



19-23 Rosalind Street, Cammeray NSW


FLOOD RISK ASSESSMENT



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Perifa Rosalind Development Pty Ltd.

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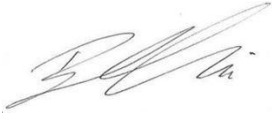
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Signature			Signature		

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1.0 Consultant Declaration Form

CONSULTANT DECLARATION

PROJECT DETAILS	
PROJECT NAME	
Application number	SSD-96505456
Address of subject land	19-23 Rosalind Street, Cammeray
Lot / DP	SP4657, SP5218 and SP16181
APPLICANT DETAILS	
Applicant name	Perifa Rosalind Development Pty Ltd
Applicant address	Level 7/111 Elizabeth Street, Sydney
REPORT DETAILS	
Name of report this declaration relates	J1442-CIV-RPT-0001[C] Flood Report
Report reference no.	J1442-CIV-RPT-0001[C]
Report date	31/01/2026
Company name (inc. ABN / ACN)	78 617 857 235
Author name	Billy Adzioski
Author qualifications	Civil Engineer
Author address	level 5/131 Macquarie St, Sydney NSW 2000
DECLARATION BY CONSULTANT	
Name	Billy Adzioski
Registration no.	3142944
Organisation registered with	Engineers Australia
Declaration	<p>The undersigned declares that J1442-CIV-RPT-0001[C] Flood Report:</p> <ul style="list-style-type: none"> has been prepared in accordance with the following policy, guidelines, or legislative requirements: <ul style="list-style-type: none"> North Sydney Local Government Area Wide Floodplain Risk Management Study and Plan', North Sydney Council, 2022 contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the Integrated Water Management Report relates; does not contain information that is false or misleading; identifies and addresses the relevant Planning Secretary's environmental assessment requirements (SEARs) for the project; identifies and addresses the relevant statutory requirements for the project, including any relevant matters for consideration in environmental planning instruments to which the Integrated Water Management Report relates; contains a consolidated summary of the proposed or necessary mitigation measures
Signature	
Date	30/01/2026

2.0 Introduction and Declaration

2.1 Introduction

This Integrated Water Management Report (IWMR) has been prepared by Innovis on behalf of Perifa Rosalind Development Pty Ltd (Perifa) to assess the potential environmental impacts that could arise from the construction of a seniors housing development (the development) at 19-23 Rosalind Street, Cammeray (the site). This report supports the assessment of the proposed development under Part 4 of the *Environmental Planning and Assessment Act 1979*.

Industry specific SEARs were issued on 17 October 2025 for the development. Development for the purposes of seniors housing with an Estimated Development Cost (EDC) of more than \$30 million and includes a residential care facility is state significant development under Schedule 1, Section 28 of the *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP). The proposed development has an EDC exceeding \$30 million and includes a residential care facility component. Accordingly, it is considered State Significant Development.

This report has been prepared to outline the proposed stormwater drainage requirements and design, water quality requirements and design, and outline the existing water (potable and sewer) for the development site. The IWMR consists of works and design undertaken by Innovis (Civil Stormwater and Drainage) as well as inputs from Collective Engineering (Wastewater).

Summary of the Development

The proposed development includes the construction of a new seniors housing development and comprises the following works:

- Site preparation works including demolition of three (3) existing residential flat buildings and associated parking facilities as well as bulk excavation;
- Construction of two (2), five (5) and six (6) storey buildings, Building A and B respectively, comprising the following:
 - Building A:
 - 7 x 2-bedroom ILUs;
 - 11 x 3-bedroom ILUs; and
 - Internal communal space for use by residents.
 - Building B:
 - 11 x 2-bedroom ILUs;
 - 20 x 3-bedroom ILUs;
 - Two (2) residential care facility beds and residential care hub; and
 - Internal communal facilities for use by all residents comprising a cinema, private dining room, gymnasium and pool.
- Communal open space and associated landscaping;
- Construction of two (2) basement levels to facilitate car parking accessible via Rosalind Street;
- Ground Level neighbourhood shop located in Building A;
- Extension and augmentation of utility infrastructure as required.

For a detailed project description refer to the Environmental Impact Statement prepared by Colliers Urban Planning.

3.0 Site Description

The site is located at 19–23 Rosalind Street, Cammeray within the North Sydney Local Government Area (LGA). It comprises three (3) allotments legally described as SP4657, SP5218 and SP16181, and occupies a total area of approximately 4,100m². A site aerial showing each allotment is provided at Figure 1. Each respective lot currently comprises a three (3) storey residential flat building with the two (2) of the rear buildings situated on battleaxe allotments connected to Rosalind Street.



Figure 1 Site aerial (Source: Nearmap/Colliers Urban Planning)

4.0 Compliance with SEARs

The following table is in response to items listed in *as per the SEARs requirements, specifically Section 19 – Flood Risk:*

DCP Requirement	Design Response	References
Identify the flood planning area and level as set out in the relevant EPI and other supporting documents.	<p>Review of the North Sydney FRMSP confirms that the site is not located within the draft Flood Planning Area (Appendix A.8). Proposed building levels to be formally provided by council.</p> <p>No Category A/B tagging or floodway affects the site. An approximate maximum flooding depth of 0.1-0.3m indicating that the carriageway will likely contain the flood planning stormwater event as highlighted in the Appendix A.8</p>	<ul style="list-style-type: none"> Appendix A.8 – Draft Flooding Planning Area
The flood extent and velocity up to the Probable Maximum Flood & associated risk on-site	<p>FRMSP figures confirms that the site lies outside all mapped flood extents for a 1% AEP stormwater event (Appendix A.5). During the PMF event, the flood fringe marginally encroaches into the property frontage. (Appendix A.6) However, this is minor in extent and will likely have no adverse impact on flood behaviour, site safety or neighbouring properties.</p> <p>Flood hazard mapping overlays demonstrate that for 1% AEP event the entire flood extents will be contained within Rosalind Street carriageway & is categorized as H1 (lowest hazard classification, maximum velocity of 2.0m/s) (Appendix A.1).</p> <p>The PMF mapping indicates that the works marginally encroach into an H1 hazard area. This encroachment is negligible in extent and is considered to have no adverse safety implications. (Appendix A.2)</p>	<ul style="list-style-type: none"> Appendix A.1 – Flood Hazard Classification 1% AEP Design Event Appendix A.2 – Flood Hazard Classification PMF (Probable Maximum Flood) Design Event Appendix A.5 – Flood Function Mapping PMF (Probable Maximum Flood) Design Event Appendix A.6 – Flood Function Mapping 1% AEP Design Event
Site access and egress routes.	<p>Per the Flood Emergency Response plan, the Rising Road classification extends slightly into the lot frontage. However, the mapped conditions are low hazard and shallow. This limited encroachment does not affect site</p>	<p>Appendix A.7 – Flooding Emergency Response PMF Design Event</p>

	<p>functionality or evacuation and therefore poses little risk to proposed works.</p> <p>Flood Emergency Response mapping shows that under extreme events, overland flow may extend into the basement carpark ramp entrance. This can be confined to the upper section of the ramp and does not compromise safety when appropriate design measures are implemented.</p>	
Potential effects of climate change.	Accounting for climate change, it is expected there will be minimal adverse changes from existing flood behaviour within the site. Given that the site remains outside the expected flood extents aside from minor encroachment of low-hazard flooding in a probable maximum flood event, it can be considered as	-
Relevant NSW Flood Risk Management Manual and other guidelines.	Given that the site is only susceptible to minor, low-hazard PMF flood events at the property frontage, the NSW FRM Manual is relevant only at a broad policy level. This development remains consistent with the NSW FRM’s intent of developing on low-risk land.	<i>Flood risk management manual, NSW Government, 2023.</i>
Where development occurs on flood prone land a Flood Impact and Risk Assessment (FIRA) prepared in accordance with LU01 Flood Risk Management Guide.	Intent of this report to address the flood-risk associated with the site.	<i>Flood impact and risk Assessment - Flood risk management guideline LU01, NSW Government, 2023.</i>
Detail all flood risk management measures to be incorporated into the development, having regard to relevant guidelines (design solutions, flood modification measures, property protection measures, and operational procedures or Flood Emergency Response Plans)	<p>Given nearly the entirety of the site is flood-free in a PMF event, flood risk management measures relate primarily to the appropriate design and protection of the downward-sloping basement ramp. Incorporating a crest in basement ramp to provide additional freeboard, or physical barriers will ensure that PMF-level overland flow cannot enter the basement.</p> <p>The “Rising Road” classification mapped to Rosalind Road is of minimal extent and low hazard and has been addressed through the assessment. Its limited encroachment into the frontage likely does not compromise safe access or require additional mitigation beyond appropriate design measures.</p>	<i>Appendix A.7 – Flooding Emergency Response PMF Design Event</i>

5.0 Introduction

5.1 Development site

Innovis has been engaged by ‘Perifa Rosalind Development Pty Ltd’ to be prepare a Flood Impact Assessment for the proposed development at the 19-23 Rosalind Street, Cammeray located within North Sydney Council. The development involves demolition of all existing buildings within the allotment & construction of two buildings intended as long-term accommodation for senior’s occupants.

- Building A: Five-storey building with a two basement levels for carparking purposes
- Building B: Six-storey building with two basement levels for carparking purposes

To undertake a site-specific assessment of potential flood encroachment, Innovis has reviewed the latest publicly available floodplain information, specifically the North Sydney Local Government Area Wide Floodplain Risk Management Study and Plan (FRMSP) published by North Sydney Council in 2022. A range of figures and mapping outputs from the latest FRMSP have been drawn upon to define existing flood behaviour within the locality and to evaluate the potential impacts on the proposed development.

The primary objective of this assessment is to identify and quantify existing flood characteristics currently affecting the site including extents, depths, hazard categories and planning implications, to ensure that proposed development achieves design outcomes that are fully compliant with relevant flood planning and design controls.



Figure 2: Aerial imagery, red boundary is approximate extents of works

5.2 Available Data

- 'North Sydney Local Government Area Wide Floodplain Risk Management Study and Plan', North Sydney Council, 2022.
- Topographic and Site Feature Survey. 'Drawing No. 64452002B Rev B', Hill & Blume, 2025.
- Architectural coordination set, issued by CHROFI on 15/10/2025.

6.0 Existing flood behaviour analysis

6.1 Flood extents & depths

Per Flood Function Mapping figures shown for a 1% AEP stormwater event (Appendix A.5), the site lies outside all mapped flood extents. However, in a Probable Maximum Stormwater event the flood fringes marginally encroach the property frontage (Appendix A.6). Flood fringes are defined as "areas that do not cause a material increase in flood levels or velocities elsewhere" and likely have minimal impact on conveyance of flow in a flood event, therefore it is likely any proposed works close to western boundary will not impact existing flood behaviour elsewhere.

As for the flood depths in a Probable Maximum Stormwater event, extents align with what is shown in Flood Function Mapping figures with depths of less than 0.15m expected to encroach into the site (aligning with common depths associated with flood fringes).

As an additional measure, appropriate setback from site frontage to proposed building envelope has been shown in concept architectural drawings (Figure 2 below), ensuring no obstruction to existing overland flow paths in a Probable Maximum Flood scenario.

Appropriate design measures may need to be taken for the carpark ramp grading towards basement parking to ensure overland flow in extreme flooding events do not enter basement. However, this is minor in extent and will likely have no adverse impact on flood behaviour, site safety or neighbouring properties.

6.3 Flood Emergency Response

The Flood Emergency Response Plan identifies “Rising Road” conditions along Rosalind Road in a Probable Maximum Flood event with minimal encroachment into the lot (similar what is shown in the flood extents mapping). As we have established this is a shallow, low-hazard flow – there will likely be minimal impact on safe egress/access routes in an emergency evacuation scenario arising from extreme flood events. “Rising Road” indicates that Rosalind St. is currently trafficable under extreme flood events but may be subject to further inundation in the future. This should not pose any constraints on proposed development as timely evacuation goals are currently met.

An appropriate setback from site frontage to proposed building envelope has been shown in concept architectural drawings (Figure 2 above), ensuring no obstruction to existing overland flow paths in a PMF flood scenario.

One item to note is that there is a planned removal of the southern existing private driveway extending, replacing this previously impervious with pervious landscaped area as necessary. This is beneficial from an overall flooding perspective, however, removes a potential evacuation path. This can be effectively addressed by ensuring appropriate site access and egress points at the ground floor, providing safe evacuation routes without reliance on the former southern driveway.

The extents of the flood during the 1% AEP event, and the PMF flood event, do not encroach the site, and thus no evacuation of the site is required or expected in such an event. The proposed scenario would be to shelter in place.

6.4 Draft Flood Planning Area

As per figure shown in Appendix A.8, North Sydney FRMSP confirms that the site is not located within the Draft Flood Planning Area & hence can be considered as a flood free site per council definition. It is illustrated that an approximate maximum flooding depth of 0.1-0.3m will be entirely contained within Rosalind St. carriageway.

No Category A/B tagging has been displayed within development area, further reinforcing that site is not subject to flooding & requires no additional flood controls from a council perspective.

7.0 Conclusion

In summary, the site lies outside the Draft Flood Planning Area and is therefore not considered flood-prone under a 1% AEP design flood event. Only the PMF event results in a minor, shallow low-hazard fringe encroachment at the frontage, which does not obstruct flows or affect safe access or evacuation. As such, we believe the development presents no adverse flood-related risk under either the 1% AEP or PMF scenarios.

APPENDICES

APPENDIX A – North Sydney LGA FRMS Figures

A.1 – Flood Hazard Classification – 1% AEP Design Event & Classification Chart

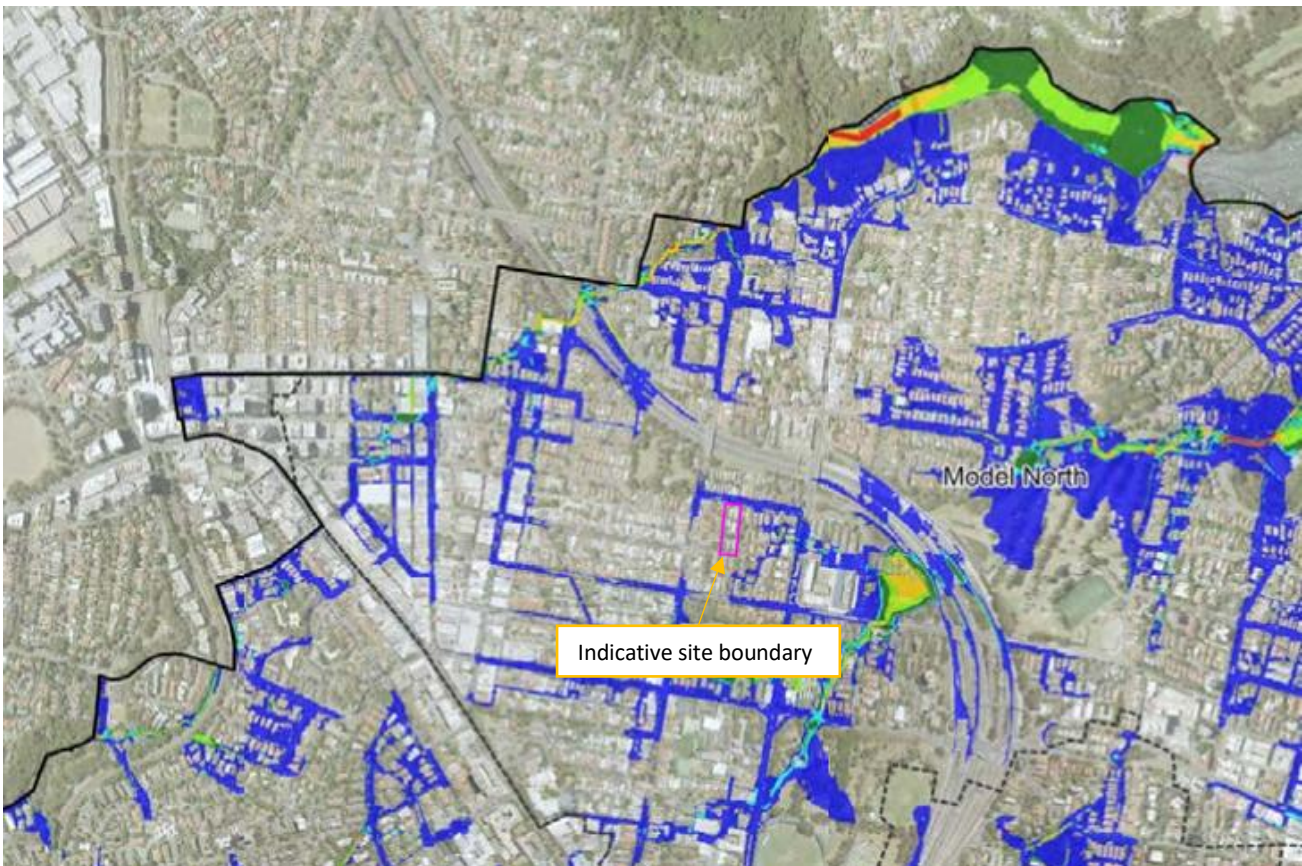
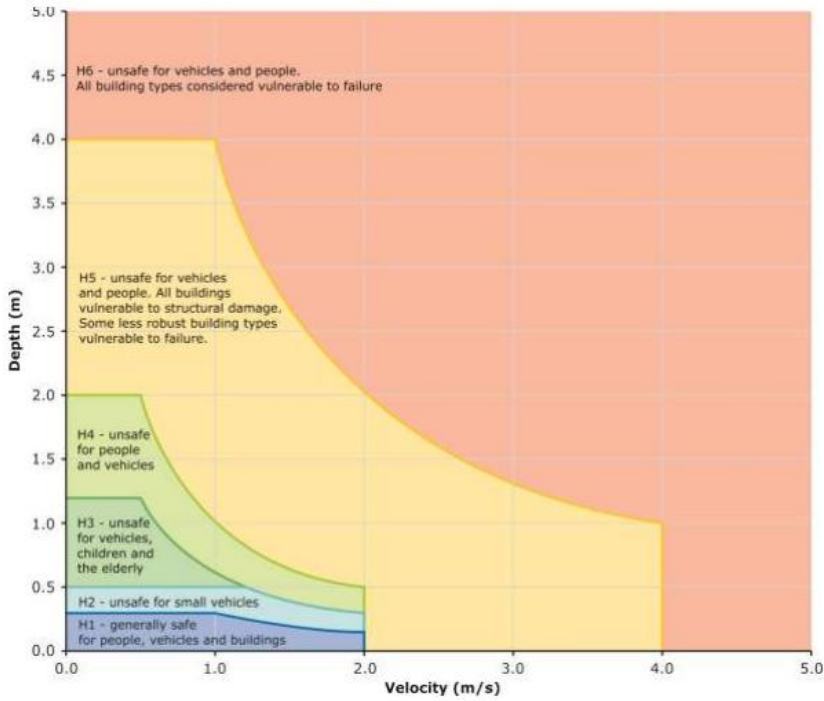


Figure A.1: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 23'.

A.2 – Flood Hazard Classification – PMF (Probable Maximum Flood) Design Event & Classification Chart

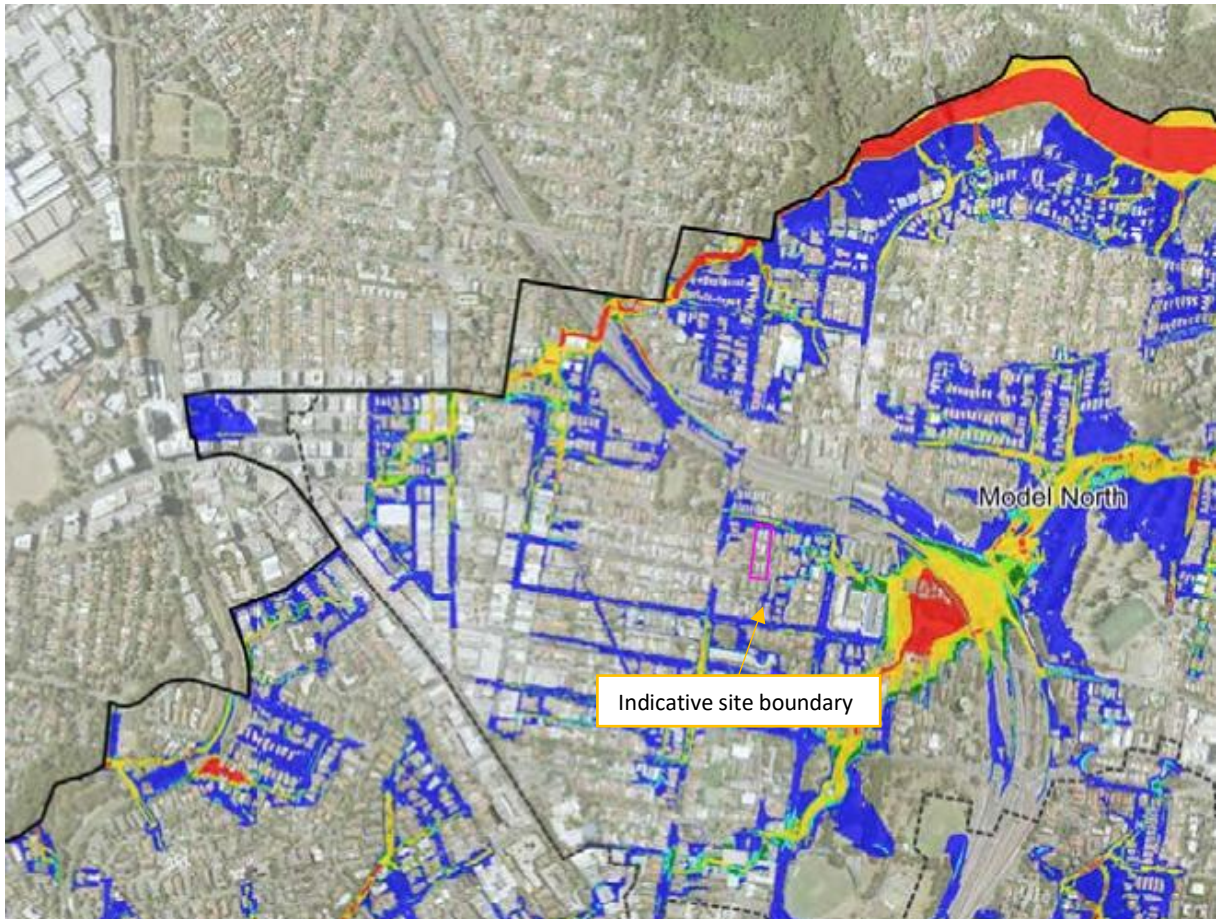
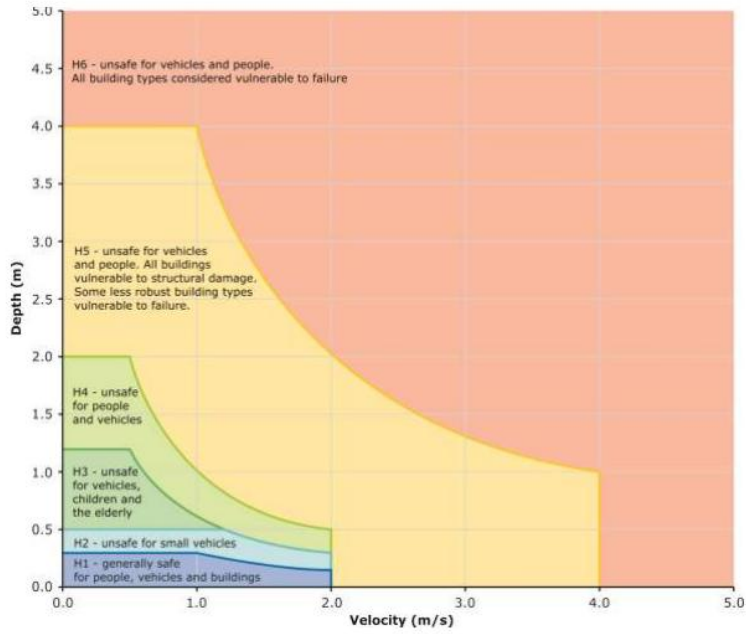


Figure A.2: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 24'.

A.3 – Peak Flood Depths - 1% AEP Peak Flood Depths

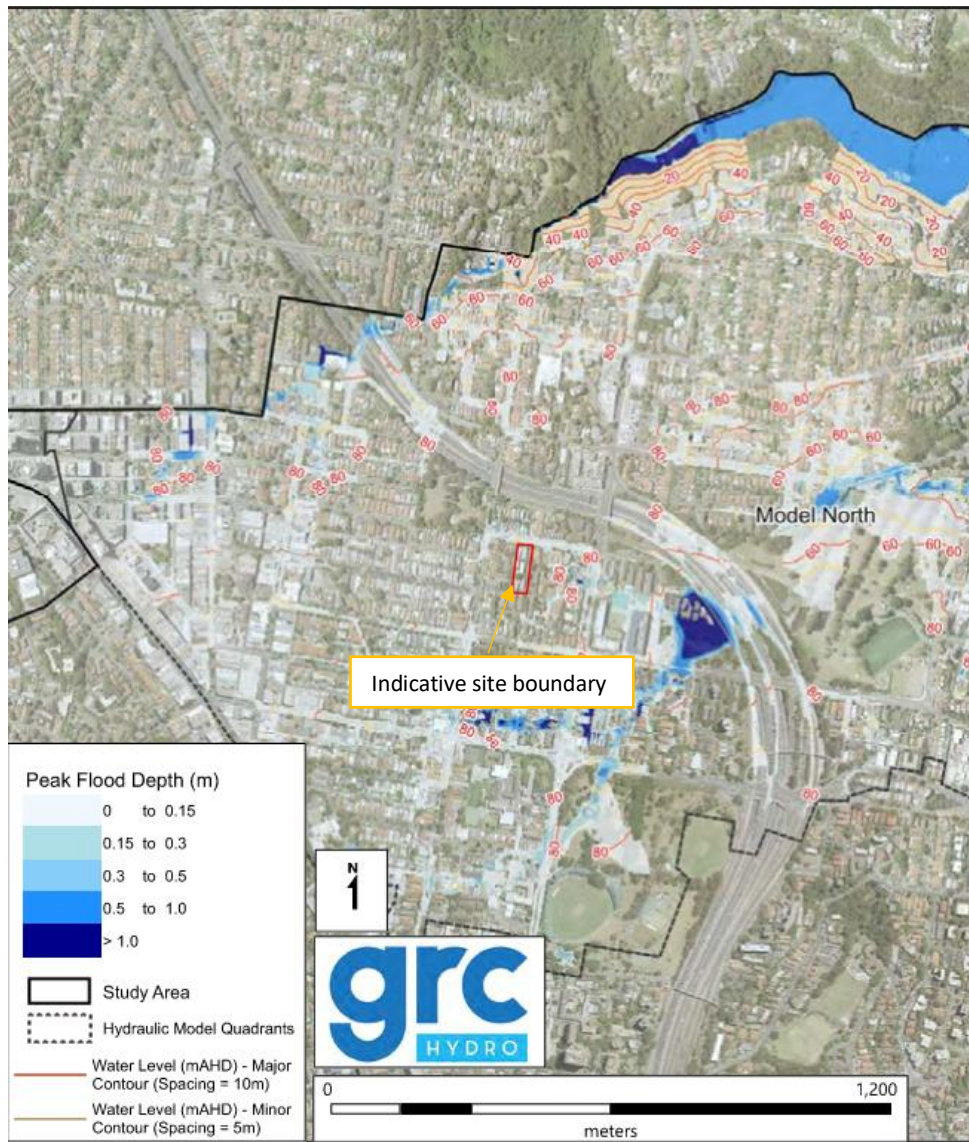


Figure A.3: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 8'.

A.4 – Peak Flood Depths - PMF (Probable Maximum Flood)

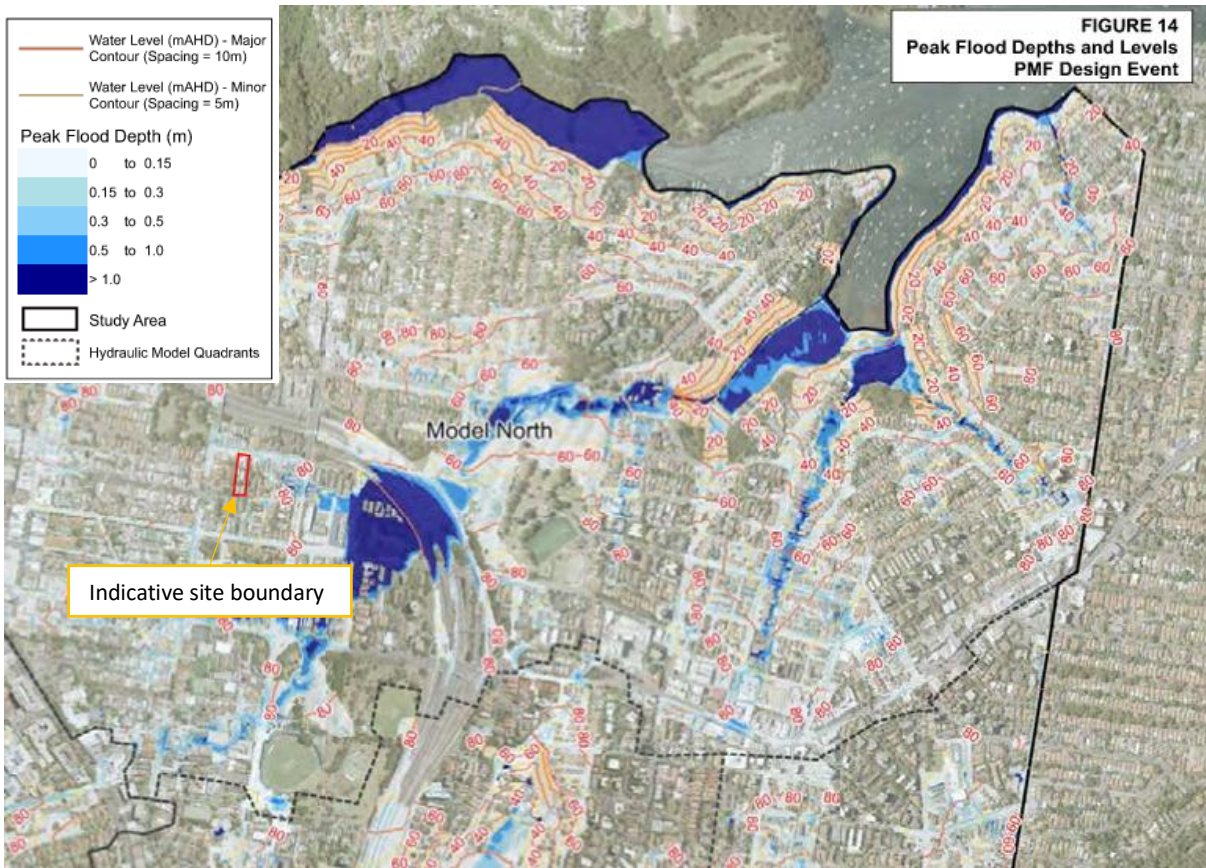


Figure A.4: 'North Sydney LGA FRMS, 2022 – Section 9 Figure 14'.

A.5 – Flood Function Mapping – PMF (Probable Maximum Flood) Design Event

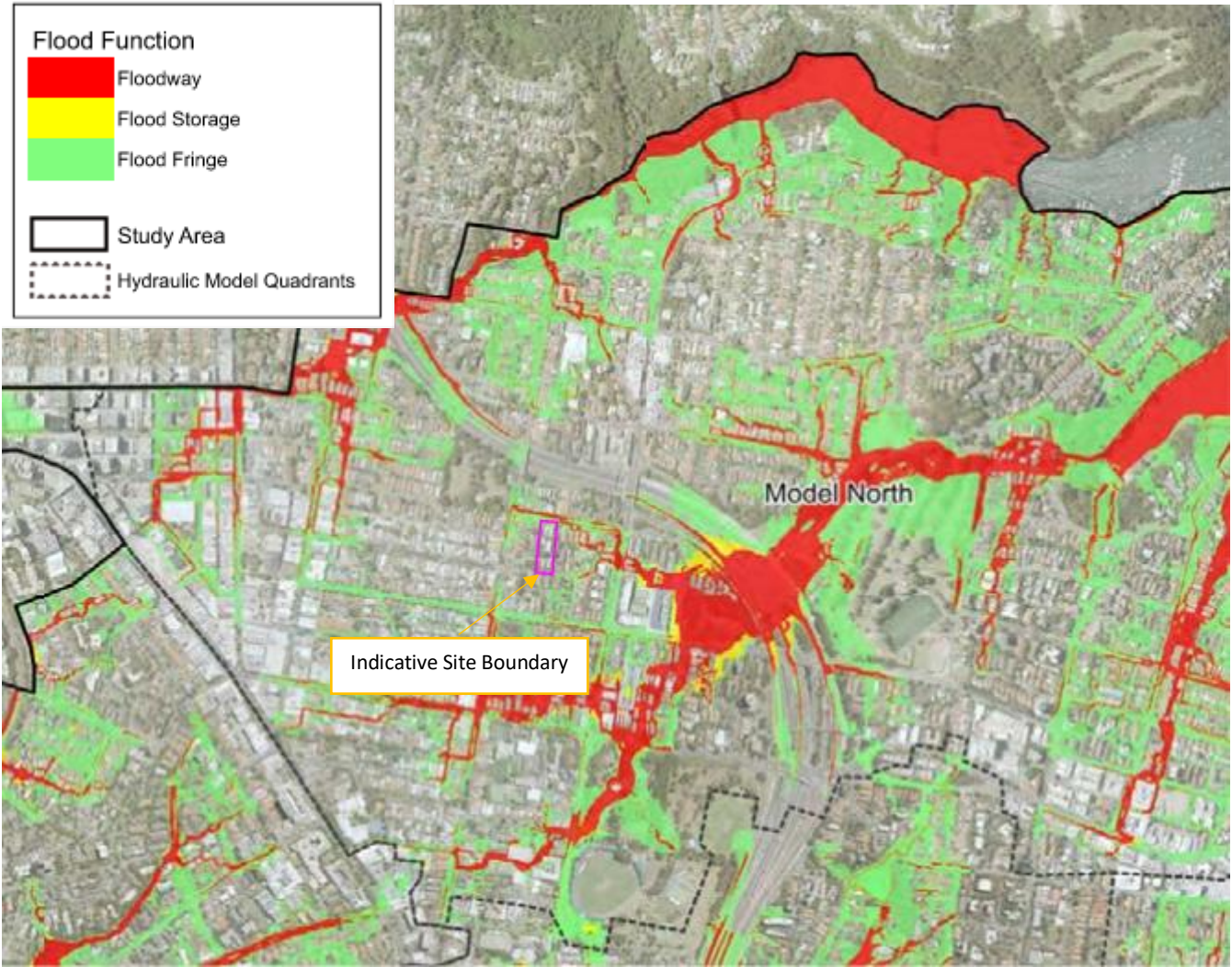


Figure A.5: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 28'.

A.6 – Flood Function Mapping – 1% AEP Design Event

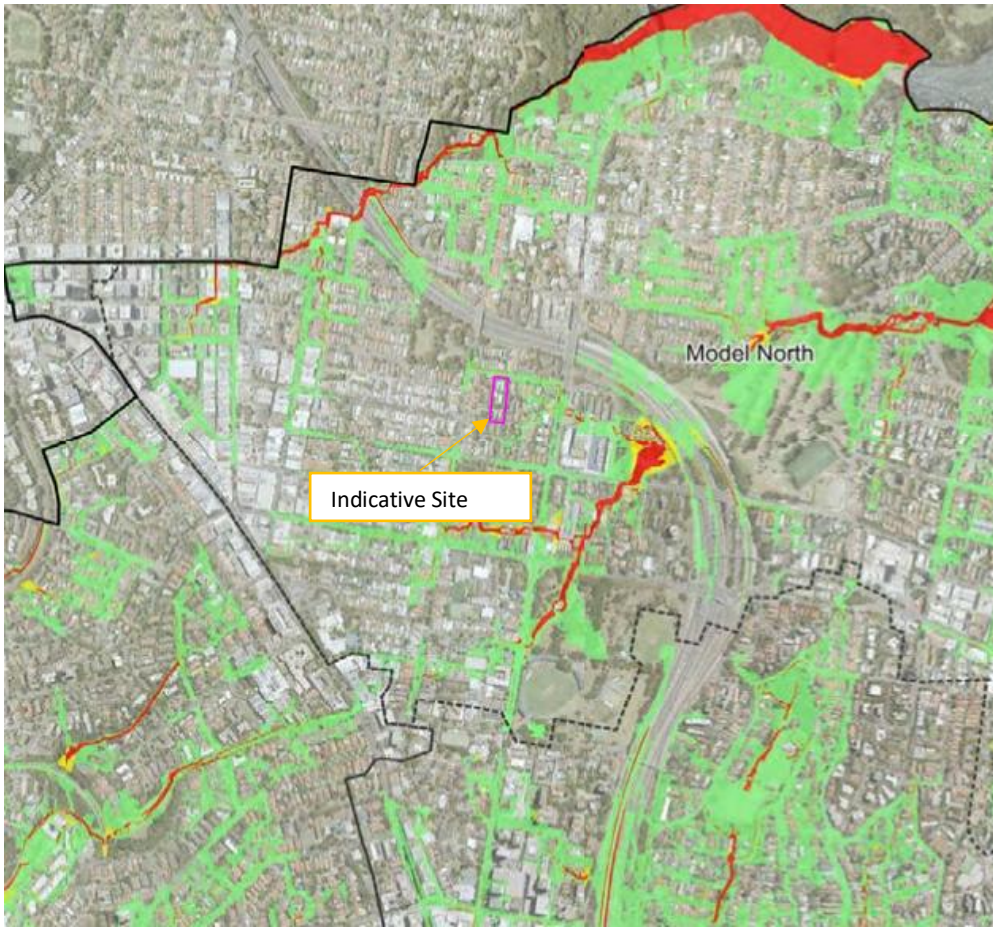


Figure A.6: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 27'.

A.7 – Flood Emergency Response – PMF (Probable Maximum Flood) Design Event

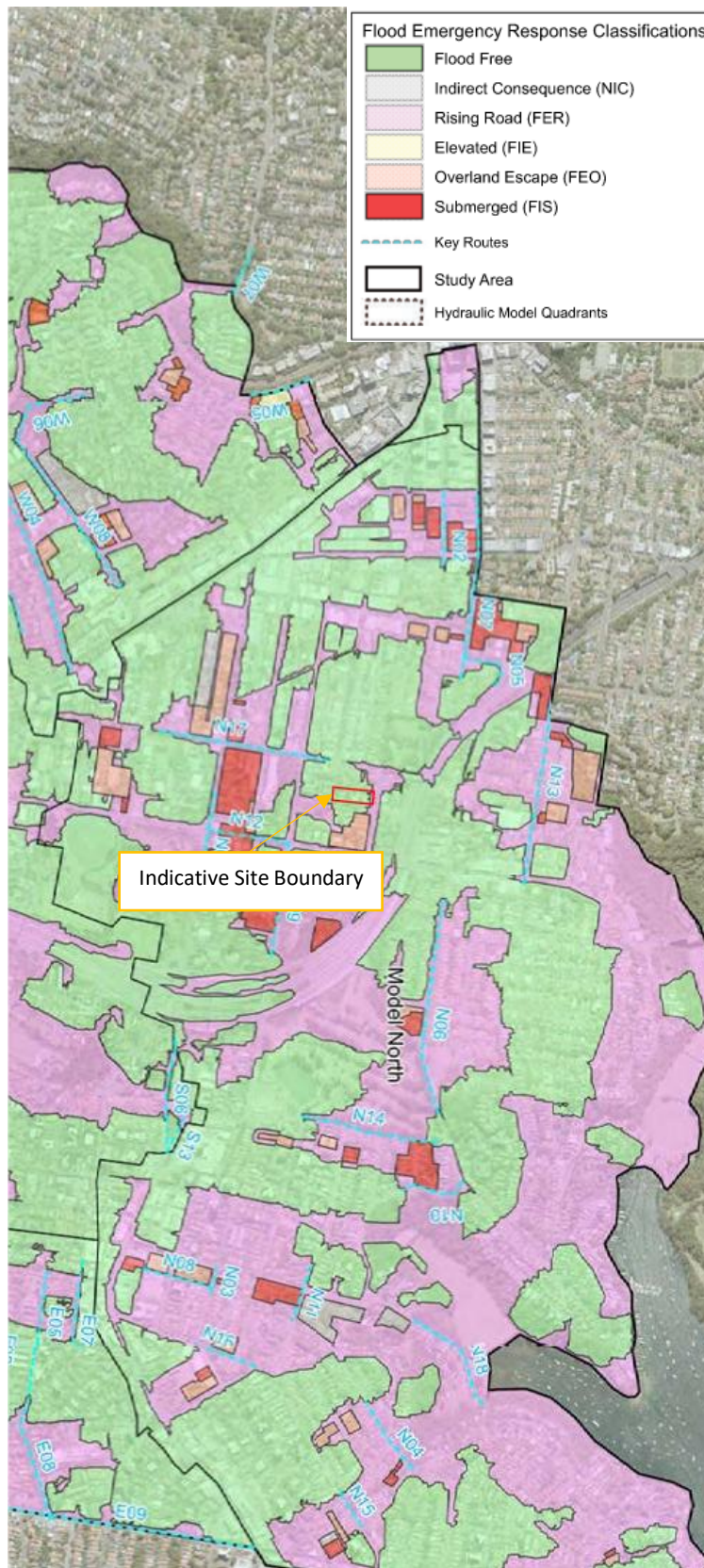


Figure A.7: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 29'.

A.8 – Draft Flood Planning Area (1% AEP + Freeboard)

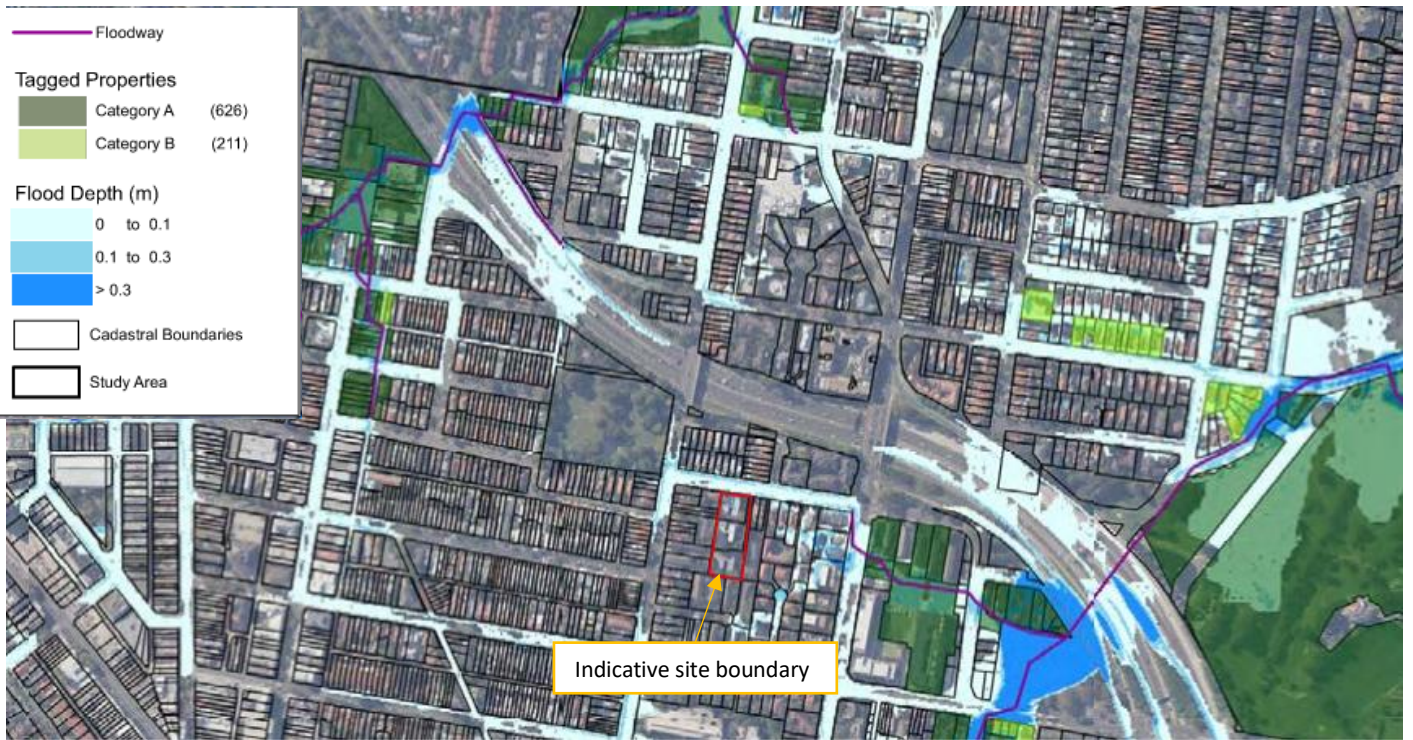


Figure A.8: Refer 'North Sydney LGA FRMS, 2022 – Section 9 Figure 31'.