Flood Statement

Leichhardt Oval Refurbishment

Prepared for Inner West Council / 21 November 2025

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Your Partner in Engineering

Contents

Rev	Date	Prepared By	Approved By	Remarks
1	04/112025	MZ, LC	MK	Draft
2	21/11/2025	LC	MK	Test of Adequacy Submission

Executive Summary

This Flood Statement has been prepared by TTW to accompany a State Significant Development Application (SSD-85149458) for the refurbishment of Leichhardt Oval, including upgrades to the existing Western Grandstand and Seating Bowl, and a new Northern Grandstand.

A desktop assessment of the site found that:

- Flood mapping provided in both the Leichhardt FRMS&P (2017) and the Leichhardt Flood Study Addendum (2017) demonstrate that the Leichhardt Oval Site is located outside the extent of flood prone land and is unaffected by both mainstream and overland flooding in all modelled flood events, up to and including the PMF event.
- As the site is situated outside the PMF extent, the proposed works will not impact on the flood characteristics of the surrounding area and not have any cumulative impacts that may affect adjoining properties or infrastructure.
- This report concludes that the proposed development is suitable from a flood risk management perspective and warrants approval.

Glossary and Abbreviations

Annual Exceedance Probability	AEP	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage
Australian Height Datum	AHD	A common national surface level datum often used as a referenced level for ground, flood and flood levels, approximately corresponding to mean sea level.
Average Recurrence Interval	ARI	The long-term average number of years between the occurrence of a flood equal to or larger in size than the selected event. ARI is the historical way of describing a flood event. AEP is generally the preferred terminology.
Bureau of Meteorology	BoM	An executive agency of the Australian Government responsible for providing weather services to Australia and surrounding areas.
Development Control Plan	DCP	A Development Control Plan is a document prepared by the Council which provides detailed guidelines which assist a person proposing to undertake a development. A DCP must be consistent with the provisions and objectives of a Local Environmental Plan (LEP).
Finished Floor Level	FFL	The level, or height, at which the floor of a building or structure (including alterations and additions) is proposed to be built.
Flood hazard		A source of potential harm or a situation with a potential to cause loss of life, injury and economic loss due to flooding. Flood hazard is defined as a function of the relationship between flood depth and velocity.
Flood Planning Level	FPL	The combination of the flood level from the defined flood event and freeboard selected for flood risk management purposes.
Freeboard		A factor of safety typically used in relation to the setting of floor levels or levee crest levels. Freeboard provides a factor of safety to compensate for uncertainties in the estimation of flood levels across the floodplain, such as wave action, localised hydraulic behaviour etc.
Local Environmental Plan	LEP	LEPs provide a framework that guides planning decisions for local government areas through zoning and development controls. Zoning determines how land can be used (for example, for housing, industry, or recreation).
Probable Maximum Flood	PMF	The largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain.
Representative Concentration Pathways	RCP	RCPs make predictions of how concentrations of greenhouse gases in the atmosphere will change in future as a result of human activities. The four RCPs range from very high (RCP8.5) through to very low (RCP2.6) future concentrations.

1.0 Introduction

TTW has been engaged by Inner West Council to prepare a Flood Statement to accompany a State Significant Development Application (SSDA) for proposed modification works at the Leichhardt Oval site, located at 68 Mary Street, Lilyfield, NSW 2040. This report outlines the existing constraints of flooding at the site, alongside an assessment into the likely impacts of the proposed development.

1.1 SEARs Declaration

This Flood Statement has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the Leichhardt Oval Refurbishment project (SSD-85149458), dated 23 June 2025. Specifically, this report has been prepared to respond to the SEARs requirement outlined in Table 1.

Table 1: SEARS Declaration

SEARs Declaration		
Name	Michael Koi	
Professional Qualifications	Bachelor of Civil Engineering (CPEng)	
	The undersigned declares that this Flood Statement has been prepared in response to the following SEARs requirements issued for the project on 23 June 2025 for SSD-85149458:	
SEARs Item	**SEARs Issue and Assessment Requirement**	**Report Section**
15. Flood Risk	Identify the flood planning level as set out in the relevant council LEP or SEPP and identify any: ○ flood risks on site having regard to adopted flood studies ○ the potential effects of climate change, and ○ any relevant provisions of the NSW Flood Risk Management Manual.	Review of adopted flood studies demonstrates there is no flood risk to the site. Refer to Section 4.0 for more detail. Climate change impacts are addressed in Section 6.0.
	Where the development is occurring on flood prone land a flood impact and risk assessment (FIRA) must be prepared having regard to the Flood Impact and Risk Assessment Guideline – LU01 (FIRA guide). When determining the scope and category of the FIRA the requirements outlined in the FIRA guide must be considered.	As the development is not situated on flood-prone land, there is no requirement for a FIRA, nor any flood mitigation measures.
	Detail any flood risk management measures that are to be incorporated as part of the development having regard to relevant guidelines (including any design solutions, flood modification measures, property modification measures, operational procedures or Flood Emergency Response Plan).	Refer to Section 4.0 for more detail.
Signed		
Dated	19 November 2025	

TTW consulted with the Conservation Programs, Heritage and Regulation (CPHR) group of the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on 8 September 2025 via Planning & Co. to determine the extent of works required to satisfy the above SEARs requirement.

In their response on 25 September 2025, CPHR confirmed that no further site-specific flood modelling is required for this assessment. Email correspondence is attached in Appendix A for reference.

1.2 Reference Documents

The following documents have been reviewed and referenced in preparing this report:

- Australian Institute of Disaster Resilience (AIDR) Guideline 7-3: Flood Hazard (2017)
- Leichhardt Flood Study (2014)
- Leichhardt Flood Study – Addendum (August 2017)
- Leichhardt Development Control Plan (2013) Part E – Water
- Leichhardt Development Control Plan (2013) Appendix E – Water Guidelines
- Inner West Council (2022) Local Environmental Plan
- Leichhardt Flood Risk Management Study (November 2017) by Cardno prepared for Inner West Council
- Leichhardt Flood Risk Management Plan (November 2017) by Cardno prepared for Inner West Council
- Department of Planning and Environment (2022) NSW Government Cumulative Impact Assessment Guidelines for State Significant Projects
- Department of Planning, Housing and Infrastructure – Planning Circular PS 24-001, Update on addressing flood risk in planning decisions, 1st March 2024
- NSW Department of Planning and Environment (2023) Flood Risk Management Manual
- NSW Planning Portal Spatial Viewer (https://www.planningportal.nsw.gov.au/spatialviewer/)

1.3 Project Description

Refurbishment of the existing Leichhardt Oval at 68 Mary Street, Lilyfield to provide new and upgraded spectator and player amenities, broadcasting facilities, improved accessibility and increased number of fixed seating (no change to overall spectator capacity), including:

- Upgrades to the existing Western Grandstand, including:
  - Demolition of the existing spectator and player amenities located on the ground floor, existing seating, broadcast areas, hospitality and coaching facilities on level 2, existing stairs at the front of the grandstand and some facade elements.
  - Upgrades to the existing ground floor to provide new player change rooms and facilities, medical facilities, facilities for match officials and coaching staff, spectator amenities, utilities and other ‘match day’ related facilities,
  - Upgrades to and expansion of the mezzanine level within the grandstand to provide a new ‘Grandstand Bar’, gym, spectator amenities, stairs and storage, as well as the relocation of the existing telecommunications server,
  - Upgrades to the existing level 2 to deliver new spectator seating, corporate suites, television and radio broadcasting facilities, spectator amenities and the upgrading of the existing Centurions Lounge corporate area,
  - Improved spectator circulation and egress arrangements to meet standards and general upgrades and maintenance to the existing building.
- The construction of a new ‘Northern Grandstand’, including:
  - Earthworks and modification of existing retaining wall and embankment,
  - A new concourse to provide spectator amenities and food and beverage offerings,
  - New spectator seating to level 1 of the grandstand above the concourse,
  - The removal of 13 trees to facilitate the new grandstand,

- The replacement of existing seating to the lower seating bowl surrounding the playing field to provide greater amenity and improved wheelchair accessibility.

The latest site plan is presented in Figure 1, obtained from COX Architecture.

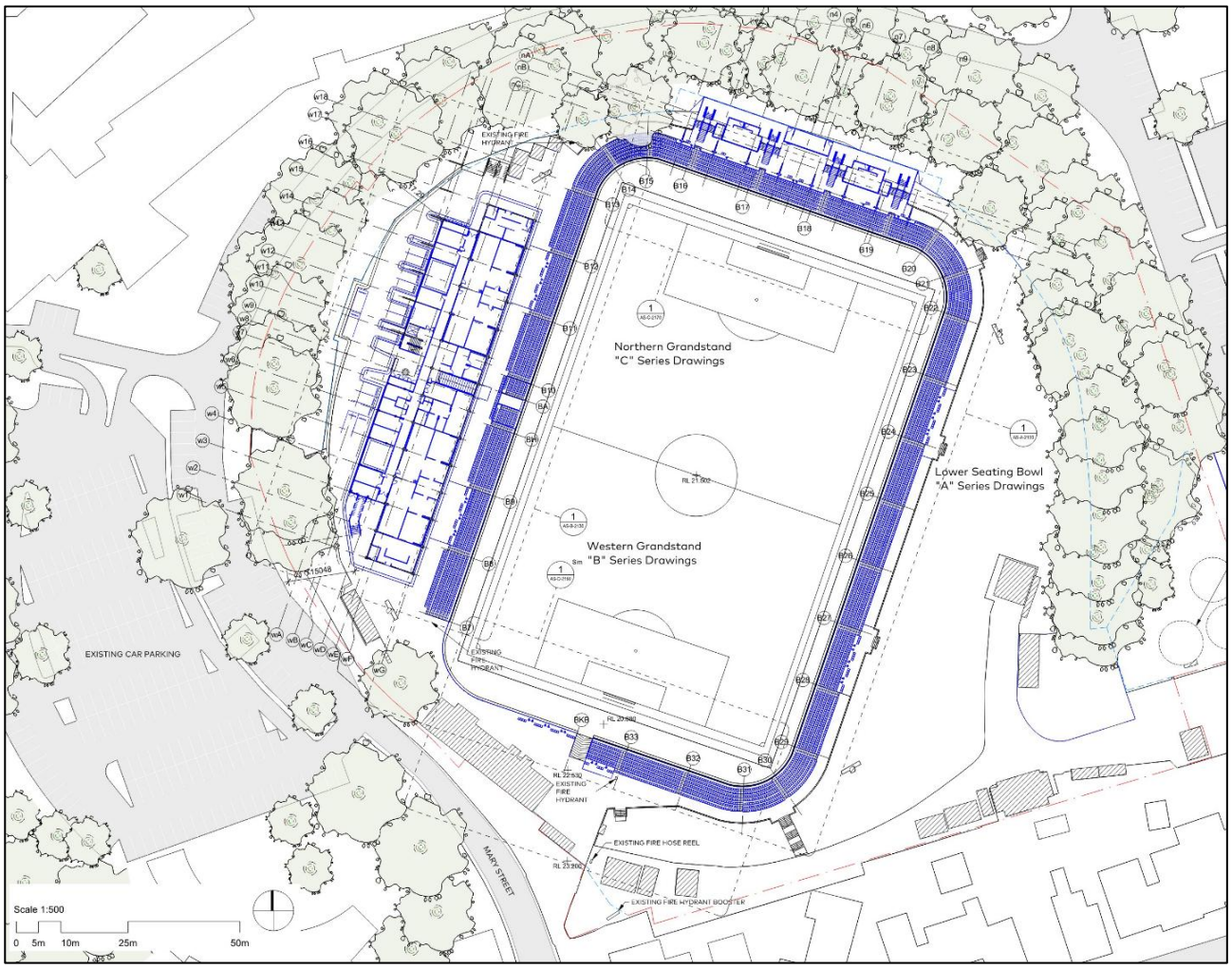


Figure 1: Site plan for Leichhardt Oval refurbishment (Source: COX Drawing Number AS-0-1130)

2.0 Site Description

2.1 Location

Leichhardt Oval (the site) is a suburban sporting venue situated within the southern end of Leichhardt Park, located along the foreshore of Iron Cove, a bay on the Parramatta River, approximately 4.5 kilometres west of Sydney CBD.

The site is situated within Lot 120 DP 1279860 in the Inner West Council Local Government Area (LGA). The locality is characterised predominantly by lower density residential housing to the south and historic and recreational uses to the east. The Oval is utilised for a range of community, local, and national sports and activities. Alongside Leichhardt Oval, the lot includes additional recreational facilities including an early learning centre, a gym, an aquatic centre, skatepark and two warm-up ovals. The total site area is approximately 144,000 m^2, of which 32,159 m^2 is occupied by the Leichhardt Oval site.

The site is bounded by Mary Street along the north and west, Glover Street to the east and low-density residential lots to the south. Leichhardt Oval is a sporting venue that has an existing capacity of approximately 19,000 and is commonly used for Rugby League matches and football games.

The closest residential use to the Leichhardt Oval site is immediately adjacent on the southern border. The site (oval) is allocated approximately 180m from the Parramatta River foreshore.

Figure 2: Site Aerial (Source: SIX Map with Markup 20/10/2025)

Figure 3: Local Context (Source: SIX Maps with Markup 20/10/2025)

2.2 Catchment Information

The site is situated within the Leichhardt catchment, which can be further divided into eight subcatchments as documented in the Leichhardt Floodplain Risk Management (2017). More specifically, the site falls on the border of the Iron Cove catchment and the Hawthorne Canal catchment.

The catchment is highly urbanised where it is predominantly residential and public recreation land uses. The catchment has limited reaches of open channels where the majority of flow paths are conveyed by urban drainage networks (inground stormwater pit and pipe network) which are discharged into Parramatta River. Flows are conveyed by the road's kerb and gutters once the stormwater runoff exceeds the capacity of the inground stormwater system.

Figure 4: Site Location in Relation to Catchment Zones (Source: Leichhardt Floodplain Risk Management Study 2017)

2.3 Topography

Ground levels at the site predominantly fall from the southeast to the northwest towards Parramatta River. This is depicted in Figure 5 below which is derived from a 1-metre resolution Digital Elevation Model obtained from Elevation Information Systems (ELVIS), dated May 2020.

The ground elevation across the oval site varies from a low of approx. 17.5m AHD around the western, northern, and north-eastern sides to a high of approx. 30m AHD in an elevated area toward the south-eastern extent of the site. The south-east corner of the site is at the crest of the local catchment, hence no upstream catchment will contribute stormwater runoff to the oval site apart from the area within the oval.

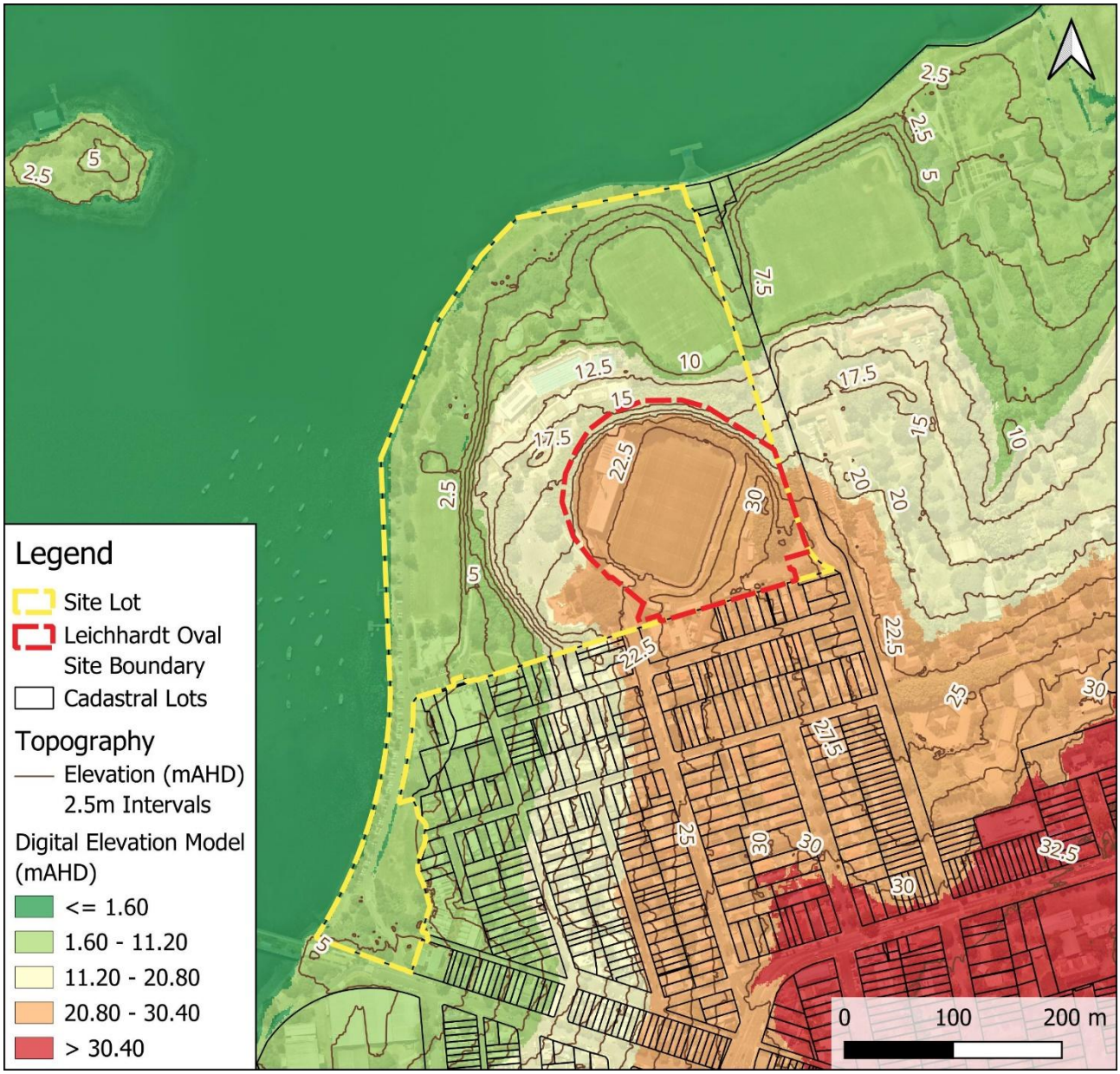


Figure 5: Topography of the site and surrounding area (Source: DEM obtained from Elevation Information Services, dated May 2020)

3.0 Methodology

TTW have conducted a desktop analysis of the site characteristics impacting flood risk at the site. The assessment is based on a review of topography and ground levels within the site and the surrounding region alongside an assessment of the flood behaviour in the area, based on the findings of adopted flood studies.

In addition, TTW have reviewed the latest Development Control Plan (DCP) covering the site to assess the development's compliance or non-compliance with the relevant flood controls.

The following documents were referenced as part of the desktop analysis:

- Leichhardt Flood Study (2014)
- Leichhardt Flood Study – Addendum (August 2017)
- Leichhardt Flood Risk Management Study and Plan (November 2017)
- Leichhardt Development Control Plan (2013) Part E: Water and Appendix E: Water Guidelines
- Local Environmental Plan Part 6.3 Stormwater management

4.0 Assessment and Findings

4.1 Leichhardt Flood Study – Addendum (August 2017)

Cardno were engaged by Leichhardt Council in 2014 to undertake a flood study for the former Leichhardt LGA, covering an area of approximately 10.7 km^2 of land, including suburbs Birchgrove, Balmain, Balmain East, Rozelle, Lilyfield, Leichhardt and Annandale. The study included an assessment of flooding from rainfall over the local catchment as well as mainstream flooding along the major creek systems, including Hawthorne Canal to the west, Whites Creek, and Johnstons Creek to the east of the study area. A detailed 1D/2D hydraulic model with a fine 2D grid resolution of 1 metre was developed, incorporating pipes with diameters of 225 millimetres and greater.

The modelling for this study was undertaken in 2010-2014 and pre-dates several upgrades to drainage infrastructure along with later confirmation of drainage infrastructure connections, sizes and locations that were previously uncertain. A Flood Study Addendum was prepared by Cardno as part of the Floodplain Risk Management Study in 2017 to provide the outcomes of the updated modelling undertaken to incorporate these upgrades.

4.1.1 Flood Extent and Depth

Figure 6 and Figure 7 below show the peak flood depths during the 1% Annual Exceedance Probability (AEP) event and the Probable Maximum Flood (PMF) event, respectively. Key findings are as follows:

- The Leichhardt Oval is unaffected by flooding in all events, up to and including the Probable Maximum Flood event.
- All proposed works will occur above the PMF flood level.
- A portion of nearby roads such as Morton Street to the southwest and Glover Street to the north are impacted by flows, typically less than 300mm depth during the PMF event.

4.1.2 Provisional Flood Hazard

Leichhardt Flood Study Addendum (2017) also includes an assessment of the provisional flood hazard classification of flows, which is determined through a relationship developed between the depth and velocity of floodwaters. There are two categories:

- **High Flood Hazard:** There is a serious risk to personal safety, and people may have difficulty wading. Structural damage to buildings is possible.
- **Low Flood Hazard:** Trucks could evacuate people and possessions, able-bodied adults would likely be able to wade, and the primary risk is nuisance damage to structures.

Figure 8 and Figure 9 present the provisional flood hazard classification of flows surrounding the site in the 1% AEP event and PMF event, respectively. In the PMF event, surrounding access roads (including Glover Street and Morton Street) are impacted by high hazard flows that would not be safe to travel on.

Figure 6: 1% AEP event – Peak flood depths (Source: Leichhardt Flood Study Addendum 2017)

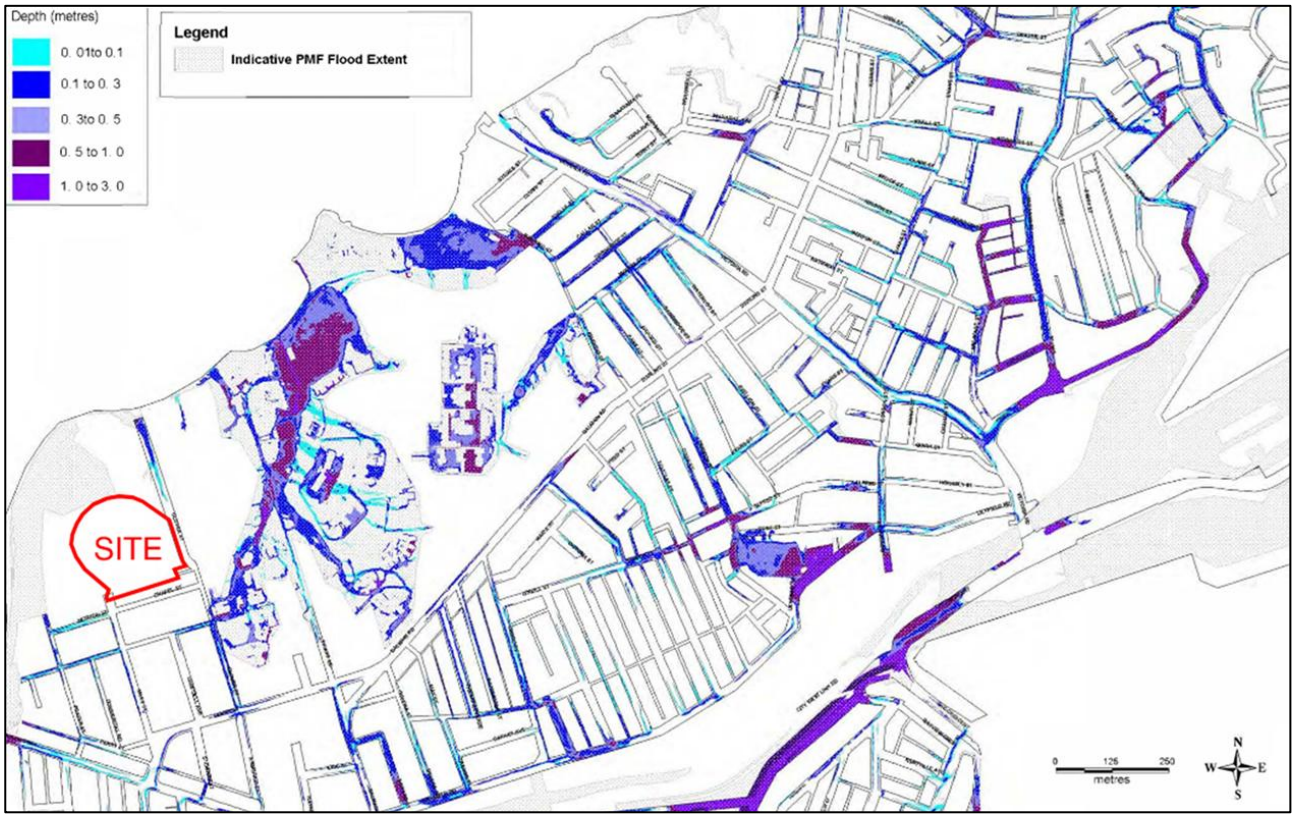


Figure 7: PMF event – Peak flood depths (Source: Leichhardt Flood Study Addendum 2017)

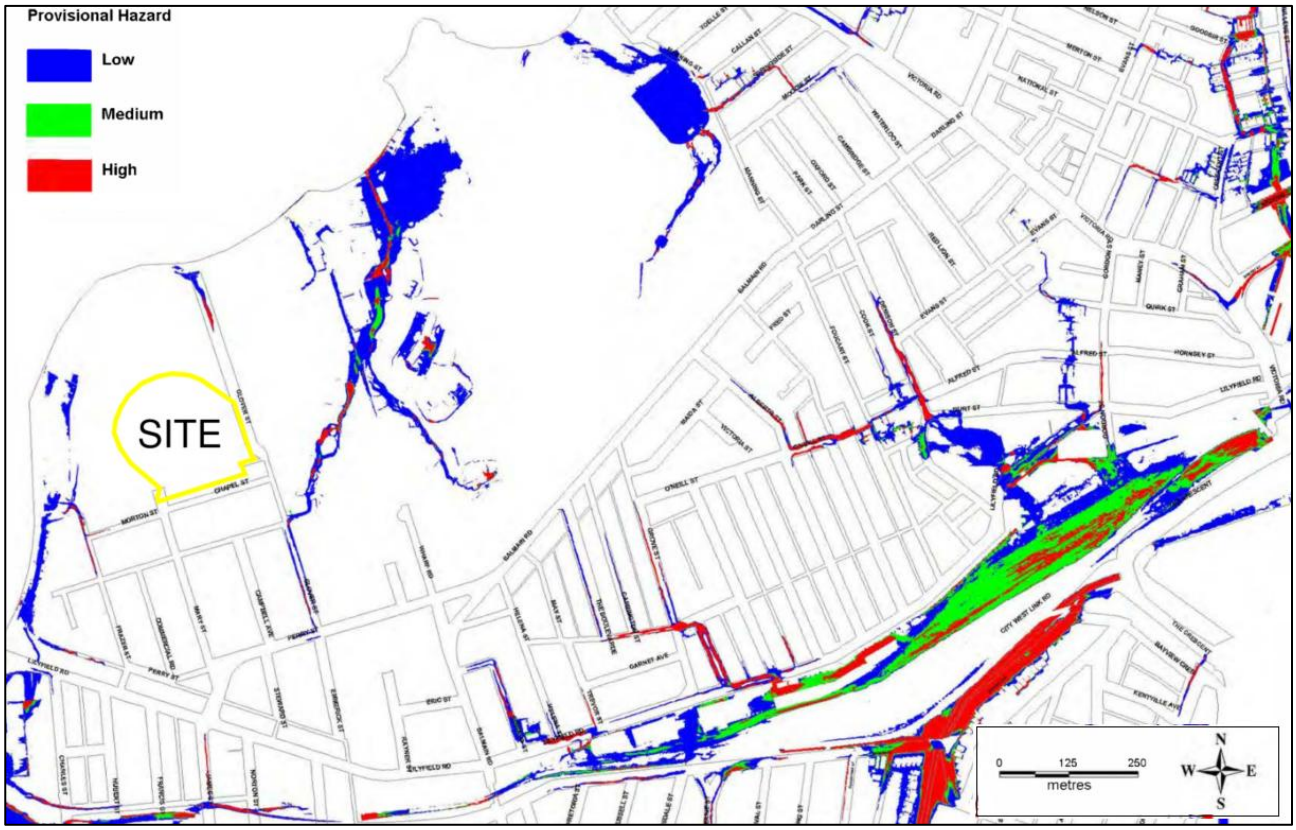


Figure 8: 1% AEP Event - Provisional Flood Hazard (Source: Leichhardt Flood Study Addendum 2017)

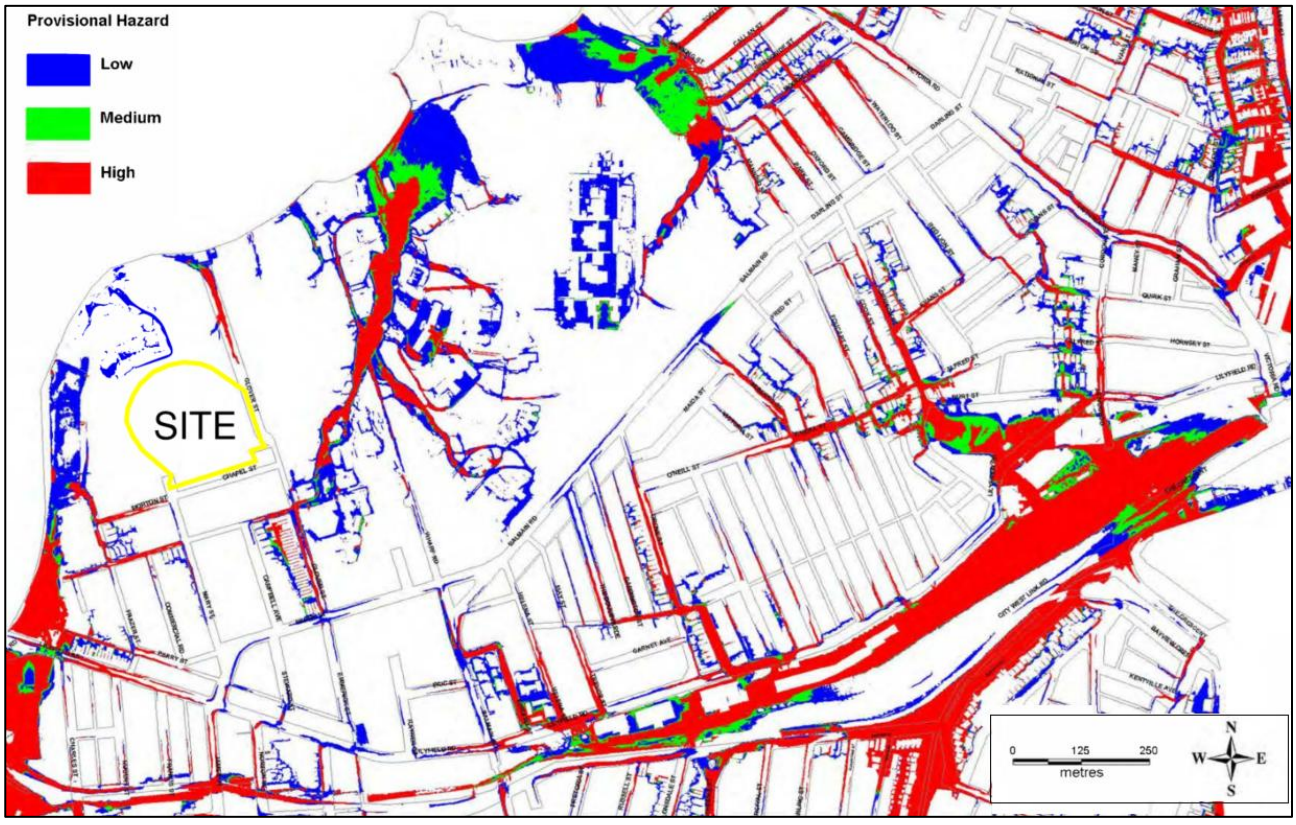


Figure 9: PMF Event - Provisional Flood Hazard (Source: Leichhardt Flood Study Addendum 2017)

4.2 Leichhardt Flood Risk Management Study and Plan (November 2017)

The Leichhardt Floodplain Risk Management Study and Plan (FRMS&P, 2017) was undertaken by Cardno on behalf of Inner West Council to define the existing flooding behaviour and associated hazards, and to investigate possible mitigation options to reduce flood damage and risk.

As with the Flood Study report (2014), the map outputs indicate that the Leichhardt Oval site is not affected by flooding under the 1% AEP or PMF extent, as depicted in Figure 10.

The FRMS&P also includes an assessment of the 'true' flood hazard. Unlike provisional flood hazard categorisation (which is based around a function of velocity and depth), the 'true' hazard assessment considers a range of other factors, including the size of the flood, effective warning time, rate of rise, ease of evacuation, and duration of flooding.

As shown in Figure 11 and Figure 12, the true hazard assessment suggests that the Leichardt Oval site is not located within high hazard zones for the 1% AEP or the PMF events, while areas in the overall lot are minimally affected.

Figure 10: Flood Extent for PMF and 100yr ARI (Source: Leichhardt Floodplain Risk Management Plan 2017)

Figure 11: 100 yr ARI High 'True' Hazard Map (Source: Leichhardt Floodplain Risk Management Study 2017)

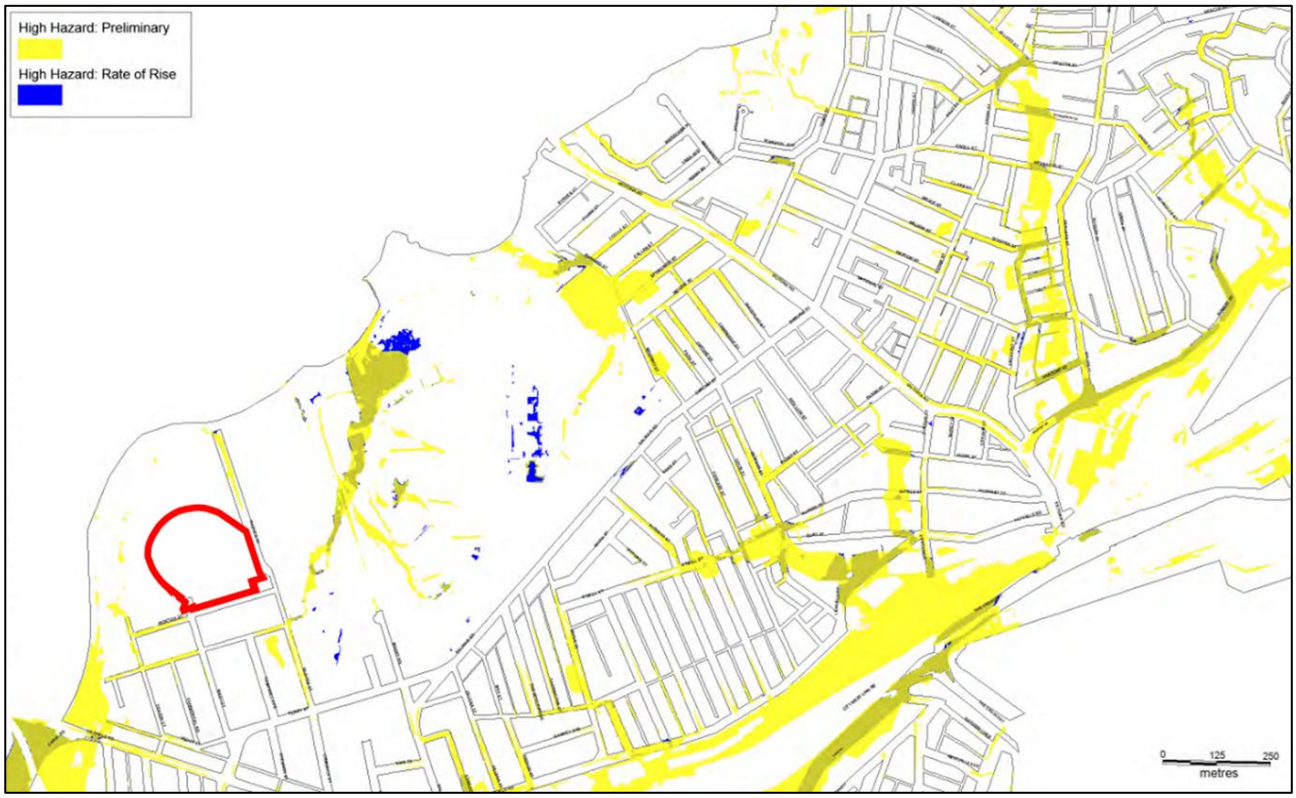


Figure 12: PMF High 'True' Hazard Map (Source: Leichhardt Floodplain Risk Management Study 2017)

4.3 Inner West Council Flood Certificate

TTW requested a Flood Certificate from Inner West Council to obtain verified information on the flood depths, levels, and extents affecting the wider site area. An excerpt of Council's flood certificate (dated 19 November 2025) is depicted in Figure 13.

This summary of flood affectation at the site confirms that the Leichhardt Oval site is flood free in all events, up to and including the PMF. Surrounding the site, the peak flood level in the PMF event is 4.6m AHD on Glover Street (the eastern frontage of the site). The Oval itself is elevated over 12.0m above this level.

Figure 13: Flood information derived from a flood certificate for 68 Mary Street, provided by Inner West Council

5.0 Flood Planning Requirements

5.1 Leichhardt DCP Part E

The proposed development is subject to Inner West Council's flood planning controls, which aim to ensure that development is appropriately sited, designed and managed with regard to local flood risk. For this site, the applicable DCP is the Leichhardt Development Control Plan (2013), which continues to apply to land within the former Leichhardt Council area.

"Part E – Water" of the DCP includes controls related to flood risk management and foreshore risk management. The site (Lot 120 DP 1279860) is identified as both a flood control lot and a foreshore flood control lot within the DCP mapping (Appendix E – Water Guidelines), depicted in Figure 14 and Figure 15, respectively.

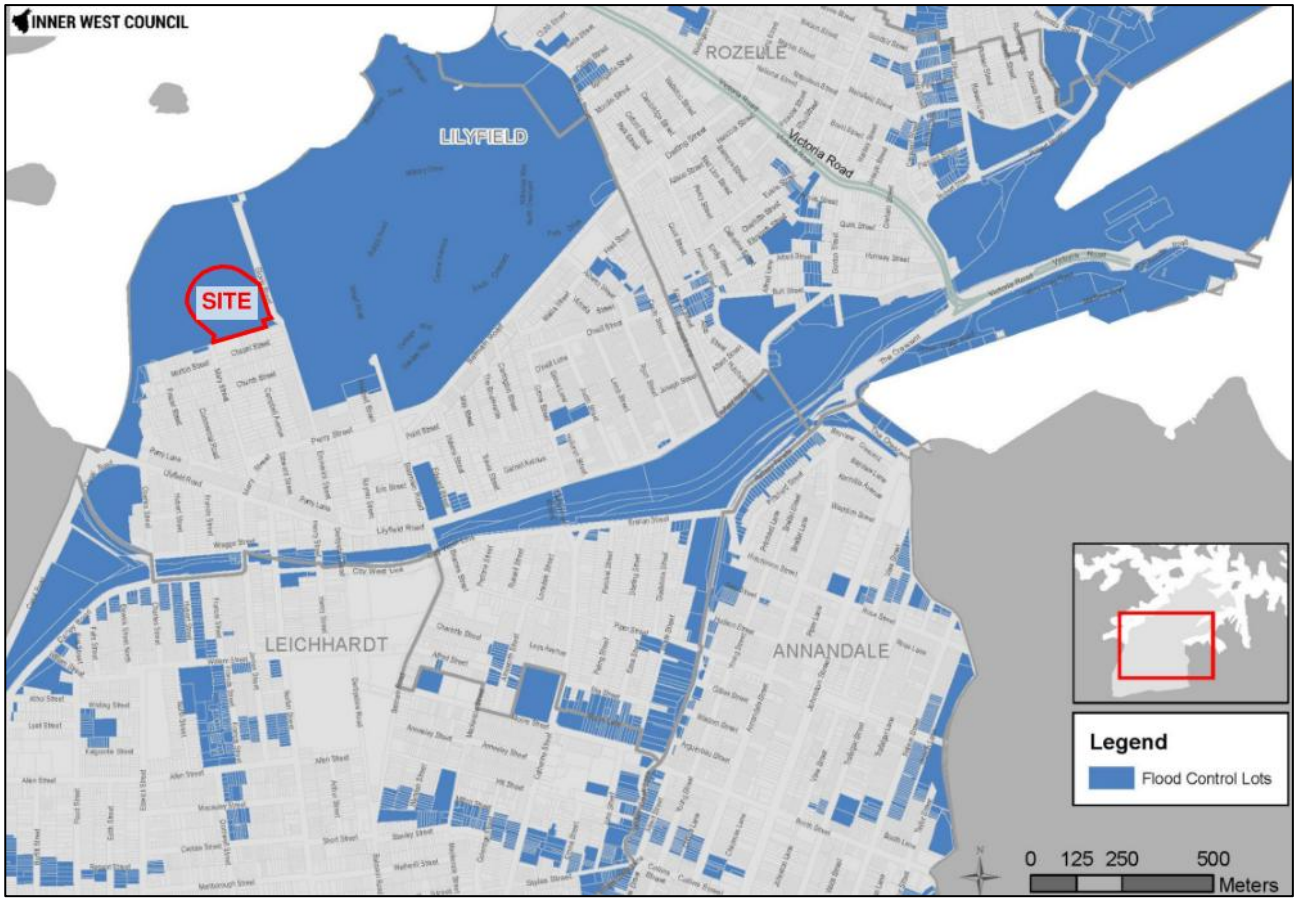


Figure 14: Flood Control Lot Map (Source: DCP Appendix E)

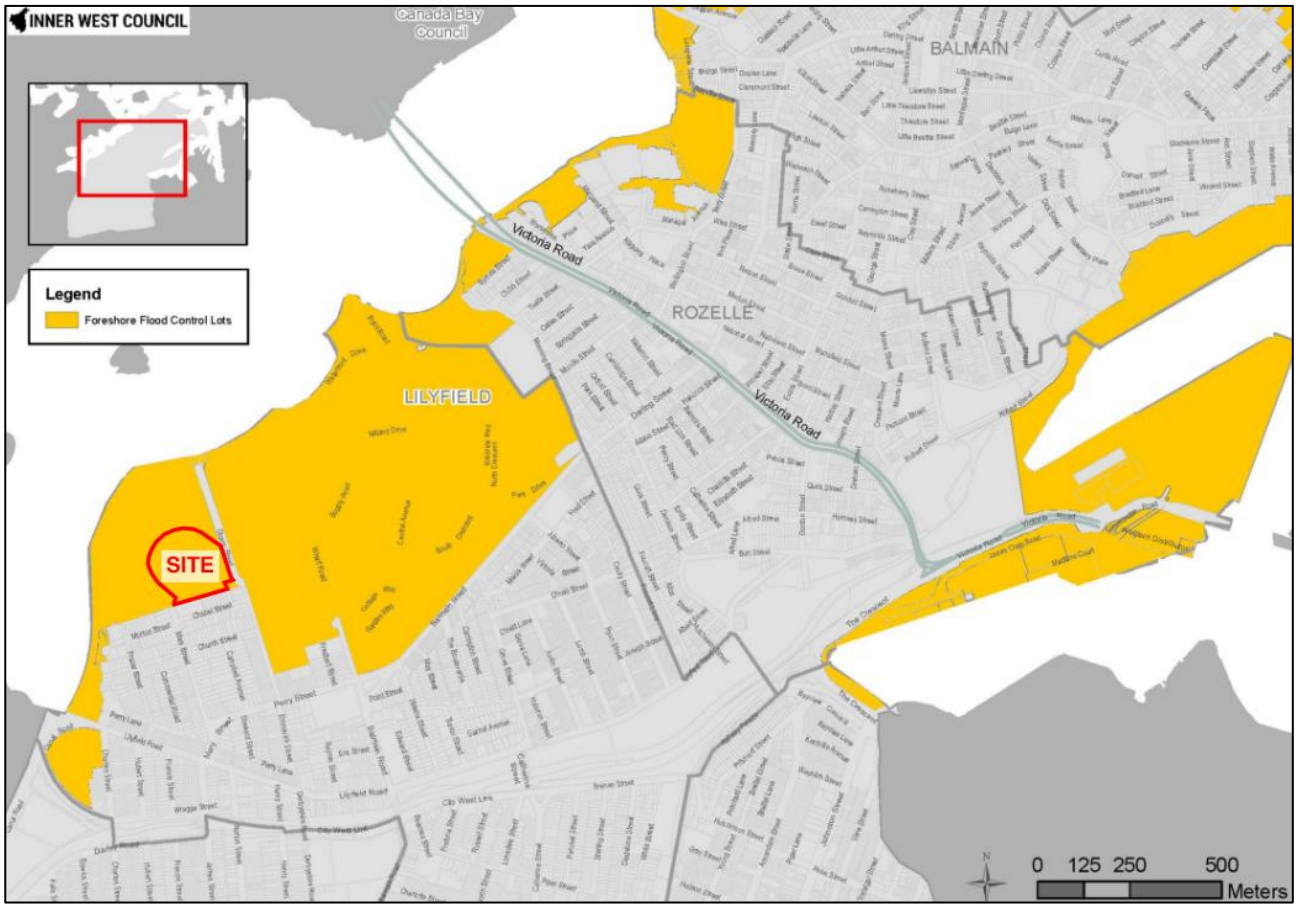


Figure 15: Foreshore Flood Control Lot Map (Source: Inner West Council DCP 2020 Appendix E)

5.1.1 Section E1.1 – Approvals Process and Reports Required

Per Section E1.1.4 of the Leichhardt DCP, a Flood Risk Management Report is required for applications that are identified as flood control lots. However, the DCP notes that a short statement may be sufficient for alterations and additions works where the extent of works is subject only to low hazard flooding.

Based on the above analysis in Section 4.0, detailed modelling of the site is not required for the proposed development as the extent of works is located outside of the PMF extent, and is consequently outside the extent of flood prone land. As such, this flood statement provides a sufficient assessment of the flood risk and hazard to the site and clearly demonstrates that the proposal will have no impact on flood behaviour or risk in the area.

Similarly, as per Section E1.1.5 of the DCP, a Foreshore Risk Management Report is not required where there are no new works proposed below RL 3.5m AHD. All proposed works are expected to be carried out at 17.5m AHD and above.

5.1.2 Section E1.2 – Hazard Management

The stringency of flood controls within Leichhardt DCP vary depending on land use type and hazard classification of flooding.

Per the land use types included in the DCP, the proposed development is considered a commercial land use. Based on this, the following controls apply:

- All floor levels, including any existing components to be retained, are to be at or above the Flood Planning

Level or raised to the Flood Planning Level.

- The floor levels of the additions and any altered floor areas must be at or above or raised to the Foreshore Planning Level.

Based on the available flood information, Leichhardt Oval is positioned over 12.0 metres above the extent of flood prone land and is consequently several metres above both of these planning levels.

6.0 Climate Change

Climate change impacts on catchment flooding were assessed in the Leichhardt Flood Study (2014) through sensitivity testing of 20% increases in rainfall intensity. In 2014, this 20% increase was the middle of the recommended DECCW climate change guidelines of 10-30% rainfall increases.

The flood study found that an increase in peak rainfall of 20% results in a general increase in peak water levels throughout the study area. For the majority of the overland flow areas, these increases are typically less than 0.1 metres. Along the main creeks, the increases are typically less than 0.2 metres.

It should be noted that the ARR2019 guidelines were updated on 27 August 2024 (ARR version 4.2) with new guidance on how to consider climate change when planning for future floods, which includes variable rainfall adjustments based on storm duration. An uplift of 20% broadly correlates to the 2100 rainfall projections under the new Shared Socioeconomic Pathway (SSP) 1-2.6, a low reference scenario that assumes that CO_2 emissions will be cut to net zero around 2075.

The updated climate change factors are notably higher than those applied in the 2014 Flood Study, with a projected uplift of 41% in rainfall intensity for storm durations of less than 60-minutes by 2100 under SSP2-4.5, a medium reference scenario. Despite this, the proposed works are limited to the Oval, located at 17.5 to 35.0m AHD which is significantly higher than the surrounding area, and several metres above the Parramatta River. Hence, the impact of climate change on flooding conditions within and around the site are expected to be insignificant.

7.0 Flood Emergency Response

7.1 Flood Response Strategy – Pre-Emptive Closure

Pre-emptive closure of the site is the preferred flood emergency strategy for the site if advanced warning of a major storm event is received outside of opening hours, or where a severe event is forecast several hours in advance.

Based on the FRMS&P, the critical duration for the 20% AEP and 1% AEP events range from 15 minutes to 2 hours, while that of the PMF ranges from 15 to 45 minutes throughout most of the catchment. The effective warning time for flooding in the catchment is therefore limited, with peak flows generally occurring within 15 minutes to 2 hours from the start of the rainfall. These short critical durations highlight the difficulty in providing sufficient advanced notice for effective evacuation and reinforces the importance of early site closure when advanced notice of major storms is available.

During the operational phase, the site should be closed in advance of significant storm events so spectators, staff, and players can be safe at home and do not have to drive through roads that could become hazardous.

An SMS must be sent to staff and anticipated site users where possible at the earliest opportunity (once the severe thunderstorm warning is issued) to advise of the closure and ensure no site users enter dangerous road conditions. Any expected visitors and spectators should also be informed via SMS if there is a risk of flooding to minimise the risk of people entering floodwaters.

7.2 Flood Warnings

7.2.1 Bureau of Meteorology

Severe weather and thunderstorm warnings are issued by the Bureau of Meteorology (BoM). These warnings are continually updated with descriptions of the likely conditions, including predicted extreme rainfall depths. Flood warnings are issued by the BoM when flooding is occurring or is expected to occur in an area. Warnings may include specific predictions of flood depths dependent on real-time rainfall and river level data. Flood warnings are unlikely to provide significant advance notice for the site due to the short duration flooding experienced in local systems and the presence of multiple flood sources including king tide and, storm surges.

Given that surrounding region may be affected by both overland flow and potential backwater or tidal influences from the nearby Hawthorne Canal and Parramatta River, formal flood warnings are unlikely to provide significant advance notice for the site. Triggers should consequently focus on severe weather and thunderstorm warnings.

These warnings are distributed by BoM to Councils, Police and the relevant local SES, as well as being available on the BoM website.

- A ***Severe Weather Warning*** is issued by the BoM when severe weather is occurring or expected to develop, that is the direct consequence of a thunderstorm. For broad severe weather such as east coast lows or vigorous cold fronts, Severe Weather Warnings are aimed to be issued 24-36 hours ahead of the expected onset. This warning time may be reduced particularly for more localised severe weather. Once a severe weather warning is issued it is routinely updated every six hours until the threat has passed but may be updated more frequently for rapidly evolving situations.
- A ***Severe Thunderstorm Warning*** is issued by the BoM whenever there is sufficient meteorological evidence to suggest that severe thunderstorm development is likely, or when a severe thunderstorm has been directly reported or observed. Regional warnings are provided for one or more forecast areas and aim to give 3 hours warning before thunderstorms develop. Detailed thunderstorm warnings are provided for capital cities (including this site) and aim to give 60 minutes warning before severe thunderstorms develop. Warnings are updated routinely every 30-60 minutes until the threat has passed or more frequently if required.

7.2.2 NSW SES Australian Warning System

NSW SES has recently implemented the Australian Warning System (AWS) which replaces their previous evacuation orders and warnings system. The AWS is a new national approach to information and 'Calls to Actions' for hazards including flooding. The System uses a nationally consistent set of icons, with three warning levels: Advice, Watch and Act, and Emergency Warning. The storm warnings are described in Figure 16.

Figure 16: Australian Warning System – Three Warning Levels

The NSW SES utilises a range of sources to build detailed flood intelligence within local communities, including information from flood studies and historical flood data. As part of the transition to the Australian Warning System, the NSW SES has increased flexibility to tailor warnings at the community level, based on the expected consequences of severe weather events.

The Chief Warden is responsible for monitoring information from the AWS. Impacted communities will continue to receive warnings through the NSW SES website, NSW SES social media channels and by listening to local ABC radio stations. The NSW SES has also developed an all-hazards warning platform, HazardWatch, to provide an additional channel for communities to access important warning information.

Each warning has three components:

1) **Location and hazard**: The location and the type of hazard impacting the community.
2) **Action statement**: For each warning level there are a range of action statements to guide protective action by the community. These statements evolve as the warning levels increase in severity. Statements range from 'prepare now' at the Advice level, to 'avoid the area' at the Watch and Act level, to 'seek shelter now' in the Emergency Warning level. As the situation changes and the threat is reduced, the level of warning will decrease accordingly.
3) **The warning level**: The severity of the hazard event based on the consequence to the community.

As the wider region is affected by flash flooding, Severe Storm Warnings and Severe Thunderstorm Warnings issued by BoM are likely to be the only warnings available. Alerts would likely cover weather events such as hail and severe thunderstorms, destructive winds and cyclones, and floods from a number of different sources including king tide and storm surge.

It is also important to acknowledge that neither the NSW SES nor BoM can provide special individual flood warning services for each affected property. The more specific the warning requirement for individuals and sites becomes, the more difficult it is for the NSW SES to deliver warnings in the short time frames that often apply. Site operators must be weather aware and act early on publicly broadcast severe weather and flood warnings.

8.0 Mitigation Measures

The proposed development includes upgrade works to the existing Leichhardt Oval site, which is elevated to a minimum level of approximately 17.50m AHD. As a result, the site is not subject to inundation during the Probable Maximum Flood event or any of the defined flood events used for planning assessment.

Given the Oval's topographic position and separation from the mapped flood extents, the proposed upgrades will not alter existing overland flow paths, change flood storage characteristics, or influence conveyance within the surrounding catchment. There is therefore no risk that the development will adversely affect flood behaviour on adjacent properties or within the broader floodplain. As such, flood-specific mitigation measures are not required.

While not considered a formal mitigation measure, it is good practice for site manager and event staff to remain aware of general weather conditions, review BoM flood and severe thunderstorm warnings ahead of major events and maintain standard operational preparedness during periods of intense rainfall. These practices support overall site safety, noting that they are precautionary only.

9.0 Conclusions and Recommendations

This report has addressed the SEARs (dated 23 June 2025) issued for the Leichhardt Oval Refurbishment by assessing the flood risk associated with the proposed development, based on publicly available information at the time of the assessment, including the Leichhardt FRMS&P (2017) and the Leichhardt Flood Study Addendum (2017). The following observations have been made:

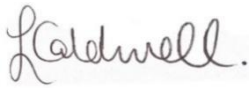
- Flood mapping provided in both the Leichhardt FRMS&P (2017) and the Leichhardt Flood Study Addendum (2017) demonstrate that the Leichhardt Oval Site is located outside the extent of flood prone land and is unaffected by both mainstream and overland flooding in all modelled flood events, up to and including the PMF event.

- As the site is situated outside the PMF extent and no upstream external upstream catchment is anticipated to contribute stormwater runoff to the site (i.e. south-east corner of site is located at the crest as depicted in Figure 5), the proposed works will not impact on the flood characteristics of the surrounding area and not have any cumulative impacts that may affect adjoining properties or infrastructure. However, appropriate local drainage system will still be required for the oval site to ensure that local stormwater runoff can be managed appropriately to prevent local flooding due to overland flow.

- The flood planning controls outlined in Leichhardt DCP consequently do not apply to the site, given that it is outside the extent of flood prone land.

- The proposed development is suitable from a flood risk management perspective and warrants approval.

Prepared by
TTW (NSW) PTY LTD



LAURA CALDWELL
Civil Flood Modeller

Authorised By
TTW (NSW) PTY LTD

MICHAEL KOI
Associate

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Appendix A

Agency Consultation

From: Patrick Nash <Patrick.nash@planning.nsw.gov.au>
Sent: Thursday, 25 September 2025 9:06 AM
To: Jack Freckelton <jfreckelton@planningandco.com>
Cc: David Gibson <David.Gibson@planning.nsw.gov.au>
Subject: RE: SSD-85149458 Leichhardt Oval Refurbishment - Flood risk management assessment requirements

Hi Jack

We have just received the following advice from CPHR in respect of your queries:

CPHR notes the subject site appears to be partially impacted by flooding from the Parramatta River during the 1% Annual Exceedance Probability (AEP) and rarer flood events.

CPHR advises the flood assessment can be undertaken as a simple desktop review using the current available flood information, particularly from the Leichhardt Floodplain Risk Management Study and Plan (Cardno, 2017). This flood assessment should outline the consistency with Inner West Council's requirements if required.

For emergency management considerations, if the desktop assessment indicates that flood risk at the subject site would require a need for evacuation, the assessment must demonstrate that evacuation can be undertaken in accordance with the Local Flood Plan or NSW State Emergency Service flood emergency management strategy relevant for the area.

Hope this assists.

Kind regards,

Patrick Nash
Senior Planner, Social Infrastructure Assessments
Development Assessment and Sustainability
Department of Planning, Housing and Infrastructure

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4 Parramatta Square
12 Darcy Street
Parramatta NSW 2150

From: Jack Freckelton
Sent: Monday, 8 September 2025 5:31 PM
To: rog.gsrplanning@environment.nsw.gov.au
Cc: Sandra Lim <sandra.lim@parthenon.ey.com>; Tom Goode <tgoode@planningandco.com>; Aram A Jelenkerian <aram.jelenkerian@parthenon.ey.com>; Grace Carpp <grace.carpp@ttw.com.au>
Subject: SSD-85149458 Leichhardt Oval Refurbishment - Flood risk management assessment requirements

Good afternoon,

Planning & Co have been engaged by the Inner West Council for planning services including the preparation of an EIS for the SSD-85149458 at Leichhardt Oval, 68 Mary Street Lilyfield.

Based on a review of the SEARs requirements for the project and the advice previously provided by DCCEEW to DPHI on 20 June 2025 regarding flood risk management requirements (both attached), we seek clarification from DCCEEW as to the level of flood assessment required for the project.

Specifically:

- We note CPHR letter has informed the project-specific SEARs and included recommendations for a FIRA.
- The SEARs require a FIRA where the development is occurring on flood prone land.
- The development area, being the stadium (Leichhardt Oval) only, is not flood prone land. We note that the works are the refurbishment of the existing stadium and a new northern grandstand.
- The existing car park on Mary Street (located across the road from Leichhardt Oval) is on flood prone land, though is outside of the proposed development area and no changes to the car park are proposed.

We wish to discuss with DCCEEW the extent of works required to satisfy the SEARs requirement. In particular, we would like to confirm the following approach:

- The FIRA will confirm that the part of the land where works are proposed is not flood prone land.
- We note that the SEARs require “regard to adopted flood studies” and Council do not maintain a flood study that accounts for climate change. We understand that the application of climate change to PMF events is a relatively new concept and is not accounted for in available studies.
- In any case, the potential impacts of climate change on flood events at the site are considered to be very minor and it is our opinion that no additional modelling is required to be undertaken, as the site is not flood prone land.
- We also do not believe that development of an Emergency Management Plan is necessary. It is highly unlikely that the ground would be in operation during a major storm event of an intensity

that would cause a PMF or other flood event. The FIRA can adequately consider operational procedures per the SEARs without undertaking an EMP. The FIRA can also provide suitable mitigation and/or management measures etc per CPHR instructions and the SEARs.

If DCCEEW may please review the above and provide comment. The project team is also able to meet over teams to discuss if preferred.

Thank you

Jack Freckelton
Urban Planner

planning&co

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