

Flood Risk Assessment
New High School Proposal
Gledswood Hills High School
23185 – January 2025



FLOOD RISK ASSESSMENT AND FLOOD EVACUATION PLAN

New High School Proposal

PREPARED FOR

NSW Department of Education

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1. INTRODUCTION AND DECLARATION

1.1. Introduction

This Flood Risk Assessment and Flood Evacuation Plan has been prepared by Site Plus behalf of the NSW Department of Education (DoE) to assess the potential environmental impacts that could arise from the new Gledswood Hills High School (the **Proposal**) at 9 Gregory Hills Drive, Gledswood Hills (the **site**). The works are proposed by the DoE to meet the growth in educational demand in Gregory Hills and Gledswood Hills, and the broader South West Growth Area.

This report has been prepared to:

- Evaluate the site and associated Flood Risk in terms of Camden Council's Flood Risk Management Policy, the adopted Upper South Creek Flood Study by WMA Water dated 14th of October 2022 and received flood certificate from Camden Council dated 23 November 2023
- Develop a Flood Emergency Evacuation Plan which addresses the provisions of the Flood Risk Management guidelines

1.2. Summary of Activity

The proposed activity involves the construction and operation of a new high school at the site accommodating 1000 students including:

- A series of school buildings along the northern, eastern and southern site boundaries.
- A school hall.
- An assembly area, sports field and multi sports courts.
- Car parking and a Kiss and Drop zone
- Associated on and off-site infrastructure to support
- Evaluate the site and associated Flood Risk in terms of Camden Council's Flood Risk Management Policy, the adopted Upper South Creek Flood Study by WMA Water dated 14th of October 2022 and received flood certificate from Camden Council dated 23 November 2023
- Develop a Flood Emergency Evacuation Plan which addresses the provisions of the Flood Risk Management guidelines

The Review of Environmental Factors prepared by Ethos Urban provides a full description of the proposed works.

1.3. Site Description

The site is located at 9 Gregory Hills Drive, Gledswood Hills, within the Camden Local Government Area (LGA), approximately 60km southwest of the Sydney CBD and approximately 3.5km from Narellan Town Centre. It comprises one lot, legally described as Lot 2 in DP 1262720, that measures approximately 4.15ha in area. The site is bound by Digitaria Drive to the north and Gregory Hills Drive to the south. To the east lies two vacant lots, a childcare centre and a fast food outlet. To the west lies another childcare centre and a vacant lot (which also has approval for a childcare centre).

An aerial image of the site is shown at Figure 1-1.

Figure 1-1 Site Aerial



1.4. Concept Approval

This report has considered the concept approval (DA/2017/45/1) for a mixed-use activity comprising bulky goods premises, business premises, food and drink premises, indoor recreation facilities, two hotels and a cinema. It has been determined that:

- Potential impacts of the proposed activity on the concept approval can be appropriately mitigated or managed as detailed at Section 3.

1.5. Significance of Environmental Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed activity, it is determined that:

- The extent and nature of potential impacts are low and will not have significant impact on the locality, community and/or the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal impact on the locality, community and/or the environment.

1.6. Liaison with Council

Siteplus engineers on the 25th of October 2024 met with Camden Council. Camden Council expressed no major concerns with flooding on the site.

1.7. Liaison with SES

Siteplus engineers on the 31st of October 2024 met with SES. SES expressed a preference for evacuation prior to any flood event as their preferred option. Further the SES requested detailing for the optimal emergency evacuation route to access the site during the PMF Flood event.

1.8. Floodplain Risk Management Guidelines

This Flood Risk Assessment and Flood Evacuation Plan has been prepared in a consistent manner with the Floodplain Risk Management Guidelines (2022) and NSW Floodplain Development Manual (2023). Staff at Site Plus are familiar with the Floodplain Risk Management Guidelines (2022) and have used the guidelines to produce several flood emergency response plans and floodplain risk management studies and plans.

The Floodplain Risk Management Guidelines are made up of several documents under the following headings. Under each heading is a justification as to whether it applies to this Flood Risk Assessment and Flood Evacuation Plan.

- **Understanding Flood Behaviour.**
This will be undertaken as part of this Flood Risk Assessment and Flood Evacuation Plan by Site Plus.
- **Scoping Flood Projects**
This will be undertaken as part of this Flood Risk Assessment and Flood Evacuation Plan by Site Plus.
- **Assess Flood damage**
Not relevant as the subject site is above the PMF flood level.
- **Other flood management concerns**
Not relevant as flood barriers, levees or rainwater tanks are proposed to mitigate flooding within the subject site.
- **Supporting Emergency Management**

- Flood emergency response classification, using the community classification flow chart the school would be classed as High Flood Island
- SES requirements for the Floodplain Risk Management Process. As say in place is a suitable evacuation technique for flash flooding, we are complaint with SES's flood risk management requirements.

2. SITE CONTEXT

2.1. Subject Land

The site is located at Lot 2 DP 1262720, 9 Gregory Hills Drive, Gledswood Hills, New South Wales. Gledswood Hills High School lies on the eastern edge of Camden Councils Local Government Area. The site lies on the southern edge of Gledswood Hills. Immediately east of the site sits an unnamed water course. The watercourse is a tributary of South Creek/Wianamatta which is a part of the Upper South Creek Catchment.

2.2. Emergency Access/ Egress Points

As depicted in Figure 2-1 the site has both vehicular and pedestrian access. Vehicular access is provided along Digitaria Drive and Gregory Hills Drive and pedestrian access is provided along Gregory Hills Drive.

2.3. Topography

The site sits elevated above its surrounding access roads draining to both Gregory Hills Drive to the south and Digitaria Drive to the north. The proposed works do not alter the existing drainage patterns.

Figure 2-1 Site Plan



3. FLOOD RISKS

3.1. Flood Probabilities

Flood probabilities are generally described as having a 100-year Average Recurrence Interval (ARI) meaning that they will occur on average every 100 years.

Another way of expressing flood probability is in terms of Annual Exceedance Probability (AEP). A 100-year ARI flood has roughly a 1 in 100 AEP. That is, each year and every year it has a 1 in 100 or 1% chance of being reached or exceeded.

The largest flood that can occur is referred to as the Probable Maximum Flood (PMF). Although it has a very low probability of occurring in any one year (1 in 10,000 or less), events approaching a PMF have been recorded.

Flooding may occur at any time of year and at any time of day.

3.2. Flooding of the site and Predicted Flood Levels

Using the Flood Certificate details provided by Camden Council dated 23 November 2023 and Upper South Creek Flood Study the site is located external to all flood extents and the flood planning area. In the PMF event only the subject site is considered to be located in an area classified as a High Flood Island/Trapped Perimeter. Furthermore, the site is not affected by flooding by the unnamed watercourse immediately to the east of the site.

Both Gregory Hills Drive and Digitaria Drive are affected by floodwater in events up to and including the 1% AEP (1 in 100-year event). In the PMF event, both Gregory Hills Drive and Digitaria Drive contain flooding that may be unsafe for small vehicles within the site frontage.

3.3. Flood Protection Measures

3.3.1. Floor Levels

The subject site sits above the PMF Flood Level. In this regard the site is not flood affected and the existing ground levels are considered appropriate.

3.3.2. Building Components

Since the subject site sits above the PMF Flood level the prescriptive controls do not apply.

3.3.3. Structural Soundness

Since the subject site sits above the PMF Flood level the prescriptive controls do not apply.

3.3.4. Structural Soundness

Since the subject site sits above the PMF Flood level the prescriptive controls do not apply.

3.4. Flood Affection

The proposed activity will have no significant increase to flooding elsewhere in the proximity of the site as the activity is outside of the mapped PMF flood regards. As a result, there will be no loss of flood storage and no changes in flood level, flows of velocities upstream, downstream and adjacent to the site as a result of the associated activity.

3.5. Emergency Management

The site considered as a High Flood Island/Trapped Perimeter in the PMF event only. As a result, evacuation of the site in events greater than the 1% AEP may not be possible due to High Hazard flood water on the evacuation routes. Due to the nature of the upstream flooding being overland flow in nature, this would only be the case for a short duration, up to 4 hours in which case refuge in place would be possible and permissible given the subject site is flood free. As a result, shelter in place is considered to be an appropriate evacuation strategy.

3.6. Car Parking

No basement car parking is proposed with the associated proposal hence the prescriptive controls do not apply.

3.7. Management and Design

Since the subject site sits above the PMF level, suitable area to store goods may be achieved on the existing ground level.

Adequate emergency response information is provided in:

- Appendix C

Figure 3-1 1% AEP Flood Depth

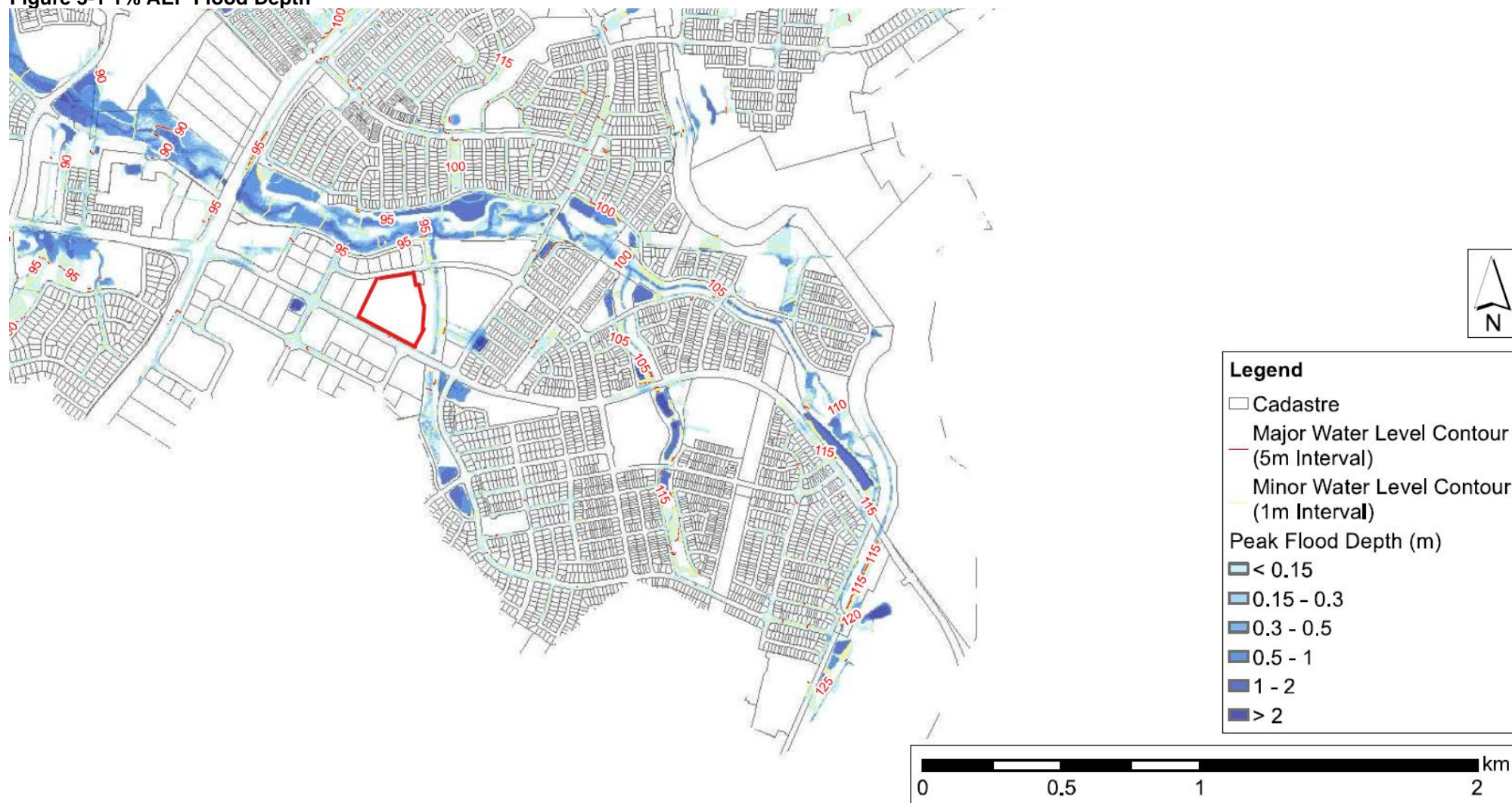


Figure 3-2 PMF Flood Depth

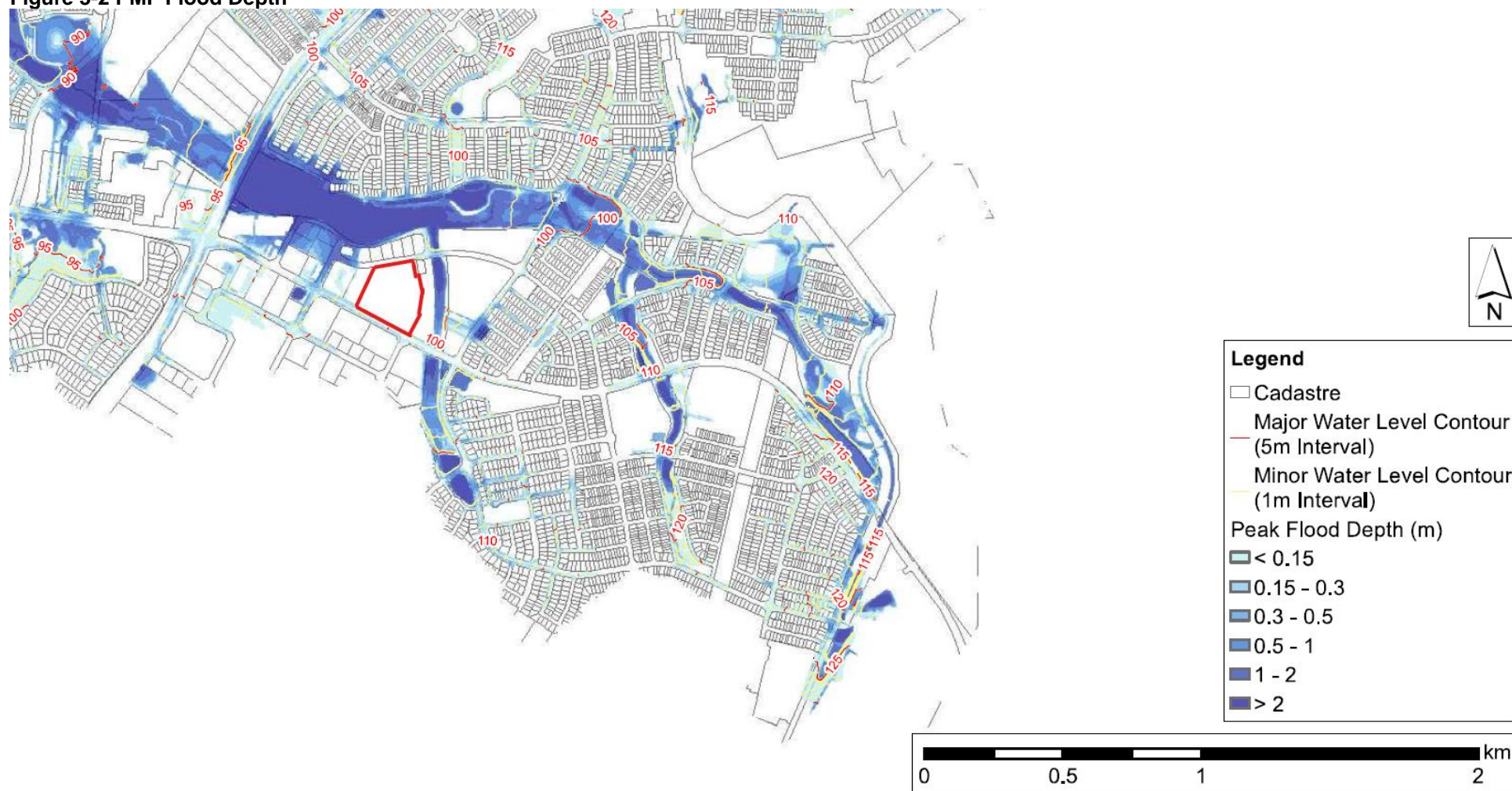


Figure 3-3 PMF Flood Hazard

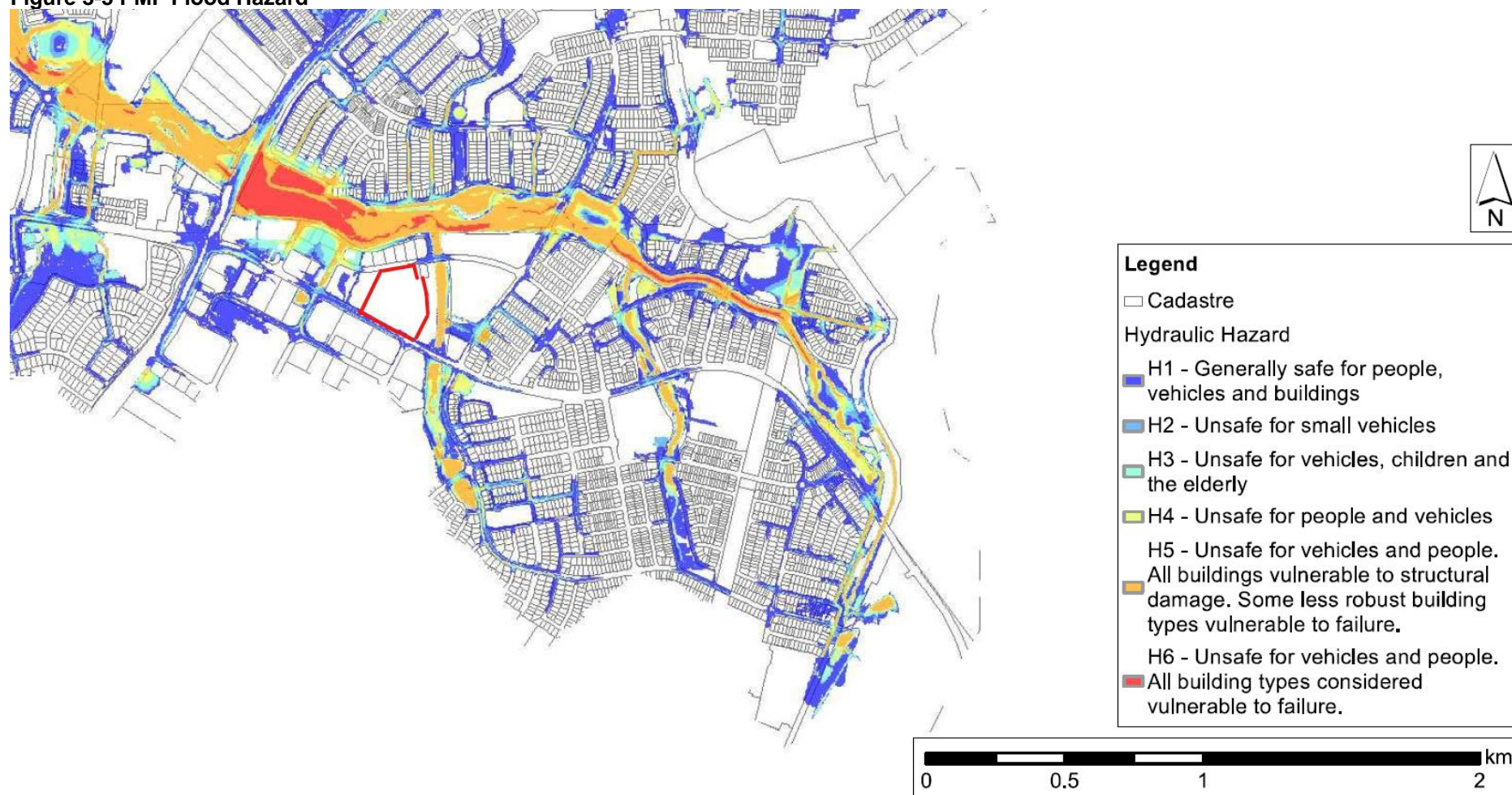


Figure 3-4 Flood Island

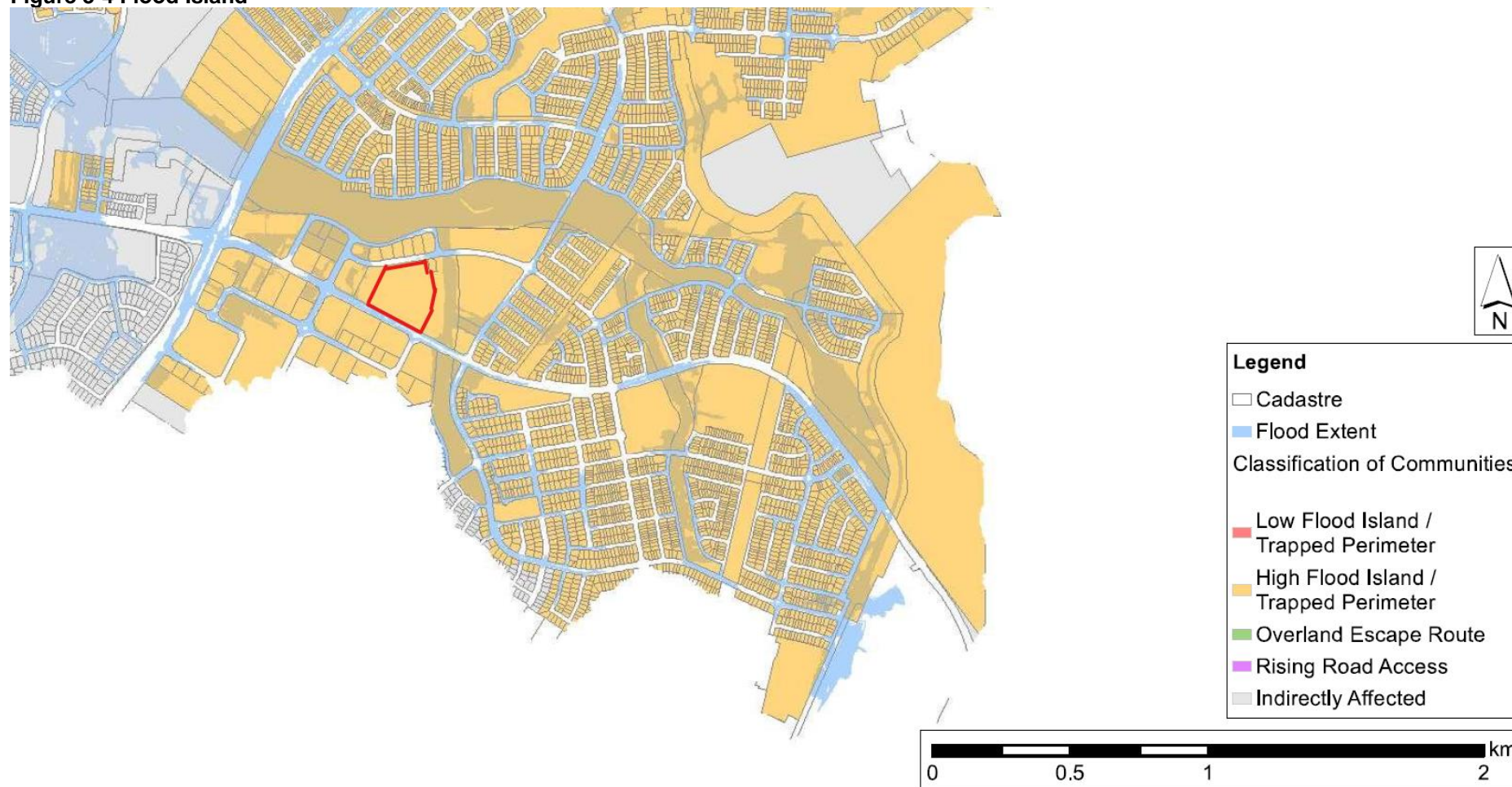
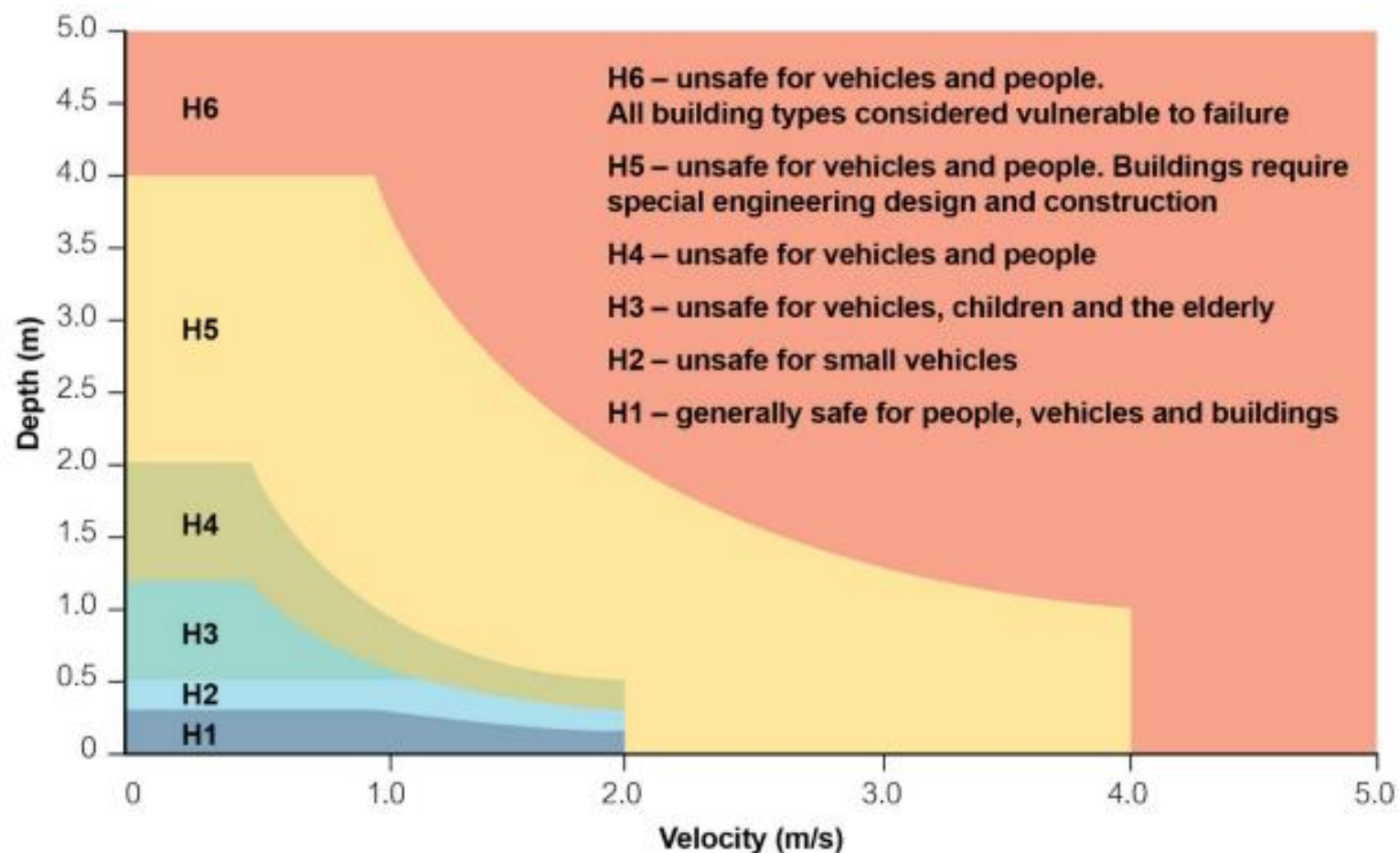


Figure 3-5 Flood Hazard Curves



4. FLOOD FORECASTS AND WARNINGS

4.1. Bureau of Meteorology (BOM)

The Bureau of Meteorology (BoM) has a number of generalised warning products that could provide an indication of an increased flood threat:

- **Severe Weather Warnings or Flash Flood Warnings:** The BoM issues Severe Weather Warnings whenever severe weather is occurring in an area or is expected to move into an area. The warnings describe the area under threat and the expected hazards. Warnings are issued with varying lead-times, depending on the weather situation, and range from just an hour or two to 24 hours or sometimes more. The key subtype of Severe Weather Warning to be monitored for the site are warnings with reference to flash flooding for the Sydney Metropolitan Area. These are issued directly to the media by the BoM when there is a high probability of flash flooding as a result of intense rainfall. New South Wales weather warnings are issued by the BoM and can be found at the following link: www.bom.gov.au/nsw/warnings/.
- **A Flood Watch for the Upper South Creek area:** A Flood Watch is a “heads-up” that flood producing rainfall is forecast and flooding may eventuate. These are usually issued one or two days in advance of the expected flooding and about 25% of the time flooding does not eventuate.

In addition to the above listed warning products, the BoM has forecast rainfall maps which can be used to estimate the amount of rain expected to fall over the next eight and four days, as well as the next 24 hours. This information is available at the following bureau website.

The radar service on the BoM website also shows current rainfall locations and intensities. The radar station to be used for the site would be the Appin Radar.

5. EMERGENCY MANAGEMENT CONSIDERATIONS

The two main types of responses to a flood emergency are to either:

- Evacuate to an area above the reach of floodwaters in the PMF. This is the NSWSES preferred response, provided that the risks of evacuating are deemed acceptable.
- Take Shelter in Place (SIP) within the site and wait until floodwaters have receded and the emergency has passed. SIP is to be considered an alternative to evacuation only when the risks of evacuating are higher than the risks of SIP

As per the NSW Department of Planning, Housing and Infrastructure Shelter-In-Place Guideline for Flash Flooding 2025 key considerations relevant to the site include the following:

- Flash flooding is the only flood risk present at the site. SIP requires flooding to occur within less than 6 hours from the causative rain and the duration of shelter-in-place due to isolation by floodwaters is less than 12 hours from the commencement of rainfall.
- Flood-free access to a suitable shelter above the PMF level. The shelter must be protected from the weather, be structurally stable in a PMF and have sufficient floor area for all people likely to be on site at any one time.

Due to the proposed building and structures being above the PMF level SIP is considered as preferred flood emergency response strategies in this FERP. This section provides a summary of the flood emergency response analysis (for SIP) that was undertaken as part of this FERP to inform the identification of the most suitable response strategy and management actions.

5.1. Emergency Response Strategy

The site is not inundated by flooding in any event including the PMF event. However, the site is considered to be a High Flood Island/Trapped Perimeter in the PMF event only. As a result, During the PMF event safe occupation within the site can be achieved through Shelter in Place within the buildings Habitable floors.

In the 1% AEP and PMF event Gregory Hills Drive and Digitaria Drive are affected by flood water. In the PMF event both Gregory Hills Drive and Digitaria Drive contain flooding that may be unsafe for small vehicles.

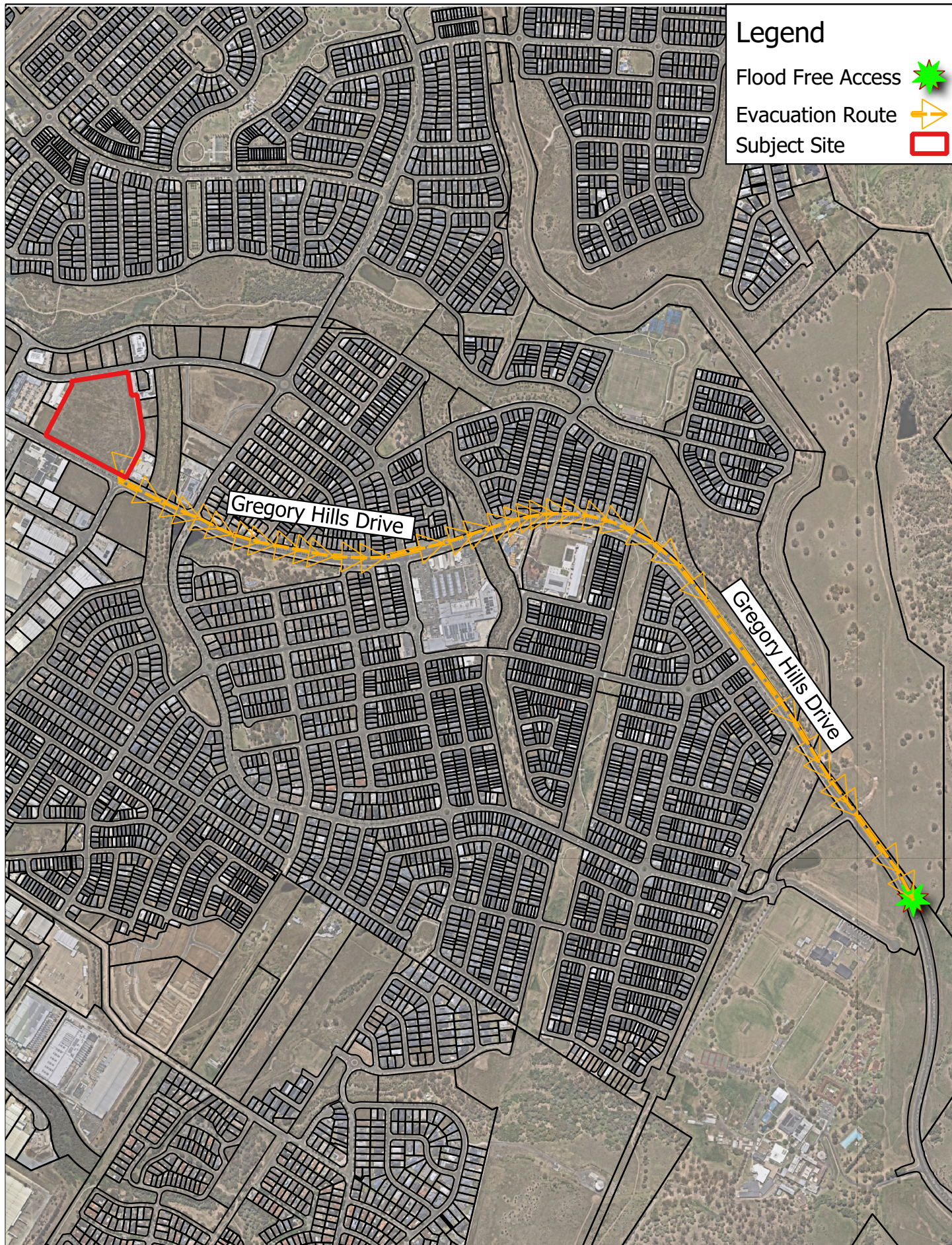
Based on the above considerations it was concluded that evacuation within the subject site to the school buildings habitable floor out of the reach of flood waters and protected from the weather will be the most effective flood emergency

response strategy for the site. The high school should consider enforcing a SIP within the habitable floor areas if moderate flood warnings are announced.




In the event in which emergency access is required to site, an evacuation route is provided in Figure 5-1.

Given the nature of operation of the High School, shelter in place within the school buildings habitable floor areas is deemed acceptable considering the following:

- Management on site will be pre-alerted via the BoM and SES when there is a Flood Watch active for the Upper South Creek catchment and a local flood is forecast
- Access can be restricted and monitored when local flooding is predicted.
- The local flooding has a short duration of unsafe levels of up to 4 hours.
- SIP can be achieved in both the PMF and 1% AEP Event



Legend

- Flood Free Access 
- Evacuation Route 
- Subject Site 

Title:
Flood Evacuation Plan - 9 Gregory Hills Drive, Gledswood Hills

Figure: **5-1**

Rev: **A**



0 100 200 300 400 500 m



6. FLOOD EMERGENCY RESPONSE PLAN

6.1. Priorities

This FMP recognises that protection of life is of critical and primary importance. This FMP is principally concerned with the safety and comfort of personnel. All flood emergency responses recommended in this FMP are to recognise the primacy of life and wellbeing over protection of property.

Nonetheless, it is recommended that the all staff take necessary measures outside of this FMP to manage the risks which flooding poses to the site and its property.

The FMP sets emergency management prevention, preparedness and response measures that are relevant to a flood emergency. It does not cover broader emergency management guidance for any type of hazard that could affect the site.

6.2. Responsibilities

The responsibility of successful implementation of the Flood Risk Assessment and Flood Evacuation Plan lies with the site management.

However, the NSW SES, as the State combat agency for flood events, and the NSW Police Force have the right to and may intervene before, after or during a flood to provide guidance or prescriptive directions.

6.3. State Emergency Services

The NSWSES is the lead combat agency for flooding in NSW. It can command resources from other government organisations including local councils, Transport for NSW and the Police to assist in flood operations under its command.

Under the State Emergency and Rescue Management Act, 1989, the NSWSES has the power to direct any citizen or organisation to take actions in response to flooding. This includes the power to order evacuations.

Any flood response directive issued by the NSWSES or by delegated authority to others acting on its behalf must be followed by site management and staff. This includes any order to evacuate the site or not evacuate the site, irrespective of what decisions have been made by management in accordance with this FERP.

6.4. Site Management

A head of staff will be on site at all times during School hours, or a trained staff member nominated by the principal, will be in charge of monitoring the flood warnings for the area and ensuring a successful emergency response exercise.

6.5. Assembly Points and Evacuation Routes

The subject site is flood free however flooding occurs on Gregory Hills Drive and Digitaria Drive. See Figure 3-3

As per Figure 3-5 a shelter in place is available. Therefore, shelter in place within the buildings habitable floors is the preferred method of evacuation.

As per Figure 5-1 an evacuation route is provided for emergency access to the site during the PMF flood event.

6.6. Awareness Training

The following Sections 6.6 to 6.10 are to be included within the High School's Emergency Response Plan and included as part of the site's induction process. Therefore, all personnel onsite should be aware that the High School will be cut off during flooding and the surrounding access roads Gregory Hills Drive and Digitaria Drive is subject to flash flooding.

6.7. What to do Before a Flood

1. The head of staff will make all staff aware of the possibility of flooding and the procedures to be followed in a flood.
2. The head of staff or Principal will appoint a Flood Warden. This should be a senior staff member who is familiar with this Flood Emergency Response Plan and who is always on site when the site is open. If necessary, to ensure that at least one Flood Warden is always on site, the Principal may appoint two or more Flood Wardens.
3. Flood Risk Management Plan should be fixed to all the proposed building to advise occupant of what to do in a flood event.
4. The Head of Staff and the Flood Warden will make sure they always have a personal smartphone or tablet handy. The smartphone/ tablet will need to have 4G/5G internet access and at least 12 hours independent power supply.
5. Using the above smartphone/ tablet, the Head of Staff and the Flood Warden will follow the SES's flood updates warning system for Gledswood Hills and will make sure that the relevant notifications are given "push-up" priority (i.e. high-priority) so that these can be read as soon as they are received.
6. An emergency contact sheet will be kept on site.

6.8. When a Flood is Possible

On receipt of a Severe Weather Warnings by the BoM for the Gledswood Hills area.

During School Hours

1. The Head of Staff will notify the Flood Warden(s) that there is a risk that the site may flood and the procedures to be followed in a flood.
2. The Head of Staff and the Flood Warden(s) will notify all staff on site, that there is a risk that the site may flood and the procedures to be followed in a flood.
3. The Flood Warden will monitor the BoM warning webpage and any notifications from SES every 30 minutes.
4. Staff will ensure that students and all occupants shelter in place and do not leave the site until the weather has passed.

Outside School Hours

1. The Head of Staff will monitor the BoM warning webpage and any notifications from SES every two hours, and one last time one hour before the school day starts.
2. Upon opening of the school, the actions to be undertaken during School Hours, listed above, will apply.

6.9. During a Flood

When a flash flood warning is issued for the Gledswood Hills area or Upper South Creek Catchment.

During School Hours

1. The Flood Warden will notify all staff to Shelter in place within the schools' buildings, the playgrounds are out of bounds and the site must not be left.
2. The Flood Warden will sweep the site ensuring that all students and staff are within the schools' buildings and the playground, external areas, and access roads are free from students and staff.
3. The Flood Warden will let the head of Staff know when the school site access has been restricted.
4. The Flood warden to visually monitor Gregory Hills Drive and Digitaria Drive and ensure once notified no students or teaches leave the site.
5. The Flood Warden will keep monitoring the BoM weather warnings and any further notifications from SES every two hours.

Outside School Hours

1. The Head of Staff will contact everyone expected to go to the school following day and communicate that the High School will be closed due to flood risk until further notice.
2. The Head of Staff will keep monitoring the BoM weather warnings and any SES notifications every two hours.

6.10. After a Flood

Once the flood warning has passed.

1. The Head of Staff will inspect the boundaries and access roads, Gregory Hills Drive and Digitaria Drive and to check if the grounds are clear and if anything was affected by flooding.
2. If the areas are clear and not affected, the emergency has passed, and the areas can re-open once dry.
3. If Gregory Hills Drive and Digitaria Drive are not clear, the Head of Staff will return for an inspection after at least two hours. Under no circumstances should the Head of Staff enter floodwaters.

7. MITIGATION MEASURES

Project Stage <i>Design (D)</i> <i>Construction (C)</i> <i>Operation (O)</i>	Mitigation measure	Reason for mitigation measure	Relevant section of report
O	<i>Flood awareness training to be included in site induction process</i>	<i>To educate all personnel on the nature of flooding on and around the site and the Flood Emergency Response</i>	<i>Section 6.6-6.10</i>
O	<i>Flood Risk Management Plan signs to be installed around the site</i>	<i>To ensure occupants are familiar with the sites flood risk and the appropriate evacuation strategy</i>	<i>Section 6 Appendix A</i>
O	<i>The High School should consider enforcing Shelter in Place (SIP) within the habitable floor areas if moderate flood warnings are announced</i>	<i>Management on site will be pre-alerted via the BoM and SES when there is a Flood Watch active for the Upper South Creek catchment and a local flood is forecast</i> ▪ <i>Access can be restricted and monitored when local flooding is predicted.</i> ▪ <i>The local flooding has a short duration of unsafe levels of up to 4 hours.</i> ▪ <i>SIP can be achieved in both the PMF and 1% AEP Event</i>	<i>Section 5</i>
O	<i>Update Flood Risk Management Plan periodically</i>	<i>To ensure Flood Risk Management Plan reflects changes to site conditions</i>	<i>Section 6</i>

APPENDIX A

ACTION CHECKLIST

Stage	Trigger for Action	Action	Who is Responsible	What is Needed
Before a Flood	Always	The head of staff will make all staff aware of the possibility of flooding and the procedures to be followed in a flood.	Head of Staff	N/A
		The head of staff or Principal will appoint a Flood Warden. This should be a senior staff member who is familiar with this Flood Emergency Response Plan and who is always on site when the site is open. If necessary, to ensure that at least one Flood Warden is always on site, the Principal may appoint two or more Flood Wardens.	Head of Staff and Principal	N/A
		Flood Risk Management Plan signs to be installed around the school grounds to ensure occupants know of the sites flood risk.	Head of Staff	Flood Warning and Flood Management Signs
		The Head of Staff and the Flood Warden will make sure they always have a personal smartphone or tablet handy. The smartphone/ tablet will need to have 3G/4G/5G internet access and at least 12 hours independent power supply.	Head of Staff and Flood Warden	Smart Phone or Tablet with Internet.
		Using the above smartphone/ tablet, the Plant Manager and the Flood Warden will follow the SES's flood updates warning system for Gledswood Hills and Upper South Creek Catchment and will make sure that the relevant notifications are given "push-up" priority (i.e. high-priority) so that these can be read as soon as they are received.	Head of Staff and Flood Warden	Smart Phone or Tablet with Internet.
		An emergency contact sheet will be kept on site. Appendix B.	Head of Staff	N/A
When a Flood is Possible	During Work Hours Severe Weather Warning issued by BoM	The Plant Manager will notify the Flood Warden(s) that there is a risk that the site may be cut off with the surrounded areas flooded and the procedures to be followed in a flood.	Head of Staff and Flood Warden	N/A
		The Head of Staff and the Flood Warden(s) will notify all staff on site, that there is a risk that the site may cut off with surrounded areas flooded and the procedures to be followed in a flood.	Head of Staff and Flood Warden	Phones
		The Flood Warden will monitor the BoM warning webpage and any notifications from SES every 30 minutes.	Flood Warden	Smart Phone or Tablet with Internet
		All Staff will ensure that no teachers or staff leave the site until the Weather Warning has passed.	All Staff	N/A

Stage	Trigger for Action	Action	Who is Responsible	What is Needed
When a Flood is Possible	Outside of Work Hours Severe Weather Warning issued by BoM	The Head of Staff will monitor the BoM warning webpage and any notifications from SES every two hours, and one last time one hour before the school day starts.	Head of Staff	Internet
		Upon opening of the school, the actions to be undertaken during School Hours, listed above, will apply.	Head of Staff	N/A
During a Flood	During Work Hours Flash Flood Warning	The Flood Warden will notify all staff that leaving the site is strictly prohibited and the external areas and playgrounds are 'out of bounds' until the flood warning has passed. All students and staff are to Shelter in Place within the schools' buildings until the flood warning has passed.	Flood Warden	N/A
		The Flood Warden will let the head of Staff know when leaving the site is prohibited and access to external areas and playgrounds is restricted.	Flood Warden	N/A
		The Flood Warden will visually monitor the access points to Gregory Hills Drive and Digitaria Drive to ensure no students or staff enters floodwaters. All occupants to remain inside within the schools' buildings.	All Staff	N/A
		The Flood Warden will keep monitoring the BoM weather warnings and any further notifications from SES every two hours.	Flood Warden	N/A
		The Head of Staff will contact everyone expected to go to the school following day and communicate that access to the school will be restricted and that the school will be closed due to flood risk until further notice.	Head of Staff	N/A
	Outside of Work Hours Flash Flood Warning	The Head of Staff will keep monitoring the BoM weather warnings and any SES notifications every two hours.	Head of Staff	N/A
		The Head of Staff will inspect Gregory Hills Drive and Digitaria Drive to check if access to the High School is clear and if the access points to the school was affected by flooding	Head of Staff	N/A
		If floodwaters are present on Gregory Hills Drive and Digitaria Drive notify staff and students that the College is Closed until further notice.	Head of Staff	N/A

Stage	Trigger for Action	Action	Who is Responsible	What is Needed
After a Flood After a Flood	Once the flood warning has passed.	If the flooding and storm is clear and access to the school via Gregory Hills Drive and Digitaria Drive is safe to travel on and not affected, the emergency has passed, and the High School grounds can re-open once dry.	Head of Staff	N/A
	Once the flood warning has passed.	If access to the school via Gregory Hills Drive and Digitaria Drive is not clear and driving is unsafe, the Head of Staff will return for an inspection after at least two hours. Under no circumstances should the Head of Staff enter floodwaters.	Head of Staff	N/A

APPENDIX B

EMERGENCY CONTACT LIST

Name	Organisation	Role	Phone Number
	SES Sydney	SES Local Controller	132 500
	Bureau of Meteorology NSW Flood Warning Centre		1300 659 218 9296 1511
	Local Fire Brigade		000
	Police		000
	Camden City Council		(02) 4654 7777
	Sydney Water		132 090
	Endeavour Energy		131 003
	RMS Traffic Enquiry		132 701
	Campbelltown Hospital		(02) 4634 3000

APPENDIX C

FLOOD RISK MANAGEMENT SIGN/POSTER

FLOOD RISK MANAGEMENT PLAN

KNOW YOUR RISK

This sites immediate surrounding areas is known to be Flood Prone.

Flooding adjacent to the property is estimated to have a 1% chance of occurring each year and a 1% chance of occurring in a person's lifetime.

During severe weather events you could become isolated (surrounded by floodwater), access to other areas may be cut, you could lose power, water supply and other infrastructure such as drainage and sewerage may become blocked.

KNOW WHERE TO GO

When flooding is likely the best action to take is to shelter in place inside within the high schools' buildings well before flooding begins. Heavy rainfall and pooling water could signify possible flash flooding and early action is essential.

IF FLOODWATERS HAVE STARTED TO RISE, SHELTER IN PLACE

Shelter in place via the schools' buildings and remain inside until the flood danger has passed.

Listen to your local radio station for information, updates and advice.

NEVER ENTER FLOODWATER

This includes walking, driving, riding and playing in floodwaters. Entering floodwater is the leading cause of death during flood events. It is important to remember that floodwater can be faster flowing and deeper than it appears. It can also contain contaminants such as sewage and poisons, hidden snags and debris.

FOR EMERGENCY HELP IN FLOOD,
STORM AND TSUNAMI CALL

132 500

In life-threatening emergencies call 000 (triple zero)

For more flood information refer to the Flood Risk Assessment and Flood Evacuation Plan prepared by SitePlus Pty Ltd, no. 23185 dated January 2025.

APPENDIX D

Liaison with SES

Schools: **128-134 Rickard Road, Leppington NSW 2179**
 9 Gregory Hills Drive, Gledswood Hills NSW 2557
 Lot 2, Infantry Street, Jordan Springs NSW 2747
 201 Guntawong Road, Tallawong NSW 2762

Agency Consultation: NSW State Emergency Service – Meeting Minutes

Meeting Purpose: Discussion of impacts

Meeting Time: Thursday 31st October 2024 from 1pm – 1:45pm online (MS teams)

Meeting Attendees: Sonia Mallos (Schools); Luke Zajac (Schools); Jarred Statham (Schools); Rory Wynbergen (Schools); Shay Bergin (Schools); Nick Jennings (Schools); Andrew Craddock (SitePlus); Claire Flashman (SES); Kate Dawes (SES); Elspeth O'Shannessy (SES); Michael Koi (TTW); Rachel Caldwell (TTW); Kieran Smith (BMT); Sam Bush (TSA)

No.#	Issue:	Notes:
1	<p><u>Jordan Springs</u></p> <p>SES commented on the need to consider the SES Flood Evacuation Modelling Report and wider Hawkesbury-Nepean Flood Emergency Sub-Plan to ensure that any evacuation strategy was viable, compatible with the road capacity and in line with their existing strategy.</p> <p>SES commented that the proposed strategy for the school is closure in response to a flood warning trigger prior to commencement and the onset of flooding, but that the FIRA will consider the above in terms of evacuation.</p>	<p>SINSW to consider Flood Evacuation Modelling Report and wider Hawkesbury-Nepean Flood Emergency Sub-Plan in conjunction with TfNSW consultation inputs</p>
2	<p><u>Leppington</u></p> <p>SES commented on potential complexities of evacuation as there is comparatively less warning time and so flood impact studies should include duration of isolation, depths hazard frequency and time to onset.</p>	<p>SINSW to consider evacuation procedures at operational level</p>
3	<p><u>Gledswood</u></p> <p>SES commented that is evacuation prior to the event is their preferred option and that a flood emergency response plan should include details of the evacuation route, inundation times and event details. I.e. evacuation of the site via Gledswood Road is only unsafe in the PMF event for 4-hour maximum.</p>	<p>SINSW to consider evacuation route via Digitaria Drive</p>
4	<p><u>Tallawong</u></p> <p>SES commented on potential re-configuration of carpark – important that site users can access cars.</p> <p>SES noted that due to the area's susceptibility to flash flooding, it may be challenging to relocate offsite with little warning time.</p>	<p>SINSW to consider carpark design in conjunction with TfNSW consultation inputs. SINSW noted that the post-development design mitigates flooding to the south of the site, channelling floodwaters into an open swale.</p>