of the *State Environmental Planning Policy (State and Regional Development 2011)*, development for the purpose of air transport facilities that has a CIV of more than $30 million is classified as State Significant Development (**SSD**). As the proposal is less than $30 million the application is not classified as SSD.

However, as the site is located within Tourism zoned land under the *State environmental Planning Policy (Penrith Lakes Scheme) 1989* (**Penrith Lakes SEPP**), The Minister is the consent authority for the proposal in accordance with Part 1 clause 6(a) of the Penrith Lakes SEPP. Accordingly, this DA is being lodged with the DPIE seeking development consent for the construction and operation of a Helipad.

This EIS has been prepared to support the DA and responds to the relevant matters listed within the SEARs issued on 25 August 2021 (refer to **Table 1**).

1.4. PROJECT PURPOSE

Sydney Helicopters are a commercial helicopter operator who have been providing chartered flights, tours and emergency services around the Sydney Metropolitan Area and greater NSW since 1985 operating out of their current site located at 25 Wentworth Street, Clyde.

Sydney Helicopters is a successful business providing a range of services including:

- Provision of emergency services including flood and emergency relief.
- Provision of fire support services including waterbombing and hazard reduction.
- Provision of other services to customers such as transport, aerial photography and survey, joy flights, tourism flights and other services.

During the Black Summer bushfires of 2019/2020 Sydney Helicopters flew over 4,429 hours of essential aerial firefighting services across NSW. In doing so, the Applicant dispensed water through aerial waterbombing activities. In addition to the waterbombing activities, Sydney Helicopters supplied valuable FLIR and aerial incendiary services along with air attack and aerial observation platforms. Sydney Helicopters has been identified by AFAC (the National Council for fire and emergency services) as a leader in the provision of aerial fire fighting services and has been awarded two aerial firefighting contracts to protect the Sydney basin both of which are to be based at the Penrith site. Given the severity of bushfire risk

it is imperative such an important strategic aviation asset for the NSW Rural Fire Service (**RFS**) is operational as readily as possible.

The proposal accommodates the relocation of the long-standing Sydney Helicopters operation that has been disrupted by the resumption of its current site at Granville for the Sydney Metro Project. Approval of the Helipad is essential to facilitate the relocation and survival of the Sydney Helicopters operation and the essential services they provide.

After an extensive 10-month review of potential sites and ongoing discussion with Sydney Metro and consultation with both Transport for NSW (**TfNSW**) and the Greater Sydney Commission (**GSC**), who oversee government land assets in the Western Sydney area, the landholding at 89-151 Old Castlereagh Road, Castlereagh was identified as the most suitable location for Sydney Helicopters to continue its operation. Sydney Helicopters and its related entity Aerotech Sydney is now seeking to relocate their operation to the site within the Penrith Lakes Scheme Locality.

In order to facilitate Sydney Helicopters relocation, many months of discussions were undertaken with both the DPIE's Transport Assessments team and the Green & Resilient Places team to establish an appropriate approval pathway for a 'like-for-like' Heliport facility at the site. As Heliports are a non-permissible land use at the Site, Sydney Helicopters sought to amend the Penrith Lakes SEPP to include Heliports as permissible within the Tourism zoned land use table of the Penrith Lakes SEPP.

The Applicant sought to have this request included in a proposed amendment to the Penrith Lakes SEPP initiated by DPIE that was on public exhibition from the 27 April to 11 May 2020. The Applicants proposal was considered timely and enjoyed support from a number of key stakeholders including TfNSW, Penrith Council and the RFS, and DPIE encouraged the Applicant to make a submission to the proposed amendment requesting that Heliports be added as a permissible land use within the Tourism Zone. DPIE at this time also supported a DA for a Heliport being lodged and processed concurrent with the SEPP Amendment process and accordingly SEAR's for a Heliport were issued by DPIE on 29 June 2020.

After making a submission to the draft SEPP amendment, DPIE subsequently advised the Applicant that the proposal to included Heliports as a permissible use would not be advanced through the current draft amendment and advised Sydney Helicopters to submit a fresh, separate SEPP amendment request. The Applicant responded to this advice by submitting a request or an amendment to the Penrith Lakes SEPP to include a Heliport as permissible development on the subject site with DPIE on the 25 June 2020.

DPIE on the 16 December 2020 confirmed that the Minister had approved the Department to commence the process to amend the Penrith Lakes SEPP to include Heliports as permissible development on the site, along with a number of other matters. However, the proposed amendment to the Penrith Lakes SEPP was not placed on public exhibition until August 2021.

The significant delays with the advancement of the proposal to amend the Penrith Lakes SEPP to include Heliports as permissible development on the site along with requirement to vacate their existing site by 31 October 2021, have necessitated Sydney Helicopters submitting this application for a Helipad which is permissible development and can be approved under the provisions of the existing SEPP.

A Helipad accommodates most aspects of the Sydney Helicopters operation and approval enables the re-establishment of the business operation which has been disrupted by the acquisition process. Sydney Helicopters intend to continue to pursue the Penrith Lakes SEPP amendment to ultimately include Heliports as permissible at the Site, as it is their intention to eventually restore the full operation of the facility as 'like-for-like' with their previous Granville facility and deliver services to the public consistent with the Tourism zoning of the site.

1.5. SCOPING STUDY & REQUEST FOR SEARS

A Form A and supporting Scoping Letter requesting SEARs was lodged with the Team Leader, Transport Assessments, of the DPIE on the 27 July 2021. The Scoping Letter outlined:

- A description of the site.
- A description of the Project.
- Planning considerations and relevant legislation.
- The proposed stakeholder consultation program and approach.

- Key environmental considerations.

The Scoping Letter detailed that the site is capable of accommodating the proposed Helipad. The letter highlighted the extensive environmental assessment to be undertaken and noted the Applicant was committed to embracing an integrated, engaging, and well founded EIS for the proposed Air Transport Facility at the site.

SEARs were issued to the Applicant on the 25 August 2921 (refer to **Section 1.8**).

1.6. PROJECT ALTERNATIVES

Sydney Helicopters considered a number of alternatives for their proposal summarised below:

1.4.1. A Do-Nothing Approach

A 'do nothing' approach would result in significant and unacceptable loss to Sydney Helicopters of a long standing and highly successful business. A do-nothing approach would mean the Applicant would forgo the opportunity to:

- Secure the future of Sydney's longest running private commercial helicopter flight service which has been displaced as a result of the State governments proposed Sydney Metro West.
- Continue to shape and develop the PLS as a major recreational facility for the population of Western Sydney by proposing a land use and development type that will ultimately encourage additional tourism opportunities to the area and provide local residents with additional recreational activities associated with the use of a Helipad. This is inclusive of acting as an additional transport mode to support traffic via chartered flights to the Blue Mountains, and destinations further afield in the Hunter Region, Mudgee, and Bathurst.
- Continue to support the Emergency Services of NSW, including the RFS who Sydney Helicopters play a supporting role as a contractor in critical fire-bombing exercises within the Greater Sydney area. Similarly, the proposed relocation to the PLS at the foothills of the Blue Mountains would provide considerable benefit and a strategic aviation asset for the RFS and other emergency service providers as and when required.
- Provide employment during the proposed construction and operation of the facility.

1.4.2. Site Selection

During the early stages of both negotiations with TfNSW regarding the acquisition of the existing Granville site, as well as with the ongoing discussions with the Department to action the request for the Penrith Lakes SEPP amendment, extensive consideration was given to the site suitability and the potential location within the Sydney basin.

Following an extensive review over many months, the site has been identified as the only offering similar characteristics and conditions as the existing site at Granville. This conclusion was also arrived at by TfNSW who have supported the Applicants pursuit of the site to date. A summary of the other considered sites within Sydney are detailed below:

Bankstown Airport

A previous meeting held between the Applicant and TfNSW on 31 October 2019 confirmed that relocation of the facility to an existing airport is not an option. Bankstown Airport is not a standalone heliport as is the current situation and due diligence investigation into this option noted that relocation to an existing airport would have a number of significant detrimental impacts on the Sydney Helicopters business on all service lines due to additional flying times and unrecoverable costs.

Sydney Olympic Park – Parking Lot 4 or Lot 5

The P4 & P5 Car Park of the Sydney Olympic Park is ultimately considered unsuitable for a number of reasons. Primarily the sites are physically small and are constrained by tall buildings and urban development presenting safety and amenity impact risks. The proposed development type is ultimately not supported by the SOPA as it does not align with the objectives of the B4 Mixed Use Zone. Whilst the development type is not specifically prohibited, the proposal does not align with the objectives of the zoning.

Additionally, the proposed P4 site which adjoins the M4 Western Motorway corridor is not considered to be suitable for a proposed air transport facility given the inherent risk of aircrafts landing and taking off in proximity to a motorway.

P5 has similarly been ruled out by SOPA. Correspondence with Sally Hamilton, SOPA's director environment and planning on the 10 January 2020 has noted the P5 site is not an option given the importance of P5 as an operating car park. Given P5's proximity to the Sydney Showground, Sydney Olympic Park Sports Halls and Monster Skatepark, P5 is not a site that is an option for future development.

3 Thackeray Street, Camellia

The development type is a prohibited land use within the IN3 zoning under the Parramatta LEP 2011. Similarly, the site at 3 Thackeray Street is ultimately not considered suitable given the future commitment of the land use in relation to the Parramatta Light Rail stabling and maintenance facility. Confirmed as unsuitable via correspondence from Tim Houlihan, senior acquisition manager at Sydney Metro on 11 December 2019.

University of Western Sydney Kingswood Campus & Nepean TAFE College

The site offers numerous building improvements and has the benefit of being suitably distant from residential properties and within proximity to the Penrith CBD. However, the development type is prohibited within every zoning type that is captured within the site's boundary. Similarly the development type does not address the objectives of any of any of the available zoning types, the argument cannot be made that this site is a better option then the proposed site at 189-278 Old Castlereagh Road, Castlereagh as the proposal fits within the objectives of the Tourism zoning under the Penrith Lakes SEPP.

419-499 Londonderry Road, Londonderry

The site is a regular shaped allotment which is generally flat and cleared of vegetation and offers good accessibility being located in proximity to The Northern Road. The site however is zoned for Village, which under the PLEP 2010 is land uses designated for services and facilities that are associated with rural living. The development type is thereby prohibited and not suitable given the proximity of residential dwellings on every side of the property. Similarly, the site has previously been investigated for the potential sale/ transfer to the Department of Defence and Defence Housing Authority for development of further residential dwellings. Given the future potential development of the site for residential purposes an air transport facility would not be acceptable. Similarly, part of the site are bushfire prone as well as containing a natural watercourse.

The Chase, Kingswood

The site is moderately undulating in topography with the benefit of sealed access roads to the site and is currently occupied by Sydney Water Corporation. Air transport facilities are prohibited noting that RU4 is predominantly to enable sustainable primary industry and other compatible land uses. The development type does not address the objectives of the zone, and additionally is a potential threat to the existing Sydney Water operation. The site offers limited development opportunities and would require extensive works to accommodate an air transport facility. The site, given Sydney Water has an existing lease due to expire in 2022 with two further options for 20 years each, is ultimately not suitable for an air transport facility.

1.7. SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The following table provides a summary of the SEARs and outlines where the requirements are addressed in the main body of the report or appendices (ie specialist consultant report).

Table 1 - Summary of SEARs

Requirement	Location in EIS
General Requirements The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in parts 2 and 3 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 and Schedule 2 of the *State Environmental Planning Policy (Penrith Lakes Scheme) 1989*.	The Environmental Impact Statement (**EIS**) has been prepared in accordance with and meet the minimum requirements of parts 2 and 3 of Schedule 2 the EP&A Regulation and Schedule 2 of the *State Environmental Planning Policy (Penrith Lakes Scheme) 1989*.
Key Issues	
Statutory Context – including: ▪ A description of the proposal, including hours of operation, site suitability and permissibility of the site for the development. ▪ Consideration of relevant planning strategies, environmental planning instruments, development control plans (DCPs) and justification for any inconsistencies. ▪ Consideration of alternative locations considered. ▪ A list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out, including whether the proposal would require an Environmental Protection License under the *Protection of the Environment (Operations) Act 1997* and therefore constitute integrated development.	**Section 5**
Noise and Vibration – including: ▪ Description of potential noise and vibration sources during construction and operation, mitigation and monitoring measures proposed. ▪ Assessment of the likely construction and operational noise impacts on affected receivers in accordance with: - the Interim Construction Noise Guideline (DECC, 2009) - the Noise Policy for Industry (EPA, 2017). ▪ Assessment of the likely vibration impacts in accordance with Assessing Vibration: a technical guideline (DECC, 2006).	**Section 7.1.1** **Appendix C**
Airspace – including:	**Section 7.1.2**

Requirement	Location in EIS
▪ Assessment of impacts of and to airspace, including but not limited to flight path/s, altitudes, obstructions and obstacles during operation (including construction cranes in the vicinity of the site and its flight path/s), air turbulence, the Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Services Operations Surface (PANSOPS), as well as, the impact on future air transport operations into or out of Western Sydney (Nancy Bird Walton) Airport, the RAAF Base in Richmond and the Nepean Hospital Helipad. ▪ Reverse sensitivity analysis (i.e. existing landscaping, lighting and land uses) to identify potential impacts from adjoining land uses on flight operations. ▪ Aviation safeguarding requirements/considerations within the Western Sydney Aerotropolis Planning Package, including: - the State Environmental Planning Policy (Western Sydney Aerotropolis 2020. and - the Western Sydney Aerotropolis Plan. ▪ An Aviation Report by suitably qualified aviation specialists which outlines the specific aviation requirements relative to the construction of the helicopter landing site and its ongoing use including size, shape, structural design standards, markings, obstructions, flight paths and approvals etc with consideration of CASA Civil Aviation Advisory Publication (CAAP) 92-2(2) Guidelines for the establishment and operation of onshore Helicopter Landing Sites and International Civil Aviation Organization Volume II annex 14. ▪ Impact of flight paths on use of drones during competitive sporting and major events at the Sydney International Regatta Centre.	**Appendix D**
Biodiversity – including: ▪ The Proponent must assess biodiversity impacts in accordance with section 7.9 of the Biodiversity Conservation Act 2016 (BC Act), the Biodiversity Assessment Method (BAM), and be documented in a Biodiversity Development Assessment Report (BDAR). ▪ The BDAR must include information in the form detailed in section 6.12 of the BC Act, clause 6.8 of the Biodiversity Conservation Regulation 2017 and the BAM. ▪ The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under section 6.10 of the BC Act.	**Section 7.1.3** **Appendix E**

Requirement	Location in EIS
▪ The Proponent must assess any impacts on biodiversity values not covered by the BAM. This includes a threatened aquatic species assessment (Part 7A Fisheries Management Act 1994) to address whether there are likely to be any significant impact on listed threatened species, populations or ecological communities listed under the Fisheries Management Act 1994 (FM Act). ▪ The Proponent must identify whether the development, or any component of the development, would be classified as a Key Threatening Process (KTP) in accordance with the listings in the BC Act, FM Act and the *Environmental Protection and the Biodiversity Conservation Act 2000* (EPBC Act).	
Land Use – including: ▪ Assessment of matters outlined in the *Developments adjacent to* NPWS lands: Guidelines for consent and planning authorities (NPWS 2020). ▪ Assessment on the potential impacts that the proposal will have on the use of the Sydney International Regatta Centre with consideration that the helipad is within 1km radius of the Regatta Lake start line. ▪ Details of management measures to minimise impacts on the Sydney International Regatta Centre during ordinary operations and events including but not limited to noise and vibration, wind and air turbulence and use of drones.	**Section 7.1.1** **Section 7.1.2** **Section 7.1.5** **Appendix C** **Appendix D** **Appendix I**
Aboriginal Heritage – including: ▪ Assessment of potential impacts on Aboriginal cultural and archaeological heritage documented in an Aboriginal Cultural Heritage Assessment Report prepared in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010) and the Guide to Investigating, *Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011). ▪ Consultation with Aboriginal people in accordance with *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010)	**Section 7.1.4** **Appendix G** **Appendix H**
Non-Aboriginal Heritage – including: ▪ Assessment of impacts on non-Aboriginal cultural heritage, including consideration of visual impacts on views to and from surrounding heritage items, as well as noise and vibration impact on the public's enjoyment and appreciation of heritage items.	**Section 7.2.3**

Requirement	Location in EIS
Soil and Water – including: ▪ Assessment of the surface water and runoff impacts during construction and operation (including any association with the discharge of pollutants, fuel/oil leaks, chemical storage and fire safety equipment). proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options and characterisation of the receiving waters. ▪ Assessment of water quality impacts on recreational uses of the Sydney International Regatta Centre. ▪ Details of any potential discharge of pollutants to water and how potential water pollution would be mitigated. ▪ Characterisation of the nature and extent of any contamination (including disturbance of sediments in Penrith Lakes) on the site and surrounding area. ▪ A Stormwater Management Plan that outlines the general stormwater management measures for the proposal, including erosion and sediment controls, and first flush systems. ▪ A Water Sensitive Urban Design strategy addressing water conservation, water quality, water quantity, operation and maintenance.	**Section 7.1.5** **Appendix I** **Appendix J** **Appendix K**
Flooding – including: ▪ A flood impact assessment of the proposed development for a full range of flood events up to and including the Probable Maximum Flood (PMF). ▪ Assessment of potential impacts on floodplain and stormwater management including flood hazard. the impact of flooding on the proposed development, and the development's impact on flood behaviour. measures to appropriately manage risk to life from flooding. and egress and safety in a flood event and any impact to flooding in the catchment with consideration of the Hawkesbury-Nepean Valley Flood Risk Management Strategy.	**Section 7.2.1** **Appendix L**
Traffic & Transport – including: ▪ A traffic and transport assessment detailing parking requirements. traffic generation during construction and operation. impacts on affected intersections and the surrounding road network. impacts on other land uses within the Penrith Lakes Scheme. and impacts on pedestrian and actively transport safety and functionality.	**Section 7.1.6** **Appendix M**

Requirement	Location in EIS
▪ Details of proposed vehicular access points, and vehicle parking areas in accordance with relevant standards.	
Hazards and Risk – including: ▪ An Aviation Safety Case. ▪ A preliminary risk screening in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development. ▪ Details of the type and quantity of all chemical substances to be used or stored on site during construction and operation of the proposal. ▪ Procedures for the classification, assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of as part of the proposal, in addition to the requirements for liquid and non-liquid wastes during construction and operation of the proposal. ▪ Measures to be used to minimise the risk of incidents, and the procedures to be employed in the event of an incident.	**Section 7.2.2** **Appendix N**
Visual – including: ▪ Assessment of visual and lighting impacts, how the development integrates architecturally within the context of the locality and proximity to the Blue Mountains Escarpment, associated signage, impacts on privacy and views.	**Section 7.2.4**
Air Quality – including: ▪ Description of potential impacts on the environment and aircraft operations. Sources include dust created by aircraft movements. An air quality impact assessment in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales 2016.	**Section 7.1.7** **Appendix O**
Waste – including: ▪ Details of how waste will be managed during construction and operation, with reference to relevant EPA guidelines.	**Section 7.2.5**
Environmental Management and Monitoring – including: ▪ Description of measures based on SMART principles to manage, mitigate or offset potential impacts during construction and operation.	Refer to the identified mitigation measures within **Section 8**

Requirement	Location in EIS
▪ Description of environmental monitoring programs to be employed during construction and operation.	
Consultation During the preparation of the EIS, consultation with relevant local, State and Commonwealth government authorities, service providers and community groups including those listed below and address any issues they may raise in the EIS: ▪ Department of Primary Industries (Fisheries). ▪ NSW Environment Protection Authority. ▪ Airservices Australia. ▪ Civil Aviation Safety Authority. ▪ Bureau of Meteorology. ▪ NSW Rural Fire Service. ▪ Fire & Rescue NSW. ▪ NSW SES. ▪ Western Sydney Airport. ▪ NSW Health Infrastructure. ▪ Penrith City Council. ▪ Office of Sport (Sydney International Regatta Centre). ▪ Special interest groups, including local Aboriginal land councils and Registered Aboriginal Parties. ▪ Surrounding landowners and occupiers that are likely to be impacted by the proposal.	Refer to **Section 6**

1.8. STRUCTURE OF THE EIS

The EIS provides the following sections:

- **Section 2:** describes the site and provides a description of the proposed development.
- **Section 3:** details the strategic context including the planning policies and guidelines relevant to the site and the proposal.
- **Section 4:** provides a detailed assessment of the State, regional and local strategic planning policies and the development contributions framework.
- **Section 5:** detailed assessment of the application against the relevant strategic framework.
- **Section 6:** details the community and stakeholder engagement undertaken by the applicant as part of the preparation of this EIS.
- **Section 7:** provides a comprehensive assessment of the existing environment, potential impacts, and mitigation measures for each of the key criteria in the SEARs.

- **Section 8:** a summary and identification of the proposed mitigation measures for the development.
- **Section 9:** provides an assessment of the proposal against the matters of consideration listed in Section 4.15 of the EP&A Act 1979.
- **Section 10:** provides concluding statements and a recommendation for determination of the application.

2. CONTEXT AND SITE ANALYSIS

The site subject to this application is located at 89-151 Old Castlereagh Road, Castlereagh, and is legally identified at Lot 2 DP 1013504, an 11.26-ha landholding located within the Penrith Lakes Scheme (**PLS**).

The PLS was created in 1981 by the three major shareholders of the site at the time being Boral, Holcim, and Hanson to create the PLDC for the purpose of securing access to the sand and gravel resources within the Scheme area. The PLS occupies 1935-ha of floodplain adjoining the Blue Mountains World Heritage Area and runs adjacent to the Hawkesbury/ Nepean river system. The project is a joint venture between the Corporation and the NSW State Government to adaptively reuse the near exhausted quarry as a major recreational facility for the population of Western Sydney.

2.1. REGIONAL CONTEXT

The site is owned by Heliports Developers Pty Ltd and contained the former offices of the Penrith Lakes Development Corporation Ltd (**PLDC**) and is located at the southern extent of the Penrith Lakes SEPP Land Application Map. It is located within the Penrith City Council LGA and is approximately 2.7 km north-west of the Penrith Central Business District (**CBD**), 32 km east of the Parramatta CBD and 50 km from the Sydney CBD (**Figure 2**).

The PLS was at one point the largest sand and gravel quarry in the Southern Hemisphere and has since established a robust vision for the future rehabilitation of the quarry operation. This rehabilitation is guided by the Penrith Lakes SEPP, developed in 1989 to ultimately provide a development control process to ensure that environmental and technical matters are considered in the development of land to which the SEPP applies.

Figure 2 Locality Map

Source: Urbis, 2020

The site is linked to the Sydney CBD in the east and the Blue Mountains in the west by the nearby Great Western Highway and M4 Motorway south of the site. The Northern Road provides connections to Sydney's outer regions including Richmond in the north, with connections to the future Western Sydney Airport, Campbelltown, and Canberra to the south.

Land use in the precinct is directed by the Penrith Lakes SEPP. The Penrith Lakes SEPP provides a development process that ensures that environmental and technical matters are considered in the implementation of the PLS. Surrounding land uses include tourism-oriented activities, parkland, and a number of employment uses. An amendment to the Penrith Lakes SEPP was approved by the DPIE on 10 July 2020 to extend the existing Employment zone boundary to the lots adjacent to the sites south. Lot's 308 & 309 DP 752021, to facilitate the delivery of the future Nepean Business Park.

2.2. LOCAL CONTEXT & SURROUNDING DEVELOPMENT

The site is accessed by Old Castlereagh Road, to which the site has an approximate 630-m frontage. This is intersected with Castlereagh Road, which provides a direct southern link to the Penrith CBD, Penrith Station, and the Western Motorway. Surrounding land uses to the site include:

- The Sydney International Regatta Centre to the north.
- Land zoned Tourism under the Penrith Lakes SEPP that is currently occupied by two rural residential dwellings to the east.
- Land zoned Employment under the Penrith Lakes SEPP which has been approved for development of the future Nepean Business Park to the south.
- The Penrith Motorcycle Rider Training Centre to the west.

A number of other tourism orientated developments are in proximity to the site including Penrith District Nitro Racing, the Penrith Lakes Environmental Education Centre, Jetpack Adventure Sydney, and the Penrith Whitewater Stadium.

Figure 3 Site Context

Source: Urbis, 2020

1.5. KEY SITE FEATURES

The site is legally described as Lot 2 DP 1013504. A detailed site survey is provided in **Appendix A**. The site is located at 89-151 Old Castlereagh Road, Castlereagh, and is located within the Penrith Lakes Scheme, one of the world's largest scale quarry remediation projects.

The following **Table 2** provides an overview of the key site features and characteristics which has been informed by the detailed technical investigations to support the proposal.

Table 2 Summary of Site Features

Issue	**Key Features**
Land Use	The site was previously used for the offices of the PLDC, including storage of heavy trucks and machinery involved in the mining of sand and gravel resources. The broader site is largely undisturbed, with the exception of an existing farm dam on site. The project site area specific to this application however is highly disturbed comprising several existing single-story buildings, sheds, and internal roads/ on-grade parking areas.
Surrounding Land Use	The site and neighbouring lots to the east are zoned as tourism. The closest sensitive receivers are identified semi-rural residential dwellings located approximately 400m east of the project footprint. The sites northern edge abuts the International Regatta Centre, with additional recreational uses on the properties western border. The land south of the site, on the other side of Old Castlereagh Road has been approved as a future employment precinct referred to as the Nepean Business Park.
Topography	Existing ground surface levels across the site (relative to Australian Height Datum (**AHD**)) range from approx. RL 26.5 m AHD in the south-east to RL 15 m AHD near the dam in the north-west. In general, the existing ground surface forms a relatively level plateau in the southern half of the site, with a 'peninsula' jutting out to the north. The edge of this plateau falls away relatively quickly towards the north, with existing slope angles of about 6° to 12°. The plateau edges generally align with the approximate boundaries of previously quarried land.
Geology	Reference to the Penrith 1:100,000 Geology Sheet indicates that the site is underlain by Quaternary sediments of the Cranebrook Formation which typically comprises a mixture of gravel, sand, silt and clay.
Soils	Reference to the Penrith 1:100,000 Soils Landscape Sheet (**SLS**) indicates that the site is underlain by the Richmond alluvial soil landscape, typically characterised by relatively flat slopes, and generally comprising poorly structured clay loams, clays, and sands. The SLS also indicates disturbed terrain encroaching on the eastern part of the site, owing to quarrying in the area. The site is not within a region of mapped acid sulphate soil risk. It is noted that acid sulphate soils mostly occur in low lying coastal areas, typically below RL 5 m AHD, and rarely above RL 10 m AHD.

Issue	Key Features
Vegetation	The site is a large flat landholding that has historically been cleared and replaced by planted native and exotic species or colonized by exotic grasses with limited remnant large trees.
Access & Parking	The site is located on Old Castlereagh Road, accessed off of Castlereagh Road. The site is located approximately 5 km from the Penrith CBD and 6.5 km away from the Great Western Highway (M4). There are no footpaths along the section of Old Castlereagh Road that provides access to the site. There are existing footpaths on the eastern side of Castlereagh Road. No bicycle paths connect the site to the road network or public transport stations. There is no on-street carparking close to the site. All visitors to the site travelling in private vehicles are expected to use the on-site parking provided.
Public Transport	Public transport in proximity to the site is limited with the closest options being two bus stops located on either side of Castlereagh Road with an approximately 20-minute walk from the site. The bus routes include the 783 and 673 which operate between Werrington to Penrith via Jordan Springs and Windsor to Penrith via Cranebrook respectively. The closest train station to the site is Penrith train station, which is a 7-minute drive from the site and is serviced by the BMT and T1 trains connecting Penrith Station to Central station to the east and Mount Victoria Station to the west.
Flooding	The site is unaffected up to the 1 in 500 AEP flood event. The site becomes almost completely submerged in the 1 in 1000 AEP event and is subject to extreme high hazard flooding in the PMF. The site is a low flood island and will require evacuation prior to very rare extreme flooding.
Surface Water & Groundwater	Groundwater was encountered at depths of about 5 m to 6 m below existing surface levels. It is not expected that excavations for the proposed development will encounter groundwater. Groundwater levels will fluctuate and rise following periods of prolonged rainfall.
Bushfire	A review of the Penrith City Council Bushfire Prone Land Map has indicated that the site, and adjacent properties on the northern side of Old Castlereagh Road that abut the Penrith Lakes are not identified as bushfire prone land. Land on the southern side of Old Castlereagh Road has been partially identified as Vegetation Category 2 which is considered to be a lower bush fire risk than Category 1 and Category 3 but higher than the excluded areas. The land to which this applies has recently been identified for the purpose of the Nepean Business Park. Any future works to this site for the approved employment generating land will further negate any risk of bushfire at the site.
Aboriginal Heritage	An assessment undertaken by Urbis has indicated that as the majority of the impact area is located within 200m of a former natural waterway, this is indicative of likely past Aboriginal land use.

Issue	Key Features
	However, quarrying is determined to have caused high levels of ground disturbance, eliminating any archaeological potential across most of the subject area. The construction of the main dwelling, associated sheds, structures and infrastructure at the site is determined to have caused extensive disturbance to topsoil outside the quarried area, significantly reducing archaeological potential. Based on the assessment of the archaeological and environmental context, the subject area is determined to have nil-low potential for Aboriginal objects within the area impacted by the proposed works.
European Heritage	A review of the Penrith Lakes SEPP has indicated that there are no items of Heritage Significance within, or in proximity of the site. All items of significance under the SEPP are located north of the Regatta Lake.

3. PROJECT DESCRIPTION

The following section of the EIS describes the development proposed in the DA.

3.1. PROJECT OVERVIEW

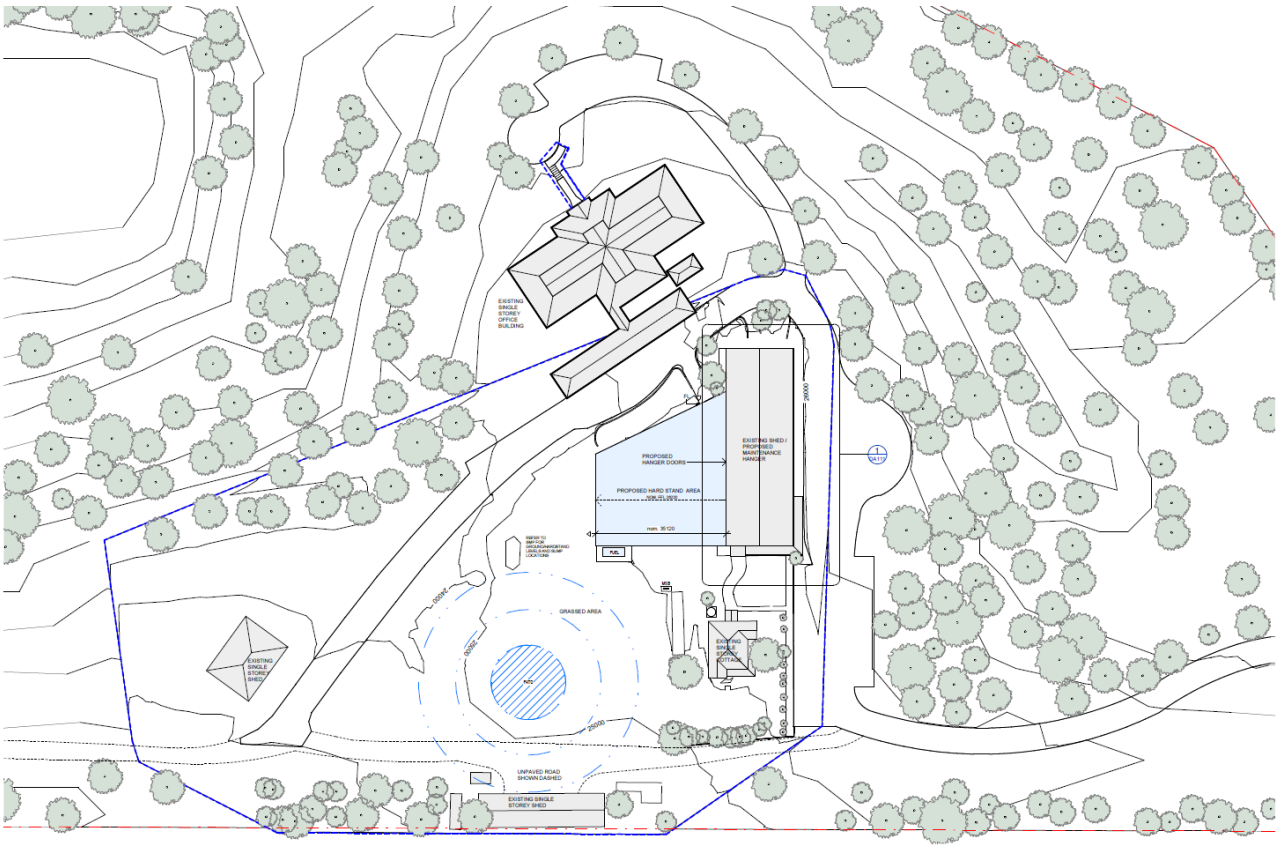
The key components of the proposed development are summarised in the following table. A copy of the architectural concept drawings is attached as **Appendix B**. An extract of the tenancy site layout is included at **Figure 4** below.

Table 3 Project Overview

Descriptor	Project Details
Land Use	Helipad
Project Area	2.02 ha
Site Preparation	Site preparation works are mostly limited to the demolition and removal of the following: ▪ Demolition of 2 single-storey sheds and integrated hardstand extending beyond the footprint of the sheds. ▪ Demolition of one small single-storey shed and associated pavement. ▪ Removal of one inground water tank. ▪ Removal of one flood light. ▪ Removal of 12 trees.
Construction Summary	Construction at the site is limited to the instillation of the following: ▪ Construction of hardstand area. ▪ Fit-out of existing shed on site for use as a hanger, including instillation of new hanger doors. ▪ Fit-out of existing single storey building on site for use as ancillary office. ▪ Instillation of small Jet A1 (Avtur) fuel storage tank. ▪ Instillation of new lighting as required for the Final Approach & Take-off (**FATO).** A two-month construction period is anticipated for the establishment of the Helipad facility.
Operational Summary	The proposed Helipad is seeking operational activities consistent with the existing EPA License held by Sydney Helicopters for their Granville facility which permits up to 25 flights per day. This may be exceeded in the event Sydney Helicopters are engaged for emergency services activities (e.g. Bushfire fighting activities, SES activities etc).

Descriptor	Project Details
Access & Parking	Site access and parking is to remain consistent with the existing development, this includes retention of the 40 standard car parking spaces and one accessible car parking space available on site.
Building Height	Given no new buildings are proposed to be erected, the existing maximum building height is unchanged.
Jobs	Approximately 20 full time employees.
Hour of Operation	First light to 10:00pm, with the majority of flights between 8:00am and 5:30pm. Aircraft owned and operated by Sydney Helicopters that are engaged by emergency services such as the NSW Rural Fire Services, Fire & Rescue NSW and the NSW State Emergency Service and other Emergency service aircraft such as Polair, Toll, Careflight and NPWS would be required to be exempt from these hours of operation to undertake emergency work when required.
Capital Investment Value	$1.1 million

Figure 4 Proposed Site Layout



Source: WMK Architecture, 2021

3.2. PROPOSED DEVELOPMENT: CONSTRUCTION

Whilst the site has is large, having an area of 11.26ha, works and operations proposed in the DA are limited to an area of 2.02ha concentrated around the former PLDC office site. The impact area is already highly disturbed as a result of previous use for the storage and operation of earthworks machinery associated with the extraction of sand within the wider Penrith Lakes development.

The DA proposes minimal works within the impact limited to the following:

- Demolition of two existing single storey sheds and hardstand extending beyond the footprint of the sheds.
- Demolition of one small single storey shed and associated pavement.
- Removal of one existing inground water storage tank.
- Removal of one flood light.
- Removal of 12 trees.
- Reinstatement of grass turf in locations of removed hardstands and pavement.
- Construction of new concrete hardstand in location of existing concrete hardstands.
- Reuse of existing warehouse for helicopter maintenance and storage (hanger).
- Installation of new lighting as required for the FATO.
- Installation of new above ground aviation fuel tank.
- Minor earthworks associated with the above works.

The proposed demolition works are essential to the proposal for two reasons. Firstly, it allows the helipad facility to best utilise the available site and propose a suitable layout that is compatible for a helipad of this scale, and secondly, the demolition works of the three existing sheds will minimise the potential impact of wind turbulence which is amplified from wind shear off existing structures.

The proposed reuse of the existing warehouse on site will be limited to the fit-out of the future hanger to be suitable for the storage and maintenance of helicopters, as well as in the instillation of an appropriate hanger door fit for purpose of a helipad.

12 trees on site are proposed for removal to accommodate the future flight path for the facility which has been identified as an east-west movement, considered most suitable to mitigate against impact to the neighbouring Regatta Centre and future Nepean Business Park.

The proponent is also intending to replace the existing identification signage at the facility that is currently displaying the PLDC site offices information with signage this is specific to Sydney Helicopters. The proposes signage is considered like-for-like and thereby is able to be undertaken as exempt development under subdivision 8 of Division 2 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* (**Codes SEPP**). To ensure compliance with the Codes SEPP, the following development standards have bene observed in the production of the signage:

The standards specified for that development are that the development must—

(a) replace a lawful sign, and

(b) not be greater in size than the sign that it replaces, and

(c) not be a sign that is animated, flashing or illuminated, unless the sign it replaces is the subject of a development consent to be an illuminated sign, and

(d) not involve any alteration to the structure or vessel on which the sign is displayed, and

(e) not obstruct or interfere with traffic signs.

3.3. PROPOSED DEVELOPMENT: OPERATION

The operational details of the proposed helipad are as follows:

- A maximum of 25 flights per day.
- 7 days per week operation.
- Operating hours from First light to 10:00pm, with the bulk of activities between 8:00am and 5:30pm.
- A 30-metre-wide managed safety zone (during helicopter landing and take-off only) measured from the edge of the FATO will be implemented during take-off and landing movements. The safety zone will be managed by appropriately qualified staff.

  The 30m wide managed safety zone will not apply during times when no helicopters are arriving at or departing the site. The helipad will however remain off limits to the general public at all times.
- A preferred flight path has been acoustically tested and designed to cater to different wind conditions. The preferred flight path is detailed in **Section 7.1.2** and highlighted within **Figure 5**. The flight path has ultimately been considered to minimise impact to surrounding land uses, namely the International Regatta Centre and future Nepean Business Park.
- The proposed helipad has been designed and assessed to be suitable for use by small to medium turbine engine helicopters and limited to the following helicopter types:
  - AS350 squirrel helicopter (most common type used).
  - Bell 206.
  - Bell 407.
  - Robinson R44.
  - Robinson R66.
  - AW139 (emergency services helicopter).
  - Bell 412 (emergency services helicopter).
  - Bell 429 (emergency services helicopter).
- To ensure compliance with the definition of helipad under the *Standard Instrument—Principal Local Environmental Plan (2006 EPI 155a)*, the proposed helipad will operate with the following characteristics:
  - The proposed development is only for the business operations of Sydney Helicopters.
  - Security measures on site, including locked access which can only be opened by the operators, prevent unauthorised access to the site.
  - Operations from the site do not include regular helicopter flights to or from a set destination which any member of the public can seek to enter the premises, purchase a ticket, or board a flight.
  - Only helicopters operated by Sydney Helicopters will be taking off and landing on the site.
  - The public is not allowed or entitled to enter the site without being invited to do so by Sydney Helicopters.
  - No other helicopter operator is permitted to access the site unless in an emergency.
  - The proposed operation of the site does not involve: (i) the provision of facilities for the hire of helicopters by others, (ii) the provision of facilities for the landing, refuelling and take off of helicopters by others, and (iii) general access by the public to the facility for the use and enjoyment by the public.

4. STRATEGIC CONTEXT

The strategic planning policies identified in the SEARs that need to be addressed include:

- Premiers Priorities.
- Greater Sydney Region Plan: A Metropolis of Three Cities.
- Western City District Plan 2018.
- Hawkesbury-Nepean Valley Flood Risk Management Strategy.

The proposal is consistent with the following planning strategies, district plan and guidelines as detailed below.

4.1. NSW PREMIER PRIORITIES

The NSW Premier has identified strategic priorities to address important issues affecting the people of NSW. The proposed relocation of the Sydney Helicopters operation is consistent with a key Premier priority to maintain a strong economy via the creation of jobs including design, project management and construction.

Similarly, it will ensure that when Sydney Helicopters is able to operate at full capacity with an appropriate facility, they are able to maintain their reputation as the premier private helicopter flight and charter company operating within the Sydney basin.

4.2. GREATER SYDNEY REGION PLAN

The Greater Sydney Region Plan, *A Metropolis of Three Cities* (**Region Plan**), outlines the future vision for Sydney, providing a strategy to manage the city's change and growth over the coming 15 years. The Plan responds to Sydney's needs as a growing global city, establishes broad spatial principles for land use change, and sets out a framework to facilitate growth through coordination of planning and infrastructure delivery.

The proposed relocation of the Sydney Helicopters facility will utilise the proposed site in a way that is consistent with the objective of the Tourism zoning and is considered generally consistent with the various objectives of the Greater Sydney Region Plan. In particular, the project will:

- Ensure the future of Sydney's premier private helicopter experience which fly's in excess of 5,000 tourists per annum throughout Sydney and adjacent regions including the Blue Mountains, Hunter Valley, Central Coast and Southern Highlands, thereby strengthening Sydney's tourism sector.
- Strengthen Sydney's competitive economy by providing economic benefits and contributing to job creation.
- Provides an additional form of transport infrastructure to boost tourism traffic in the regions and the wider three cities identified under the Region Plan.

4.3. WESTERN CITY DISTRICT PLAN 2018

The *Western City District Plan* (**District Plan**) builds off the directions and objectives set by the Region Plan tailoring them to the district. The District Plan was finalised in conjunction with the Region Plan in March 2018. The GSC envisaged that the District Plan, building on the Western Sydney Aerotropolis and the Western Sydney City Deal "*would transform over the next 20 to 40 years by building on natural and community assets and developing a more contained Western City District with a greater choice of jobs, transport and services aligned with growth*".

Tourism is a major contributor to the local economy. The District Plan identifies the need to support the continued growth of targeted industry sectors. The proposed relocation of the Sydney Helicopters aligns with the District Plan by:

- Supporting the growth of an increasingly popular tourism destination being the PLS, as well as boosting tourism numbers within the surrounding regions within NSW.

- Providing upgraded facilities to meet changing needs of visitors and contribute to the ongoing operation of the longest running helicopter tour company in Sydney.
- Providing continued job opportunities within the District.

4.4. HAWKESBURY-NEPEAN VALLEY FLOOD RISK MANAGEMENT STRATEGY

The Hawkesbury-Nepean Valley covers around 500 square kilometres from Bents Basin, near Wallacia, to the Brooklyn Bridge. The valley has the highest flood exposure in NSW because of its unique landscape and large existing population. The Valley has a high flood hazard, with both historical and geological evidence of widespread flooding across the Valley. Climate change may further increase the severity and frequency of the flood hazard in the future.

The objective of the Flood Strategy is to reduce flood risk to life, property, and social amenity from regional floods in the Hawkesbury-Nepean Valley now and in the future. The Flood Strategy's vision is for Hawkesbury-Nepean Valley communities and all levels of government to adapt to flooding by working together to:

- Understand and be fully aware of flood risk.
- Act to reduce flood risk and manage growth.
- Be ready to respond and recover from flooding.

An assessment of the sites risk of flood and appropriate evacuation procedures has been undertaken by Northrop and is detailed in **Section 7.2.1** and **Appendix L** with consideration of the strategy a key component of the flood risk analysis undertaken.

The Hawkesbury-Nepean Valley covers around 500 square kilometres from Bents Basin, near Wallacia, to the Brooklyn Bridge. The valley has the highest flood exposure in NSW because of its unique landscape and large existing population.

5. STATUTORY CONTEXT

Various legislative and statutory planning instruments require consideration in the assessment of the proposal. In accordance with the SEARs, **Table 4** outlines the applicable environmental planning instruments to the proposal. The permissibility of the proposed development and the application of the relevant statutory planning instruments that apply to the site and the proposed development are addressed in detail below.

Table 4 Overview of Planning Framework

Framework Level	Planning Instrument
Legislative Acts and Regulations	• Environmental Planning & Assessment Act 1979. • Environmental Planning & Assessment Regulation 2000. and • Protection of the Environment Operations Act 1997.
Environmental Planning Instruments - State	• State Environmental Planning Policy (Penrith Lakes Scheme) 1989. • State Environmental Planning Policy (Infrastructure) 2007. • State Environmental Planning Policy No 33 – Hazardous and Offensive Development. and • State Environmental Planning Policy No 55 – Remediation of Land.
Policies & Guidelines	• National Airports Safeguarding Framework (NAFS) Guideline F (Managing the Risk of Intrusions into the Protected Airspace of Airports). • National Airports Safeguarding Framework (NAFS) Guideline H (Protecting Strategically Important Helicopter Landing Sites). and • Civil Aviation Advisory Publication (CAAP) 92-2(2) Guidelines for the establishment of on-shore Helicopter Landing Sites.
Environmental Planning Instruments – Local	• Penrith Local Environmental Plan 2011
Local Planning Policies	• Penrith Development Control Plan 2011

5.1. LEGISLATIVE ACTS & REGULATIONS

5.1.1. Environmental Planning & Assessment Act 1979

The EP&A Act and its associated regulations and environmental planning instruments set out the framework for development assessment in NSW. Development assessment provisions are contained in Part 4 of the EP&A Act. Section 4.10 provides that a development would be designated development if it is declared to be designated development by an environmental planning instrument or the regulations.

Objectives of the EP&A Act are identified below, and the Project assessed against them **Table 5**.

Table 5 Objectives of the EP&A Act

Object	Consideration
(a) *To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.*	The proposed development promotes the social and economic welfare of the community. The helipad complements the PLS in achieving its vision of being a major recreation facility for the population of Western Sydney and a wider tourist attraction. The development of a helipad on the southern side of the PLS promotes a wide range of positive social and economic considerations. The proposed development will appropriately manage important environmental considerations. The numerous environmental studies undertaken in the preparation of this EIS confirm that the proposal can proceed in respect to environmental considerations. Ongoing operational management will further ensure that the proposed helipad is acceptable from an environmental perspective.
(b) *To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.*	The studies completed as part of this EIS demonstrate that the proposed helipad is compliant with the relevant SEARs and is an ecologically sustainable development that will promote a wide range of social and economic benefits, noting that the helipad will support a growing Tourism focused centre on the southern side of the PLS. Additionally, the supporting technical reports and assessment as undertaken in Section 7 of this EIS confirm that the proposal can proceed in terms of key environmental considerations.
(c) *To promote the orderly and economic use and development of land.*	The proposed development is an orderly development that will be integrated into wider tourism orientated and recreational facility that is the PLS. The proposal is considered appropriate in terms of economic considerations based on the following: ▪ A helipad will contribute towards establishing the PLS as a major tourist hub and recreational facility for the wider Western Sydney population. The proposed helipad will complement and support the objectives of the Tourism zoning under the Penrith Lakers SEPP. ▪ The Sydney Helicopters development will have a positive flow on effect to the Penrith CBD and wider region which was identified as a 'Growth Area' in the *Greater Sydney Region Plan*. The proposal will contribute to the intent of the strategy,

Object	Consideration
	promoting tourism opportunities and support vibrancy of the PLS. ▪ The proposal will create an alternative means of access to the neighbouring Blue Mountains and wider NSW destinations which will complement establishing the PLS as a regional tourist destination, diversifying growing tourism and linkages across the region by helipad, providing an opportunity to capture the potential to increase the visitor economy and connect tourism gateways and attractions.
(d) *To promote the delivery and maintenance of affordable housing.*	N/A
(e) *To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.*	The ecological reporting undertaken as part of this EIS confirms that the proposal is acceptable in relation to flora and fauna considerations. This matter is addressed within **Section 7.1.3** of this report.
(f) *To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).*	Consideration of the indigenous heritage at the site has been undertaken via a due diligence assessment, and ultimately a ABHAR waiver. This is discussed below in **Section 7.1.4** and with **Appendix G** & **H**.
(g) *To promote good design and amenity of the built environment.*	The proposed built form is configured to promote efficiency in design which is a good design outcome. Amenity for nearby residents has been taken into account in terms of visual, air quality, traffic, noise and vibration.
(h) *To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.*	Minimal construction is proposed in the proposal. Efforts to conserve and upkeep buildings remaining on site is put forward as part of the application to utilise them as part of Sydney Helicopters operation.
(i) *To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.*	The proposal allows the sharing of the responsibility between the different levels of government in the State of NSW through the designated development and integrated development application pathways which see the application undergo varying levels of assessment by Council and the DPIE, the EPA and DPI. As part of the Scoping Study phase, the DPIE Transport Assessments team also played a role in guiding lodgement of the application through issue of the SEARs.
(j) *To provide increased opportunity for community participation in environmental planning and assessment.*	In-depth consultation has been undertaken with the DPIE and other government agencies for many months prior to the lodgement of the DA. The DA process allows for public involvement and participation. Additionally, consultation has been undertaken by the Applicant to date as detailed in **Section 6.**

Table 6 below provides a brief description and remaining statutory context for the site and location in the EIS and appendices, where each statutory control is addressed.

Table 6 Statutory Context

Regulatory Requirement	Consideration	Location in EIS
Native Vegetation Act 2003 & Native Vegetation Regulation 2005	The Native Vegetation Act 2003 is intended to prevent broadscale vegetation clearing and maintains environmental outcomes and to improve the condition of existing native vegetation. Under section 25 of the Native Vegetation Act 2003 there are a number of types of clearing of native vegetation that are excluded from the requirements of the Act because it is covered under alternative legislation. This includes designated development as defined under the EP&A Act.	No further discussion required
Biodiversity Conservation Act 2016	Under the BC Act all development that requires development consent under Part 4 of the EP&A Act must be assessed against the Biodiversity Offset Scheme (BOS) thresholds, as set out in clause 7.2 of the NSW Biodiversity Conservation Regulation 2017. Development projects exceeding any of the defined thresholds must be assessed using the Biodiversity Assessment Method (BAM) with the results presented in a BDAR. To address this matter a BDAR has been prepared be Eco Logical and is detailed within **Section 7.1.3** of this EIS and lodged as **Appendix E**.	Section 7.1.3 Appendix E
National Parks and Wildlife Act 1974	Under the NPW Act 1974 the Director-General of the National Parks and Wildlife Service is responsible for the care, control and management of all national parks, historic sites, nature reserves, reserves, Aboriginal areas and state game reserves. The Director-General is also responsible under this legislation for the protection and care of native fauna and flora, and Aboriginal places and objects throughout NSW. Under the NPW Act 1974 the administering agency, the Heritage Division, within the Department of Premier and Cabinet, is required to issue GTAs before Council can finalise its determination.	Section 7.1.4 Appendix H
Protection of the Environment Operations Act 1997	The Protection of the Environment Operations Act 1997 (**POEO Act**) establishes the NSW environmental regulatory framework and includes licensing requirements for certain activities. environment protection licences (**EPLs**) are administered by the NSW EPA under the POEO Act. Under Schedule 1, clause 20 of the POEO Act, Helicopter-related activities, meaning the landing, taking-off or parking of helicopters (including the use of	N/A

Regulatory Requirement	Consideration	Location in EIS
	terminals and the use of buildings for the parking, servicing or maintenance of helicopters), being an activity that is conducted within 1 kilometre of a dwelling not associated with the landing, taking-off or parking of helicopters, is a scheduled activity which required environmental licensing. The Project will seek an EPL for this activity and it will be controlled under the terms of the EPL.	
Water Management Act 2000	The WM Act seeks the conservation and management of water resources for sustainable use. The Project's water supply will be serviced by the existing infrastructure on site which is considered suitable for the proposed operation.	No further discussion required
Roads Act 1993	The objectives of the Roads Act 1993 include regulating works and activities in public road reserves. Given no works are proposed within a public road reserve, no further consideration of the Roads Act is required.	No further discussion required

5.2. ENVIRONMENTAL PLANNING INSTRUMENTS – STATE

5.2.1. State Environmental Planning Policy (Penrith Lakes Scheme) 1989

The principal planning instrument applying to the site is State Environmental Planning Policy (Penrith Lakes Scheme) 1989 (SEPP Penrith Lakes). The SEPP Penrith Lakes includes the site in a Tourism Zone. The land use table for the Tourism Zone is set out below:

Tourism

1 Objectives of zone

- *To provide for a variety of tourist-oriented development and related uses.*
- *To provide for diverse tourist and visitor accommodation and activities that are compatible with the promotion of tourism in Penrith that utilises the public assets of the Penrith Lakes Scheme.*
- *To create an appropriate scale that maintains important views to and from the Nepean River as well as to the Blue Mountains escarpment, while also improving important connections to the Penrith City Centre and the Nepean River.*

2 Permitted without consent

Nil

3 Permitted with consent

Amusement centres. Boat launching ramps. Boat sheds. Car parks. Charter and tourism boating facilities. Community facilities. Educational establishments. Entertainment facilities. Environmental facilities. Environmental protection works. Flood mitigation works. Food and drink premises. Function centres. Health services facilities. ***Helipads****. Information and education facilities. Jetties. Kiosks. Markets. Neighbourhood shops. Passenger transport facilities. Places of public worship. Recreation areas. Recreation facilities (indoor). Recreation facilities (major). Recreation facilities (outdoor). Registered clubs. Roads. Service stations. Signage. Tourist and visitor accommodation. Water recreation structures*

4 Prohibited

Any development not specified in item 2 or 3

Helipad is listed as development permitted with consent in the Tourism Zone. Helipad is defined in the Standard Instrument – Principal Local Environmental Plan as follows:

'*Helipad means a place not open to the public used for the taking off and landing of helicopters.'*

The proposed helipad is considered consistent with the objectives of the Tourism zoning under the Penrith Lakes SEPP as outlined below:

Table 7 Land Use Consistency with Zoning Objectives

Tourism Objective	**Consistency**
To provide for a variety of tourist-oriented development and related uses.	The nature of the proposal is an operational helipad directly associated with tourism uses and thereby is considered consistent with the zoning objectives. It is noted that Sydney Helicopters include uses for photography, and private charters which will benefit the local tourism industry.
To provide for diverse tourist and visitor accommodation and activities that are compatible with the promotion of tourism in Penrith that utilises the public assets of the Penrith Lakes Scheme.	A Helipad allows the existing uses within the Tourism zoning and wider Penrith Lakes Scheme to diversify significantly. The Sydney Helicopters experience differs greatly from the existing facilities including the nearby Penrith Motorcycle Rider Training Facility, Sydney International Regatta Centre

Tourism Objective	Consistency
	and Penrith Whitewater Stadium, thereby addressing the relevant objectives of the SEPP. The proposal will result in the promotion of the Penrith Lakes Scheme and wider Penrith area through a significant increase in tourism numbers associated with the approved quantity of flights undertaken a year.
To create an appropriate scale that maintains important views to and from the Nepean River as well as to the Blue Mountains escarpment, while also improving important connections to the Penrith City Centre and the Nepean River.	The proposal includes minimal built form and is consistent with the existing low-rise scale at the site which can maintain important views to and from the Nepean River and to the Blue Mountains escarpment.

The proposed use of the site described in this application is not open to the public and therefore satisfies the definition of Helipad and is permissible subject to the granting of development consent.

In support of this, the following matters are highlighted:

- The proposed development is only for the business operations of Sydney Helicopters.
- Security measures on site, including locked access which can only be opened by the operators, prevent unauthorised access to the site.
- Operations from the site do not include regular helicopter flights (RPT) to or from a set destination which any member of the public can seek to enter the premises, purchase a ticket or board a flight.
- Only helicopters operated by Sydney Helicopters will be taking off and landing on the site.
- The public is not allowed or entitled to enter the site without being invited to do so by Sydney Helicopters.
- No other helicopter operator is permitted to access the site unless in an emergency.
- The proposed operation of the site does not involve (i) the provision of facilities for the hire of helicopters by others, (ii) the provision of facilities for the landing, refuelling and take off of helicopters by others, and (iii) general access by the public to the facility for the use and enjoyment by the public.

In support of this application, legal advice on the categorisation and permissibility of the proposal has been prepared by Dr Nick Brunton, Partner at Norton Rose Fulbright Australia (**Appendix P**) This advice concludes as follows:

- *In our view, the facts concerning your Proposed Development and the nature of the uses of the Property clearly demonstrate that the proper characterisation of the Proposed Development is a helipad.*
- *We further note that, in accordance with ordinarily planning law principles, facilities that are ancillary to the use of a helipad are permissible with consent being part of the purpose for which the land is proposed to be used.*
- *This would permit the development application to include ancillary structures such as storage and maintenance facilities and appropriate office and customer facilities.*
- *We recommend the development application state that the purpose of the proposed use is for a private helipad facility to which the general public may not enter as of right. It should clearly explain the types of activities and the purpose for which they will be undertaken*.

The following table assesses the compliance of the proposal in accordance with the relevant clauses within the SEPP.

Table 8 Penrith Lakes SEPP Compliance Table

Provision	Proposed	Compliance
Part 5 Additional Provisions for Zoned Land		
Cl. 26 – Development on land zoned Tourism Development consent must not be granted for development on land zoned Tourism unless the consent authority has considered the following–		
(a) A traffic and transportation plan that includes proposals about the management of traffic impacts cause by the development,	A Traffic Impact Statement has been submitted with this EIS as **Appendix M** with an assessment against the traffic impact of the proposal undertaken in **Section 7.1.6** of this EIS. The proposal has been found to have a negligible impact on the surrounding road network given the nature of the proposal and the operational limitation that makes the facility closed to the public. The assessment has further noted that the facility has existing parking amenity that would support the facility even at full operational capacity and thereby will not cause impact to vehicles parking on Old Castlereagh Road.	Yes
(b) If the development involves or is near a heritage item– (i) a heritage conservation management plan prepared in relation to that heritage item and approved by the Planning Secretary, and (ii) whether the development is consistent with that plan,	The development does not involve, nor is located in proximity to a heritage item. Further detail is available on this within **Section 7.2.3**.	Yes
(c) whether a stable foundation exists or can be developed for the development,	The proposal is limited to the existing, highly disturbed former PLDC site that is made up of a number of existing buildings and sheds. The foundation of the existing facility is considered stable and is suitable for the proposed development.	Yes
(d) whether the existing development platform (including subgrade) can be adequately protected from scour by the discharge of a 1:100 ARI (average recurrence interval) flood event,	The existing PLDC site is mostly above the 1:100 AEP as highlighted in **Figure 26** and as noted in the Floodplan Risk Management Assessment submitted as **Appendix L**. The assessment notes that the proposed development site can be adequately protected and when required, evacuated in more extreme flooding events.	Yes

Provision	Proposed	Compliance
(e) whether the proposed development appropriately allows for potential differential settlement given the existing geotechnical conditions and the proposed foundation and for the geotechnical conditions present at the site to prevent excessive total and differential settlement.	Given the minor ground disturbance and overall development impact of the proposal, the development proposes now impact to the existing geotechnical conditions of the site. It is noted due to the historical usage of the site as the PLDC offices which has previously disturbed the existing ground surface, no additional impact will arise as a result of the proposed helipad facility.	Yes
Part 6 Miscellaneous Provisions		
Cl. 28 – Heritage conservation	N/A	-
Cl. 29 – Bush fire hazard reduction Bush fire hazard reduction work authorised by the Rural Fires Act 1997 may be carried out on any land without development consent.	Noted.	-
Cl. 30 – Infrastructure development and use of existing buildings of the Crown	N/A	-
Cl. 31 – Earthworks (3) before granting development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters –		
(a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,	The proposed earthworks are of a very minor nature and are proposed only to facilitate the delivery of the proposed helipad within the already highly disturbed PLDC offices site. The proposed earthworks will have no detrimental effect on, drainage patterns and soil stability.	Yes
(b) the effect of the development on the likely future use or redevelopment of the land,	The proposed earthworks are of a minor nature and will not impact future use or redevelopment of the site.	Yes
(c) the quality of the fill or the soil to be extracted or both,	No additional fill is proposed, the earthworks are proposed only to facilitate the delivery of stormwater infrastructure.	Yes
(d) the effect of the development on the existing and likely amenity of adjoining properties,	The proposed earthworks are minor in nature and are proposed only to facilitate the delivery of stormwater infrastructure. It will cause no impact to the amenity of adjoining properties.	Yes

Provision	Proposed	Compliance
(e) the source of any fill material and the destination of any excavated material,	No fill material is proposed. Given the relatively minor nature of the proposed earthworks, and excavated material that is required to be taken off site will be contracted for removal by a suitably qualified contractor.	Yes
(f) the likelihood of disturbing relics,	Given the historically heavy disturbed nature of the site the potential for any relics has been considered as low within the Aboriginal Objects Due Diligence report submitted as **Appendix F**. If in the event any relics are found during earthworks appropriate heritage conservation works will be undertaken as recommended within **Appendix F**.	Yes
(g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,	Given the minor nature of the proposed earthworks and the setback from the Penrith Lakes of approximately 195m any impact is to be negligible. Appropriate sediment and erosion controls have been proposed within **Appendix I** to ensure there will be no impact to any waterways from runoff of the works.	Yes
(h) any appropriate measures proposed to avoid, minimise and mitigate the impacts of the development.	Appropriate mitigation measures are detailed in **Section 8** of this EIS and within **Appendix I** to ensure there will be negligible impact from the proposed minor earthworks.	Yes
Cl. 32 Council infrastructure development	N/A	-
Cl. 33 – Flood planning (2) Development consent must not be granted for development on land to which this Policy applies that is at or below the flood planning level unless the consent authority is satisfied that the development –		
(a) is compatible with the flood hazard of the land, and	As noted within **Section 7.2.1** of this report, the risk posed from flooding is ultimately considered suitable as the site is located above the 1% AEP plus freeboard which is commonly considered to adequately manage the risk to property. Additionally, all potential pollutants including fuel is stored above this level as well.	Yes
(b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and	The minimal proposed built form of the development will not adversely affect flood behaviour.	Yes

Provision	Proposed	Compliance
(c) incorporates appropriate measures to manage risk to life from flood, and	Appropriate considerations and management risks have been detailed in **Section 7.2.1** and **Appendix L** of this EIS.	Yes
(d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and	The proposed development will in no way adversely affect the existing environment given the very limited built form and utilisation of existing buildings on site.	Yes
(e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.	The development will not result in unsustainable social and economic costs to the community as a consequence of flooding.	Yes
Schedule 2 Matters to be Included in the Statement of Environmental Effects		
The following matters –		
(a) justification of the proposed development in the context of State Environmental Planning Policy (Penrith Lakes Scheme) 1989,	The justification of the proposed development is undertaken within Section 5.2.1 of this EIS, including an assessment against the zoning objectives in **Table** 7 and **Table 8** which considers the development against the relevant provisions for development within the Penrith Lakes.	Yes
(b) a full description of the proposed development	A full description of the development is provided in **Section 3** of this EIS.	Yes
(c) a statement of the objectives of the proposed development	The project objectives and how they align with those of the Tourism zoning are provided in **Table 7** of this EIS.	Yes
(d) a full description of the existing environment likely to be affected by the proposed development if carried out,	Refer to **Sections 2** and **7** of this EIS.	Yes
(e) identification and analysis of the likely environmental interactions between the proposed development and the environment,	Refer to **Section 7** of this EIS.	Yes
(f) analysis of the likely environmental impacts or consequences of carrying out	Refer to **Section 7** of this EIS.	Yes

Provision	Proposed	Compliance
the proposed development (including implications for use and conservation of energy),		
(g) justification of the proposed development in terms of environmental, economic and social considerations,	Refer to **Section 9.6** of this EIS.	Yes
(h) measures to be taken in conjunction with the proposed development to protect the environment and an assessment of the likely effectiveness of those measures,	Refer to **Section 8** of this EIS.	Yes
(i) energy requirements of the proposed development,	The proposal requires no additional energy requirements to the existing services available on site.	Yes
(j) any feasible alternatives to the carrying out of the proposed development and the reasons for choosing the latter, and	Refer to **Section 1.6** of this report.	Yes
(k) the consequences of not carrying out the proposed development.	Refer to **Section 1.4.1** of this report.	Yes
(2) In addition to the matters listed in clause 1, particular regard must be given to the following matters –		
(a) relationship and extent of the proposed development to the completed scheme,	The relationship of the development to the wider Penrith Lakes scheme has been considered within Table 7 which identifies that the proposal directly achieves the overall objectives of the sites Tourism zoning. The beneficial role the development could play in the promotion of the Penrith Lakes scheme directly align with its goal of being a major tourist attraction in Western Sydney, whilst also providing invaluable emergency response amenity at the foot of the Blue Mountains as well as in proximity to the fast-growing release areas of Western Sydney.	Yes
(b) where appropriate, the integration of the proposed development with development previously carried out,	The proposed development intends to utilise the existing built form of the previous land use the PLDC offices, integrating directly with the previous development on site.	Yes
(c) the sequence of extraction and rehabilitation where the	N/A	-

Provision	Proposed	Compliance
proposed development is for or includes an extractive industry,		
(d) unless the land is to be dedicated to the Crown, the proposed control and management of the land,	By nature of the minimal built form, ground disturbance and impact to the existing ecology on site the proposal will ensure appropriate land management of the site.	Yes
(e) the management and control of water resources including – (i) the source of water in order to fill any lake (including the quality and quantity of water from that source), (ii) water reticulation systems from the Nepean River to any lake, from lake to lake and from any lake to the Nepean River, (iii) the water quality of any lake (including the aquatic ecosystem), (iv) water treatment facilities, (v) water depth of any lake, (vi) flood control, (vii) storm water control, (viii) the effect that development would have upon the quantity and quality of the existing groundwater as well as the level of the existing groundwater table, (ix) lake usage, (x) staged development of the lakes and their usage during staged development, (xi) the need to monitor the water quality of the lakes having regard to their intended use, and (xii) the effect upon the Hawkesbury/Nepean River system,	The development does not propose to impact the existing water resources from the adjacent Penrith Lakes nor the farm dam on site. Appropriate stormwater controls and mitigation measures are proposed during construction to limit any impact of runoff to existing waterbodies surrounding the site. Details of the considerations of water resources surrounding the site has been undertaken in Section 7 of this EIS, and is further detailed in **Appendix I**, **J**, **K**, and **L**.	Yes

Provision	Proposed	Compliance
(f) the rehabilitation and reconstruction of the land including— (i) landscape design, (ii) the structural stability and soil compaction of landforms (including, where appropriate, the land shown on the structure plan as future urban), (iii) the stability and impermeability of the Nepean River embankment, (iv) soil conservation, and (v) revegetation,	The proposed development is limited to the existing, highly disturbed former PLDC office site, and will not impact the existing biodiversity on site with the exception of the identified twelve trees for removal on site.	Yes
(g) any effect upon a locality, place or building not listed in Schedule 3 having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations,	No identified heritage items under Schedule 3 of the Penrith Lakes SEPP is to be impacted as a result of the proposal. Longs House which was identified in the draft Penrith Lakes Development Control Plan as potentially containing some heritage significance is not to be impacted as a result of the proposal. It is the intention of the Applicant to undertake potential restoration works in the future to ensure the integrity of the house.	Yes
(h) measures to be taken to conserve and preserve items of environmental heritage listed in Schedule 3 including, where appropriate, a conservation plan, and	N/A - No identified heritage items under Schedule 3 of the Penrith Lakes SEPP is to be impacted as a result of the proposal.	-
(i) access to, the supply of water from any existing service to, and the supply of and access to municipal and utility services to, land to which this Policy applies other than that part of that land the subject of the application.	No additional services are required to support the proposal than the existing services on site.	Yes

5.2.2. State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) came into force in December 2007 and aims to facilitate the effective delivery of infrastructure across the State. The ISEPP identifies matters for consideration in the assessment of development adjacent particular types of infrastructure development, including all new development that generates large amounts of traffic in a local area.

The provisions of the SEPP are generally not applicable with the exception of Clause 104 and developments listed under Schedule 3 which require referral to the Roads and Maritime Services (**RMS**). Tourist facilities and recreational facilities with 50 or more car parking spaces with access to a classified road require referral to the RMS. As the proposal has an existing 41 carparking spaces on site, referral to the RMS is not required as the development is not considered traffic generating development.

5.2.3. State Environmental Planning Policy No 33 – Hazardous and Offensive Development

State Environmental Planning Policy No 33 – Hazardous and Offensive Development (**SEPP 33**) aims to identify potentially hazardous or offensive industry and ensure that adequate measures are implemented to reduce the impact of such development.

The site does not operate as a facility that sends and receives DGs. It uses consumable amounts of DGs in small volume packages. Fuel is expected to use 250,000 L a year resulting in nine deliveries per year which is below the transport threshold for flammable liquids. Therefore, the transport limits would not be expected to be exceeded and SEPP 33 would not apply to the transport of DGs.

Please refer to **Section 7.2.2** and **Appendix N** to review the assessment of the application against the provisions of SEPP 33.

5.2.4. State Environmental Planning Policy No 55 – Remediation of Land

State Environmental Planning Policy No.55 – Remediation of Land (**SEPP 55**) requires the consent authority to take into consideration contamination and remediation of land in determining development applications. The authority must be satisfied that land that is contaminated is suitable for the proposed use or will be suitable following remediation of the land.

The Land Use Suitability Review, conducted by DLA Environmental and tabled at Appendix D of **Appendix J**, confirms that the remediation works carried out under existing consents on the development site are sufficient to facilitate the proposed development.

The development site is considered suitable for the purposes of a helipad and does not require further remediation beyond that already undertaken or being carried out by the various DAs for the Penrith Lakes Scheme.

5.3. POLICIES & GUIDELINES

5.3.1. National Airports Safeguarding Framework

The National Airports Safeguarding Framework (**NASF**) addresses protecting strategically important helicopter landing sites. The Penrith Lakes site has not been identified as a strategically important site under the framework. The Guideline thereby does not apply.

5.3.2. CAAP 92-2(2) Guidelines for the Establishment and Operation of Onshore Helicopter Landing Sites

The Australian Civil Aviation Safety Authority (**CASA**) Civil Aviation Advisory Publication (CAAP) 92-2 (2) Guidelines for the Establishment and Operation of Onshore Helicopter Landing Sites covers operational specifications only and is produced around European commercial helicopter airport-based operations.

In response to the guidelines, AviPro has produced a Helicopter Landing Site Aviation Report, submitted as Appendix 1 to **Appendix D**, which addresses this guideline by providing a report detailing the suitability of the site and proposed landing and take-off operation of the application as consistent with the guideline.

5.4. ENVIRONMENTAL PLANNING INSTRUMENTS

5.4.1. Penrith Local Environmental Plan 2011

Given the site is identified on the Penrith Lakes SEPP structure plan, the provisions of the *Penrith Local Environmental Plan 2010* (**PLEP 2010**) do not apply to the site as it is not captured by the EPI.

5.5. LOCAL PLANNING POLICIES

5.5.1. Penrith Development Control Plan 2011

The Penrith Development Control Plan 2011 (**PDCP 2011**) provides guidance on development within the Penrith LGA to ensure consistency with Council's vision for the City of Penrith, namely, one of a sustainable and prosperous region with a harmony of urban and rural qualities with a strong commitment to environmental protection and enhancement.

Whilst the site has not been identified as a Key Precinct within Chapter E of the PDCP 2011, the site is subject to the city-wide provisions within Chapter C of the DCP. The following table below undertaken an assessment against the relevant DCP controls to highlight compliance with the relevant DCP controls.

Table 9 PDCP 2011 Compliance Table

DCP Control	Proposal	Compliance
Part C – City Wide Controls		
1.1.2. Key Areas with Scenic and Landscape Values 1) New proposals on land identified in the LEP Scenic and Landscape Values Map (including gateway sites) or on land zoned E1 National Parks and Nature Reserves or E2 Environmental Conservation, are to submit a visual impact assessment with their development application. This assessment involves describing, analysing and evaluating the visual impacts of the proposed development, and identifying measures to minimise the impacts and ensure the development is sympathetic to the scenic and landscape character of the area.	The site is not on land identified in the LEP Scenic and Landscape Values Map. Despite this an assessment of the proposals visual impact has been undertaken in **Section 7.2.4** of this report.	Yes

DCP Control	Proposal	Compliance
1.2.1. Application of Certification System a) Non-residential developments, including mixed-use developments, with a construction cost of $1 million or more are to demonstrate a commitment to achieving no less than 4 stars under Green Star or 4.5 stars under the Australian Building Greenhouse Rating system, now part of the National Australian Built Environment Rating System.	As the development is proposing to utilise the existing built form on site there is limited opportunity to demonstrate commitment to achieving no less than 4 stars under Green Star or 4.5 stars under the Australian Building Greenhouse Rating system. However, the Applicant is committed to achieving this commitment for any future expansion of the development.	Can comply
1.2.2. Built Form - Energy Efficiency and Conservation a) The selection criteria for construction materials, including internal fit-out work, should include detailed documentation of their energy efficiency properties. b) Buildings should be designed on passive solar design principles. c) The future use and occupants of the building should be considered in the design and location of building services/equipment d) Common and service areas in the building should incorporate energy and water efficiency/conservation measures in their design and location.	As above.	Can comply
1.2.5. Safety and Security (Principles of Crime Prevention through Environmental Design) The design of buildings and public spaces has an impact on perceptions of safety and security, as well as actual opportunities for crime. When development is appropriately designed, it can reduce the likelihood of crimes being committed. There are four main principles of CPTED– natural surveillance, access control, territorial reinforcement and space management. Applicants should use this section as a tool in the design of developments	Given there is no additional built form proposed the CPTED principles do not directly apply to this application.	-
Part C2 – Vegetation Management		
General Approval Requirements a) A person must not remove, clear, prune or otherwise cause harm to any tree or other vegetation prescribed by this Plan without an appropriate approval.	All tree removal to be undertaken on site will be done so following the issuing of development consent.	Yes

DCP Control	Proposal	Compliance
Part C3 – Water Management		
3.2. Catchment Management and Water Quality 1) Approval to Discharge Contaminants Water discharge from any development must not contain contaminants, unless necessary licences and/or approvals are obtained from relevant government authorities. All liquids (including water) produced and/or discharged from the site shall not contain pollutants above acceptable levels. Acceptable levels will be determined at the time of consideration of individual proposals by Council, the Office of Environment and Heritage and, if required, Sydney Water. 2) Addressing Potential Catchment Impacts All applications to Council, where there is the potential to impact upon a water system, are required to identify in the application the relevant water systems in the catchment area of the site that may be affected and address how any potential impacts will be mitigated/avoided. 3) Water Quality for all Land Uses Council's Water Sensitive Urban Design (WSUD) Policy (2013) has been prepared to improve water conservation, quality and quantity in both new development and some redevelopments. The policy seeks to clarify which developments need to achieve the targets for water conservation, quality and quantity. Where any development could result in water quality impacts in nearby surface water systems, the water quality at that system is to be monitored for pollutants prior to the commencement of works, and at regular intervals during construction and/or operation. Water quality entering natural areas shall either maintain or improve on pre-development levels. 4) Council Approval Requirements for WSUD Systems Development types required to meet water conservation and stormwater quality and quantity targets are defined in Table C3.1. The performance criteria required to be met are listed below under subsection '5) WSUD Development Controls'. Affected developments must submit a WSUD Strategy (report dealing with measures to be implemented as part of the development) with a Development Application.	As part of their assessment and establishment of a suitable stormwater design, Northrop have considered the Penrith City Council's Stormwater Drainage Policy 2016, Section C3.2 of the PDCP 2011, as well as a review of WSUD Policy factsheet. Please refer to **Section 7.1.5** of this EIS and **Appendix I** for more information on how these requirements have been directly addressed.	Yes

DCP Control	Proposal	Compliance
A WSUD Strategy is a written report detailing potable water savings and stormwater quality and quantity control measures to be implemented as part of a development. The required content of the Strategy is outlined in Council's WSUD Technical Guidelines. The WSUD Technical Guidelines must be considered when undertaking certain developments within the City		
3.4. Groundwater 2) Protecting Groundwater a) Applicants are required to consider the impact of the proposed development on underlying and surrounding groundwater resources and adopt appropriate measures to avoid these impacts.	Given there is minimal proposed ground disturbance as a result of the proposal groundwater protection is not a detailed consideration of this application.	-
3.5 Flood Planning 1) Submission Requirements a) Where relevant, a comprehensive flood study b) The applicant shall be required to demonstrate to the satisfaction of Council (on the basis of a qualified consultant report) that: i. The development will not increase the flood hazard or risk to other properties; ii. (ii) The structure of the proposed building works shall be adequate to deal with flooding situations; iii. The proposed building materials are suitable; iv. The buildings are sited in the optimum position to avoid flood waters and allow safe flood access for evacuation. v. The proposed redevelopment will not expose any resident to unacceptable levels of risk or any property to unreasonable damage; and vi. Compliance of any existing buildings with the Standard - Construction of Buildings in Flood Hazard Area and the accompanying handbook developed by the Australian Building Codes Board (2012).	A flood study has been undertaken by a suitably qualified consultant, prepared by Northrop and is submitted as **Appendix L** to this EIS. Further discussion is undertaken in **Section 7.2.1** of this report.	Yes
3.6. Stormwater Management and Drainage 2) Drainage	Council specifications have been considered in the designed stormwater by Northrop.	Yes

DCP Control	Proposal	Compliance
a) Council's Stormwater Drainage Specification for Building Developments provides details on drainage requirements including on-site detention, new drainage systems and the like.		
On-Site Stormwater Detention (OSD) a) Council's Stormwater Drainage Specification for Building Developments provides details on drainage requirements for on-site detention. b) Adequate stormwater systems shall be designed and constructed to ensure that, for all rainwater events up to and including the 1:100 Average Recurrence Interval (ARI) event, new developments and redevelopments do not increase stormwater peak flows in any downstream areas. c) On-site stormwater detention systems must release water after any rainfall event to maximise future capacity and, therefore, cannot include rainwater tanks, water retention basins or dams. d) Detention storage is to be located at a level that is above the 1:5 ARI flood level. e) On-site detention systems are to be designed using a catchment wide approach. Advice should be sought from Council's Development Engineering Unit in this regard. f) On-site stormwater detention mechanisms should have a maintenance program in place. g) Onsite stormwater detention mechanisms should be placed on the title of the relevant allotment/property to ensure their retention and maintenance.	The assessment undertaken by Northrop has noted that a review of the Penrith City Council's Stormwater Drainage Policy 2016 has further indicated that the site is not required to utilise Onsite Stormwater Detention as it is located outside of the OSD requiring catchment.	N/A
Part C7 – Culture & Heritage		
7.1.1. Determining the Impact on Heritage Significance a) Where a proposed development could affect the heritage significance of a heritage item or heritage conservation area, the applicant is required to lodge a Heritage Impact Statement or Conservation Management Plan (as required). d) A Heritage Impact Statement or Conservation Management Plan must be prepared by a qualified Heritage Consultant. e) A Heritage Impact Statement must address the issues set out in this section of the DCP and the	No items of heritage significance have been identified under the Penrith Lakes SEPP that is in proximity to the site that could be impacted.	N/A

DCP Control	Proposal	Compliance
Submission Requirements for applications in Appendix F3 of this DCP		
7.1.6. Archaeological Sites 1) Any application which proposes the disturbance or development of an 'archaeological site' listed in Schedule 5 – Environmental Heritage of Penrith LEP 2010 is to undertake an archaeological assessment and to submit that assessment as part of the Heritage Impact Statement or Conservation Management Plan.	A due diligence assessment of the sites potential for Aboriginal heritage has been undertaken and is submitted as **Appendix G**. The assessment has considered the site as containing low potential for any heritage significance, however, has proposed appropriate mitigation measures in the event of any finds.	N/A

5.5.2. Draft Penrith Lakes Development Control Plan – Stage 1

Between 21 April and 19 May 2021, the DPIE placed on exhibition the draft Penrith Lakes Development Control Plan (**DCP**) – Stage 1. The draft DCP is intended to guide development on Tourism and Employment zoned land at the Penrith Lakes, as required under the Penrith Lakes SEPP.

The draft DCP provides guidance on landscaping, visual amenity, tree canopy cover, flood planning, stormwater management, movement, access and parking requirements, urban design, and built form controls.

Whilst this document remains in draft and has not been given an indicative timeframe of implementation the proposed controls do not apply to the site. However, given the minimal built form Sydney Helicopters remain confident in achieving compliance with the proposed controls and they have remained a consideration throughout the facilities design.

6. COMMUNITY AND STAKEHOLDER ENGAGEMENT

The following sections of the report describe the engagement activities that have been undertaken during the preparation of the EIS and the community engagement which will be carried out if the project is approved.

Table 10 Community and Stakeholder Engagement

Stakeholders	Date Communicated	Correspondence Received	Comments
Air Services Australia	1 September 2021 10 September 2021	Phone conversation with Rory Delaney (Air Traffic Controller) to commence engagement and discussion on topic.	Discussion with staff regarding the planning of the WSA airspace. Discussion was positive and the location was confirmed as being OCTA and would be well positioned for the east west transit corridor
	21 October 2021	Online meeting with ASA staff including Richard Tomlinson and Rory Delany.	ASA advised the concept design and flightpath seemed largely acceptable. Encouraged further discussion with Infrastructure regarding future WSA flightpaths.
Civil Aviation Authority	12 April 2020	Email correspondence with Howard McGilveray regarding move to Penrith Lakes site.	No formal reply, however provided advice noting CASA does not play a role in the approval of heliports.
	21 October 2021	Online meeting with CASA staff including David Alder.	CASA advised the concept design and flightpath seemed largely acceptable. CASA noted they previously provided input into the SEARs however will not play much more of a role as they are not an approval body.
Western Sydney Airport	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	Deanne Frankel responded requesting a meeting be set up between ASA, CASA, WSA and Infrastructure.
	21 October 2021	Online meeting with WSA staff including Deanne Frankel, Tim Smith, Kirk Osbourne, Tess Salmon and Timothy Narine.	WSA advised the concept design and flightpath seemed largely acceptable. Encouraged further discussion with Infrastructure regarding future WSA flightpaths. They requested to be kept up to date on the discussions as they would likely be a referral body once the EIS was lodged.

Stakeholders	Date Communicated	Correspondence Received	Comments
NSW Rural Fire Service	28 April 2020	Letter from the RFS Commissioner	The now NSW RFS Commissioner provided a letter of support to the application, noting what an important asset a helipad at the foot of the blue mountains would be against threat of bushfire and other necessary emergency responses.
	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	No response received from the RFS.
Fire & Rescue NSW	September 2021	Cranebrook F&R staff site inspection.	F&R staff inspected the site and proposal, voiced their support for the application and the support this would offer their existing operations. Further discussions regarding the amount of fuel stored on site.
	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	No response received from F&R NSW.
Penrith City Council	February 2020	Meeting with Council GM and executive.	Council provided their support for the proposal and considered the site as perfect for the proposal.
	November 2020	Virtual meeting with Mayor, GM and executive.	Meeting with Mayor to further confirm support from Council, beneficial for both the Penrith Lakes and emergency response.
	22 June 2021	Letter received from Council GM.	Letter of support received from Council supporting our helicopter operations at the Lakes
	7 October 2021	SEARs and Scoping Report sent to Council to commence engagement dialogue.	Response from Gavin Cherry who advised Council would provide comment during exhibition following the lodgement of the EIS with the DPIE.

Stakeholders	Date Communicated	Correspondence Received	Comments
NSW Office of Sport	6 July 2021	Email received from Danielle Eddycott	Email received from Danielle Eddycott the Venue Manager of the Regatta Centre for introductory purposes.
	13 July 2021	Email from Sydney Helicopters to DE	Sydney Helicopters providing development description and objectives of proposal.
	15 July 2021	Email received from DE	Email confirming no upfront objections and an invitation for ongoing dialogue.
	1 September 2021	Email from Sydney Helicopters to DE	Sydney Helicopters provide more information regarding operation, past events and working with similar stakeholders.
	2 September 2021	Email received from DE	Email confirming eagerness to work cooperatively.
	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	No response received from NSW OOS.
	14 October 2021	Email received from Philippa Dickson – Sydney International Regatta Centre	Emailed to introduce herself as the Event Manager at SIRC and request a time to catch up and introduce her events team. A meeting was organised for 8 November 2021.
NSW Environment Protection Agency	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	No response received from NSW EPA.
	14 October 2021	Application to NSW EPA	Request to have EPA License No. 3906 transferred from existing Granville site to new proposed site at Penrith Lakes.
NSW Department of Primary Industries (Fisheries)	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	Phone call from Josie Krause at Fisheries advising they were not given the opportunity to comment on the SEARs. Subsequent email from Josi Hollywood advising Fisheries had reached out to the DPIE on the matter.

Stakeholders	Date Communicated	Correspondence Received	Comments
Bureau of Meteorology	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	No response received from the BOM.
NSW Health Infrastructure	7 October 2021	SEARs and Scoping Report sent to agency to commence engagement dialogue.	Response from Rachel Mitchell on the 12/10 requesting more information on application. 19/10 included Mohammad Ashari at Nepean Hospital within the correspondence and provided with SEARs and Scoping report. No further consultation at this time.

7. ENVIRONMENTAL IMPACT ASSESSMENT

The Key Issues numbered under the SEARs have been assessed in addition to other issues deemed relevant, with impacts noted and mitigation measures proposed where necessary in this EIS:

- Noise & Vibration.
- Airspace.
- Biodiversity.
- Land Use.
- Aboriginal Heritage.
- Non-Aboriginal Heritage.
- Soil & Water.
- Flooding.
- Traffic & Transport.
- Hazards & Risk.
- Visual.
- Air Quality.
- Waste.
- Environmental Management & Monitoring.

This section of the EIS presents a 'Key Issue Assessment', the highest level of environmental assessment, informed by specialist technical assessments provided in the Appendices to this EIS. For each section of the assessment the DPIE preferred structure has been applied, as follows:

Existing Environment

- a brief description of the existing environment as it relates to the matter with reference to the detailed analysis in the supporting specialist report.

Assessment

- a summary of the impacts supported by tables, figures and plans to aid communication and understanding.
- detail if all specialist recommendations have been adopted and if not explain why.
- a summary of any cumulative impacts, including the Project's relative contribution to those impacts.

Mitigation Measures

- an analysis of how impacts have been avoided, minimised, or offset.
- a discussion of the acceptability of any residual impacts with reference to relevant standards or guidelines.

7.1. DETAILED ASSESSMENT IMPACTS

This section of the report provides a detailed assessment of the key issues which could have a significant impact on the site and locality. It provides a comprehensive assessment of the relevant issues and the mitigation measures required to avoid, mitigate and/or offset the impacts of the project.

7.1.1. Noise & Vibration

Acoustic Logic was engaged to assess the noise impacts associated with the proposed helipad at the site. The principal objective of this assessment is to evaluate the proposed use and provide an assessment of potential noise impacts to surrounding receivers. Impacts have been assessed against the standards contained in the Environmental Protection Authority – Environmental Noise Control Manual. The Noise Impact Assessment (**NIA**) is lodged as **Appendix C** to this EIS.

7.1.1.1. Existing Environment

The subject site is surrounded by a variety of land uses including recreational/ sports facilities, industrial land uses approximately 800m south-east, future commercial land immediately to the south, and existing residential receivers 1.2km to the east.

The proposed Helipad intends to operate within the same procedural approvals it has under the Environmental Protection License owned by Sydney Helicopters, which has approval for the following:

- 25 flights per day.
- Approximately 5 night flights (night flights are classified as flights that occur after last light, based on the time of year this can vary from 6pm to 8pm).
- The following helicopters have the potential to use the helipad:
  - AS350 squirrel helicopter (most common type used).
  - Bell 206.
  - Bell 407.
  - Robinson R44.
  - Robinson R66.
  - AW139 (emergency services helicopter).
  - Bell 412 (emergency services helicopter).
  - Bell 429 (emergency services helicopter).

Noise Emission Goal

The EPA Noise Control Manual provides noise emission goals for the assessment of the proposed helipad. Whilst the document has been superseded by the EPA Noise Policy for Industry the Noise Control Manual requirements for helicopters has been used in the absence of any specific acoustic criteria in relation to the operation of helipads within the Penrith City Council DCP and the EPA Noise Policy for Industry.

The following requirements exist for helicopters within the noise control manual:

- The measured $L_{Aeq,T}$ (assessed over the entire daily operating time of the helipad) should not exceed 55 dB(A) at a residence or 65 dB(A) at a commercial property. Where the existing ambient L_{eq} is greater than the criteria an increase of 2dB(A) above the existing ambient L_{eq} is acceptable.
- The measured maximum noise level L_{Amax} should not exceed 82 dB(A) at the nearest residential premises or 85 dB(A) at the nearest commercial building.
- Operation outside the hours of 7am to 10pm should not be permitted expect for emergency flights.

Table 8 below provides a summary of the noise emissions goals in which the below assessment is undertaken against.

Table 11 Noise Emission Goals

Receiver	$L_{eq,\ 15hour}$	L_{max}
Residential	55 dB(A)	82 dB(A)
Commercial/Industrial	65 dB(A)	85 dB(A)

7.1.1.2. Assessment

Construction Assessment

As detailed above in **Section 3.2**, the proposal includes limited construction that is limited to the following:

- Demolition of 2x single storey sheds.
- Demolition of 1 small single storey shed and associated pavement.
- Removal of 1 inground tank.
- Removal of 1 flood light.
- Removal of 12 trees.
- Reinstatement of grass turf in locations of removed hardstands and pavement.
- New concrete hardstand in location of existing concrete hardstands.
- New lighting as required for the FATO.

Given the construction timeline for the proposal is expected to be less than three weeks, the scope of work is considered to be 'short term' under the EPA Interim Construction Noise Guideline. As such the following applies :

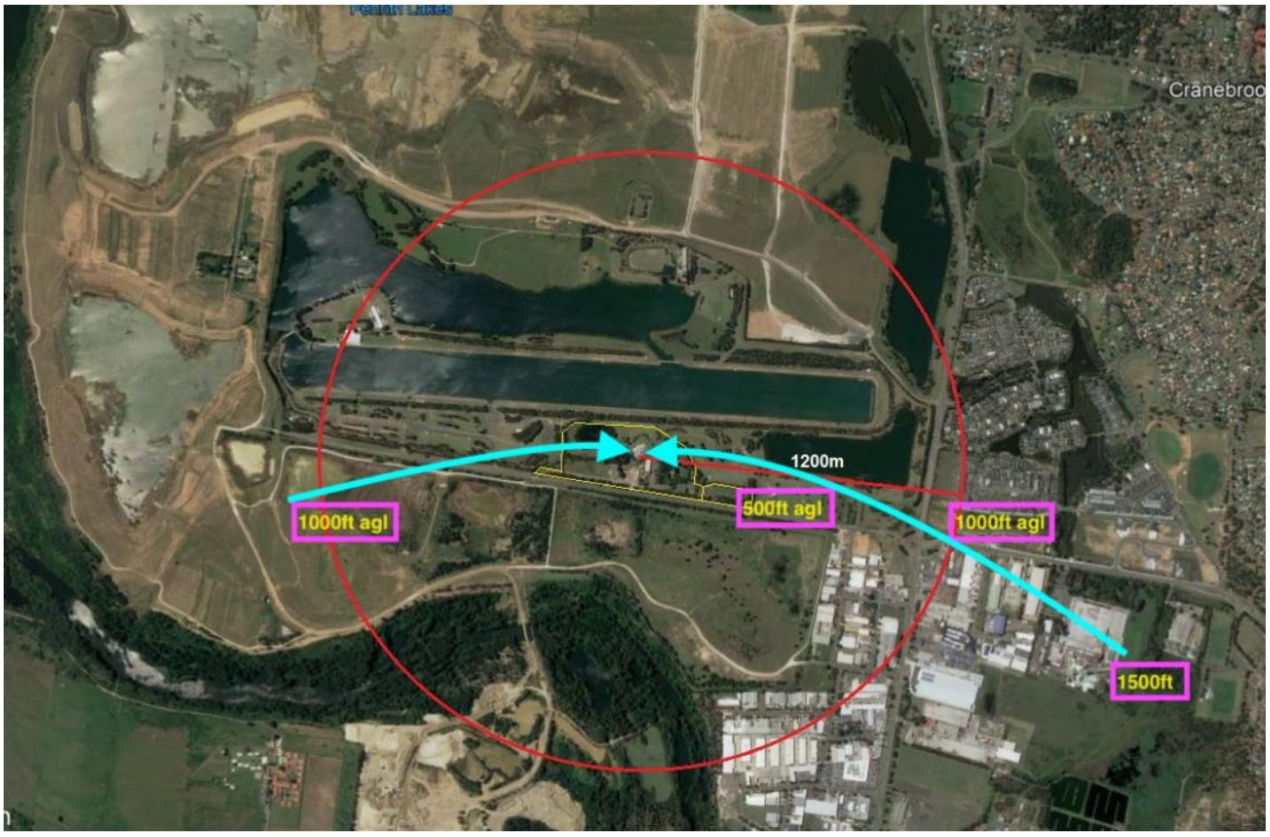
> *Short-term means that the works are not likely to affect an individual or sensitive land use for more than three weeks in total…. Small construction projects in rural areas may not generate significant noise at surrounding residences due to the typically large distances involved.*

As such and in accordance with EPA ICNG the qualitative method for assessing potential noise impacts is triggered in accordance with Section 5.1 of the ICNG.

Operational Assessment

Acoustic Logic have undertaken the NIA using the SoundPlan™ noise modelling software. The identified flight path below in **Figure 5**, informed by Sydney Helicopters, has been used to model the predicted noise impacts. The assessment has been based on a worst-case scenario for a Bell 412, with a sound power level of 135 dB(A), for all flights and a typical use scenario for a AS350, with a sound power level of 131 dB(A), for all flights. Sound power levels and spectrums for the helicopters have been taken from data obtained by Acoustic Logic.

Figure 5 Proposed Flight Path



Source: Acoustic Logic, 2021

Acoustic Logic as part of their assessment identified the typical use (AS350) and worse case use (Bell 412) of operating helicopter types in the fleet at 1.5m above ground level. The Grid noise maps of the Bell 412, Bell 429, Bell 206, AW 139 and AS350 have been included in the Appendix A of **Appendix C**. Whilst the following tables provide a high-level summary of the findings.

Table 12 Typical Use Predicted Noise Levels – AS350

Receiver	$L_{eq, 15hour}$	L_{max}
Residential (east Castlereagh Road)	42 dB(A)	<65 dB(A)
Commercial/Industrial (south Old Castlereagh Road)	47 dB(A)	68 dB(A)
Sydney International Regatta Centre	47 dB(A)	68 dB(A)
PLDC Lot 4 (north Penrith Whitewater Stadium)	37 dB(A)	<65 dB(A)

Source: Acoustic Logic, 2021

Table 13 Worst Case Predicted Noise Levels – Bell 412

Receiver	$L_{eq, 15hour}$	L_{max}
Residential (east Castlereagh Road)	46 dB(A)	<65 dB(A)
Commercial/Industrial (south Old Castlereagh Road)	50 dB(A)	68 dB(A)
Sydney International Regatta Centre	50 dB(A)	68 dB(A)

Receiver	$L_{eq, 15hour}$	L_{max}
PLDC Lot 4 (north Penrith Whitewater Stadium)	40 dB(A)	<65 dB(A)

Source: Acoustic Logic, 2021

Predicted noise levels from the typical use of the helipad (based on an AS350) indicates that the highest impact to the PLDC Lot 4 site from the entire daily operation ($L_{eq, 15hour}$) is 18dB(A) below the recommended criteria. The maximum noise impact (L_{max}), representing the highest single noise impact from a helicopter pass-by, is at least 17dB(A) below the recommended criteria.

An analysis of a worst-case scenario was also conducted. This scenario assumed that a Bell 412 would be used for all flights throughout the day. The Bell 412 is the largest of the helicopters that could use the helipad and is used for emergency services flights only. The use of the helipad by this type of helicopter at this frequency during the day is highly unlikely, however has been included to show that compliance is achieved with the worst-case scenario. Predicted noise levels indicate that the highest impact to the PLDC Lot 4 site from the entire daily operation ($L_{eq, 15hour}$) of a Bell 412 is 15dB(A) below the recommended criteria. The maximum noise impact (L_{max}), representing the highest single noise impact from a helicopter pass-by, is at least 17dB(A) below the recommended criteria.

In order to appropriately measure this worst-case scenario, Acoustic Logic attended noise measurements on site on the 8 May 2020, measuring typical flight movements around the proposed helipad which included:

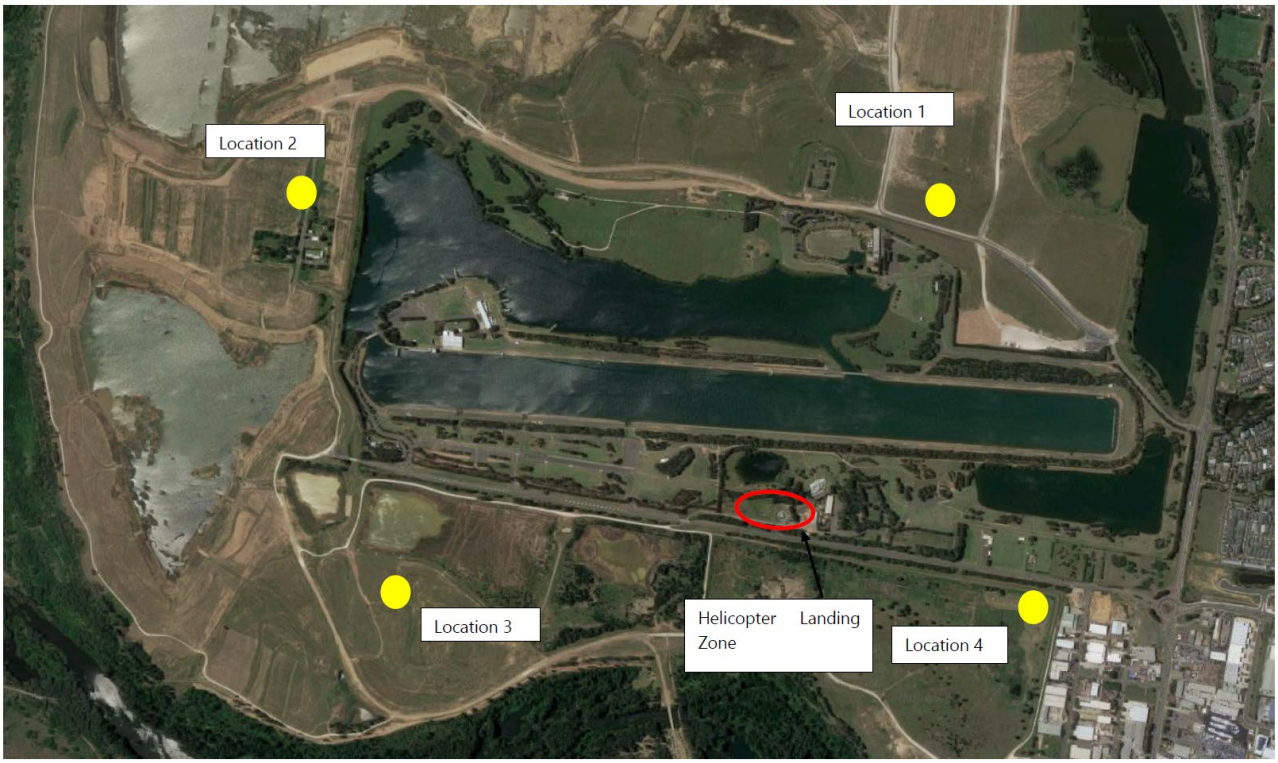
- Approach from the south east.
- Approach from the south west.
- Hovering/landing at the proposed site location indicated in **Figure 6** below.
- Take off to the south east.
- Take off to the south west.
- Flyover.

These recordings were undertaken at four locations across the Penrith Lakes precinct (**Figure 6**), these include:

- Location 1: Lot 4 near the Penrith Whitewater Stadium – proposed urban development site.
- Location 2: Upper Castlereagh Area near school camp site.
- Location 3: proposed golf course/wetlands.
- Location 4: 39 Old Castlereagh Road (residential properties).

It is to be noted Locations 1, 2 and 4 were identified and selected as they have been considered the closest sensitive receivers to the proposed development.

Figure 6 Measurement Location



Source: Acoustic Logic, 2021

Measured Noise Levels

Table 9 below highlights the recorded noise levels at each of the above locations.

Table 14 Measured Noise Levels

Location	Measured Noise dB(A)$L_{max, slow}$	Criteria dB(A)$L_{max, slow}$	Complies
1. Lot 4 PLD	58	82	Y
2. UCA	60	82	Y
3. Golf Course	73	82	Y
4. 39 Old Castlereagh Road	72	82	Y

Source: Acoustic Logic, 2021

As per the above assessment by Acoustic Logic, the proposed operation of the helipad complies with the relevant noise criteria and will not cause an unacceptable impact to surrounding lots.

Vibration Assessment

As per the SEARs issued by the DPIE, Acoustic Logic have undertaken an assessment of the proposal against the EPA's *Assessing Vibration: A Technical Guide* (2006) to consider any potential level of human discomfort caused by vibration generated by the operation of the helicopters. It is noted the standard for assessing vibration is based on the guidelines contained in British Standard BS6472-1992.

Table 15 EPA Recommended Vibration Criteria

		RMS Acceleration (m/s^2)		RMS Velocity (mm/s)		Peak Velocity (mm/s)	
Receiver	Time	Preferred	Maximum	Preferred	Maximum	Preferred	Maximum
Continuous Vibration							
Residences	Daytime	0.01	0.02	0.2	0.4	0.28	0.56
Commercial		0.02	0.04	0.4	0.8	0.56	1.1
Industrial		0.04	0.08	0.8	1.6	1.1	2.2
Impulsive Vibration							
Residences	Daytime	0.3	0.6	6.0	12.0	8.6	17.0
Commercial		0.64	1.28	13	26	18	36
Industrial		0.64	1.28	13	26	18	36

Notes:

1. *Continuous vibration relates to vibration that continues uninterrupted for a defined period (usually throughout the daytime or night-time), e.g., continuous construction or maintenance activity. (DECC, 2006)*
2. *Impulsive vibration relates to vibration that builds up rapidly to a peak followed by a damped decay and that may or may not involve several cycles of vibration (depending on frequency and damping), with up to three occurrences in an assessment period, e.g. helicopter movements*

Acoustic Logic has assessed all predicted vibration levels associated with the helicopter movements as to be less than 0.2mm/s peak particle velocity (**PPV**) and are therefore compliant with the recommended vibration criteria of the EPA *Assessing Vibration: A Technical Guideline*. The proposal is thereby able to be supported from a vibration perspective.

7.1.1.3. Mitigation Measures

This report presents the noise impact assessment of the proposed helipad location at Penrith Lakes. The assessment has reviewed impacts from typical flight movements from various helicopters that are proposed to use the facility. Impacts have been assessed with reference to the EPA – Environmental Noise Control Manual.

Given the operation of the proposal is fully compliant with the relevant noise criteria, no mitigation measures have been proposed by Acoustic Logic. However, the following construction mitigation measure have been put forward to ensure minimal impact to surrounding sensitive receivers, despite the minimal construction impact:

- Construction should be undertaken within the appropriate hours:
  - Monday to Friday7 am to 6 pm.
  - Saturday 8 am to 1 pm.
  - No work on Sundays or public holidays.
- Where practicable, any excavation required should be completed using rock saws as opposed to pneumatic hammers.
- If piling is required for the hardstand, use of augured, CFA or bored piling should be used rather than impact piling.
- Turn off plant that is not being used.

- Locate noisy plant away from potentially noise affected neighbours or behind barriers, such as sheds or walls.

In light of the above, the proposed Helipad can be supported form a noise impact perspective.

7.1.2. Airspace

AviPro have prepared an Aviation Impact Report (**AIR**)(**Appendix D**) that has been undertaken to provide expert and independent aviation review to ensure that the proposed site is not only acceptable from an operational perspective but will not impact the existing air space of any proximal air transport facilities.

7.1.2.1. Existing Environment

The proposed site has been identified as located outside all major airport airspace areas. As such, the site exists with 'prescribed space', and as such there are no specific requirements to be addressed in the PLEP 2010 (Part 7 Additional Local Provisions referencing 'development of land in the flight paths of the proposed Second Sydney Airport') to consider airspace protection. The site is located outside of, and below the future Western Sydney Airport (**WSA**) and also the Royal Australian Airforce (**RAAF**) Richmond base.

The positioning and proposed development will not incur any negative air traffic or protected airspace factors or considerations. There are no constraints imposed by prescribed airspace associated with airports or airport instrument approach and standard departure profiles. As a consequence, the development of the site, and in particular vertical obstructions such as cranes, can be addressed from a "safety to flight" requirement for helicopters and aircraft transiting in the vicinity.

Several regulatory bodies and documents exist that dictate the general requirements for aviation regulation. These are detailed below:

- The National Airports Safeguarding Framework (**NASF**) Guideline H addresses protecting strategically important helicopter landing sites. The Penrith Lakes site has not been identified as a strategically important site. Thereby the guideline does not apply.
- Civil Aviation Safety Authority (**CASA**) have previously advised that they have not been engaged by the DPIE regarding the application, however as CASA does not offer regulatory comment on commercial operations outside a Federally controlled airport.
- AirServices Australia (**AsA**), WSA, and RAAF Richmond will not be required to be consulted with in relation to the proposed development. Flight operations into/from the proposed site will not involve the restricted airspace associated with both airports.

7.1.2.2. Assessment

Operational Airspace Assessment

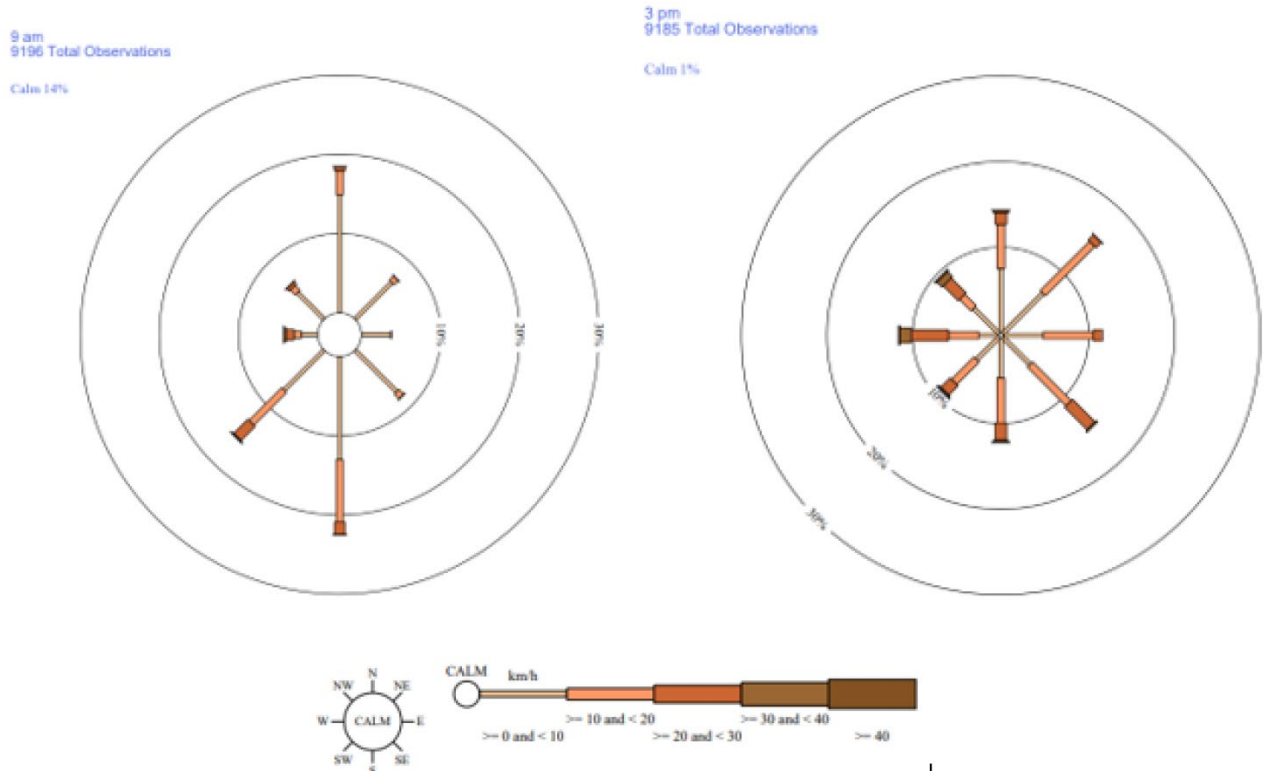
The following has been assessed when considering the overall operational airspace impact of the proposal:

<u>The Sites Flight Path Consideration</u>

When selecting the appropriate flight path for the proposal, the following has been taken into consideration:

- Prevailing Wind – Average annual wind reading from the Penrith Lakes weather station since 1952 indicates the average annual predominant winds in the area are from the south/south-west in the morning and west/north-west in the afternoon.

Figure 7 Penrith Lakes Wind Rose – Annual Average



Source: BOM, 2020

- Details of Penrith Lakes Approach & Departure Path Directions – The layout of the adjacent International Regatta Centre was a further consideration as noted below in **Figure 8**. The proposed east-west flight path negates any potential disturbances or risk to the Regatta Centre. Or future Nepean Business Park to the south.

Figure 8 Proposed Approach/Departure Paths

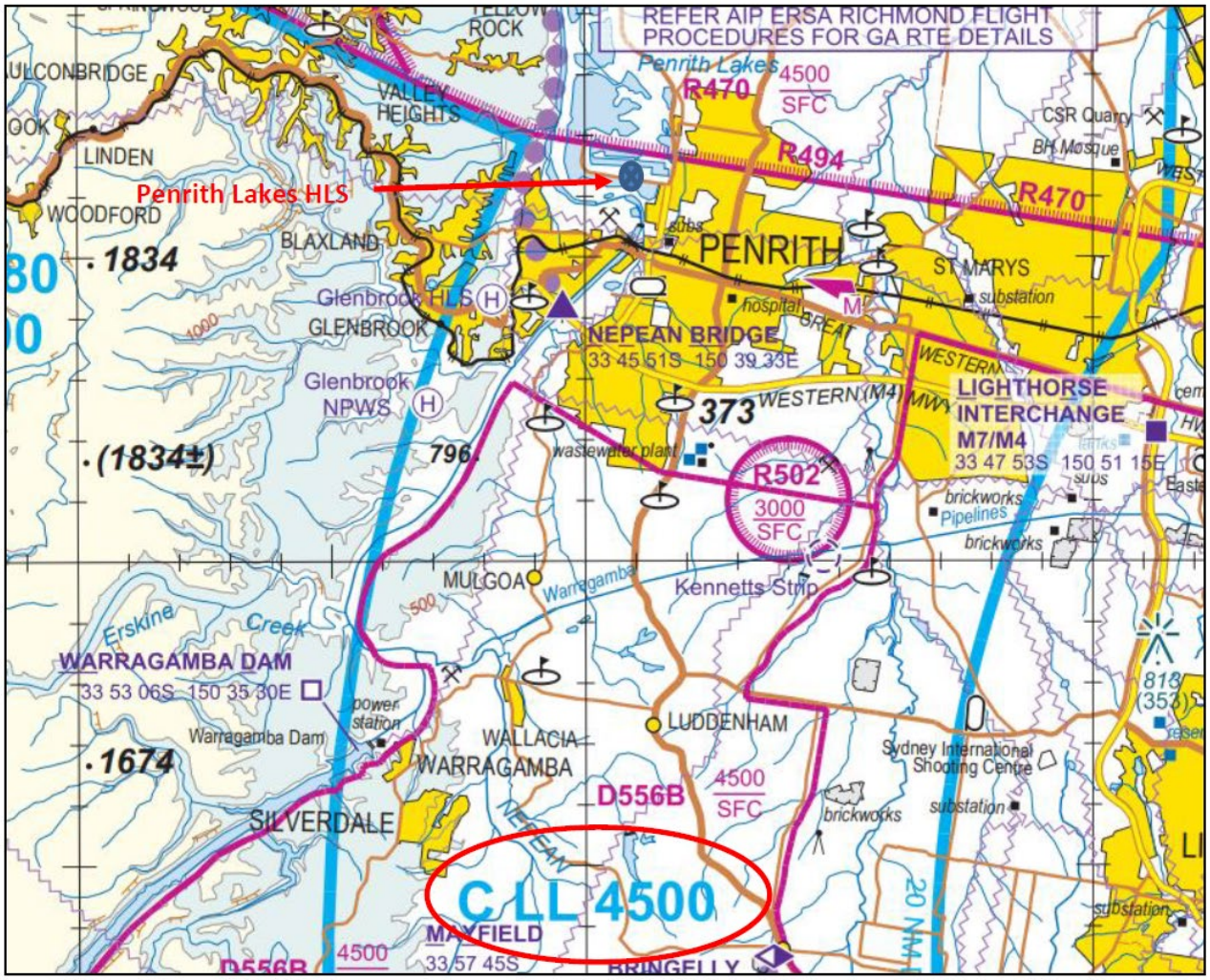
Source: AviPro, 2021

Controlled Airspace – Altitude & Boundaries

The subject site, as indicated by the red arrow in **Figure 9** below, is located outside and to the south of the RAAF Richmond Control Zone (R474 – restricted Zone 474), The airspace restrictions here exist from the surface (SFC) to 4,500'. This has remained a consideration since the planning of the Regatta Centre for the 2000 Sydney Olympics.

The site is located below the Sydney Controlled Airspace which has a lower level of 4,500'and is illustrated within the red circle below in **Figure 9**.

Figure 9 Sydney Controlled Airspace



Source: AviPro, 2021

After reviewing the available AirServices Charts and available Restricted and Controlled Airspace information, Airspace Altitude will not impact the proposed site at Penrith Lakes.

Impact of Obstructions on Flight Paths

The selected site has undertaken a rigorous selection of the appropriate site and has resulted in a location with an optimal flight path that will not be impacted by cranes, power lines and tall buildings. The minimal flight impacts on site are 12 trees which have bene proposed for removal as part of this application.

Any threat of future erection of cranes, such as at the future Nepean Business Park will be required to be illuminated to ensure safety of the designated flight path as proposed under this application.

Air Turbulence

There are two aspects of air turbulence that may apply to the site, the first is turbulence caused by mechanical obstructions including natural obstructions such as the Blue Mountains and trees, the other being man made obstructions such as buildings.

Natural causes of turbulence will be evident in high wind conditions, specifically in the August to October periods of the year with predominately westerly winds descending on the Penrith Lakes area. Manmade or artificial obstructions including the buildings surrounding the FATO site is being managed with the proposed removal of a number of buildings on site.

Downwash

Rotor downwash is the inevitable by-product of lift required by any aircraft to fly. Downwash dissipates rapidly the further you get from the source. This has been a consideration in the selection of the Penrith Lakes site as the flight path planned for the site runs parallel to the tree line along Old Castlereagh Road. Downwash will therefore be dissipated by both distance between the hovering or operating helicopter, and the trees. Downwash will not be a factor to pedestrian outside the property to the south.

Similarly, the distance between the FATO and the flight paths and the Penrith Lakes Regatta Course is significant. Downwash will dissipate well before any wind effect could reach the water of banks surrounding the course. Downwash will not be a factor to pedestrian outside the property to the south.

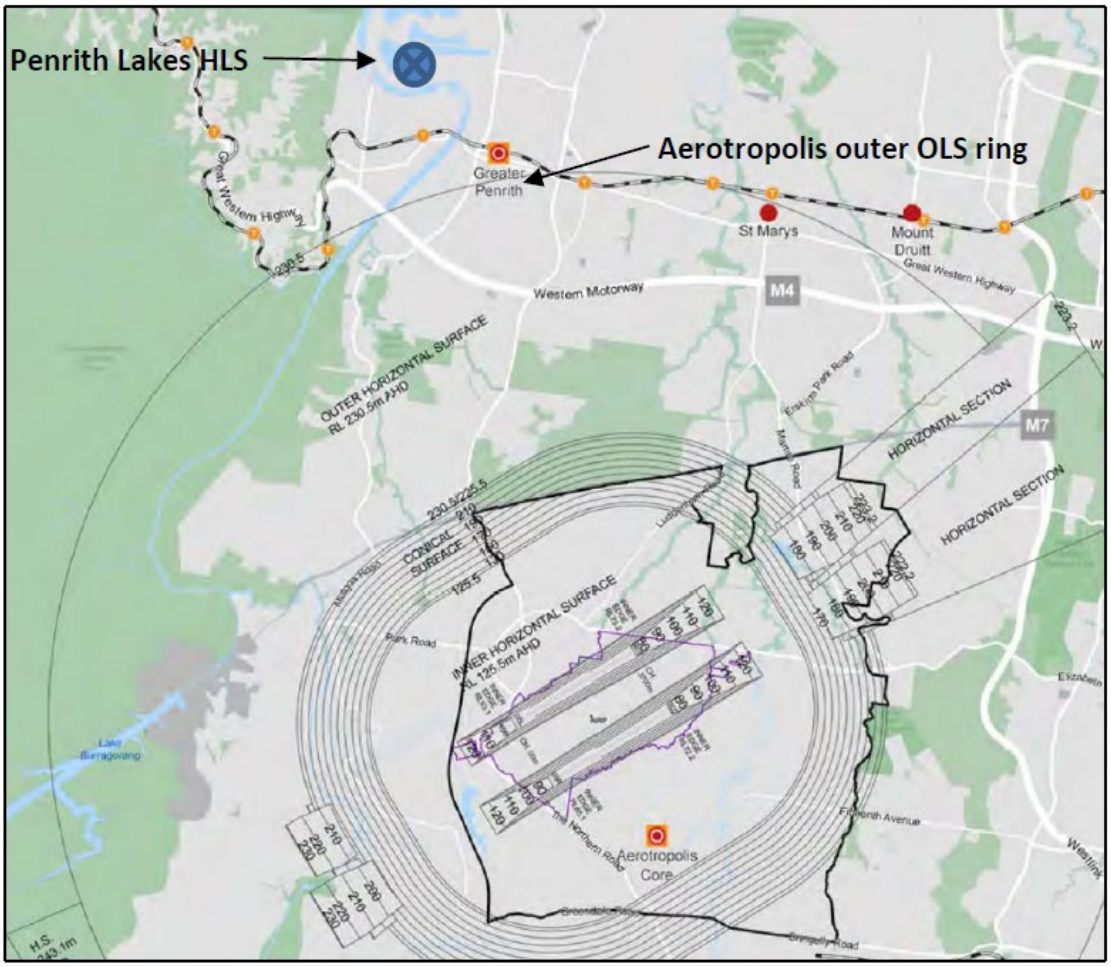
As a consequence of the site design and the orientation of the flight paths, downwash will not be a risk factor to pedestrians, vehicles or watercraft around the Regatta Precinct outside the impact area of the proposal.

Operations Impact & Airspace Protection (OLS & PAN-OPS)

The airspace over the site has been reviewed for compliance with obstacle limitation surfaces (**OLS**) and Procedures for Air Navigation Services – Aircraft Operations (**PANS-OPS**). Relevant authorities are almost certain to advise, in relation to the development, that site structures and cranes WILL NOT penetrate the OLS or the PANS OPS lower limit for the Nancy Bird Walton Western Sydney Aerotropolis or RAAF Base Richmond.

Due to the predominantly south-west/north-east orientation of the Aerotropolis runway alignment, the OLS associated with the Airport at RL 230.5, will not be impacted by the Penrith Lakes development.

Figure 10 WSA OLS



Source: AviPro, 2021

It should be noted the associated flight paths for the WSA are yet to be finalise. It is AviPro's understanding that a flight path study for the WSA is currently being finalised.

Operations Impact Summary

The WSA runway directions are 050/230 degrees magnetic and oriented in a way that will not be impacted by the proposed development, nor from helicopter operations into/from the site. Equally, due to the distance between the RAAF Richmond runway complex and the Penrith Lakes site and the generally east/west runway alignment, there will be no impact on the development and operations of RAAF Richmond caused by the construction of the proposal.

Impact on Nepean Hospital HLS Operations

Nepean Hospital has one operational helicopter landing site (**HLS**) and another currently undergoing commissioning by AviPro. The distance between the Hospital HLS and the Penrith lakes site is 10.2km. As with normal air traffic coordination between aircraft, helicopters using the Penrith Lakes site will broadcast their intentions by radio. This will be the same for medical helicopters using the Nepean Hospital HLS. Given the distance and established communication procedures, the Penrith Lakes HLS development will not impact flight operations into/from the Nepean Hospital HLS.

Impacts from Adjoining Land Use

Overall criteria for the site, as discussed in **Section 1.7.2**, included security from potential adjacent land uses impacting flight operations. Consequently, the Penrith Lakes site with an east/west aligned flight path design was considered the most suitable outcome.

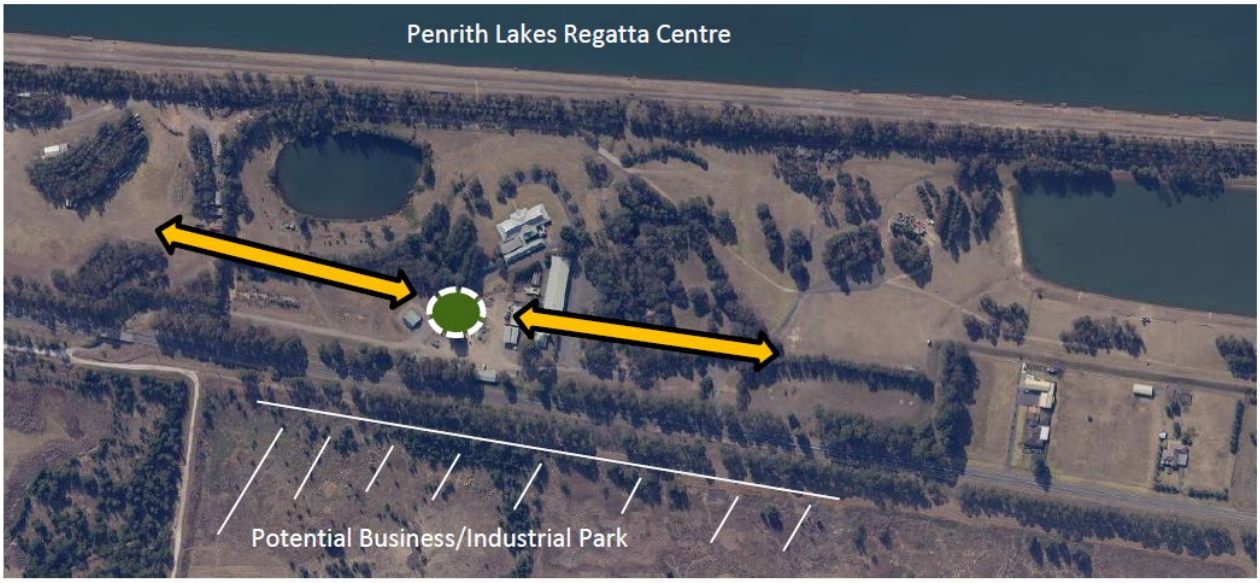
The urban fringe setting of the site and the distance from residential areas were major factors in the selection of the site. A number of the identified key parameters of the site selection process included:

- The orientation of the flight paths east/west.
- The nature vegetation protection to the south, along Old Castlereagh Road.
- The distance between the flight path and the Regatta Centre rowing course and spectator areas.
- The distance from residential areas.

Figure 11 Isolation of Proposed HLS

Source: AviPro, 2021

Figure 12 Adjoining Land Use



Source: AviPro, 2021

In summary, the selection of the site in this reasonably remote area in combination with the existing mature vegetation and flight path alignment, mitigates the impact of external developments on the operations of the development and also mitigates any impact of helicopter operations into or from the site.

National Airport Safeguarding Framework

National Airports Safeguarding Framework

As noted above in **Section 7.1.2.1**, the NASF Guideline H addresses protecting strategically important helicopter landing sites. As the Penrith Lakes site is not a strategically important HLS, the application of NSAF needs to be assessed on what aspects of the Penrith Lakes development would impact the Western Sydney Airport or RAAF Richmond.

As detailed above, the subject site will not impact the prescribed airspace of the WSA and RAAF. Thereby the NASF Guidelines do not require assessment against.

State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

The Aerotropolis SEPP, Part 3 Development Controls – Airport Safeguards to not capture the Penrith Lakes site, and thereby the controls are not applicable to the site or application.

The Western Sydney Aerotropolis Plan

The Western Sydney Aerotropolis Plan does not address the Penrith Lakes site and is therefore not relevant to this application.

HLS Flight Paths & Precinct Drones

Aircraft and Remote Aerial Vehicles Interoperability

The issue pertaining to drones is not unique to this site as CASA has implemented rules for the use within a distance to aerodromes or airports, but not an HLS. In order to address the issue with regard to the Regatta Centre and surrounding land uses is to ensure event organisers manage the use of drones and that the helicopter operators ensure they use agreed flight paths. This will ensure a separation between the helicopters and drones when the drones are operated by responsible/licenced operators.

Impact to the Sydney International Regatta Centre

The DPIE within the issued SEARs requested that the Applicant consider the potential impact of the proposed helipad facility on the neighbouring Regatta Centre. In response to this request AviPro have specifically considered the future operational requirements and tasks associated with this page of the

development and how this may impact the use of the Regatta Centre for events. AviPro have ultimately assessed the impact

Noise – Prevailing Wind

The biggest consideration of operational noise impact to the Regatta Centre is prevailing winds. The site benefits form predominantly east-west wind direction. And thereby the impact of operational noise on the Regatta Centre will be significantly reduced.

Noise – Helicopter Size

The size of the utilised helicopters is a consideration in the noise impact from the facilities operation. As detailed above, Sydney Helicopters fleet is predominantly made up of smaller or light type helicopters, identical to the media helicopters that are often used to cover major events within Sydney, including those at the adjacent Regatta Centre. Similarly, Sydney Helicopters existing facility operates these vehicles within approximately 300-m of the Rosehill Gardens Racecourse in Sydney (the similar distance to the Regatta Centre to the proposed facility) and have never had concerns from racing broadcasters or the veterinary/ racing teams because of volume from operation of these helicopters.

The medium sized helicopters within the Sydney Helicopters fleet are contracted for seasonal fire operations.

Vibration

Similar to noise, the prevailing wind will also reduce the impact of any vibration on neighbouring properties including the Regatta Centre. As with noise, the concurrent use of the Regatta Centre for major events and the frequency of use of the HLS needs to be considered.

Air Turbulence

It is assumed that the use of the term air turbulence within the SEARs refers to helicopter downwash, as there is no other air disturbance created by helicopter flight.

Given the selected flight path for approach departure into/from the HLS, and the negligible downwash generated, the impact of downwash (air turbulence) is nil.

When heavier helicopters use the HLS the flight path alignment and the ‘fly neighbourly’ techniques used by the pilots will minimise or eliminate the potential impact of air turbulence on the Regatta Centre.

Major Event Scheduling

Sydney Helicopters have previously engaged with the Regatta Centre executive team (see **Table 10**) and have discussed interoperability during major event days. This includes the use of helicopters to support the transport of visitors to the events, media coverage of the event and also the normal flight operations.

As a normal procedure, unless as part of a major event passenger charter or filming task, helicopters will not fly over the Regatta Centre as identified in Figure 8 which illustrates the standard flight path and highlights the separation between normal flight operations and the Regatta Centre.

Co-Location Management Measures

As noted above, Sydney Helicopters have commenced engagement with the Regatta Centre and discussed interoperability during major event days. This relationship, including the production of fly neighbourly procedures, will be further developed.

Sydney Helicopters has been supporting major events for a number of years, including major racing events at Rosehill Gardens, and is expert and proficient at engaging with event management and all relevant stakeholders for the safe and non-obtrusive conduct of flight operations over and near large crowds, infrastructure and sporting events.

7.1.2.3. Mitigation Measures

As made evident above, the proposal will not impact the airspace or flight operations at the nearby WSA and RAFF Richmond.

Given the ensured safety of the proposed flight paths and of adjacent air space no mitigation measures have been proposed by AviPro with the exception of ensuring coordination between event organisers at the Regatta Centre to ensure the use of remote aerial vehicles does not interfere with Sydney Helicopters operation.

As such, the application is able to be supported from an airspace impact perspective.

7.1.3. Biodiversity

Eco Logical Australia Pty Ltd was engaged by Sydney Helicopters to prepare a Biodiversity Development Assessment Report (**BDAR**) for the proposed development in line with the SEARs issued by the DPIE in relation to the proposal. The findings and overall recommendations of the BDAR are detailed below.

7.1.3.1. Existing Environment

Given the relatively minor nature of the proposed impact to the existing ecological community on site, Eco Logical are utilising the Streamlined Assessment Module (Planted Native Vegetation) in accordance with Appendix D of the BAM has been used to assess and map the native vegetation present.

A site survey was undertaken by Ecological on the 14 September 2021. The survey noted the following observations:

- Remnant vegetation within the development site has historically been cleared and replaced by planted native and exotic species or colonized by exotic grasses (**Figure 13**). Therefore, the vegetation present could not be assigned to a Plant Community Type (**PCT**) or a Threatened Ecological Community (**TEC**).
- The planted vegetation represents a combination of indigenous native species occurring naturally on the Cumberland Plain and exotic species, including Eucalyptus baueriana (Blue Box), Eucalyptus moluccana (Grey Box) and Eucalyptus tereticornis (Forest Red Gum).
- Groundcover that was present was dominated by non-native plant species. The groundcover is representative of land that has been modified through clearing and significant earthworks, resulting in a highly modified soil profile and substantially degraded habitat.

Figure 13 Planted Vegetation on the Development Site

Picture 1 Western Extent

Source: Eco Logical, 2021

Picture 2 Eastern Extent

Source: Eco Logical, 2021

Figure 14 Vegetation Identified within the Development Site

Source: Eco Logical, 2021

7.1.3.2. Assessment

Planted Native Vegetation

Due to the presence of planted native vegetation within the development site, this BDAR was prepared using the streamlined assessment module for planted native vegetation in accordance with Appendix D of BAM 2020. This appendix contains a decision-making key which provides a framework for the assessment of planted native vegetation using the BAM (**Table 10**).

Table 16 Assessment of Planted Native Vegetation

Question	Response/Justification
1. Does the planted native vegetation occur within an area that contains a mosaic of planted and remnant native vegetation and which can be reasonably assigned to a PCT known to occur in the same IBRA subregion as the proposal? i. Yes – the planted native vegetation must be allocated to the best-fit PCT and the BAM must be applied. ii. No – Go to 2.	**No** – No remnant vegetation is present, and the planted vegetation could not be assigned to a PCT. The vegetation has been planted in rows as part of the rehabilitation of the land by the Penrith Lakes Development Corporation following the use of the land as quarry sites.
2. Is the planted native vegetation: a. Planted for the purpose of environmental rehabilitation or restoration under an existing conservation obligation listed in BAM Section 11.9(2.), and b. The primary objective was to replace or regenerate a plant community type of a threatened plant species or its habitat? i. Yes – the planted native vegetation must be assessed in accordance with Chapters 4 and 5 of the BAM ii. No – Go to 3.	**No** – The vegetation has not been planted as part of an existing conservation obligation, nor was it planted to replace a PCT, threatened plant or its habitat.
3. Is the planted / translocated native vegetation of a threatened species or other native species planted/ translocated for the purpose of providing threatened species habitat under one of: a. A species recovery project b. Saving our Species project c. Other types of government funded restoration project d. Condition of consent for a development approval that required those species to be	**No** – the planted vegetation is not a translocated individual of a threatened species. The vegetation was not planted for the purpose of providing threatened species habitat under one of the defined projects, condition of consent or management plans listed on the left. The vegetation was planted as part of the establishment of the Penrith Lakes Regional Park by the Penrith Lakes Development Corporation.

Question	Response/Justification
planted or translocated for the purpose of providing threatened species habitat e. Legal obligation as part of a condition of ruling of court. This includes regulatory directed or ordered remedial plantings (eg Remediation Order for clearing without consent issued under the BC Act or the Native Vegetation Act) f. Ecological rehabilitation to re-establish a PCT or TEC that was, or is carried out under a mine operations plan, or g. Approved vegetation management plan (e.g. as required as part of a Controlled Activity Approval for works on waterfront land under the NSW Water Management Act 2000)? i. Yes – the planted native vegetation must be assessed in accordance with Chapters 4 and 5 of the BAM ii. No – Go to 4.	
4. Was the planted native vegetation (including individuals of a threatened flora species) undertaken voluntarily for revegetation, environmental rehabilitation or restoration within a legal obligation to secure or provide for management of the native vegetation? i. Yes – Go to D.2 Assessment of planted native vegetation for threatened species habitat (the use of Chapters 4 and 5 of the BAM are not required to be applied) ii. No – Go to 6.	**No** – the planted native vegetation forms part of the landscaping for Penrith Lakes Regional Park and was not planted as part of a legal obligation .
5. Is the planted native vegetation (including individuals of a threatened flora species) planted for functional, aesthetic, horticultural or plantation forestry purposes? This includes examples such as; windbreaks in agricultural landscapes, roadside plantings (including street trees, median stripes, roadside batters), landscaping in parks, gardens and sport fields/complexes, macadamia plantations or tea tree farms?	**Yes** – the planted native vegetation forms part of the aesthetic landscaping for the existing Penrith Lakes Regional Park, which is zoned T: Tourism in accordance with the State Environmental Planning Policy (Penrith Lakes Scheme) 1989 (1986 EPI 18) Go to D.2 (see below) Assessment of planted native vegetation for threatened species habitat (the use of Chapters 4 and 5 of the BAM are not required to be applied).

Question	Response/Justification
i. Yes – Go to D.2 Assessment of planted native vegetation for threatened species habitat (the use of Chapters 4 and 5 of the BAM are not required to be applied) ii. No – Go to 6.	
6. Is the planted native vegetation a species listed as a widely cultivated native species on a list approved by the Secretary of the Department (or an officer authorised by the Secretary)? i. Yes – Go to D.2 Assessment of planted native vegetation for threatened species habitat (the use of Chapters 4 and 5 of the BAM are not required to be applied) ii. No – There may be other types of occurrences of planted native vegetation that do not easily fit into the decision-making key above.	N/A

D.2 requires the assessor to assess the suitability of the planted native vegetation for use by threatened species and record any incidental sightings or evidence of threatened species credit species (flora and fauna) using, inhabiting or being part of the planted native vegetation.

No threatened species were observed during the field surveys and there was no evidence for threatened species utilising habitat within the development site. There were no stick nests, dreys, hollows, fallen logs or other important habitat features recorded during the field survey. The existing buildings were also determined to not provide any habitat for species credit species. Therefore, threatened species are considered unlikely to use habitat within the development site.

The proposed development would directly affect 0.10 ha of planted native vegetation which does not conform to a Plant Community Type or Threatened Ecological Community. The majority of direct impacts however will occur to areas already cleared or consists of exotic vegetation. Of the 0.55 ha of the development site, only 0.10ha is planted native vegetation, which represents 18% of the proposed direct impacts.

No threatened species habitat will be removed as a result of the proposed works.

7.1.3.3. Mitigation Measures

Recommended measures proposed to mitigate and manage direct and indirect impacts from the development before, during and after construction are outlined in Table 6 and have been assessed in accordance with Section 8.4 of the BAM.

Table 17 Proposed Mitigation Measures

Mitigation Measure	Risk Before Mitigation	Risk After Mitigation	Outcome	Timing / Responsibility
A Construction Environmental Management Plan (CEMP) would be prepared and include the following: ▪ Identification of any hold points to ensure all biodiversity management actions are met, e.g. pre-clearing protocol followed by stage clearing ▪ Maps to identify construction limits and any sensitive areas ▪ Site induction procedures ▪ Erosion and sediment control ▪ Weed control and management ▪ Noise, dust and light spill protocols ▪ Pre-clearing and fauna management procedures.	Moderate	Minor	Construction activities will be undertaken following best practice and adaptive management protocols to limit impacts on biodiversity. Flora and fauna would be managed to avoid and minimise any residual impact; prevent over clearing of vegetation; limit erosion and sedimentation prevent establishment and invasion of weeds; minimisation of noise, dust and light spill.	During construction Project Manager
Erosion and sediment control actions in accordance with the Blue Book (Landcom 2004) to be implemented during construction phases.	Moderate	Minor	Prevent the erosion of soil on site and prevent impacts to nearby water features from run-off and sedimentation.	During construction Project Manager
Weed control and management to be undertaken where required (with weeds to be removed in accordance with the Biosecurity Act 2015 protocols if any high threat weeds identified).	Moderate	Minor	Control of any weeds present and prevention of weed spread into adjacent areas.	During construction Project Manager

Mitigation Measure	Risk Before Mitigation	Risk After Mitigation	Outcome	Timing / Responsibility
Noise, dust and light spill protocols – for example: Daily timing of construction activities is recommended in accordance with Table 1 of Interim Noise Guidelines (2009). Dust suppression for exposed soil if required. Construction only during daylight hours (no night lights)	Moderate	Minor	Impacts to fauna using adjacent vegetation and/or their habitat from noise, dust and light avoided	During construction Project Manager
Pre-clearance, fauna management and unexpected finds protocol to ensure fauna are not present and/or appropriately managed prior to clearing works.	Moderate	Minor	Impacts and injury to resident fauna avoided and minimised	During construction Project Manager / Ecologist
Site inductions during construction to include a briefing regarding the local fauna of the site and protocols to be undertaken if fauna are encountered.	Moderate	Minor	Impacts and injury to resident fauna avoided and minimised	During construction Project Manager / Ecologist
Frequent maintenance of construction machinery and plant will be undertaken to minimise unnecessary noise or air pollution	Moderate	Minor	Minimises disruption to fauna foraging, nesting or roosting behaviours	During construction Project Manager
Washdown protocols for vehicles should be observed to prevent the entry of soil borne pathogens such as Phytophthora.	Moderate	Minor	Spread of weeds and pathogens prevented	During construction Project Manager

Source: Eco Logical, 2021

Noting the above, the proposal is able to suitably mitigate against any biodiversity impacts which are considered acceptable for the proposal.

7.1.4. Aboriginal Heritage

Urbis was engaged to conduct an Aboriginal Objects Due Diligence Assessment (**ADD**) of the site to investigate and determine whether development of the subject area will harm any Aboriginal objects or places that may exist within the subject area and determine whether the subject area presents any Aboriginal archaeological and heritage constraints. The ADD focusses on the proposed works as a priority, within a more general consideration of the subject area as a whole.

7.1.4.1. Existing Environment

The study area that was investigated as part of the ADD process includes the entire 1.64ha allotment that includes the wider site, as this sets the context for the Indigenous heritage for the site. It is to be noted that importantly the project and disturbance area is limited to 2.02ha where physical works are proposed.

Below is a high-level summary of the sites existing environment as detailed by Urbis and considers how this environment would influence Aboriginal people's movements, meeting places, and general lifestyle, whilst providing context to the below archaeological survey findings of the site.

Topography

The subject area has a generally flat topography, rising slightly towards the southern boundary, this local topography is due to past earthworks within the subject area. The higher ground on the southern boundary is the original elevation. The flat terrain is consistent with its location on a terrace of the Nepean River. The subject area is not associated with any of the archaeologically sensitive topographic features.

Soil Landscape & Geology

The subject area is identified as being located entirely within the Richmond soil landscape. The Richmond soil landscape is described as residing on the generally flat Quaternary terraces of the Nepean and Georges Rivers. Underlying geology is Quaternary alluvium consisting of sand, silt and gravels derived from sandstone and shale. Soils are described as poorly structured orange to red clay loams, clays and sands. Deep acid non-calcic brown soils, red earths and red podzolic soils occur on terrace surfaces with earthy sands on terrace edges.

The location of subject area away from the terrace edge suggests the natural soils are likely to be clay loams, which are not conducive to burials.

The deep soils associated with terrace surfaces of the Richmond soil landscape may somewhat mitigate the impact of ground disturbing activities on archaeological potential.

Vegetation

The presence of certain types of vegetation within in an area may be indicative of archaeological potential for certain site types, such as modified trees, or more generally of the habitability of an area for Aboriginal people.

Although the subject area includes numerous mature trees, it appears unlikely that the subject area currently includes any remnant vegetation that could include culturally modified trees due to historical land clearance.

Based on its location within the Richmond soil landscape, the natural vegetation of the subject area would likely have consisted of open forest with a wide variety of native species. The variety of floral and faunal species in the subject area could have been utilised by Aboriginal people for medicinal, ceremonial and subsistence purposes.

Hydrology

Proximity to a body of water is a factor in determining archaeological potential. Areas within 200m of the whole or any part of a river, stream, lake, lagoon, swamp, wetlands, natural watercourse or the high-tide mark of shorelines (including the sea) are considered sensitive areas for Aboriginal objects and places.

The subject area is located approximately 500m north of the current course of the Nepean River. Typical of the terrace landform, the area around the present subject area likely included various channels cutting across the bend. An aerial photograph of subject area from 1961 (**Figure 15**) shows a natural waterway running in a south-east to north-west direction through subject area. The blue shading in **Figure 15** indicates the portion of the subject area within 200m of that waterway. As is evident from **Figure 15**, the majority of the subject is within 200m of water and therefore the hydrology of the subject area is indicative of past Aboriginal land use.

Figure 15 1961 Aerial Photograph

Source: NSW Government Spatial Services, Historical Imagery Viewer

Historical Ground Disturbance

Urbis have considered the wider impact of historical ground disturbance through both human activity and natural processes. Urbis have concluded that the subject impact area has been subjected to varying degrees of ground disturbance since the early 19th century. Agricultural activities and the construction of small residential and ancillary buildings up to the mid to late-20th century are likely to have caused moderate ground disturbance across the entire subject area.

Subsequent earthworks associated with the Penrith Lakes Scheme caused high levels of ground disturbance across most of the subject area, eliminating any potential for Aboriginal objects to be retained. The construction of the main dwelling, associated sheds, structures and infrastructure is determined to have caused extensive disturbance to topsoil outside the quarried area, also significantly reducing the potential for Aboriginal objects to be retained.

7.1.4.2. Assessment

Visual Inspection

Urbis undertook a site visit and visual inspection on the 13 September 2021. During this site visit no Aboriginal objects were identified.

The visual inspection found evidence of high levels of ground disturbance within the subject area. An exposed area approximately 60m north-west of the single storey cottage revealed no natural soil stratigraphy (**Picture 3**). Mounding around trees (**Picture 4**) near to the exposed soil profile also evidenced historical earthworks in the area. Both these areas are located within the area of high ground disturbance. No evidence of a high level of ground disturbance was observed in the immediate vicinity of the single storey cottage (**Picture 5**) or along the southern boundary (**Picture 6**).

Figure 16 Site Investigation Photos

Picture 3 Exposed redeposited clay north-west of single storey cottage

Source: Urbis, 2021

Picture 4 Mounding of soil at base of trees north-west of single storey cottage

Source: Urbis, 2021

Picture 5 View west to single storey cottage

Source: Urbis, 2021

Picture 6 View west of area south of single storey cottage

Source: Urbis, 2021

The visual inspection confirms the desktop assessment of high levels of ground disturbance within the subject area, with localised areas of moderate ground disturbance.

Assessment of Archaeological Potential

In determining the potential of the site to contain archaeological sensitivities or wider Aboriginal significance, Urbis have assessed the impact area to determine whether there is a need to undertake further assessment in the form of an AHIP. These findings are provided below in **Table 12**.

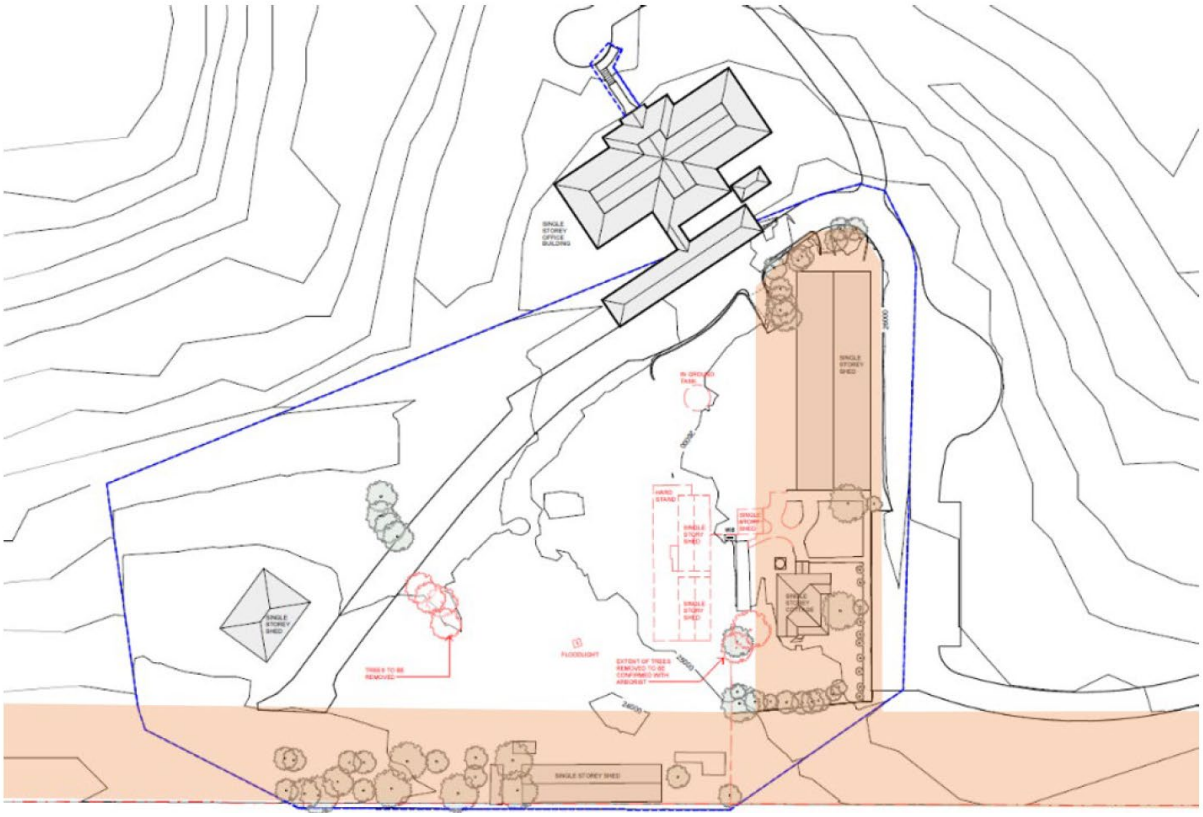
Table 18 Predictive Model of Archaeological Potential

Site Type	Assessment	Potential
Art	The subject area does not include any visible sandstone outcrops or rock overhangs that would be indicative of the potential for rock art. The likelihood of any concealed rock overhangs or sandstone outcrops being present within the subject area is considered to be low.	Nil in areas subject to quarrying. Low in all other areas.

Site Type	Assessment	Potential
Artefact Scatters / Campsites	The majority of the subject area is located within 200m of a former natural waterway, indicative of likely past Aboriginal use. High levels of historical ground disturbance across most of the subject area are likely to have significantly impacted the integrity of natural soil profiles, eliminating the potential for artefact scatters / campsites. However, localised areas of moderate ground disturbance retain low-moderate potential for artefact scatters / campsites.	Nil in areas subject to quarrying. Low -Moderate in all other areas.
Bora / Ceremonial	The majority of the subject area is located within 200m of a former natural waterway, indicative of likely past Aboriginal use. However, as bora / ceremonial sites are particularly susceptible to ground disturbance, the moderate to high levels of ground disturbance caused by historical activities across the subject area are likely to have eliminate or significantly reduced the potential for bora / ceremonial sites.	Nil in areas subject to quarrying. Low in all other areas.
Burials	Although the majority of the subject area is located within 200m of a former natural waterway, the clay loams of the Richmond soil landscape in which the subject area is located area are not conducive to burials.	Nil in areas subject to quarrying. Low in all other areas.
Contact Site	The subject area is located within an area of early European settlement. High levels of historical ground disturbance across most of the subject area are likely to have significantly impacted the integrity of natural soil profiles, eliminating the potential for contact sites. However, localised areas of moderate ground disturbance retain low-moderate potential for contact sites.	Nil in areas subject to quarrying. Low-Moderate in all other areas.
Grinding Grooves	The subject area does not include any visible sandstone outcrops that would be indicative of the potential for grinding grooves. The likelihood of any concealed sandstone outcrops being present within the subject area is considered to be low.	Nil in areas subject to quarrying. Low in all other areas.
Isolated Finds	The majority of the subject area is located within 200m of a former natural waterway, indicative of likely past Aboriginal use. High levels of historical ground disturbance across most of the subject area are likely to have significantly impacted the integrity of natural soil profiles, eliminating the potential for isolated finds. However, localised areas of low-moderate round disturbance retain moderate potential for isolated finds.	Nil in areas subject to quarrying. Low-Moderate in all other areas.
Midden	Although the majority of the subject area is located within 200m of a former natural waterway, it is unlikely that the lower order stream that ran through the subject area would have been a significant source of shellfish that may have contributed	Nil in areas subject to quarrying. Low in all other areas.

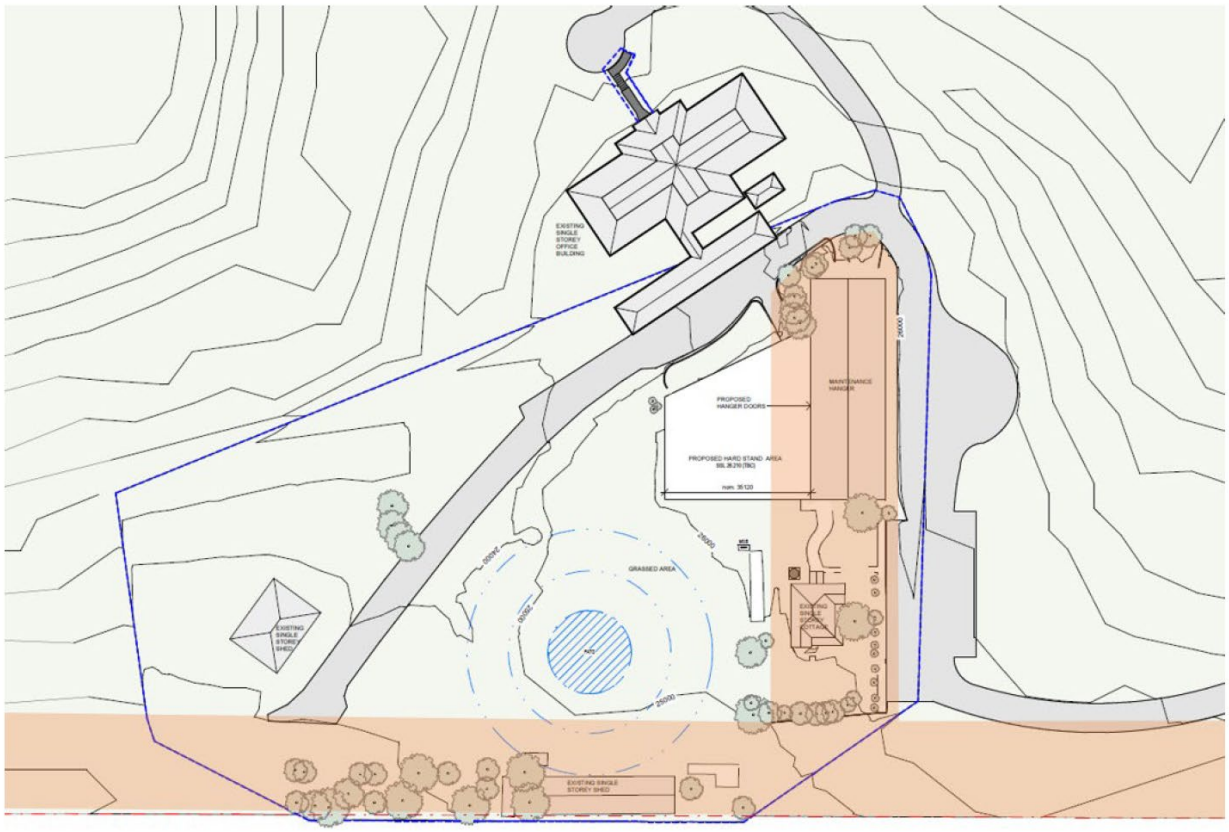
Site Type	Assessment	Potential
	to a midden. Furthermore, there are no middens registered within proximity to the subject area.	
Modified Trees	The subject area is unlikely to retain any modified trees as historical development of the subject area has resulted in clearance of all vegetation.	Nil in areas subject to quarrying. Low in all other areas.
PAD	The majority of the subject area is located within 200m of a former natural waterway, indicative of likely past Aboriginal use. High levels of historical ground disturbance across most of the subject area are likely to have significantly impacted the integrity of natural soil profiles, eliminating the potential for archaeological deposits. However, localised areas of moderate ground disturbance retain low-moderate potential for archaeological deposits.	Nil in areas subject to quarrying. Low-Moderate in all other areas.
Shelters	The subject area does not include any visible rock overhangs that would be indicative of the potential for shelters. The likelihood of any concealed rock overhangs being present within the subject area is considered to be low.	Nil in areas subject to quarrying. Low in all other areas.

Figure 17 Area of Low-Moderate Archaeological Potential within Demolition Works



Source: Urbis, 2021

Figure 18 Area of Low-Moderate Archaeological Potential within Construction Works



Source: Urbis, 2021

Due Diligence Assessment

The NPW Act provides statutory protection for Aboriginal objects and places in NSW. Section 87 (2), Part 6 of the NPW Act ensures that a person who exercises 'due diligence' in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence, outlined by Section 86 of Part 6 of the NPW Act, if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (**AHIP**).

The Due Diligence Code (**DECCW, 2010**) was developed to help individuals and/or organisations to establish whether certain activities have the potential to harm Aboriginal objects within a given proposed activity footprint. Following the generic due diligence process, which is adopted by the NPW Regulation, would be regarded as 'due diligence' and consequently would provide a defence under the NPW Act.

The due diligence process outlines a set of practicable steps for individuals and organisations to:

1. Identify whether or not Aboriginal objects are, or likely to be, present in an area.
2. Determine whether or not their activities are likely to harm Aboriginal objects (if present).
3. Determine whether an AHIP application is required to carry out the harm.

Urbis within Chapter 4 of **Appendix G** have undertaken a due diligence assessment to indicate that no further investigation is required for the subject area because the proposed activities will avoid archaeologically sensitive landscape features.

As such, a formal waiver has been prepared to negate the need to further undertake an Aboriginal Cultural Heritage Assessment Report. This waiver is attached to this EIS as **Appendix H**. A high-level summary of the due diligence assessment against the Due Diligence Code is provided below, however please refer to Chapter 4 of **Appendix G** for further detail on the assessment.

Step 1 – Will the activity disturb the ground surface?

Yes. It is understood that the demolition of existing buildings, pavement and hardstand will be down to the ground surface and that new installations will not significantly disturb the ground surface. However, the removal of the inground water tank and tress will disturb the ground surface.

Step 2A – Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?

No. There are no Aboriginal objects or Aboriginal places registered within the curtilage of the subject area. There is no information recorded in the AHIMS database about landscape features of relevance to the determining the presence of Aboriginal objects or Aboriginal places within the subject area.

Step 2B – Are there any other sources of information of which a person is aware?

No. The Due Diligence Code requires identification of any other sources of information, such as previous studies, reports or surveys, relevant to identifying the presence of Aboriginal objects within the subject area. No other sources of information have been identified that indicate the presence or likely presence of Aboriginal objects or Aboriginal places within the subject area.

Step 2C – Are there any landscape features that are likely to indicate the presence of Aboriginal objects?

No. The entire subject area has been impacted by moderate to high levels of ground disturbance due to quarrying, the construction and demolition of buildings and associated infrastructure and agricultural activities. These activities have significantly impacted the integrity of natural soil profiles, greatly reducing archaeological potential. Therefore, there are no landscape features likely to indicate the presence of Aboriginal objects due to historical ground disturbance.

Step 3 – Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?

N/A

Step 4 – Does the desktop assessment and visual inspection confirm that there are aboriginal objects or that they are likely?

N/A

7.1.4.3. Mitigation Measures

The DDA report assessment concluded the following:

- No Aboriginal objects or Aboriginal places are registered within the subject area or identified as being located within the subject area in previous studies.
- The majority of the subject area are located within 200m of a former natural waterway, indicative of likely past Aboriginal land use.
- However, quarrying is determined to have caused high levels of ground disturbance, eliminating any archaeological potential across most of the subject area.
- The construction of the main dwelling, associated sheds, structures and infrastructure is determined to have caused extensive disturbance to topsoil outside the quarried area, significantly reducing archaeological potential.
- Based on the assessment of the archaeological and environmental context, the subject area is determined to have nil-low potential for Aboriginal objects within the area impacted by the proposed works.
- Outside the quarried area the archaeological potential is determined to be low-moderate, but the works proposed for that area will not cause any disturbance below the already disturbed topsoil.

- The Due Diligence Code therefore does not require further archaeological assessment of the subject area.

Based on the above findings, the following is recommended:

- This ADD report should be kept as evidence of the Due Diligence process having been applied to the subject area.
- Based on the above conclusions, Urbis recommends that the proposed works under the revised scope can proceed with the Archaeological Finds Procedure in place.
- A request should be filed with the Department of Planning, Industry and Environment to waive the Aboriginal heritage SEARs based on the outcome of the ADD.
- If a waiver is granted, the development may proceed with caution, subject to the appropriate archaeological chance finds and human remains procedures, as detailed in **Appendix G**.

7.1.5. Soil & Water

Northrop was engaged to prepare a Stormwater and Water Sensitive Urban Design (**WSUD**) strategy in support of the proposed Helipad facility and to adequately address the assessment requirements as identified in the DPIE within the SEARs issued on the 25 August 2021. Consideration of the stormwater and WSUD requirements has been deemed on the following information and statutory requirements:

- Current architectural site layout prepared by WMK Architecture (**Appendix B**).
- The Environmental Assessment Requirements (SEAR Number 1469).
- Environmental Planning and Assessment Act 1979 No 203.
- *State Environmental Planning Policy (Penrith Lakes Scheme) 1989* (1986 EPI 18).
- Local Council documents, information and guidelines (which provide the stormwater management requirements for the site in the absence of guidance in the EP&A Act, SEPP or LEP):
  - Penrith City Council Development Control Plan (**DCP**) 2014.
  - Penrith Water Sensitive Urban Design Policy 2013.
  - Penrith Stormwater Drainage Policy 2016.
- Dial Before You Dig (**DBYD**) information.
- Existing site survey.

7.1.5.1. Existing Environment

As part of their assessment and establishment of a suitable stormwater design, Northrop have considered the existing services on site and the water quantity requirements. Council's Stormwater Drainage Policy 2016 outlines the design requirements for managing stormwater quantity. The relevant requirements for this development are:

- Surface drainage systems are to be designed to have capacity for the 5% AEP Storm.
- The major (1% AEP storm) is to be conveyed overland.

A review of the Penrith City Council's Stormwater Drainage Policy 2016 has further indicated that the site is not required to utilise Onsite Stormwater Detention as it is located outside of the OSD requiring catchment.

In terms of requirements, a review of WSUD Policy factsheet, the proposed development is classified "Commercial & Industrial - Alterations and additions where the increase in the roofed or impervious area is equal to or greater than 250m", and therefore requires WSUD guidelines to be met.

Similarly, as per Section C3.2 of the DCP, the following water quality targets are to be met:

- Pollution Target Reduction Loads:

(f) 90% reduction in the post development mean annual load of total gross pollutants

(g) 85% reduction in the post development mean annual load of total suspended solids (**TSS**)

(h) 60% reduction in the post development mean annual load of total phosphorous (**TP**)

(i) 45% reduction in the post development mean annual load of total nitrogen (**TN**)

- Modelling for the determination of the mean annual loads of land uses must be undertaken in MUSIC and in accordance with the associated WSUD Technical Guidelines.
- Any changes to the flow rate and flow duration within the receiving watercourses as a result of the development shall be limited as far as practicable. Natural flow paths, discharge point and runoff volumes from the site should also be retained and maintained as far as practicable.
- Impervious areas directly connected to the stormwater system shall be minimised. Runoff from impervious areas such as roofs, driveways and rainwater tank overflows shall be directed onto grass and other landscaped areas designed to accept such flows.

Similarly, the performance criteria for these controls for this development type “Commercial & Industrial - Alterations and additions where the increase in the roofed and impervious area is equal to or greater than 250m” are to install rainwater tanks to meet 80% of non-potable demand including outdoor use, toilets, and laundry.

7.1.5.2. Assessment

Thee below section details the WSUD strategy proposed by Northrop for the site, including the modelling approach undertaken to ensure the proposed strategy addresses the SEARs and Council requirements. One of the major assessment concerns raised by the DPIE was in relation to quality of stormwater runoff. This is detailed below for both the construction and operational phases.

Stormwater Management – Construction

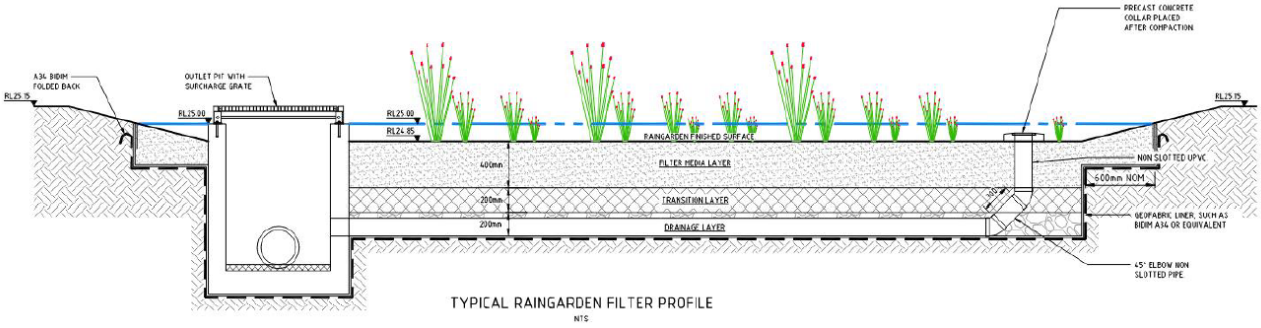
Removal of existing ground cover to expose soil is expected during the construction phase of the proposed hardstand area. This does create potential for runoff during rainfall events. Management of this issue is dictated by the Landcom ‘Blue Book’, which mandates a number of temporary measures to be installed to protect receiving waterways from sediment laden runoff.

Full detail of the proposed mitigation measures and strategy is available in the Sediment and Erosion Control Plan prepared by Northrop, and lodged as Appendix A of **Appendix I**. However, the strategy includes sediment fences to filter runoff from the site, turfing all exposed areas immediately after earthworks completion, and installing inlet filter traps existing stormwater pits. It is noted that a sediment basin is not required for this site as the area of works is less than 2000m^2.

Stormwater Management – Operation

Within the operational stage of the development, a more permanent stormwater management strategy is required. Given the sites location and size a raingarden has been recommended as the most appropriate. A figure of the proposed raingarden is provided below in **Figure 19**. The raingarden promotes infiltration into the natural ground thereby attenuating peak flows that would otherwise go directly to receiving waters. The runoff from the proposed hardstand area will be collected by a grated drain along its western edge (sized to convey the 5% AEP flow in accordance with Council’s requirements), and directed to the raingarden for treatment, from which it will discharge into an existing Ø375 pipe. The existing stormwater network discharges via a headwall to a small dam on the property, any overflow from which would eventually make it to Penrith Lakes.

Figure 19 Typical Rainwater Filter Profile



Source: Northrop, 2021

During construction of the hardstand area, all batters and disturbed ground will be re-vegetated and turfed immediately following completion of works. portion of the newly turfed areas drains to the raingarden, while the rest can be considered as being “not directly connected areas” which will flow over existing stable vegetated areas (buffers) before eventually reaching the receiving water.

In addition to the raingarden, a rainwater harvesting, and reuse system is proposed to further decrease flow volumes leaving the site. The rainwater runoff from the existing office building roof (a total of 1,117m^2) is proposed to be directed to three 25kL rainwater reuse tanks (totalling 75kL of storage) and used to supply all non-potable demands. Downpipes will also be fitted with ‘first flush’ filters to ensure the first few milometers of rain bypass the tanks.

Fuel storage on site will be via self-bunded tanks, minimising the risks of leaks and spills.

For full details of the proposed stormwater management methods as shown on the Siteworks and Stormwater Management Plan are included in Appendix B of **Appendix I**.

Impact to the Sydney International Regatta Centre

Stormwater from this development is proposed to be treated in accordance with best practice guidelines, removing sediment, nutrients, and hydrocarbons prior to discharging off site. The quality of the stormwater post development is expected to be far improved compared to the existing runoff quality, as the proposed development will see a decrease in impervious area and the introduction of treatment measures. While the site does border the Sydney International Regatta Centre, stormwater from the site is first intercepted by a large dam, vegetated around its perimeter with wetland planting as shown below in **Figure 20**. Thus, after at-source treatment via the raingarden, stormwater then flow via a system of vegetated swales and ponds, to the large dam where it will be further polished prior to overflow into the regatta centre.

Figure 20 Existing Site Dam

Source: Northrop, 2021

7.1.5.3. Mitigation Measures

The proposed stormwater management and WSUD measures proposed have been designed in order to meet the SEARS, with specific targets adopted from Penrith City Council's guidelines. Below is a summary of the proposed stormwater design, and how the proposal specifically responds to the SEARs requirements as issued by the DPIE:

- **An assessment of the surface water and runoff impacts during construction and operation:**

  The surface water runoff during construction will be managed via sediment and erosion control measures in accordance with the industry standard 'blue book', including sediment fences and re-turfing disturbed areas as soon as possible.

  Surface water runoff during operation of the site will be largely due to the proposed concrete hardstand, which will be treated via a raingarden sized to meet Penrith City Council's water quality requirements. Raingardens are effective in the removal of most pollutants including suspended solids, nitrogen, phosphorous, heavy metals and hydrocarbons. The risk of large fuel or oil leaks are to be mitigated through the use of self-bunded fuel storage units.

  Reuse opportunities for the site are being maximised with rainwater harvesting proposed from the entire roof area of the existing office building.

- **Details of any potential discharge of pollutants to water and how potential water pollution would be mitigated:**

  In general, this site is expected to be a relatively clean development, with the main contaminant likely to be sediment and hydrocarbons due to vehicle movements around the site, which can be effectively mitigated through the raingarden.

- **Characterisation of the nature and extent of any contamination (including disturbance of sediments in Penrith Lakes) on the site and surrounding area:**

  The source pollution and residual pollution (after treatment) for the site was modelled in MUSIC assuming pollutant loading typical for an industrial site. The proposed treatment measures have been shown in the modelling to effectively reduce the pollution levels in accordance with Penrith City Council's pollution removal targets. The proposed treatment measures will also be effective at minimising flow entering the receiving water (Penrith Lakes) by promoting infiltration and reuse.

  Furthermore, runoff from the proposed works, once discharged into the existing stormwater network, will enter an existing dam on the property before travelling over 70m to Penrith Lakes (in events where the dam overtops). Therefore, the impact on the Penrith Lakes is considered negligible.

- **A Stormwater Management Plan that outlines the general stormwater management measures for the proposal, including erosion and sediment controls, and first flush systems:**

  Detailed above, and with further information provided in **Appendix I**.

- **Water Sensitive Urban Design strategy addressing water conservation, water quality, water quantity, operation and maintenance:**

  Contained within **Appendix I**, with the operation and maintenance schedule contained in Appendix D of **Appendix I**.

7.1.6. Traffic & Transport

Urbis was engaged to prepare a Traffic Impact Statement (**TIS**) to identify and analyse the potential traffic-related impacts associated with the proposal (refer to **Appendix M**). The report has been prepared in accordance with the SEARs issued for the DA.

The TIA sets out the assessment of the proposed transport implications of the proposed development, including consideration of the following:

- Existing traffic conditions surrounding the site.
- Likely car parking requirements for the site.
- Consideration of vehicle access to the site.

- Pedestrian and cycle accessibility.
- Traffic generation characteristics of the proposed development.
- Suitability of the proposed access arrangement for the site.
- The traffic impact of the development proposal on the surrounding road network.

Full detail of the SEARs addressed and where the corresponding section can be found in the TIA is set out in the SEARs compliance table in **Section 1.8**.

7.1.6.1. Existing Environment

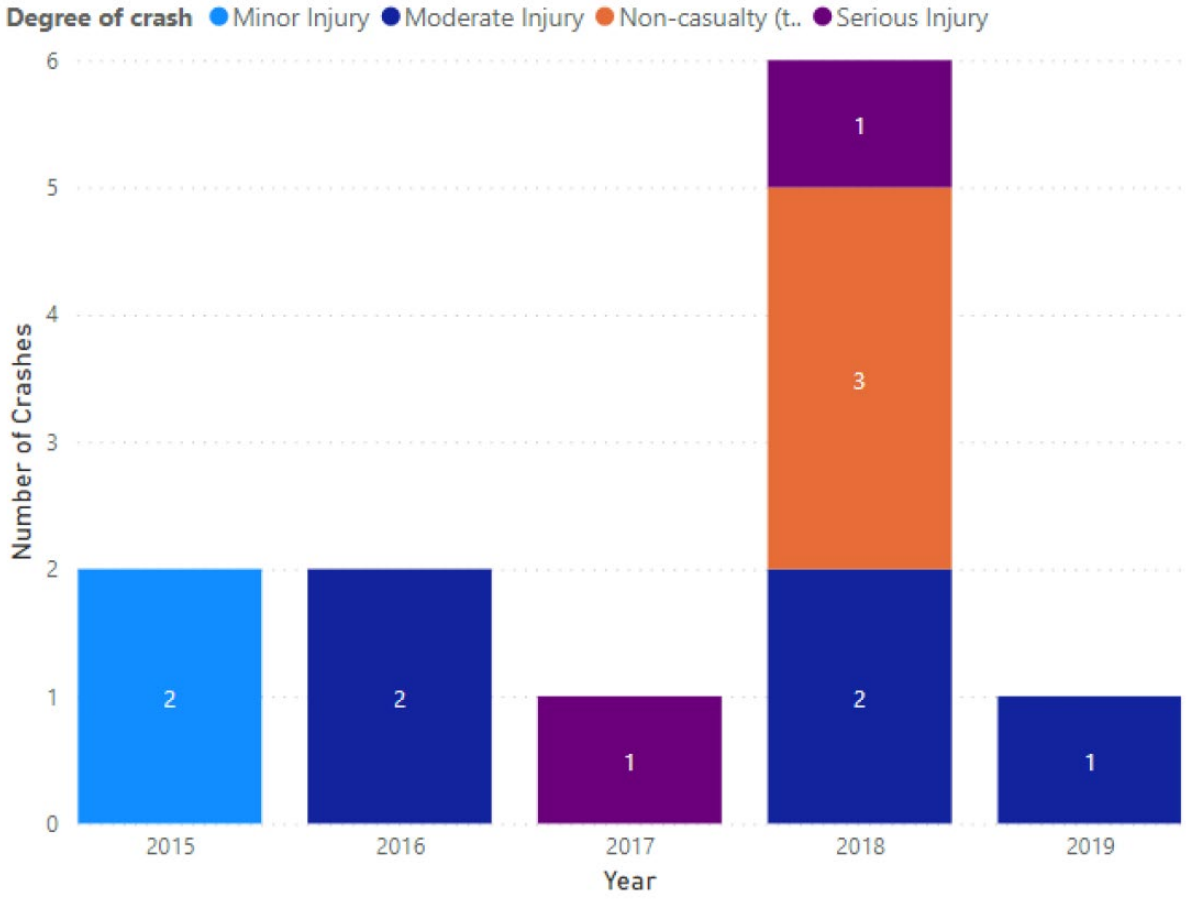
The TIS has assessed the road traffic conditions surrounding the site, particularly with access to Old Castlereagh Road. The following subsections analyse the local road incidents in proximity to the site, access, parking arrangements and active transport options.

Incident History

The TIS has reviewed the TfNSW Centre for Road Safety statistics to review incidents on the local road network surrounding the site.

There were 12 crashes reported in the five years between 2015 and 2019 in the surrounding area on the Old Castlereagh Road, Castlereagh Road, and at the Old Castlereagh Rd/ Castlereagh Rd roundabout. Seven of these crashes happened at the roundabout, with five injuries recorded. The remaining five crashes had happened on the approaching roads to the roundabout. One out of these five crashes occurred on Old Castlereagh Road, down the road where this site is located. There have been no crashes on Old Castlereagh Road since 2016. The degree of each crash is sorted by the year of occurrence which is presented in **Figure 20**.

Figure 21 Degree of Incident by Year



Source: TfNSW Crash and casualty statistics modified by Urbis, 2021

The nature of the crashes on Old Castlereagh Road and at the Old Castlereagh Road/Castlereagh Road roundabout indicate driver error and are not indicative of any underlying road safety issues.

Car Parking

There is no on-street carparking close to the site. All visitors to the site travelling in private vehicles are required to utilise the on-site parking. The site currently has 41 available spaces for use by staff and visitors.

Public Transport & Active Transport

Public transport in proximity to the site is limited with the closest options being two bus stops located on either side of Castlereagh Road with an approximately 20-minute walk from the site. The bus routes include the 783 and 673 which operate between Werrington to Penrith via Jordan Springs and Windsor to Penrith via Cranebrook respectively.

The closest train station to the site is Penrith train station, which is a 7-minute drive from the site and is serviced by the BMT and T1 trains connecting Penrith Station to Central station to the east and Mount Victoria Station to the west.

There are no footpaths along the section of Old Castlereagh Road that provides access to the site.

There are existing footpaths on the eastern side of Castlereagh Road. No bicycle paths connect the site to the road network or public transport stations.

The limited public transport services within walking distance to the site, combined with the lack of active transport connectivity from public transport stations to the site, indicate that most staff and customers are likely to use private transport to travel to and from the site.

7.1.6.2. Assessment

Traffic Generation

The TfNSW *Guide to Traffic Generating Developments (2002)* does not provide a specific rate for Helipad or similar developments. As such, Urbis have utilised information provided by the Applicant for the existing operation at their Granville site. Staff members typically work from 8:00 AM to 6:00 PM. The expected number of staff working on-site at one time is 10 from Monday to Friday. Sydney Helicopters has indicated that the proposed development will typically have 10 to 15 customers per day.

Table 13 outlines the peak traffic generating period for the proposal.

Table 19 Peak Hour Trips Generated

Trip Type	Peak Period Weekdays	Peak Hour Trips Generated	Peak Hour Private Vehicle Trips
Customer	8:00-9:00 AM 4:00-5:00 PM	2	2
Staff	7:30-8:30 AM 5:00-6:00 PM	10	8-10
Total peak hour trips generated	**12**		
Total peak hour private vehicle trips generated	**12**		

The peak traffic generation time for staff was assumed to be 7:30-8:30 AM and 5:00-6:00 PM when staff are arriving and leaving the site. Given the nature of the facility, no peak period for customers is able to be provided, thus the peak customer period was assumed to be from 8:00-9:00 AM and 4:00-5:00 PM when the facility opens and closes for the day. This was done to assume an overlap with the staff peak period to determine the peak traffic generation in a worst-case scenario.

To determine the volume of peak hour customer trips, a maximum of 15 customers trips per day was divided by the number of operating hours of the facility per day and rounded up to the nearest whole number to determine an average number of customer trips per hour.

The proposed development is expecting to generate 12 trips per peak hour mainly in form of private car traffic This amount of traffic generated would not affect the performance of the surrounding transport network. Furthermore, this assessment is able to be considered a worst-case scenario in that the data supplied by Sydney Helicopters is specific to the current broader Heliport operation at Granville. The proposed Helipad will generate significantly less traffic as by the nature of a Helipad being closed to the public, the overall operation and use of the facility is forced to reduce by the nature of the proposals definition.

Parking Assessment

Similar to the above, both the Penrith Lakes SEPP and the *Guide to Traffic Generating Developments (2002)* does not include specific car parking rates for helipads or other similar facilities. The number of car parking spaces provided for the development will therefore be assessed on merit and the information as supplied by Sydney Helicopters.

There are expected to be 10 staff on the site from 8:00 AM to 6:00 PM. It is expected that all of these staff members will drive to work and park on the site for their entire shift. Sydney Helicopters has indicated that there will be an average of 10 to 15 visitors per day.

Under this standard, the proposed development is classified as a Class 9b building (an assembly building of a public nature). The accessible parking requirement for Class 9b buildings with less than 1,000 car parking spaces is one space for every 50 car parking spaces or part thereof.

The existing development has 40 standard car parking spaces and 1 accessible car parking space available. There are no proposed changes to the existing car parking spaces. Assuming a worst-case scenario in which all 10 staff and 15 visitors park on the site at one time gives a car parking requirement of 25 spaces. As the proposed development will have less than 50 car parking spaces, the number of accessible car parking spaces required is one.

The on-site parking provided will therefore be sufficient to support the proposed use of the site. Furthermore, as noted above, this parking demand is specific to the operation of the Heliport facility, thereby parking requirements for the proposed Helipad is anticipated to be overall less.

7.1.6.3. Mitigation Measures

Based on this traffic impact statement, the following is able to be concluded:

- The proposed development is expecting to generate 12 trips per peak hour mainly in form of private car traffic. This would not impact the performance of the surrounding transport network.
- The parking demand generated by the development will be appropriately accommodated by the existing 41 car parking spaces on-site.
- The existing standard on-site car parking meets Australian Standards requirements. The existing accessible car parking does not meet Australian Standards requirements because the current shared space does not include a bollard, however, given that this is existing, it can be deemed acceptable.

Given the minimal impact to the local road network as a result of the proposal from both the minor requirements in operation and the construction period, the following mitigation measures are proposed:

- Traffic control would be required to manage and regulate traffic movements into and out of the site during construction.
- Disruption to road users would be kept to a minimum by scheduling intensive delivery activities outside of peak network hours.
- Construction and delivery vehicles would be restricted to using Old Castlereagh Road, Castlereagh Road, M4 Motorway, Great Western Motorway and Mulgoa Road.

The above analysis has shown that the proposal is supportable with respect to access, traffic generation and parking requirements, and will not result in unacceptable impacts on the surrounding road network.

7.1.7. Air Quality

SLR Consulting was engaged to undertake an Air Quality Impact Assessment (**AQIA**) of the proposals construction and operation at the subject site. The AQIA lodged as **Appendix O** has been prepared to respond to the SEARs issued by the DPIE on the 25 August 2021 and considers the air emissions from the construction and operations to assess the potential for off-site air quality impacts, so that appropriate mitigation measures can be identified and incorporated into the project design and any relevant environmental management plans.

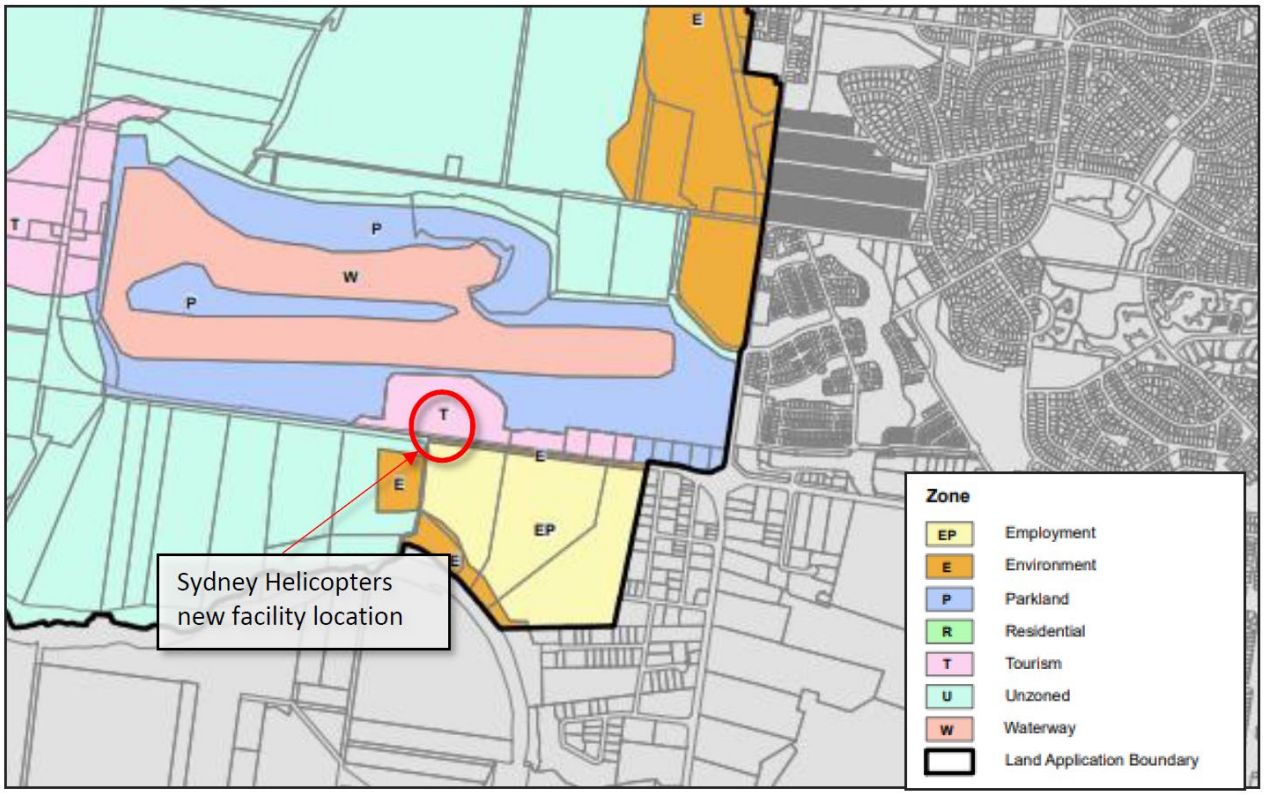
When considering the likely air quality impact of the future operation of the Helipad, the following air emissions have been identified:

- Emissions of products of combustion from the helicopters during take-off and landing and while idling.
- Emissions of products of combustion from any additional road traffic associated with Sydney Helicopter operations – expected to be low level and therefore not considered further in the assessment.
- Low level of odour emissions associated with the helicopter exhaust emissions, as well as vapours from the handling of fuels – not expected to be noticeable beyond the site boundary or at nearest receptors and therefore not considered further in the assessment.
- Wind-blown dust from unsealed helicopter landing areas will be minimal at the Project site since the landing and take-off area is proposed to be grassed.

7.1.7.1. Existing Environment

In undertaking the assessment, SLR have identified two local sensitive receivers that may be impacted by the proposal. These are located to the east of the proposed facility location on Old Castlereagh Road at distances of 470 m and 600 m. These are located in the Tourism zone and it is not clear if these houses will remain as residences and/or sensitive receptors long term. Apart from these, the closest sensitive receptors are located in the residential area approximately 1.2 km to the east as shown in **Figure 21**.

Figure 22 Site Zoning

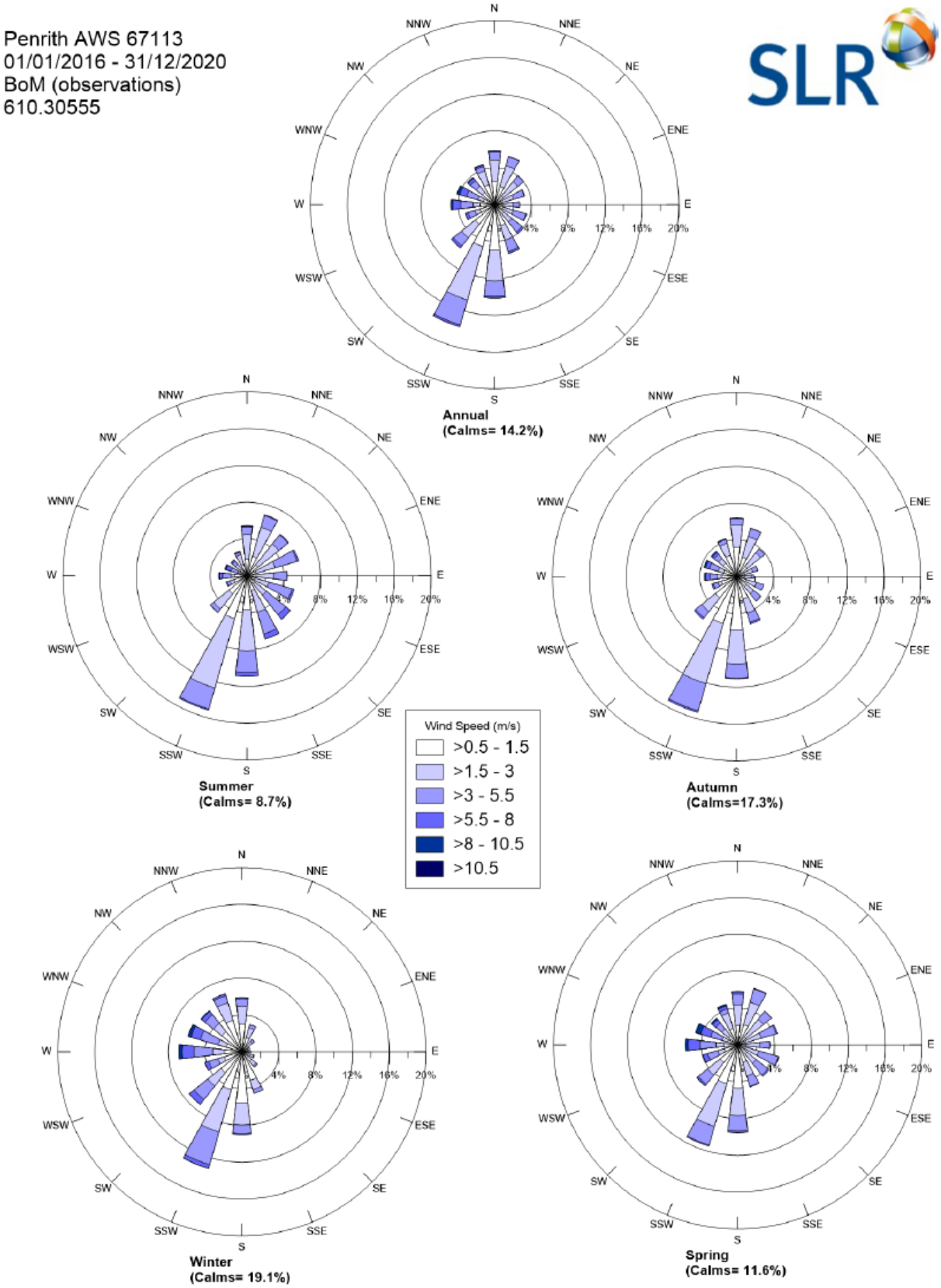


Source: SLR, 2021

The land surrounding the Project and the greater Penrith Lakes precinct is flat and does not contain any terrain features that may exacerbate air quality impacts from any air emissions in the area.

Wind data from the Bureau of Meteorology Penrith Lakes Automatic Weather Station located less than 1 km to the northwest for the years 2016 to 2020 are presented in **Figure 22** below showing that the prevailing wind directions are south-south westerly to southerly. With a relatively low frequency of westerly and west-south westerly winds, there is less potential for exposure of the nearest sensitive receptors to the east of the Project.

Figure 23 Wind Roses Penrith Lakes



Source: SLR, 2021

Penrith AQMS

The closet air AQMS in the NSW air quality monitoring network to the Project is the Penrith AQMS approximately 1.9 km to the west at the corner of Laycock Street and Shellbourne Place in Cranebrook.

Air quality data recorded by the Penrith AQMS were obtained for the period 1 July 2020 – 1 July 2021. The data are summarised in **Table 14** (red font/shading indicates an exceedance of the relevant criterion).

A review of the Penrith AQMS data shows one exceedance of the 24-hour average PM_{10} and two exceedances of the 24-hour average $PM_{2.5}$ criteria. Ambient concentrations of the gaseous pollutants CO, NO_2, SO_2 were all well below the relevant criteria.

Table 20 Summary of Penrith AQMS Data (July 2020 – July 2021)

Period	CO	NO_2		SO_2		PM_{10}		$PM_{2.5}$	
	Max 1-hour	Max 1-hour	Annual	Max 1-hour	Annual	Max 24-hour	Annual	Max 24-hour	Annual
	ppm	pphm	pphm	pphm	pphm	µg/m³	µg/m³	µg/m³	µg/m³
July 2020 to July 2021	1.1	3.2	0.5	1.0	0.05	73.5	16.5	72.5	7.9
Criterion	25	12	3	20	2	50	25	25	8

Notes: For the period July 20- Jul 21, one (1) exceedance of the 24-hour average PM10 and two (2) exceedances of the 24-hour average PM2.5 were recorded.

Richmond AQMS

The Richmond AQMS is located a further 9km to the northeast at University of Western Sydney Hawkesbury Campus. The Richmond AQMS was commissioned in May 1992 and is described as residential/semi-rural.

Air quality data recorded by the Richmond AQMS were obtained for the calendar period 2016 to 2020. The data are summarised in **Table 15**.

Exceedances of the annual average PM2.5 criterion were also recorded by the Richmond AQMS in the years 2018, 2019 and 2020. Ambient PM2.5 concentrations often exceed the annual average criteria set out in the Approved Methods across the Sydney Greater Metropolitan Area. The annual average PM10 criterion was not exceeded in the data period.

Table 21 Summary of Richmond AQMS Data (2016 - 2020)

Period	NO_2		SO_2		PM_{10}		$PM_{2.5}$	
	Max 1-hour	Annual	Max 1-hour	Annual	Max 24-hour	Annual	Max 24-hour	Annual
	pphm	pphm	pphm	pphm	µg/m³	µg/m³	µg/m³	µg/m³
2016	3	0.4	2.5	0.03	102.8	16.0	83.4	7.9
2017	2.6	0.5	3.4	0.03	51.5	16.0	34.3	7.0
2018	3	0.5	1.7	0.04	116.3	18.7	123.9	8.1
2019	3	0.5	2.3	0.04	193.4	24.2	141.2	13.1

Period	NO_2		SO_2		PM_{10}		$PM_{2.5}$	
	Max 1-hour	Annual	Max 1-hour	Annual	Max 24-hour	Annual	Max 24-hour	Annual
	pphm	pphm	pphm	pphm	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$
2020	3.5	0.3	2.6	0.03	237.7	17.0	93	8.4
Criterion	12	3	20	2	50	25	25	8

Notes:
1. For the 2016, two (2) exceedances of the 24-hour average PM_{10} and six (6) exceedances of the 24-hour average $PM_{2.5}$ were recorded.
2. For the 2017, one (1) exceedance of the 24-hour average PM_{10} and three (3) exceedances of the 24-hour average $PM_{2.5}$ were recorded.
3. For the 2018, eight (8) exceedances of the 24-hour average PM_{10} and four (4) exceedances of the 24-hour average $PM_{2.5}$ were recorded.
4. For the 2019, twenty-eight (28) exceedances of the 24-hour average PM_{10} and thirty-two (32) exceedances of the 24-hour average $PM_{2.5}$ were recorded.
5. For the 2020, nine (9) exceedances of the 24-hour average PM_{10} and nine (9) exceedances of the 24-hour average $PM_{2.5}$ were recorded.

7.1.7.2. Assessment

A summary of the conclusions of the investigation components for the assessment are presented in **Table 16**.

Table 22 Summary Table of Potential Air Quality Impact Significance for Assessment

Item	Commentary	Significance for Assessment
Estimated emissions from the helipad operations	The emissions for the operations as estimated are not overall significant. Also, the turbulence created by the helicopter blades will contribute to dispersion of engine exhaust emissions.	Low
Separation distance to nearest sensitive receptors	Helicopter emissions are expected to be well dispersed before reaching nearest off-site sensitive receptors at distances of 470 m to 1.2 km. There are no separation distances listed in interstate separation distance guidelines for helicopter landing facilities. This may be an indication that separation distance requirements in relation air quality are generally insignificant compared to noise requirements.	Low
Local topography	The site is located in relatively open flat terrain with no adverse features potentially impacting on dispersion of emissions from Project.	Low
Prevailing wind direction	Prevailing wind directions are south southwesterly to southerly with a relatively low frequency of easterly to east southeasterly winds with the potential to transport of emissions to the nearest sensitive residential receptors to the east of the Project.	Low

Item	Commentary	Significance for Assessment
Other nearby emission sources	The review of nearby industrial sources showed that there are some larger industries in the area but that the Penrith AQMS is well positioned to capture contributions from the largest relevant source.	Low
Local ambient air quality	The air quality data reviewed for Penrith and Richmond covers both a nearby location for a short-term period and more regional conditions longer term. The ambient air quality data shows conditions as expected and does not highlight any cumulative impact concerns for the Project.	Low

Based on the above summary, showing that all factors considered have a low significance, it is considered highly unlikely that emissions from the Project would have any health-related impacts on existing air quality in the area.

The potential magnitude of impacts due to operations is therefore concluded to be negligible. Correspondingly, the impact significance is concluded to be neutral, which is consistent with low risk.

7.1.7.3. Mitigation Measures

The qualitative air quality impact assessment for the Project indicates no concerns and suggests low risk to air quality and health.

As a result of the above findings, limited mitigation measures have been proposed. The most significant ones relate to best practice in construction to ensure the proposed construction works would result in low risk of dust soiling, human health, and odour impacts. This includes the following practices:

- Communication management.
- Record or all dust and air quality complaints and exceptional incidents.
- Perform daily on-site and off-site inspections where receptors are nearby.
- Plan the site layout so machinery and dust causing activities are located away from receptors.
- Ensure all on-road vehicles comply with relevant vehicle emission standards and manage idling.

These mitigation techniques will ensure that the low risk of dust emissions and impacts are minimised.

7.2. STANDARD ASSESSMENT IMPACTS

7.2.1. Flooding

Northrop have been engaged to undertake a flood risk assessment for the proposal. An assessment has been undertaken in accordance with SEAR Number 1469. The Floodplain Risk Management Assessment is lodged with this EIS as **Appendix L**, and summarises the existing site conditions and proposed development, outlines the existing flood hazard, and describes how the proposed development addresses the SEARs.

The existing flood behaviour has been studied as part of the Nepean River Flood Study (Advisian, 2018). Flood extents for selected events are presented below in **Figure 23** to **Figure 26**, with flood levels estimated below in **Table 17**.

Table 23 Peak Flood Levels

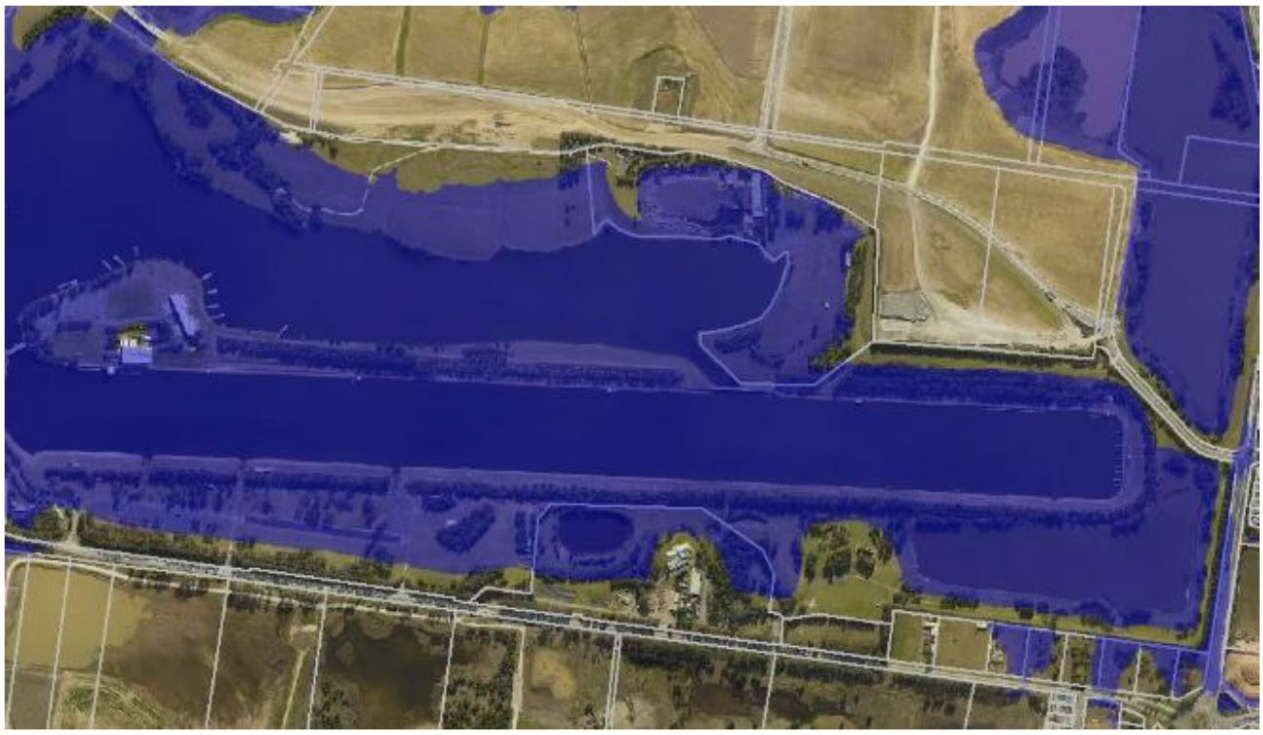
Event	m AHD	Site Inundation	Development Affected
1% AEP	22.0	Partial	No
1 in 500 AEP	24.0	Partial	No
1 in 1000 AEP	26.0	Majority	Yes
PMF	29.0	Complete	Yes

Source: Northrop, 2021

The above highlights that the development is unaffected up to the 1 in 500 AEP flood event. The majority of the site is submerged in the 1 in 1000 AEP event and us subject to extreme high hazard flooding in the PMF.

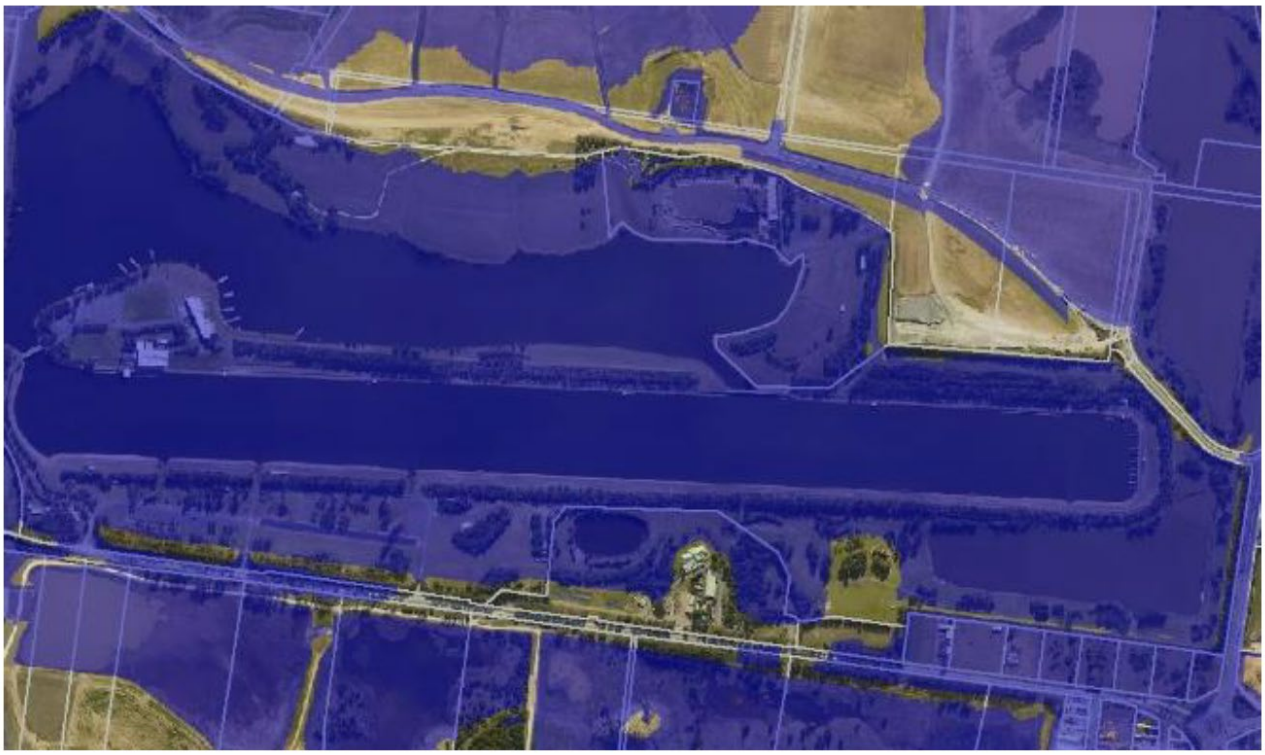
The site is a low flood island and will require evacuation prior to very rare to extreme flooding. Evacuation procedures involve vehicular evacuation by Castlereagh Road and the Great Western Highway. The emergency response procedure is documented in the Hawkesbury-Nepean Flood Emergency Sub plan (SES, 2020)

Figure 24 1% AEP Flood Extents



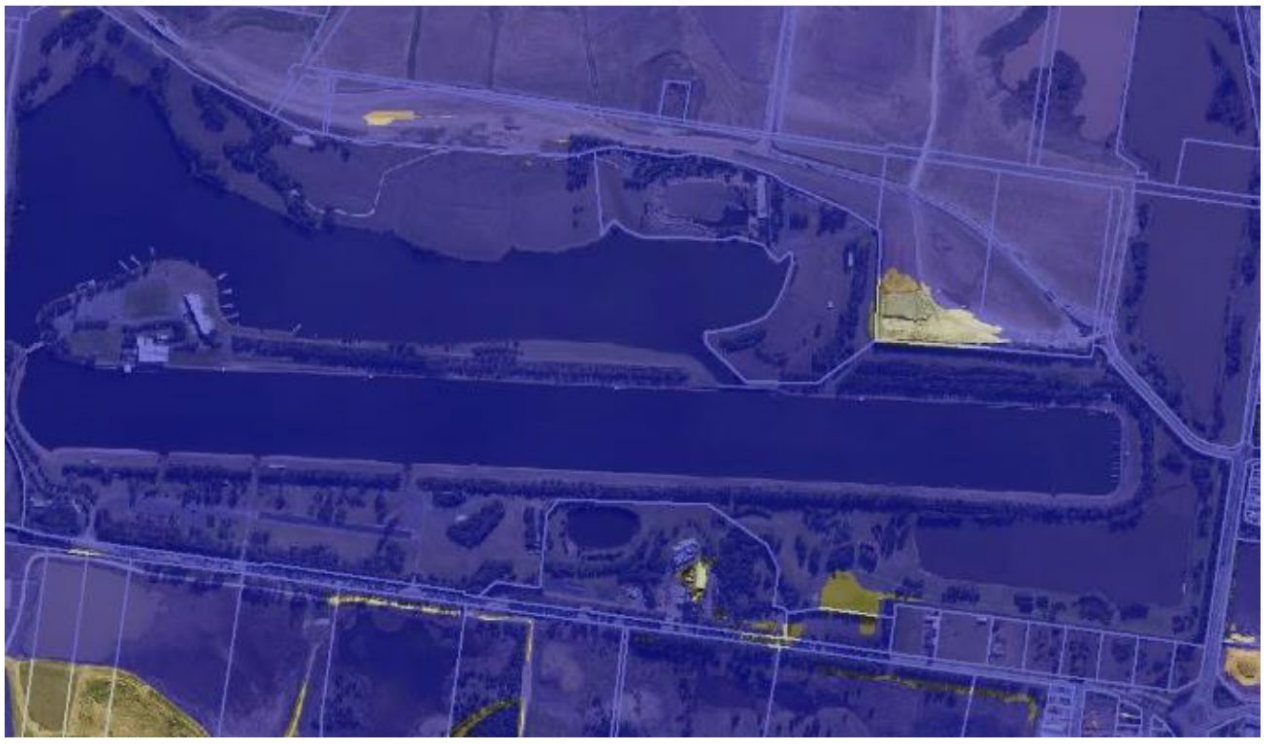
Source: Northrop, 2021

Figure 25 1 in 500 AEP Flood Extents



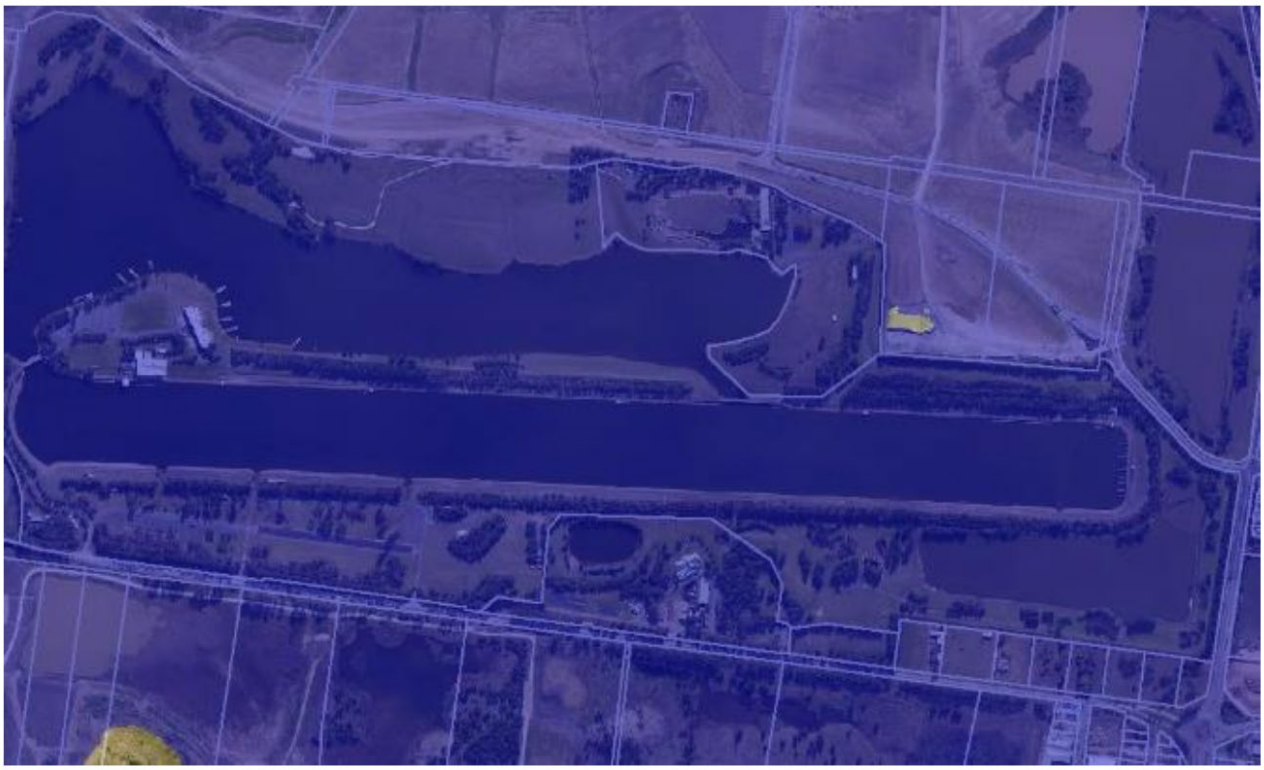
Source: Northrop, 2021

Figure 26 1 in 100 AEP Flood Extents



Source: Northrop, 2021

Figure 27 PMF Extents



Source: Northrop, 2021

Northrop have prepared a high level responds to each of the relevant SEARs matters that has been reflected in the below table.

Table 24 Flooding Assessment Requirements

Assessment Requirement	**Response**
Flood Hazard	The flood hazard is outlined above in **Table 17**. The proposed development is not directly affected by flooding in frequent or rare flood events and becomes directly affected by the flood hazard in the 1 in 1000 AEP flood event. It is exposed to extreme high hazard flooding in the PMF which represents a theoretical event with an extremely low likelihood of occurrence.
Impact on flooding on the proposed development	The works are located above the 1% AEP plus freeboard which contributes to mitigating the risk to property. Pollutants such as fuel will also be stored above this level. Access to the development may be cut in more frequent events and this will be managed by the existing evacuation procedure for this area. This contributes to mitigating the risk to life.
The developments impact on flood behaviour	Only minor earthworks are proposed as part of the development, with hardstand replacing several existing structures on site. There is therefore minimal change to both impervious fraction and topography. There is expected to be negligible change to flood behaviour due to the development.

Assessment Requirement	Response
Impact on egress and safety in a flood event	There are existing improvements on-site which indicates an existing population to be evacuated. The proposed development is unlikely to significantly increase this population, particularly in the event of predicted inclement weather due to the nature of the activities. Existing evacuation procedures are compatible with the proposed development and there is unlikely to be any impact on egress and safety in a flood event compared to existing conditions.
Impact to flooding in the catchment with consideration of the Hawkesbury – Nepean Valley Flood Risk Management Strategy	The above items demonstrate the development is unlikely to be inappropriately affected by flooding or have a detrimental impact on flooding elsewhere. Consideration has been given to the Hawkesbury – Nepean Valley Flood Risk Management Strategy. It is considered the development is consistent with that strategy with respect to evacuation methodology.

Source: Northrop, 2021

Noting the above conclusions, the risk posed from flooding is ultimately considered suitable as the site is located above the 1% AEP plus freeboard which is commonly considered to adequately manage the risk to property. Additionally, all potential pollutants including fuel is stored above this level as well.

The proposal ultimately is consistent with the Hawkesbury-Nepean Valley Flood Risk Management Strategy, it will not have any impacts on regional flood behaviour in the 1% AEP due to its extents, and it is unlikely to have a significant impact on regional flood behaviour in all flood events due to the minor extent of earthworks and removal of existing structures.

Noting the above, the proposal is able to be supported in relation to flood impacts.

7.2.2. Hazards & Risk

Riskcon was engaged to prepare a SEPP 33 assessment for the facility to determine whether the risk profile is acceptable for the location. The scope of works undertaken by Riskcon has considered the following:

- Review the types and proposed quantities of DGs to be stored at the site.
- Compare the quantities of DGs the threshold quantities listed in “Applying SEPP 33 – Hazardous and Offensive Development” (Ref. [1]) to identify whether the storage location or quantity triggers SEPP 33.
- Review the likely vehicular movements involving DGs and compare against the applicable thresholds detailed in Applying SEPP 33 (Ref. [1]).
- Report on the findings of the SEPP 33 assessment.

Riskcon have identified the total quantities of Dangerous Goods (**DGs**) stored and handled at the site. These are detailed in **Table 19** below.

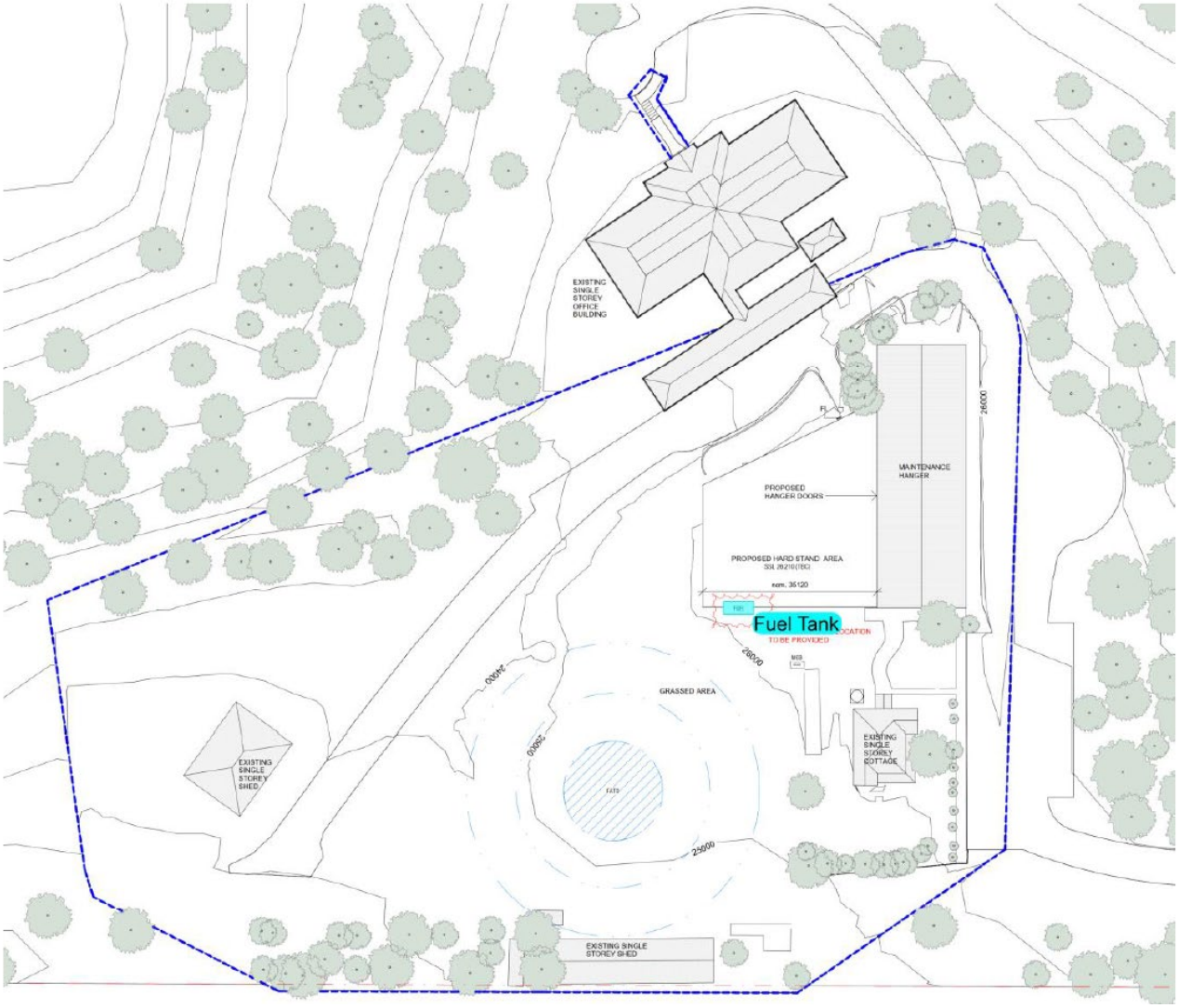
Table 25 Quantities of DGs Stored & Handled

Class	PG	Description	Quantity (kg)
2.1	N/A	Aerosols (e.g. paint, degreases)	250 kg
3	II	Flammable liquids (JetA1)	30,000L / 24,000 kg
3	II & III	Flammable liquids	250 kg

Source: Risckon, 2021

It is anticipated that the site will use 250,000 L of fuel a year, resulting in approximately nine deliveries of fuel a year.

Figure 28 Location of Fuel Tank on Site



Source: Riskcon, 2021

The maximum quantities of products and DGs that are to be stored at the facility, are shown in **Table 20**. The data has been taken from existing site operations provided by the client. Provided in **Table 20** is an assessment of whether the Class is subject to SEPP 33.

Table 26 DG Class or Materials Stored

Class	PG	Description	Quantity (kg)	Class Subject to SEPP 33
2.1	N/A	Aerosols (e.g. paint, degreases)	100	Y
3	II	Flammable liquids (JetA1)	24,000	Y
3	II & III	Flammable liquids	250	Y

Source: Riskcon, 2021

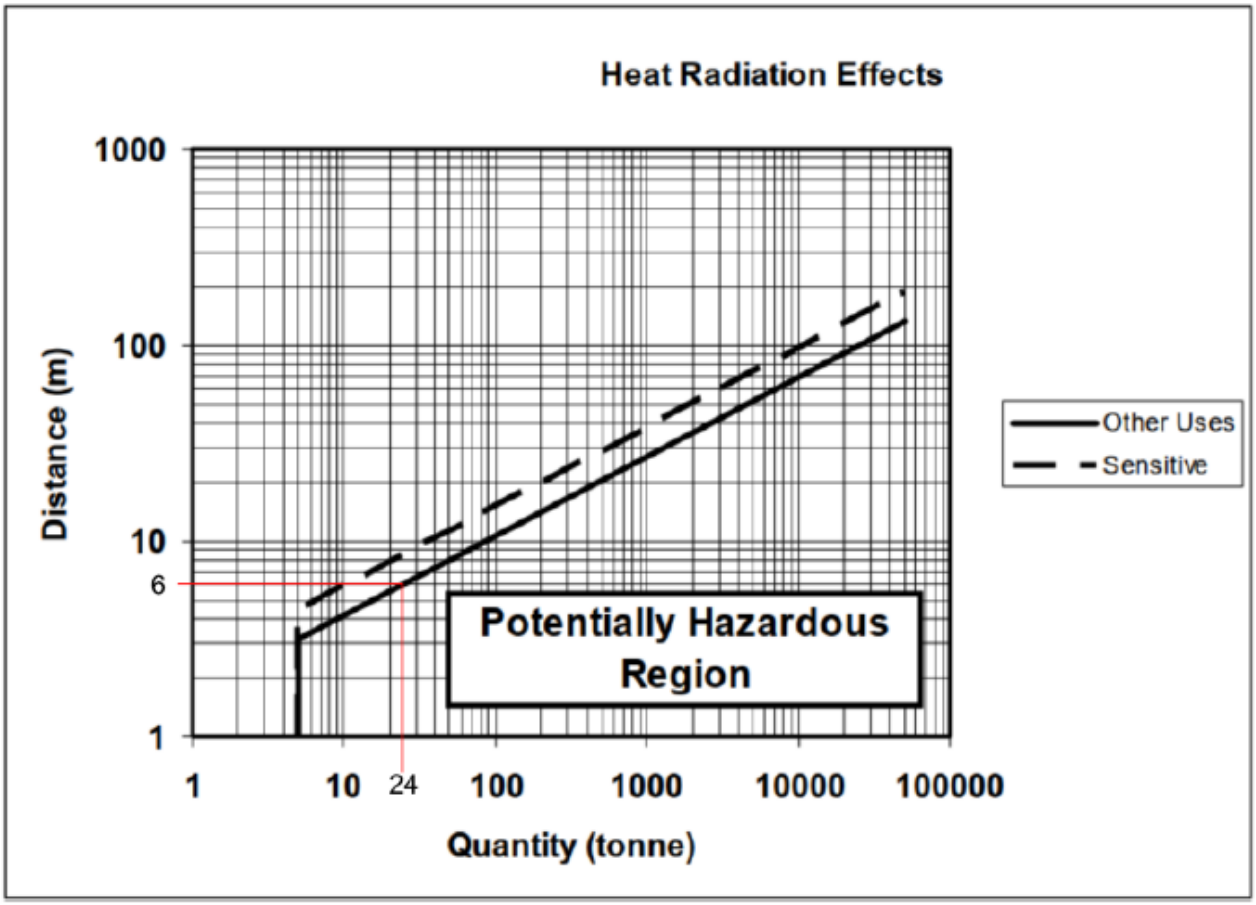
Threshold limits have been taken from Apply SEPP 33 and are presented below in **Table 21** along with maximum DG quantities that will be stored. The results summarised in the table indicates the SEPP 33 criteria is not exceeded. hence, no further assessment would be required as part of the site approval with respect to DGs.

Table 27 Quantities Stored & SEPP 33 Threshold

Class	PG	Description	Quantity (kg)	SEPP Threshold (kg)	Complies
2.1	N/A	Aerosols (e.g. paint, degreases)	100	10,000	Y
3	II	Flammable liquids (JetA1)	24,000	6m separation distance (**Figure 28**)	Y
3	II & III	Flammable liquids	250	5,000	Y

Source: Riskcon, 2021

Figure 29 SEPP 33 Separation Distance for Flammable Liquids



Source: Riskcon, 2021

The site does not operate as a facility that sends and receives DGs. It uses consumable amounts of DGs in small volume packages. Fuel is expected to use 250,000 L a year resulting in nine deliveries per year which is below the transport threshold for flammable liquids. Therefore, the transport limits would not be expected to be exceeded and SEPP 33 would not apply to the transport of DGs.

Noting the above, the results indicate the threshold quantities for the DGs to be stored and transported are not exceeded. As the facility is not classified as potentially hazardous, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as SEPP 33 does not apply.

7.2.3. Non-Aboriginal Heritage

As per the SEARs issued by the DPIE on the 25 August 2021, consideration is to be given to the proposals impact on any items of non-Aboriginal heritage, including consideration of visual impacts on views to and from surrounding heritage items. Consideration of the wider visual and noise and vibration impacts are

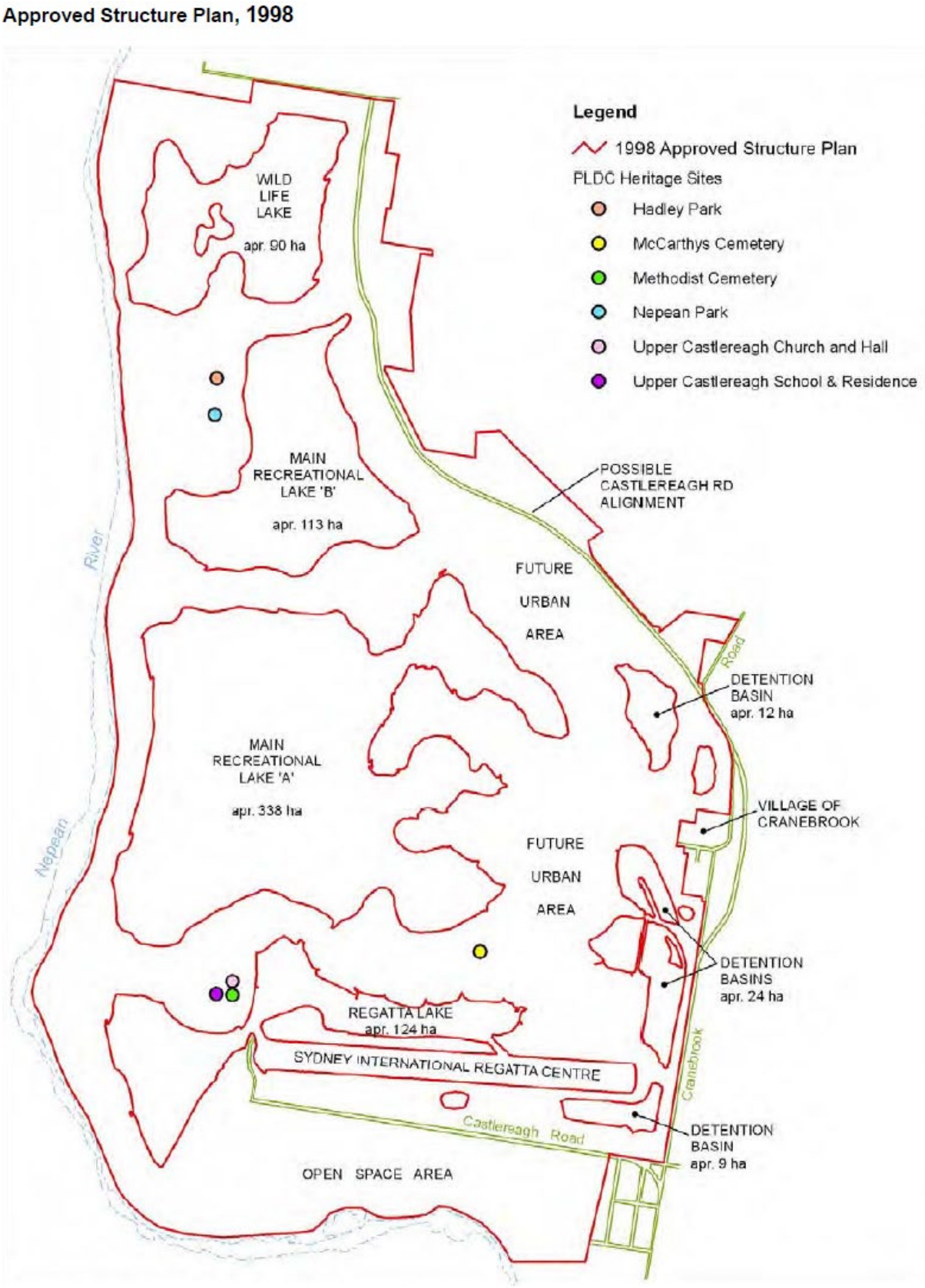
provided in Sections **7.2.4** and **7.1.1** respectively, however the below sections consider the specific impact to any local items of non-Indigenous significance.

The site has not been identified as containing any heritage significance, however it is to be noted there are a number of locally listed heritage items located within the Penrith Lakes precinct. These are outlined below in **Table 22** and **Figure 29**.

Table 28 Surrounding Heritage Items

Item No.	Name	Address	Significance	Approx. Distance
No. 1	Hadley Park	Lots 1 and 2, MPS (OS) 8807, Parish of Castlereagh, County of Cumberland	National Trust Register (NSW)	4.54km
No. 2	Nepean Park	Part portion 48, Parish of Castlereagh, County of Cumberland	National Trust Register (NSW)	4.35km
No. 3	McCarthy's Cemetery	Part portion 82, Parish of Castlereagh, County of Cumberland	National Trust Register (NSW)	975m
No. 4	Upper Castlereagh Methodist Church and Hall	Part portion 71, Parish of Castlereagh, County of Cumberland	National Trust Register (NSW)	1.67km
No. 5	Upper Castlereagh School and Residence	Part portion 54, Parish of Castlereagh, County of Cumberland	State	1.75km
No. 6	Methodist Cemetery	Part portion 71, Parish of Castlereagh, County of Cumberland	National Trust Register (NSW)	1.67km

Figure 30 Penrith Lakes Structure Plan



Source: Penrith Lakes SEPP, 1998

The proposed development will not adversely impact on any of the identified heritage items within the Penrith Lakes Scheme, this is due to the following:

- The distance to the nearest heritage item, being approximately 975m will in no way interfere or physically impact with surrounding heritage items.
- The proposed works will not result in the obstruction of views or sightlines to and from surrounding heritage items or items within surrounding heritage conservation areas.
- The proposed works will not result in any overshadowing impacts onto surrounding heritage items or items within surrounding heritage conservation areas.
- The proposed works will not result in the removal of any physical fabric from surrounding heritage items. All proximal heritage items will be untouched and unmodified as part of the proposal.
- The proposed works will not alter the existing character of the site against surrounding heritage items or heritage conservation areas.

Considering the above, the proposal is deemed acceptable from a heritage perspective.

7.2.4. Visual

Consideration has been given to the visual impact of the proposed helipad, considering both the construction and operational phases, as well as the impact from any associated lighting of the development.

The assessment confirms that no substantive changes are proposed to the visual context or setting of the subject site of the proposed helipad since the approval of the existing PLDC offices. This is directly linked to the proposed construction of the development that proposes no invasive development or uplift of the site. With regard to construction the visual setting of the site can generally be considered more suitable as the demolition of two existing sheds will create better view lines to and from the regatta centre and Penrith Lakes directly north of the site.

Furthermore, there is no proposed changes to the height, scale, or bulk of any buildings on site resulting in no significant changes to the character, quality, or visual accessibility of the site.

The proposed FATO area of where the helicopters will commence take-off and landing at the site is limited to the existing cleared and heavily disturbed segment of the site which is currently utilised for parking and storage of digging machinery. The proposed FATO site has no vertical dimensions and is not capable of causing any significant change to the visibility or character of the background features visible towards the Penrith Lakes.

As a result, the future approved character of views toward the site would be largely unchanged if the helipad is approved. The structure is not capable of causing significant view loss or view blocking effects to views for the surrounding land uses, including the future Nepean Business Park to the south.

The operational phase of the development is considered to be the most visually intrusive as a result of the arrival and departure of aircrafts. It is to be noted however that this entire process is generally complete in minutes, and the impact is limited to the aircraft movements, rather than any obtrusive built form that will significantly impact view loss or create a change in the existing character of the sites setting.

In terms of lighting, no additional impact is created via the operation of the development, with the exception of night-time flying. However, as noted within **Section 3** of this report this is under rare circumstances and is generally limited to emergency services works. Given the basic nature of the proposed helipad and associated FATO area no additional lighting other than that already existing at the site is required. Any impact from night-time operations will be limited to the light projected from the helicopter, or the associated existing building lights at the site. Additionally, the Applicant intends to remove an existing flood light at the site which will further reduce lightspill from the site, benefiting the adjoining properties.

Clause 2(b) of Schedule 2 of the Aerotropolis SEPP requires consideration of how the proposed development integrates architecturally within the context of the locality and proximity to the Blue Mountains Escarpment. As noted throughout this EIS, the development proposes minimal built form, limited mostly to the conversion of an existing shed on site into a hanger, and the instillation of an associated hanger door. By the very nature that Sydney Helicopters intends to fit-out and utilise the sites existing built form, the proposal directly integrates with the existing architecture of the site. It is noted that site uplift or major development could impact the nearby Blue Mountains Escarpment, however the lack of built form poses no threat to the view lines to and from the development.

Furthermore, threat to the Blue Mountains Escarpment as a result of operation is not to be considered a concern. It should be noted the below helipads are currently operational in the Blue Mountains region which are substantially closer to the heritage listed Blue Mountains National Park than the proposed Penrith Lakes site:

- Glenbrook Office & Depot – NSW National Parks & Wildlife Service.
- Valley Heights RFS Site – Great Western Highway.
- Katoomba – Scenic World Helipad – top deck of multi-story carpark.
- Blackheath NSW National Parks & Wildlife Service site.
- Blue Mountains Hospital Helipad.

The assessment concludes that the proposed helipad is of small scale and low overall visibility in the context of the existing Penrith Lakes site. The most evident visual effect of the use of the helipad would be arrival and departure of helicopter aircraft. For the majority of the time, there would be no evidence of this activity. The presence of the helipad would on occasions be marked by the visibility of an aircraft on it.

The proposal is a natural addition to the existing site and surrounding tourism precinct, and it shares many attributes with the existing site scale and amenity. Accordingly, it was determined that the proposed helipad would be of high compatibility to the site from a visual perspective given the minimal intrusive impact.

It is concluded that on visual grounds the proposed helipad can be supported.

7.2.5. Waste

An assessment of the quantities and classification of waste that would be generated as a result of the proposed development has been undertaken to address the SEARs as issued by the DPIE on the 25 August 2021. The assessment applies to the waste generated from construction and operational stages of the project.

The assessment details the way in which the waste would be stored, handled, and disposed and the measures to be implemented to ensure the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021*.

The assessment has been prepared in consideration of the following:

- SEARs issued by the DPIE.
- Penrith Development Control Plan 2014 Section C5.
- NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012.
- NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027.
- NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21.
- *Waste Avoidance and Resource Recovery Act 2001*.
- Design documentation for the development, including specialist technical reports.

Construction Waste Management

Construction waste is limited given the scale of proposed works. All construction waste resulting from demolition and the fit-out of the future hanger will be stockpiled appropriately and a removed by a licensed contractor in line with the above strategies.

Operational Waste Management

It has been identified the majority of waste streams from the proposals operation as being general office waste. Whilst there are a number of DG chemicals stored on site, they are not at risk of being a source of waste for the facility.

8. MITIGATION MEASURES

The results of the environmental risk assessment for the proposed development are presented in the below table and are based upon the range of technical and specialist consultant reports appended to the EIS. The table has directly related mitigation measures responding to each impact also based upon the range of technical and specialist consultant reports appended to the EIS.

Table 29 Proposed Mitigation Measures

SEAR	Potential Impact	Approach	Residual Impact
Noise & Vibration	Construction noise Potential for proposed construction works, including demolition to exceed acceptable limits	▪ Construction should be undertaken within the appropriate hours: - Monday to Friday7 am to 6 pm. - Saturday 8 am to 1 pm. - No work on Sundays or public holidays. ▪ Where practicable, any excavation required should be completed using rock saws as opposed to pneumatic hammers. ▪ If piling is required for the hardstand, use of augured, CFA or bored piling should be used rather than impact piling. ▪ Turn off plant that is not being used. ▪ Locate noisy plant away from potentially noise affected neighbours or behind barriers, such as sheds or walls.	Risk of disturbance from cumulative construction impact with the future adjacent Nepean Business Park that has the potential to cause impact to nearby sensitive receivers. However residual impact expected to be low as noise generation has been assessed as being below the required threshold.
Aboriginal Heritage	Disturbance/ destruction of an artefact or significant aboriginal object or place.	▪ The ADD report should be kept as evidence of the Due Diligence process having been applied to the subject area. ▪ It is recommended that the proposed works under the revised scope can proceed with the Archaeological Finds Procedure in place.	In the event a waiver is not granted an ACHAR should be undertaken on site. An appropriate Archaeological Finds Procedure should be implemented in

SEAR	Potential Impact	Approach	Residual Impact
		▪ A request should be filed with the Department of Planning, Industry and Environment to waive the Aboriginal heritage SEARs based on the outcome of the ADD. ▪ If a waiver is granted, the development may proceed with caution, subject to the appropriate archaeological chance finds and human remains procedures, as detailed in Appendix G.	the event an item or remains is found.
Soil & Water	Construction Impact Given ground disturbance is proposed there is a risk of sediment and runoff from the development into the Penrith Lakes. There is risk that the ground disturbance could be digging up contaminated soils and fill.	▪ Surface water runoff during construction will be managed via sediment and erosion control measures in accordance with the industry standard 'blue book', including sediment fences and re-turfing disturbed areas as soon as possible. ▪ Raingardens are effective in the removal of most pollutants including suspended solids, nitrogen, phosphorous, heavy metals and hydrocarbons. ▪ Risk of large fuel or oil leaks are to be mitigated through the use of self-bunded fuel storage units. ▪ Runoff from the proposed works, once discharged into the existing stormwater network, will enter an existing dam on the property before travelling over 70m to Penrith Lakes (in events where the dam overtops). Therefore, the impact on the Penrith Lakes is considered negligible.	Quality of water runoff from impervious areas such as roofs, hardstand, car parking, roads and other impervious areas will be managed through the identified measures prior to entering the stormwater system. Low level potential for contaminated water runoff.
Traffic & Transport	Increased traffic, impacting the local road network, especially with consideration of Old Castlereagh Road, and Castlereagh Road.	▪ Traffic control would be required to manage and regulate traffic movements into and out of the site during construction.	Management of traffic and transport impacts specifically during the construction phase and ongoing during operational.

SEAR	Potential Impact	Approach	Residual Impact
		▪ Disruption to road users would be kept to a minimum by scheduling intensive delivery activities outside of peak network hours. ▪ Construction and delivery vehicles would be restricted to using Old Castlereagh Road, Castlereagh Road, M4 Motorway, Great Western Motorway and Mulgoa Road.	
Air Quality	Risk of diminishing of air quality as a result of dust generating/ spreading activities during both construction and operation.	▪ Communication management of aircraft movements. ▪ Record or all dust and air quality complaints and exceptional incidents. ▪ Perform daily on-site and off-site inspections where receptors are nearby. ▪ Plan the site layout so machinery and dust causing activities are located away from receptors. ▪ Ensure all on-road vehicles comply with relevant vehicle emission standards and manage idling.	Minimisation of air pollutants such as dust that may be generated during both construction activities, as well as movement of dust during operation.
Waste Management	Amassing of waste as a result of both construction and operation.	Waste management measures, including waste servicing, waste avoidance, re-use and recycling, communication strategies, signage, monitoring, and reporting are to be implemented in the operational phase of the development.	Threat of incorrect disposal of waste streams which have potential for environmental risk.
Hazard & Risk	Dangerous goods stored on site. Notably, the storage of fuel on the site may present potential hazards including fire impacts, explosions, toxicity and other damages to property.	The site does not operate as a facility that sends and receives DGs. It uses consumable amounts of DGs in small volume packages. Fuel is expected to use 250,000 L a year resulting in nine deliveries per year which is below the transport threshold for flammable liquids.	Potential risk from future dangerous goods to be stored in site.

9. SECTION 4.15 ASSESSMENT

Assessment of the proposed development against the relevant matters for consideration listed in Section 4.15 of the EP&A Act is summarised as follows:

9.1. ENVIRONMENTAL PLANNING INSTRUMENTS

The proposed development is appropriately defined as a Helipad and is permissible subject to the granting of development consent in the Tourism Zone under the SEPP Penrith Lakes. The proposal is consistent with the objectives of the Tourism Zone. There are no prescribed development standards or other provisions relevant to the assessment of the application.

9.2. DRAFT ENVIRONMENTAL PLANNING INSTRUMENTS

In August 2021, DPIE publicly exhibited proposed changes to the SEPP Penrith Lakes. The Consultation Paper released by DPIE described the proposed amendments to the SEPP as follows:

- *Adopt new mapping under the Penrith Lakes SEPP to allow access through the NSW Planning Portal and align zoning boundaries with current cadastre boundaries.*
- *Include new provisions for protecting solar access and key vistas and view corridors.*
- *Ensure flood evacuation will be considered for all land use proposals within the Penrith Lakes Scheme.*
- *Amend the satisfactory arrangements clause for designated State public infrastructure to ensure that appropriate contributions are made by developers towards State public infrastructure such as roads, regional open space, schools, and emergency services.*
- *Permit new land uses at specific sites within the Penrith Lakes Scheme, including:*
  - *a heliport.*
  - *the PLDC offices.*
  - *film production precinct and other ancillary uses.*
  - *a private golf course and associated facilities.*
  - *tourism and commercial uses of a local heritage item.*

Relevant to this DA is the proposal in the draft SEPP to include Heliports as development permissible subject to the granting of development consent on the subject site. The Consultation Paper states as follows on this proposed change:

> '*An 11.26 hectare parcel of land within Penrith Lakes, being Lot 2 DP 1013504, has been identified as the preferred new site for the Sydney Helicopters' heliport. This site is shown in Annexure 1 – Locality and Site Identification Maps.*
>
> *The existing Sydney Helicopters heliport site is located in Granville and the current site is being acquired for the Sydney West Metro project. Sydney Helicopters' operation entails private tourism flights, charter flights, film and photography as well as assisting public emergency services such as the Rural Fire Service and State Emergency Service. Relocating this facility to Penrith Lakes would ensure the continuation of important emergency services, tourism, and creative arts infrastructure within the Western City District.*
>
> *The site within Penrith Lakes has been identified as the preferred new site for Sydney Helicopters based on its size, favourable flight path access and compatibility with surrounding land uses. However, the suitability of the site for heliport development will need to be proven through a merit based DA process. This land forms part of the existing Urban Release Area, is currently zoned Tourism and is currently used as the PLDC offices*.' (Page 4)

The Consultation Report provides the following planning assessment and justification for this change:

> '*The heliport adds economic and social value to the Lakes site. It adds value to the tourism industry and emergency services operations. The proposed heliport enhances the tourism, and creative arts*

infrastructure within the Western City District. The co-location of the use with the proposed Film Production Precinct within Penrith Lakes has the potential to amplify the economic and employment creation benefits of the individual proposals.

While no site constraints have been identified as a bar to the development, environmental characteristics would need be considered closely at DA stage, and notably:

- *accessing the site in flood periods to support emergency services.*
- *managing potential conflict with the operation of the Sydney International Regatta (wind and noise).*
- *flood and stormwater management given the site's location within the floodplain and proximity to waterways.*
- *safeguarding airspace operations.*
- *managing traffic and transport options to and from the site.*
- *ensuring positive visual outcomes within the immediate and wider landscape.*
- *noise impacts on residential land, though the site is located over one kilometre away from any residential zone, which reduces risk for significant conflict.*

The detail of the specific heliport proposal would be considered through the DA process when finalised designs and detailed assessment material is provided. A DA for a heliport has been lodged and Environmental Assessment Requirements have been issued to guide the preparation of the DA that would seek consent and test, in detail, the suitability of the site for the proposed heliport. These assessment requirements, together with the existing provisions under the Penrith Lakes SEPP and those proposed under this SEPP amendment, provide adequate safeguard for confirming the suitability of the development at the site.' (Page 5)

While the proposed use contained in this DA is appropriately defined as a Helipad which is permissible under the current SEPP, the introduction of Heliport as a permissible use is strongly supported by Sydney Helicopters who lodged a submission in support of the proposed changes dated 16 September 2021.

While the majority of aviation and business aspects of the Sydney Helicopters operation being dislocated from the Granville site can be approved as a 'helipad', the definition of 'helipad' imposes some restriction regarding public access to the site. While the majority of aviation and business aspects of the Sydney Helicopters operation can be approved as a 'helipad', the definition of 'helipad' imposes some restriction on public access to the site. Given the objective of the Tourism Zone being to, '*provide for a variety of tourist orientated uses'*, it is desired for the site to be able to be approved as a 'heliport', facilitating use of the site in a manner consistent with the zone objectives and replicating the operation dislocated from Granville.

9.3. DEVELOPMENT CONTROL PLAN

Between 21 April and 19 May 2021, the DPIE placed on exhibition the draft Penrith Lakes Development Control Plan (DCP) – Stage 1. The draft DCP is intended to guide development on Tourism and Employment zoned land at the Penrith Lakes, as required under the Penrith Lakes SEPP.

The draft DCP provides guidance on landscaping, visual amenity, tree canopy cover, flood planning, stormwater management, movement, access and parking requirements, urban design, and built form controls.

Whilst this document remains in draft and has not been given an indicative timeframe of implementation the proposed controls do not apply to the sire. However, given the minimal built form Sydney Helicopters remain confident in achieving compliance with the proposed controls and they have remained a consideration throughout the facilities design.

9.4. PLANNING AGREEMENT

No planning agreements are relevant to this proposal.

9.5. REGULATIONS

This application has been prepared in accordance with the relevant provisions of the EP&A Regulation.

9.6. LIKELY IMPACTS OF THE PROPOSAL

The proposed development has been assessed considering the potential environmental, economic, and social impacts. It is concluded the proposal will result in minimal impacts any of which can be mitigated, minimised, or managed through the measures identified in **Section 7** of this EIS.

9.7. SUITABILITY OF THE SITE

The zoning, location, character, and context of the site are considered to make it suitable for the proposed development.

9.8. SUBMISSIONS

It is acknowledged that submissions arising from the public notification of this application will need to be assessed by Council.

9.9. PUBLIC INTEREST

The proposed development is considered in the public interest for the following reasons:

- The proposal is consistent with and complies with the requirements of relevant existing and draft State and local planning controls.
- The proposal facilitates the relocation of a long standing and successful business which provides a range of critical community and emergency services.
- The proposal supports business and tourist activity in an area specifically planned for this purpose.
- No adverse environmental, social or economic impacts arise from the proposal.

10. CONCLUSION AND JUSTIFICATION

This EIS has been prepared to assess the environmental, social, and economic impacts of the proposed Helipad at the site. The EIS has addressed the key issues, industry guidelines and the provisions of relevant environmental planning instruments outlined in the SEARs (**Table 1**), presented a summary of the consultation undertaken in the perpetration of the EIS and associated technical studies, and has addressed the relevant matters under Schedule 2 of the EP&A Regulation. Appropriate mitigation measures have been developed and will be implemented to manage the potential impacts of the development through the construction and operational phases of the project.

The construction and operation of the project will deliver economic benefits to the Penrith region and wider NSW through the delivery of 20 full time equivalent jobs during the operational phase, and local employment during the construction phase; contribute to the Penrith Lakes Scheme by directly addressing the objectives of the Tourism zoning by promoting the precinct and wider Western Sydney region; allow for a new strategic aviation asset to be utilised by the NSW RFS in emergency response situations at the foot of the blue mountains; and ensure the future of Sydney's longest running commercial helicopter operator which was displaced as a result of the Sydney Metro project.

Having regard for the biophysical, economic, and social considerations, including the principles of ecologically sustainable development, the proposed development is justified for the following reasons:

- The project is permissible with consent and has been shows to be consistent with the relevant local, State and Commonwealth government planning instruments.
- The EIS includes a full description of adequate and appropriate operational management measures based on detailed technical assessment carried out in accordance with the Secretary's Environmental Assessment Requirements in order to mitigate any adverse impacts of the project on the natural environment and cultural landscape.
- A range of environmental issues (including noise and vibration, airspace, biodiversity, heritage, traffic and transport, and air quality) were identified and assessed with appropriate mitigation and management measures proposed to be carried through to the construction and operational phase.
- The Aviation Impact Report prepared in support of the application concludes that there will be no risk to the existing operational airspace of the RAFF Richmond base, and the future Western Sydney Airport at Badgerys Creek.
- The proposed helipad facility has been assessed with regard to the future operational noise and vibration and the impact this may have on nearby sensitive receivers. The assessment has concluded that the noise levels comply with all relevant criteria's and will not cause undue impact to nearby receivers.
- The Traffic Impact Statement prepared in support of the proposed development concludes that the additional traffic generated by the project during construction and operational phases will not adversely impact on existing road capacity.
- Risk of harm to the surface water and ground water environment is low and management measures are proposed to protect the environment on site and downstream.
- The heavily impacted nature of the existing development footprint concludes that there will be no impact to any items of Aboriginal heritage.
- There are no items of local or State heritage significance that will be impacted by the project.
- The project has been informed by extensive pre-lodgement consultation and engagement with the community and key government agencies will continue through the construction and operational phases of the development.
- The Project is consistent with the principles of ecological sustainable development as defined by clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

It has been demonstrated throughout this EIS that any minor impacts associated with the project can be addressed through the implementation of appropriate management and mitigation strategies. Overall, the Project will deliver significant environmental, sustainability and public interest benefits. On this basis, we respectfully submit that the proposed expansion should be approved.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A SITE SURVEY

APPENDIX B ARCHITECTURAL PLANS

APPENDIX C NOISE IMPACT ASSESSMENT

APPENDIX D AVIATION IMPACT REPORT

APPENDIX E BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT

APPENDIX F ARBORICULTURAL IMPACT ASSESSMENT

APPENDIX G ABORIGINAL OBJECTS DUE DILLIGENCE

APPENDIX H ABORIGINAL CULTURAL HERITAGE – REQUEST FOR WAIVER

APPENDIX I STORMWATER & CIVIL

APPENDIX J CONTAMINATION

APPENDIX K GEOTECHNICAL INVESTIGATION

APPENDIX L FLOODPLAIN RISK MANAGEMENT ASSESSMENT

APPENDIX M TRAFFIC IMPACT STATEMENT

APPENDIX N SEPP 33 ASSESSMENT

APPENDIX O AIR QUALITY IMPACT ASSESSMENT

APPENDIX P SUPPORTING LEGAL ADVICE

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