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Flood Emergency Response Plan

For a Planning Proposal and Subsequent Mixed-use
Development

Prepared for: Waldron Hill Projects Pty Ltd

Project address: No. 921 Punchbowl Road, Punchbowl

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VERSION HISTORY

Version	Date	Purpose	Prepared By	Approved By
A	4/01/2024	DRAFT Flood Emergency Response Plan	Bruce Kenny	

Review Panel	
Division/Office	Name

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Table of Contents

1	Introduction	4
2	Site Description	4
3	Flood Emergency Response Plan	8
	3.1 Principle Objectives	8
	3.2 Flood Action Plan	8
	3.3 Duties and Functions	9
	3.3.1 NSW State Emergency Services (NSW SES).....	9
	3.3.2 Building Owner	9
	3.3.3 Residents and Guests	9
	3.4 Emergency Services Entry.....	9
	3.5 Actions to take Prior to, During and After a Flood	9
	3.5.1 Get ready: Prior to Flood	10
	3.5.2 Warning: In the Event of Potential Flooding	10
	3.5.3 React: In the Event of Flood	10
	3.5.4 Recovery: After a Flood	11
4	References.....	11

Annexures

Annexure A	Flood Evacuation Plan to Display in Communal Areas
Annexure B	Emergency Flood Contact List
Annexure C	Flood Emergency Response Plan Action Checklist

1 Introduction

ACOR Consultants (CC) Pty Ltd (ACOR) has been commissioned to prepare a Flood Emergency Response Plan in accordance with the requirements City of Canterbury Bankstown Council and guidance provided by NSW Department of Planning and Environment (DPE).

In the preparation of this report ACOR has relied upon certain data and information contained within the following documents:

- 'Australian Disaster Resilience Guideline 7-3: Flood Hazard.' published by the Australian Institute for Disaster Resilience (AIDR), dated 2017.
- 'Construction of Buildings in Flood Hazard Areas: Standard' published by Australian Building Codes Board (ABCB), Version 2012.2, dated 2012.
- 'Construction of Buildings in Flood Hazard Areas: Information Handbook' published by Australian Building Codes Board (ABCB), Version 2012.3, dated 2012.
- 'Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas' published by the Hawkesbury-Nepean Floodplain Management Steering Committee (HNFMSC), dated 2006.
- 'Flood Risk Management Manual: The policy and manual for the management of flood liable land' published by NSW Department of Planning and Environment (NSW DPE), dated 30 June 2023 and relevant supporting documents.

The purpose of this report is to provide with the City of Canterbury Bankstown Council and the Local Planning Panel with sufficient information to assess the planning proposal which is located on flood liable lands.

2 Site Description

The planning proposal applies to the site known as No's. 913–925 Punchbowl Road and 21 Canterbury Road in Punchbowl. The site comprises the following properties as shown in the Table 1 and in Figure 1. Also Refer to Figure 2 and 3 for aerial views of the site.

Property Address	Legal Description
913 Punchbowl Road, Punchbowl	Lot B, DP 378634
915 Punchbowl Road, Punchbowl	Lot 2, DP 21524
917 Punchbowl Road, Punchbowl	Lot 3, DP 21524
919 Punchbowl Road, Punchbowl	Lot 4, DP 21524
921 Punchbowl Road, Punchbowl	Lot 6, DP 5245
921A Punchbowl Road, Punchbowl	Lot A, DP 378634
921B Punchbowl Road, Punchbowl	Lot D, DP 382627
923 Punchbowl Road, Punchbowl	Lot 15, DP 132440
925 Punchbowl Road, Punchbowl	Lot 1, DP 236825
21 Canterbury Road, Punchbowl	Lot 14, DP 132440

Table 1. Land Legal Description



Figure 1. Site Map



Figure 2. Current view to site looking southwest



Figure 3. Current view to site existing looking northeast

The proposal seeks to achieve the following key elements and spaces:

- The Club: 1,500sqm GFA (redevelopment club on the site);
- Retail: A total of approximately 1,980sqm GFA;
- Residential dwellings: A total of 298 dwellings, including 285 apartments and 13 multi-dwellings townhouses

- North portion of site: Site area is 12,623sqm
Total proposed GFA is 16,410sqm
Total FSR is 1.3:1

- South portion of site: Site area is 8,195sqm
Total proposed GFA is 15,736sqm
Total FSR is 2.0:1

Figure 4 shows the proposed conceptual general arrangement of the land uses, roads and open spaces on the site.

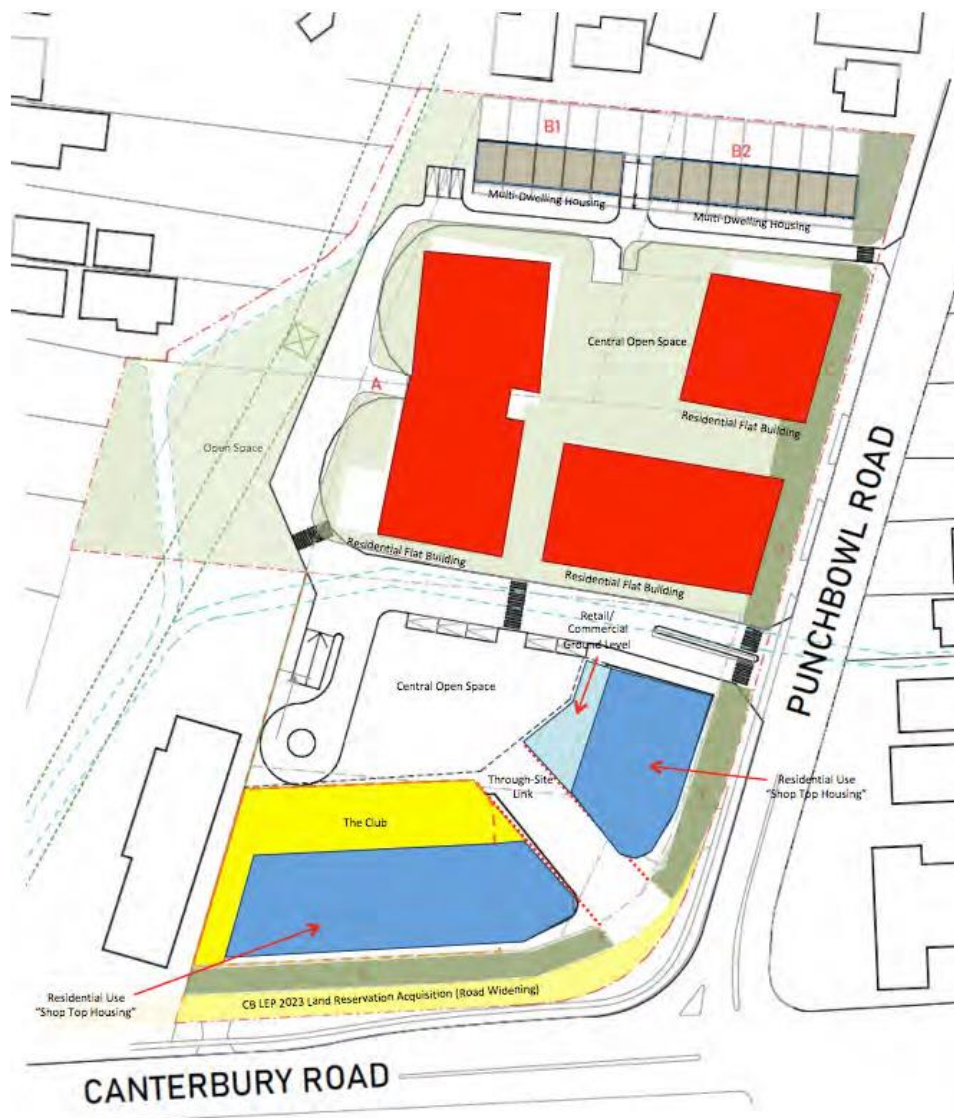


Figure 4. Proposed land use concept general arrangement

Figure 5 shows the proposed concept built form on the site. Note that the proposal includes a transition zone with multi-dwelling townhouses located on the northern boundary between the proposed R4 Zone and the adjoining property, which is an R2 Low Density Residential Zone.



Figure 5. Proposed conceptual built form

3 Flood Emergency Response Plan

3.1 Principle Objectives

The Flood Emergency Response Plan (FERP) for this site acknowledges that the preservation of life is paramount. Its primary focus is the safety and well-being of all individuals present on the premises. The FERP emphasizes the precedence of life and well-being over property protection in all recommended flood emergency responses.

Nevertheless, it is advised that the site management and staff adopt necessary measures beyond the FERP to address the risks associated with flooding to both the site and its property.

The FERP delineates emergency management prevention, preparedness, and response measures specific to flood emergencies and does not encompass broader guidance for other hazards affecting the site.

3.2 Flood Action Plan

According to available flood modelling, most site remains safe for occupancy even during all overland floods up to and including the 1% Annual Exceedance Probability (AEP). Buildings and basement car parking areas will be impacted during extreme overland flood events. Basement protection must be provided to prevent ingress and the finished habitable floor levels must be provided above the applicable Probable Maximum Flood

(PMF) level. Permanent, unobstructed, evacuation routes should be provided from the basement to an area above the (PMF) level. These evacuation routes should be provided internal to the basement.

The flooding of adjacent roads is abrupt and short-lived during overland flood events, lasting no more than 3-4 hours.

The recommended response to such flooding is for all site occupants to stay on-site, refraining from travel due to potential hazardous road conditions. This response applies to any development ancillary to the Planning Proposal.

3.3 Duties and Functions

3.3.1 NSW State Emergency Services (NSW SES)

The NSW SES serves as the primary operational agency for addressing floods in NSW. It possesses the authority to mobilize resources from various government entities, such as local councils, Transport for NSW, and the Police, to support flood operations under its jurisdiction.

In accordance with the State Emergency and Rescue Management Act of 1989, the NSWSES is empowered to instruct any individual or organization to take specific actions in response to flooding. This authority extends to issuing directives for evacuations or instructing individuals to remain on-site.

All directives related to flood response, whether issued directly by the NSW SES or through delegated authority to representatives acting on its behalf, must be adhered to by site management and personnel. This includes compliance with any directives regarding evacuations or on-site status, regardless of decisions made by management in alignment with the FERP.

3.3.2 Building Owner

The proprietor of the building or the body corporate is tasked with the responsibility of installing and upkeeping a flood alarm. Additionally, they are required to ensure the placement of suitable flood signage in communal areas and near the garage to provide instructions for site occupants.

3.3.3 Residents and Guests

All individuals on the premises, including residents and visitors, are prohibited from leaving the car park once the flood alarm has been activated.

3.4 Emergency Services Entry

During overland flood events up to the 1% AEP flood event, emergency vehicles can reach the site from Punchbowl Road, pedestrian access to all buildings on the site is maintained. However, during extreme floods flood hazard within the site is likely to exceed safety limits for all people and vehicles. It should be noted that during extreme flood events, the majority of local roads become impassable. Therefore, the primary response to extreme flash flood events for the catchment is to remain on site.

3.5 Actions to Take Prior to, During, and After a Flood

The management actions relevant to the development are outlined in the following sections. Annexure C serves as a checklist summarizing all these actions, intended for use before, during, and after a flood. Additionally, Annexure B furnishes an emergency contact list designed to be completed and regularly updated by the site management.

3.5.1 Get ready: Prior to Flood

COMPULSORY ACTIONS:

- Residents are to be informed through the placement and upkeep of suitable signage in both the car park and common areas of all buildings.

This area is susceptible to sudden flash floods. If a flood occurs, it is crucial to stay indoors. Do NOT attempt to walk or drive through floodwaters.

- On-site, a flood alarm must be installed and regularly maintained, featuring a water sensor situated near the vehicle site entry from Punchbowl Road.
- The flood alarm should be linked to a flashing light positioned at the car park entrance, accompanied by suitable signage indicating:

If the flood warning lights are flashing, refrain from exiting the car park.

Avoid driving through floodwaters.

- The flood alarm should go through testing every six months to verify its proper functionality.
- Residents should be informed through signage that they are encouraged to subscribe to flood warning alert services, such as the Early Warning Network or another weather alert service featuring BoM Severe Weather Warnings (refer to Annexure A).
- The building owner or body corporate is responsible for maintaining this FERP, and it should undergo a review every five years or after experiencing a flood.

3.5.2 Warning: In the Event of Potential Flooding

TRIGGER FOR ACTION:

- In the event that the Bureau of Meteorology releases a Severe Weather or Severe Thunderstorm Warning indicating a potential for Flash Flooding in the Sydney area, OR
- Local areas are experiencing intense rainfall.

ACTIONS:

- In accordance with the provided signage (refer to Annexure A), residents are required to remain on the premises during periods of heavy rainfall that may lead to flooding.
- In adherence to the exhibited signage (refer to Annexure A), residents are advised against driving out of the car park when the flashing lights are activated at the car park entrance.

3.5.3 React: In the Event of Flooding

TRIGGER FOR ACTION:

- The flood sensor has been triggered, and as a result, the flood alarm has been activated, OR
- Floodwaters have been observed in the vicinity of the site entrance on Punchbowl Road.

ACTIONS:

- The flood alarm will activate when water reaches the sensor located near the vehicle site entry from Punchbowl Road.
- Flashing lights will illuminate at the car park entrance, signalling that leaving the carpark is prohibited.
- All site occupants are instructed to stay indoors throughout the duration of the flooding.

3.5.4 Recovery After a Flood

TRIGGER FOR ACTION:

- Emergency Services or the Council provides an official clearance, OR
- The flooding subsides, ensuring safe accessibility to roads and the site.

ACTIONS:

- If there was no flooding on the site, indicating the conclusion of the emergency, vehicles are permitted to travel to and from the site as long as the roads are deemed safe.
- In cases where the roads and buildings are clear but the area experienced flooding, the building owner or body corporate will implement post-flood clean-up procedures as necessary.
- All outdoor areas affected by the flood will undergo thorough cleaning, and utilities will be inspected by professionals if needed.
- A debriefing session may be conducted involving key property owners or the body corporate, building management staff, and potentially Council flood staff or the NSW SES. This session aims to discuss the flood event and response, including the utilization of this FERP, and to review any emergency procedures.
- Adjustments to the FERP and the requirements for future emergency responses may be made if the review identifies areas for improvement.
- 'Flood Risk Management Manual: The policy and manual for the management of flood liable land' published by NSW Department of Planning and Environment (NSW DPE), dated 30 June 2023 and relevant supporting documents.

Yours faithfully,
ACOR Consultants (CC) Pty Ltd

4 References

- Australian Building Codes Board (ABCB). (2012a). *Construction of Buildings in Flood Hazard Areas: Information Handbook*. Version 2012.3.
- Australian Building Codes Board (ABCB). (2012b). *Construction of Buildings in Flood Hazard Areas: Standard*. Version 2012.2.
- Australian Institute for Disaster Resilience (AIDR). (2017). *Australian Disaster Resilience Guideline 7-3: Flood Hazard*. East Melbourne, VIC: Author.
- Bureau of Meteorology (BoM). (2020). *Service Level Specification for Flood Forecasting and Warning Services for New South Wales and the Australian Capital Territory – Version 3.13*. Melbourne, VIC: Author.
- Hawkesbury-Nepean Floodplain Management Steering Committee (HNFMSC). (2006). *Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas*. Available from http://www.ses.nsw.gov.au/content/documents/pdf/resources/Building_Guidelines.pdf
- New South Wales Department of Planning and Environment (NSW DPE). (2023). *Flood Risk Management Manual: The policy and manual for the management of flood liable land*. Sydney, NSW: Author.

Annexure A

Flood Evacuation Strategy to Display in Communal Areas

This region is susceptible to sudden flash flooding.

In the event of a flood, it is advised to stay indoors and avoid attempting to walk or drive through floodwaters.

Preparation before a flood

- **Subscribe to flood warning alert services**, such as the Early Warning Network or other weather alert service with BoM Severe Weather Warnings.

Actions When a Flood is Possible:

If a Severe Weather or Severe Thunderstorm Warning with a possibility of Flash Flooding is issued for the Sydney area, OR if there is heavy local rainfall:

- Stay on site in the event of heavy rainfall that could lead to flooding.

Actions During a Flood:

If the flood alarm is activated, and the light is flashing at the car park entrance or floodwaters are observed in front of the entrance on Punchbowl Road:

- **Remain indoors** on site throughout the duration of the flooding.
- **Do not drive** out of the car park if flood warning lights are flashing.
- **Wait for the all-clear** from Emergency Services or Council or until roads are clear of floodwaters before leaving the site.

After a Flood:

- **Be aware** of debris or other hazards on the roads.

Annexure B

Emergency Flood Contact List

Name	Organisation	Role	Contact Details
		Owner	
		Manager	
	Emergency Services	Fire/ ambulance/ police	000
	State Emergency Service	SES Local Controller	132 500
	Bureau of Meteorology	NSW Flood Warning	02 9296 1511
	The City of Canterbury Bankstown	Customer Service Centre	9707 9000
		Medical	
		Electricity Supplier	
		Gas Supplier	
	Sydney Water	Water and Sewage Supplier	132 090
		Telecommunications	

The site is required to complete and regularly update this list at all times once it becomes operational.

Annexure C
Flood Emergency Response Plan Action Checklist

Stage	Trigger for Action	Action	Who is Responsible	What is Needed
Before a flood	Always	Residents should be informed through suitable signage, which must be placed and kept up in both the car park and common areas of all buildings. The signage should convey the message that the area is susceptible to flash flooding and, in the event of a flood, residents are advised to stay indoors. It is explicitly emphasized not to attempt walking or driving through floodwaters.	Building owner/ body corporate	Signage
		On-site, it is required to install and consistently maintain a flood alarm, featuring a water sensor positioned outside the site entrance to Punchbowl Road.	Building owner/ body corporate	Flood alarm
		The flood alarm is mandated to be linked to a flashing light at the car park entrance, accompanied by suitable signage conveying the messages: Do not leave the car park if flood warning lights are flashing. Do NOT drive through floodwaters.	Building owner/ body corporate	Flood alarm
		Regular testing of the flood alarm is required, and this should be conducted every six months to verify its proper functionality.	Building owner/ body corporate	Flood alarm
		Residents should be informed through signage that they are encouraged to subscribe to flood warning alert services, such as the Early Warning Network or another weather alert service featuring BoM Severe Weather Warnings (refer to Annexure A).	Building owner/ body corporate	Signage
		The responsibility for maintaining and reviewing this FERP lies with the building owner or body corporate. Regular reviews are required every five years and additionally following a flood event.	Building owner/ body corporate	FERP
When a flood is possible	The Bureau of Meteorology has released a Severe Weather or Severe Thunderstorm Warning, indicating the possibility of Flash Flooding in the Sydney area, OR there is substantial local rainfall.	According to the signage on display, residents are instructed to remain on-site in the event of heavy rainfall that may lead to flooding.	Residents	Signage
		As indicated by the displayed signage, residents are advised not to drive out of the car when the flashing lights are activated at the car park entrance.	Residents	Signage

Stage	Trigger for Action	Action	Who is Responsible	What is Needed
During a flood	The flood sensor is triggered, activating the flood alarm, OR Floodwaters are observed in front of the car park entrance on Punchbowl Road	The flood alarm will activate when water reaches the sensor positioned outside the site entrance to Punchbowl Road.	Building owner/ body corporate	Flood alarm
		Flashing lights will illuminate at the car park entrance, signaling a warning against driving onto the street.	Building owner/ body corporate	Flood alarm
		During flooding, occupants on the site are required to stay indoors for the entire duration of the event.	Residents	N/A
After a flood	The all-clear is given by Emergency Services or Council, OR Flooding diminishes, ensuring that roads and the site are safely accessible.	If there was no flooding on the site, indicating that the emergency has concluded, vehicles are permitted to travel to and from the site as long as the roads are deemed safe.	N/A	N/A
		In the event that the roads and building are clear but the area was impacted by flooding, the building owner or body corporate is responsible for implementing post-flood clean-up procedures, as necessary.	Building owner/ body corporate	Necessary cleaning equipment
		All outdoor areas affected by the flood will be cleaned thoroughly, and professionals will inspect utilities if necessary.	Building owner/ body corporate	Necessary cleaning equipment
		A debriefing session may be conducted with the key property owner or body corporate, along with any building management staff, and potentially Council flood staff or the NSW SES. This session aims to discuss the flood event and response, including the utilization of this FERP, and to review any emergency procedures.	NSW SES/ Council and Building owner/ body corporate	FERP
		Modifications to the FERP and the criteria for future emergency responses may occur if the review identifies areas for improvement.	NSW SES/ Council and Building owner/ body corporate	FERP