

Project Mars Data Centre 12 Mars Road Lane Cove West Flood Impact and Risk Assessment

Prepared for Goodman Property Services Australia (GPSA) Pty Ltd

September 2025

Project Number S24248

Version B



OPPORTUNITIES
THROUGH
EXCELLENCE
bgeeng.com

BG
&E
Part of SYSTRA

Contents

EXECUTIVE SUMMARY	1
1. Introduction	1
1.1 Purpose of Report	1
1.2 Proposed Development	2
1.3 Available Data	2
1.4 Terminology	2
2. Flood Risk and Impact Assessment	3
2.1 Flood Behaviour	3
2.2 Flood Risk Assessment Summary	4
2.3 Flood Impact Assessment	4
2.4 Flood Risk Management	4
3. Conclusions	4
Appendices	
Appendix A - Council Flood Information	5

Document Control				
Revision	Date	Prepared	Reviewed	Approved
A	01/04/2025	N. Bannigan	L. Baxter	L. Baxter
B	26/09/2025	N. Honan	S. Hazlewood	S. Hazlewood

A person using BG&E Pty Limited (BG&E) documents or data accepts the risks of:

- a) using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version; and
- b) using the documents or data for any purpose not agreed to in writing by BG&E.

EXECUTIVE SUMMARY

This Flood Impact and Risk Assessment has been prepared by BG&E Pty Limited (BG&E) accompany a State Significant Development Application (SSDA) for the construction and ongoing operation of a data centre facility at 12 Mars Road, Lane Cove West in the Lane Cove Government Area (LGA). The site is legally described as Lot 22 in Deposited Plan 732062.

This report has been prepared to address the Secretary’s Environmental Assessment Requirements (SEARs) issued for the Project Mars Data Centre Project (SSD-82052708) dated 10th April 2025.

Item	SEARS Requirement	Relevant Section of Report
15 Flood Risk	Identify the flood planning level as set out in the relevant council LEP or SEPP and identify any: <ul style="list-style-type: none">Flood risks on site having regards to adopted flood studiesThe potential effects of climate change, andAny relevant provisions of the NSW Flood Risk Management Manual	Refer to Section 2.1.
	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	Refer to sections 2.2 and 2.3
	Demonstrates compliance with the local council or other drainage or water authority requirements and avoids adverse downstream impacts.	Refer to sections 2.1 to 2.4.
	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 2.4

1. Introduction

1.1 Purpose of Report

BG&E Pty Limited (BG&E) has been engaged by Goodman Property Services Australia (GPSA) Pty Ltd to prepare a Flood Impact and Risk Assessment (FIRA) for the proposed development, located at 12 Mars Road, Lane Cove West.

A State Significant Development Application (SSDA) has been prepared to support a data centre at 12 Mars Road, Lane Cove West. The site area is 33,559m² and is zoned E4 General Industrial.

This assessment has been prepared with reference to the Flood Risk Management Guide LU01, which outlines the necessary steps and considerations for evaluating flood risks, impacts, and mitigation strategies.

1.2 Proposed Development

The site is located at 12 Mars Road, Lane Cove West (Lot 22 DP732062). The site is approximately 33,350 sqm and is bound to the north and west by industrial sites, and south and east by a sporting complex and residential sites respectively. The site sits within the Lane Cove West Government Area catchment.

The proposal will include:

- Site preparation works including demolition, bulk excavation and removal of existing structures on the site, tree and vegetation clearing and bulk earthworks.
- Construction, fit-out and operation of a three-storey data centre building with a total gross floor area of approximately 21,832m² comprising:
 - 24 parking spaces
 - 2 loading dock spaces
 - 2 levels of technical data hall floor space
 - 3 level office and amenities building
- Provision of required utilities including:
 - diesel storage tanks
 - water tanks
 - substations on site
- Vehicle and pedestrian access provided via Mars Road
- Associated landscaping and site servicing
- Installation of site services and drainage infrastructure
- A floor space ratio of approximately 0.65:1

1.3 Available Data

The preparation of this FIRA has utilised the following information:

- 12 Mars Road Concept Site Plan (HDR Architects)
- Lane Cove Development Control Plan (2009)
- Flood advice provided by Lane Cove Council (December 2024) (Appendix A)

1.4 Terminology

The frequency of a flood event is expressed in terms of its Annual Exceedance Probability (AEP); the probability of an event being equalled or exceeded within a year. Smaller magnitude events are described by Exceedances per Year (EY); the average number of times a year in which the event is likely to be equalled or exceeded. Previously flood probabilities have been described by the Average Recurrence Interval (ARI); that is the average time period between occurrences equalling or exceeding a given value. Some documents, such as Development Control Plans and Guidelines still refer to the ARI terminology.

For example, a 1% AEP event has a 1% chance (i.e. a 1 in 100 chance) of being equalled or exceeded in any one year and is equivalent to a 100-year Average Recurrence Interval (ARI) event. In the same way, a 5% AEP event is the equivalent of a 20-year ARI event.

2. Flood Risk and Impact Assessment

2.1 Flood Behaviour

2.1.1 Watercourses (mainstream flooding)

The Lane Cove River is located approximately 420 m to the west. Tributaries to the river, Stony Gully and Stringy Bark Creek, are located to the south and to the north respectively. The site is elevated from the river by more than 40 m in elevation (refer Figure 1).

The site is not flood-affected due to its elevated position on top of a hill. This location sits well above the surrounding floodplains.

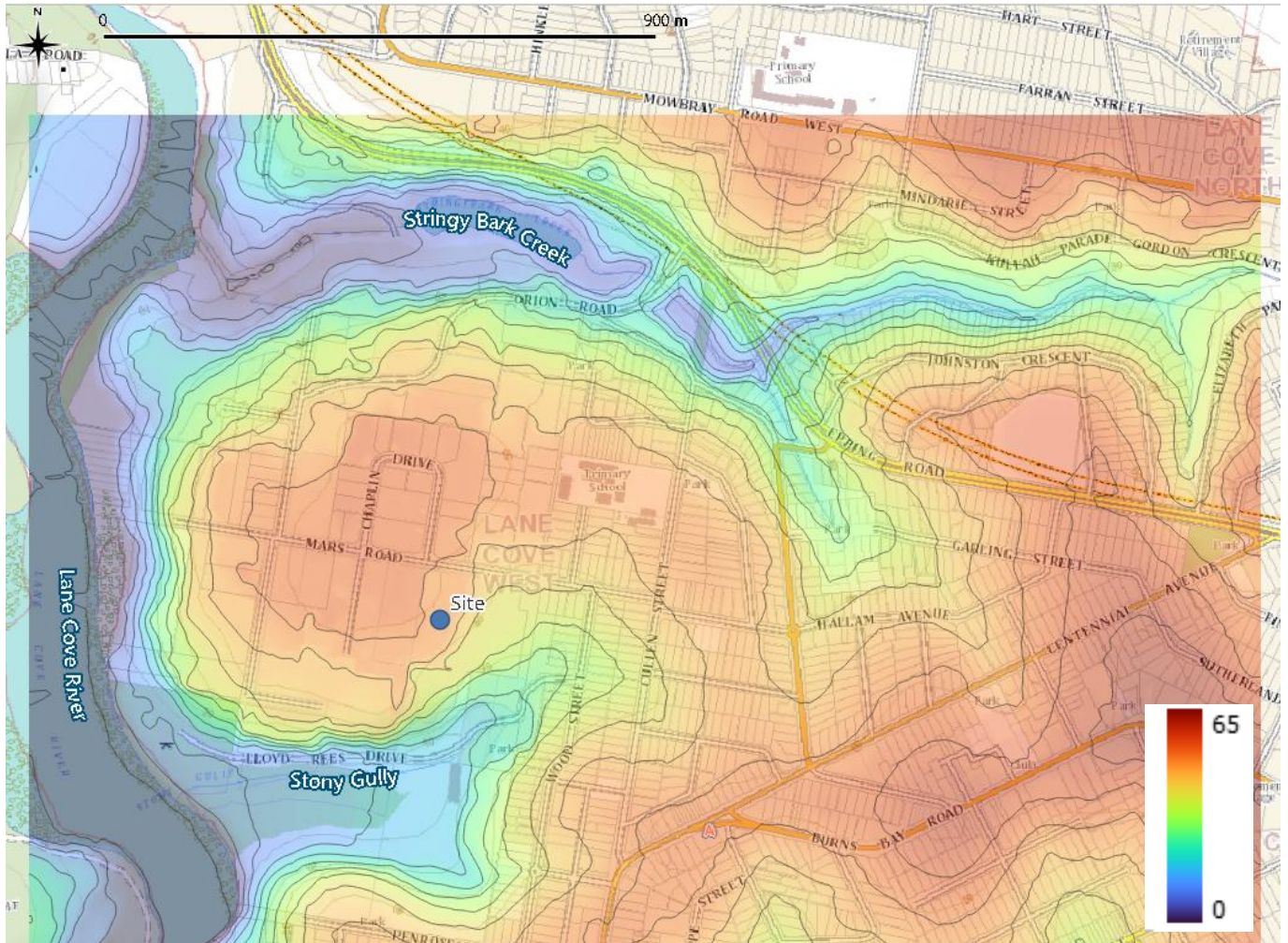


Figure 1: Site Location and elevation (m AHD)

2.1.2 Overland Flows

Stormwater runoff is conveyed via an underground pit and pipe stormwater network. During heavy rainfall events where pit and pipe capacity is exceeded, stormwater runoff is conveyed along local roads and is ultimately discharged into Sydney Harbour via Lane Cove River.

The limited size of the stormwater catchment ensures that significant overland flow is unlikely to affect the site. Drainage will be addressed in the stormwater report prepared by BG&E (refer civil design report S24248-RPT-CI-001-B). This report will provide further analysis and recommendations for managing stormwater runoff and ensuring effective drainage solutions for the site.

2.1.3 Climate Change

Increased rainfall and sea level rise are unlikely to increase the flood risk to the site given its elevated position.

2.2 Flood Risk Assessment Summary

The site is not considered to be at risk from flooding. Flood data was requested from Lane Cove Council for the site and on 19/12/24 Council responded and confirmed that the property is not considered as flood affected in relation to the Lane Cove DCP (Appendix A).

2.3 Flood Impact Assessment

As the site is not affected by flooding and stormwater runoff from the site will be managed, it will not cause adverse flood impact to other properties.

2.4 Flood Risk Management

As the site is not subject to flood prone land the Lane Cove Development Control Plan (2009) controls for flooding do not apply. Part O Stormwater Management will be considered in the civil drainage report (refer civil design report S24248-RPT-CI-001-B).

3. Conclusions

The proposed development site is not considered as flood prone land. The site's elevated location ensures that flooding is not a concern, and the potential effects of climate change are likely to be negligible.

Given that the development will not alter flood behaviour or increase flood risk to the surrounding community, a detailed Flood Impact and Risk Assessment (FIRA) is not required. The proposal is considered to meet the requirements of the SEARS.

Appendix A - Council Flood Information

Unit-1, Mars Rd 12 flood info

From Maran Muthiah <MMuthiah@lanecove.nsw.gov.au>
Date Thu 2024-12-19 11:36 AM
To Nicholas Bannigan <Nicholas.Bannigan@bgeeng.com>

You don't often get email from mmuthiah@lanecove.nsw.gov.au. [Learn why this is important](#)

CAUTION: This message was sent from outside of BG&E. Please do not click links or open attachments unless you recognise the source of this email and know the content is safe. Please report all suspicious emails to cybersecurity@bgeeng.com.

Hi

According to Council's records, the above-mentioned property Unit-1, 12 Mars Rd, Lane Cove North is not considered as flood affected in relation to the Lane Cove DCP.

The statement relating to overland flow is on the Sec 10.7 Certificate because Council cannot guarantee that the property will never be affected by overland flows.

Thanks

Maran Muthiah

Maran Muthiah
Development Engineer

48 Longueville Road Lane Cove

MMuthiah@lanecove.nsw.gov.au

*In the spirit of reconciliation Lane Cove Council acknowledges
the Traditional Custodians of the Land, the Cameraygal people.
We pay our respects to Elders past and present and extend that respect
to all Aboriginal and Torres Strait Islander peoples today.*

Looking for something in particular?

Visit our website: - www.lanecove.nsw.gov.au

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify Lane Cove Council.

Information transmitted via email may be subject to corruption by the process. Information contained in this email should not be relied upon where loss, damage or injury is possible. Verified information should be obtained in writing directly from the authorised Council officers.

This footnote also confirms that this email message has been swept by Sophos for the presence of computer viruses.

At BG&E, we are united by a common purpose – we believe that truly great engineering takes curiosity, bravery and trust, and is the key to creating extraordinary built environments.

Our teams in Australia, New Zealand, South East Asia, the United Kingdom and the Middle East, design and deliver engineering solutions for clients in the Property, Transport, Ports and Marine, Water, Defence, Renewables and Resources sectors.

We collaborate with leading contractors, developers, architects, planners, financiers and government agencies, to create projects for today and future generations.

ABN 67 150 804 603