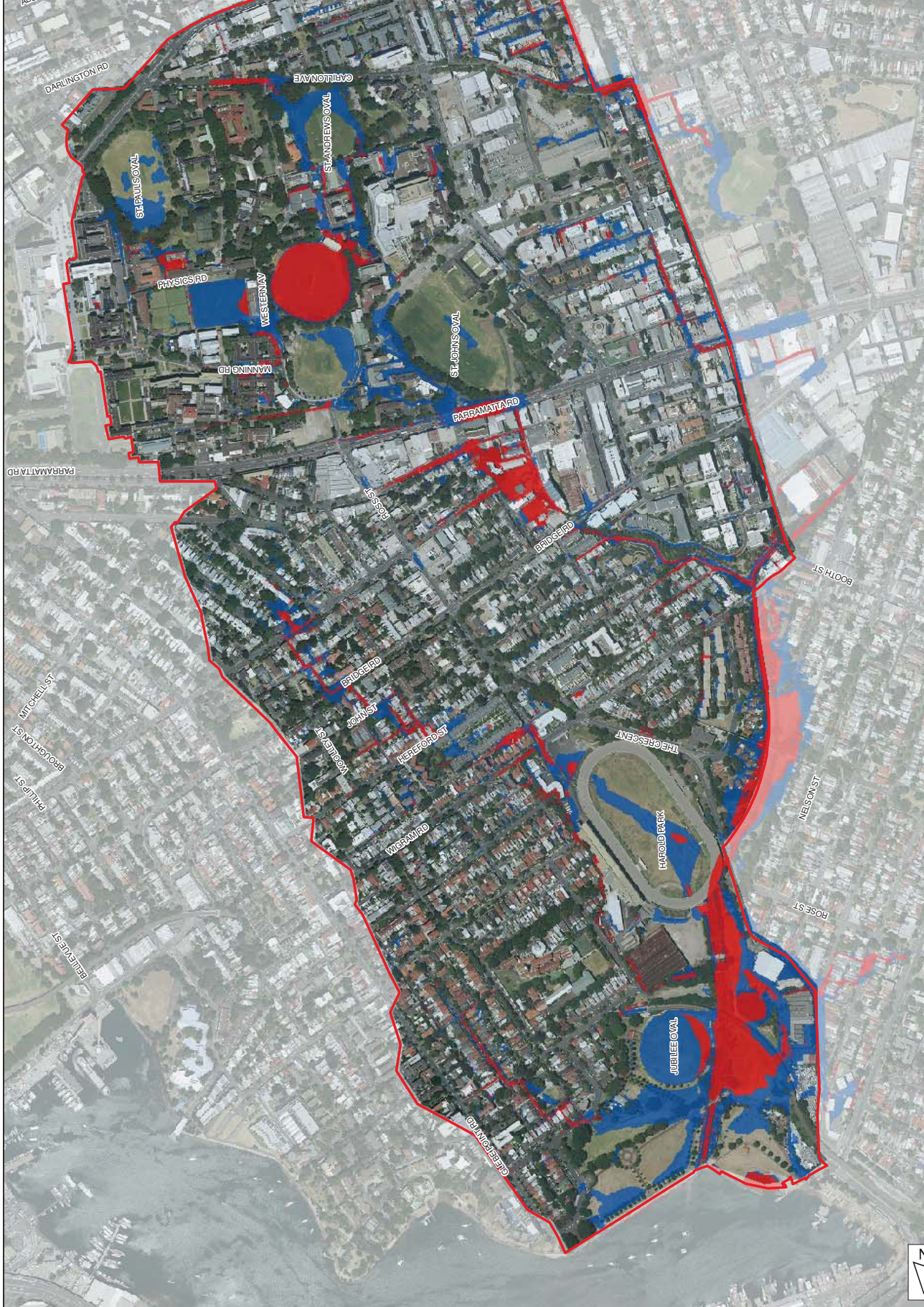


FIGURE 17  
HAZARD CATEGORIES  
1% AEP DESIGN FLOOD EVENT



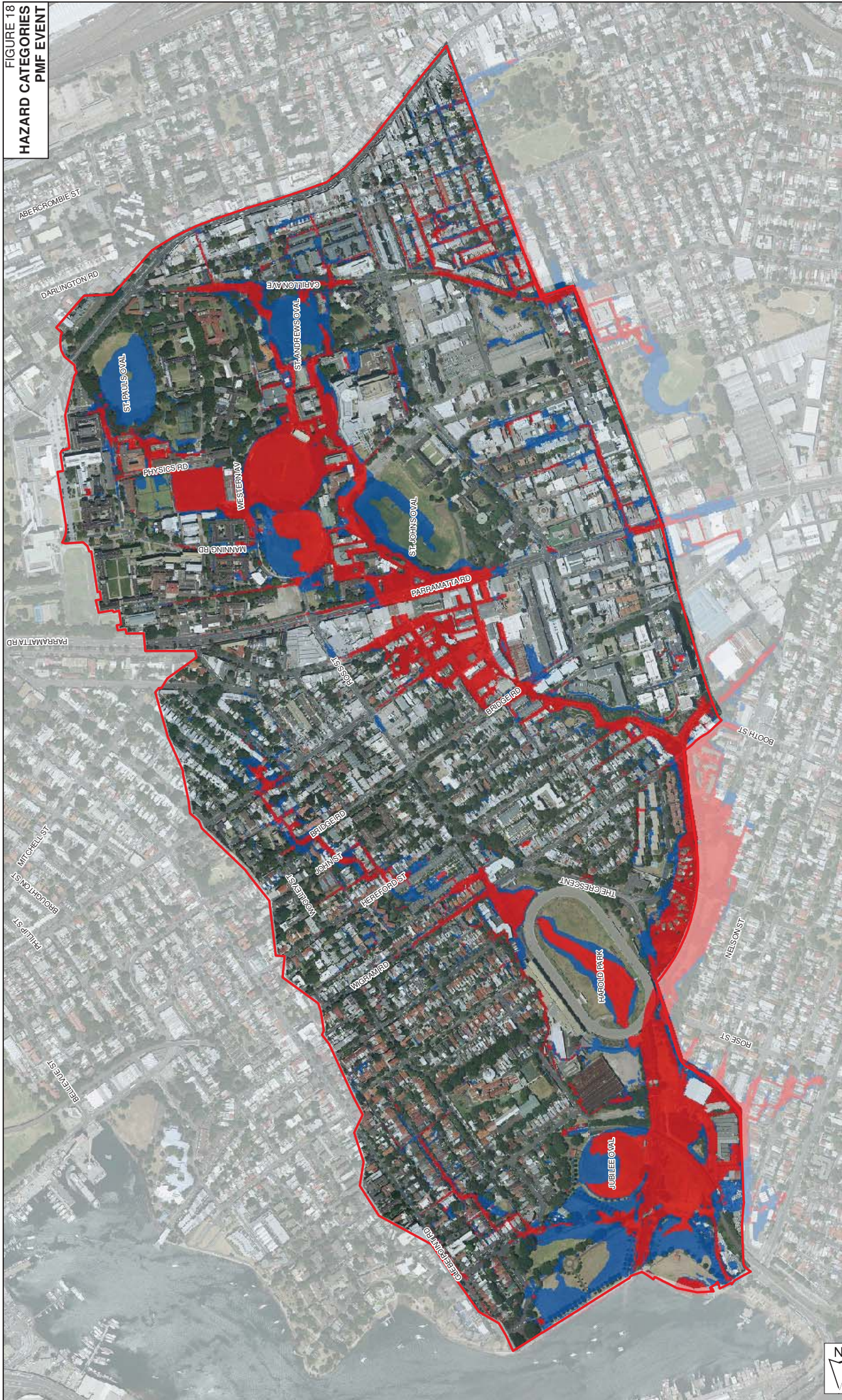
Disclaimer:  
Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.

 Study Area  
 Hydraulic Hazard  
 Low Hazard  
 High Hazard



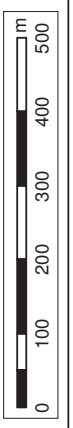


FIGURE 18  
HAZARD CATEGORIES  
PMF EVENT



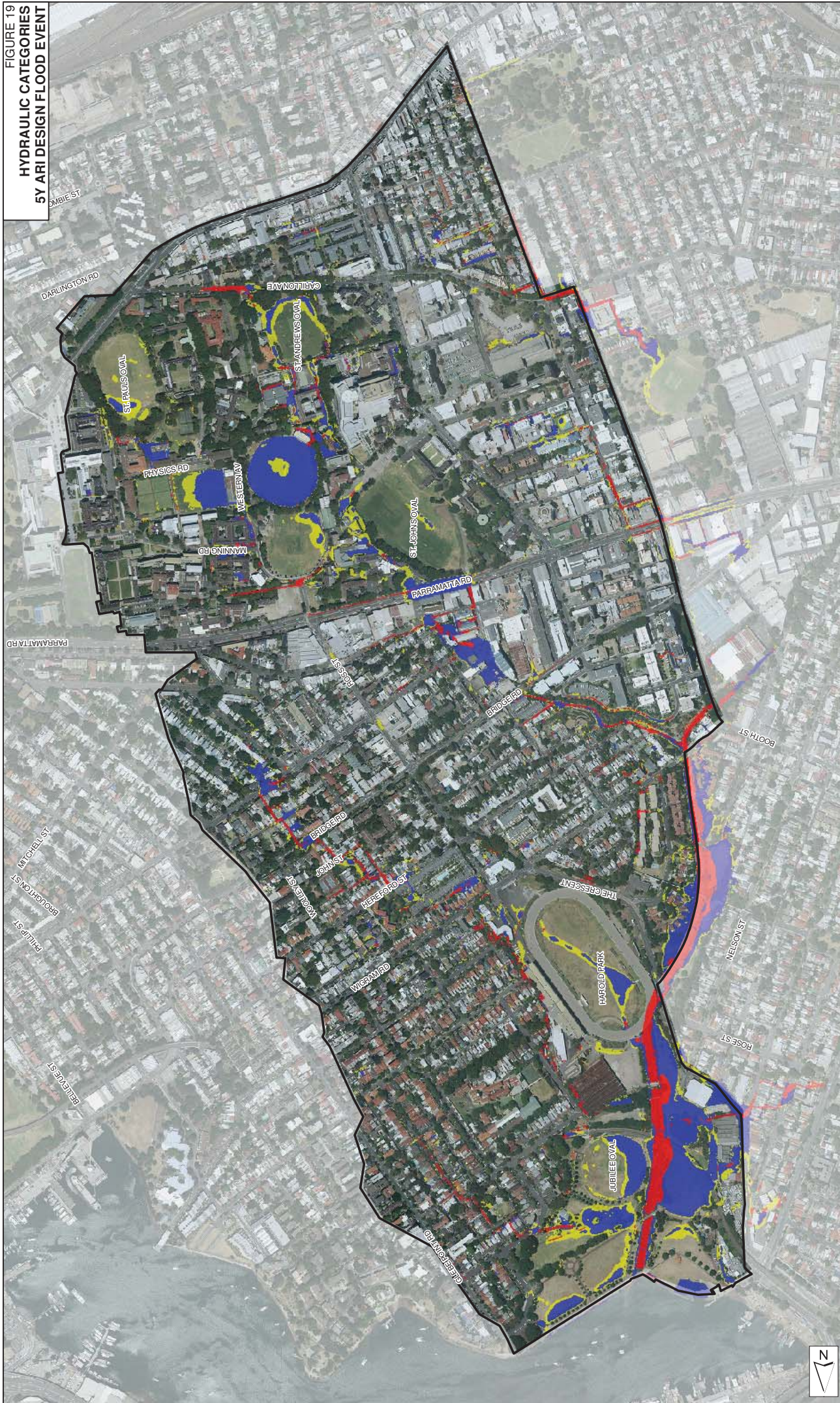
Disclaimer:  
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 Study Area  
 Hydraulic Hazard  
 Low Hazard  
 High Hazard





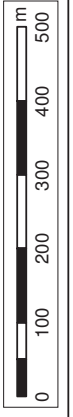
**FIGURE 19  
HYDRAULIC CATEGORIES  
5Y ARI DESIGN FLOOD EVENT**



**Study Area**

**Hydraulic Categorisation**

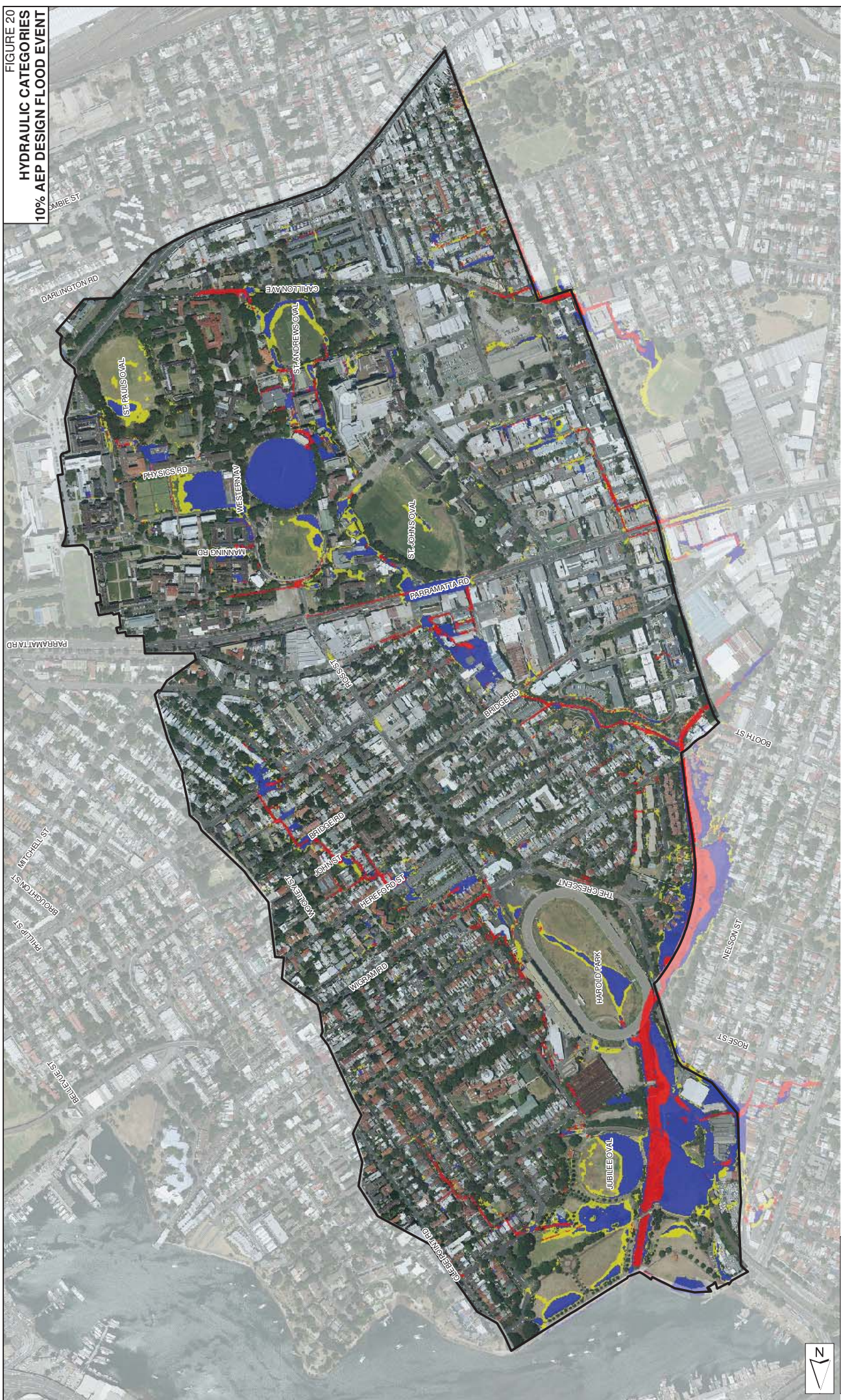
- █ Floodway
- █ Flood Storage
- █ Flood Fringe



**Disclaimer:**  
Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.



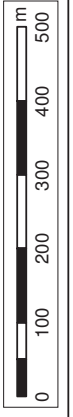
FIGURE 20  
**HYDRAULIC CATEGORIES**  
**10% AEP DESIGN FLOOD EVENT**



**Study Area**

**Hydraulic Categorisation**

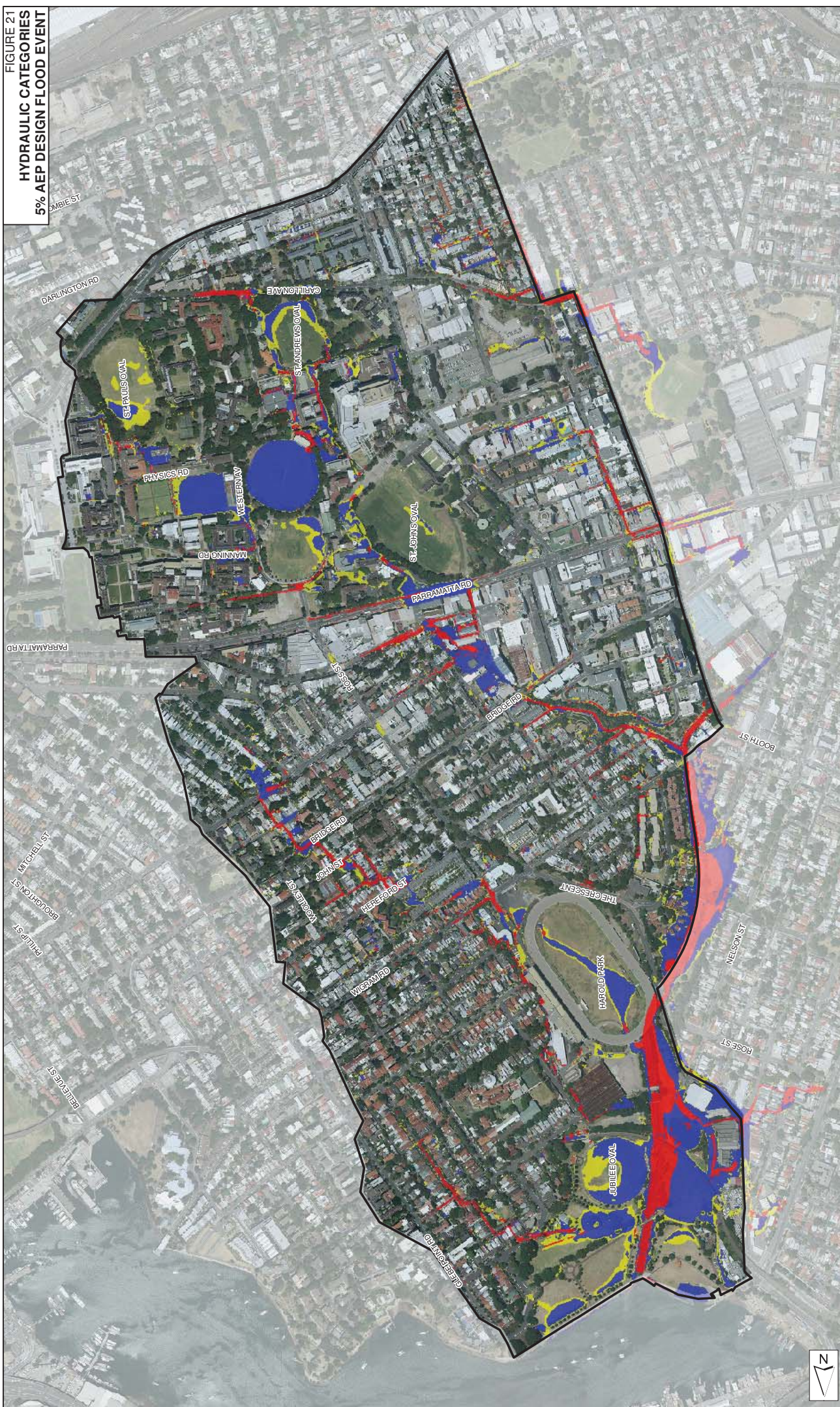
- Floodway
- Flood Storage
- Flood Fringe



*Disclaimer:*  
 Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.



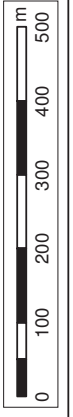
FIGURE 21  
HYDRAULIC CATEGORIES  
5% AEP DESIGN FLOOD EVENT



**Study Area**

**Hydraulic Categorisation**

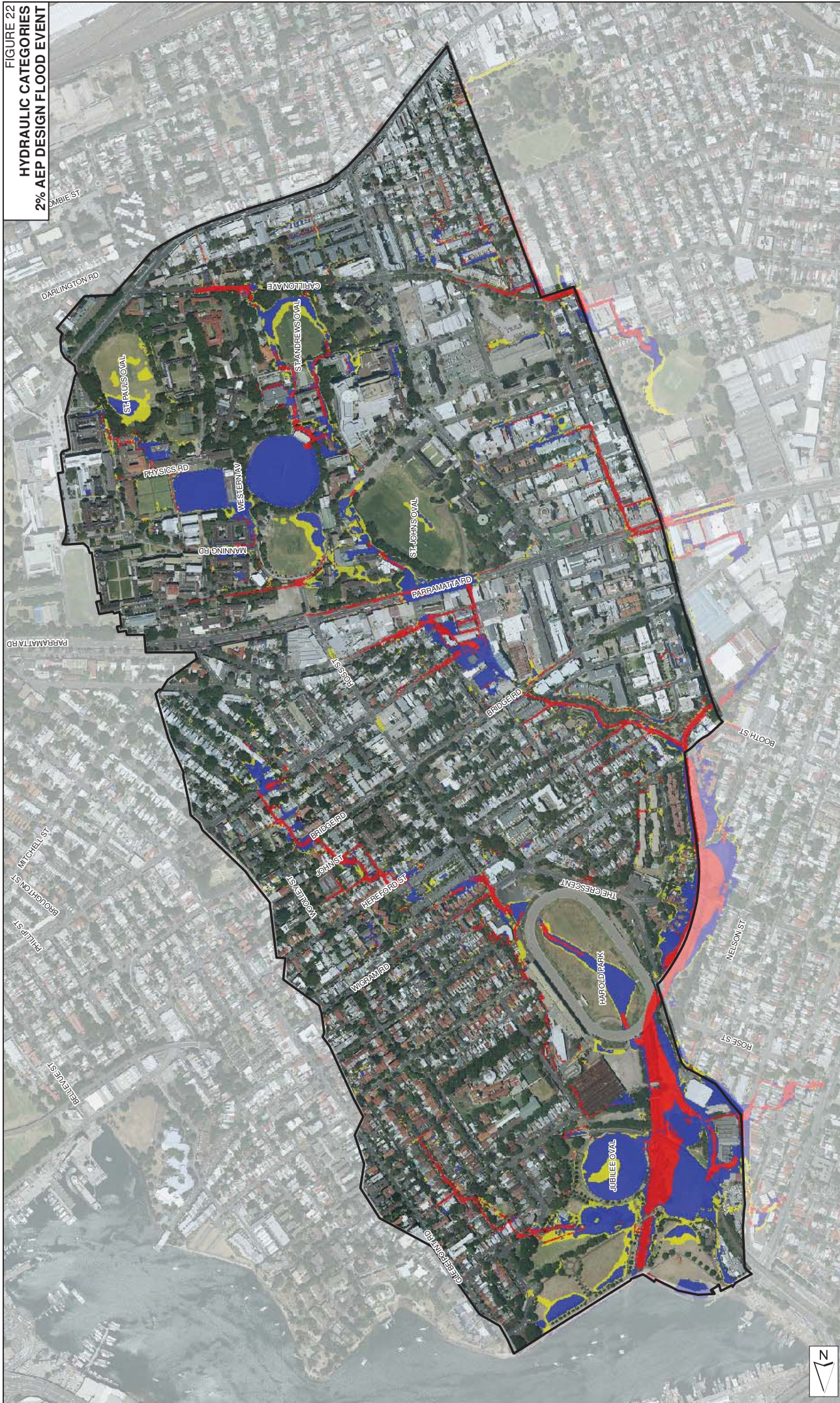
- █ Floodway
- █ Flood Storage
- █ Flood Fringe



**Disclaimer:**  
Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.



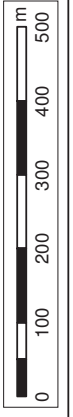
**FIGURE 22  
HYDRAULIC CATEGORIES  
2% AEP DESIGN FLOOD EVENT**



**Study Area**

**Hydraulic Categorisation**

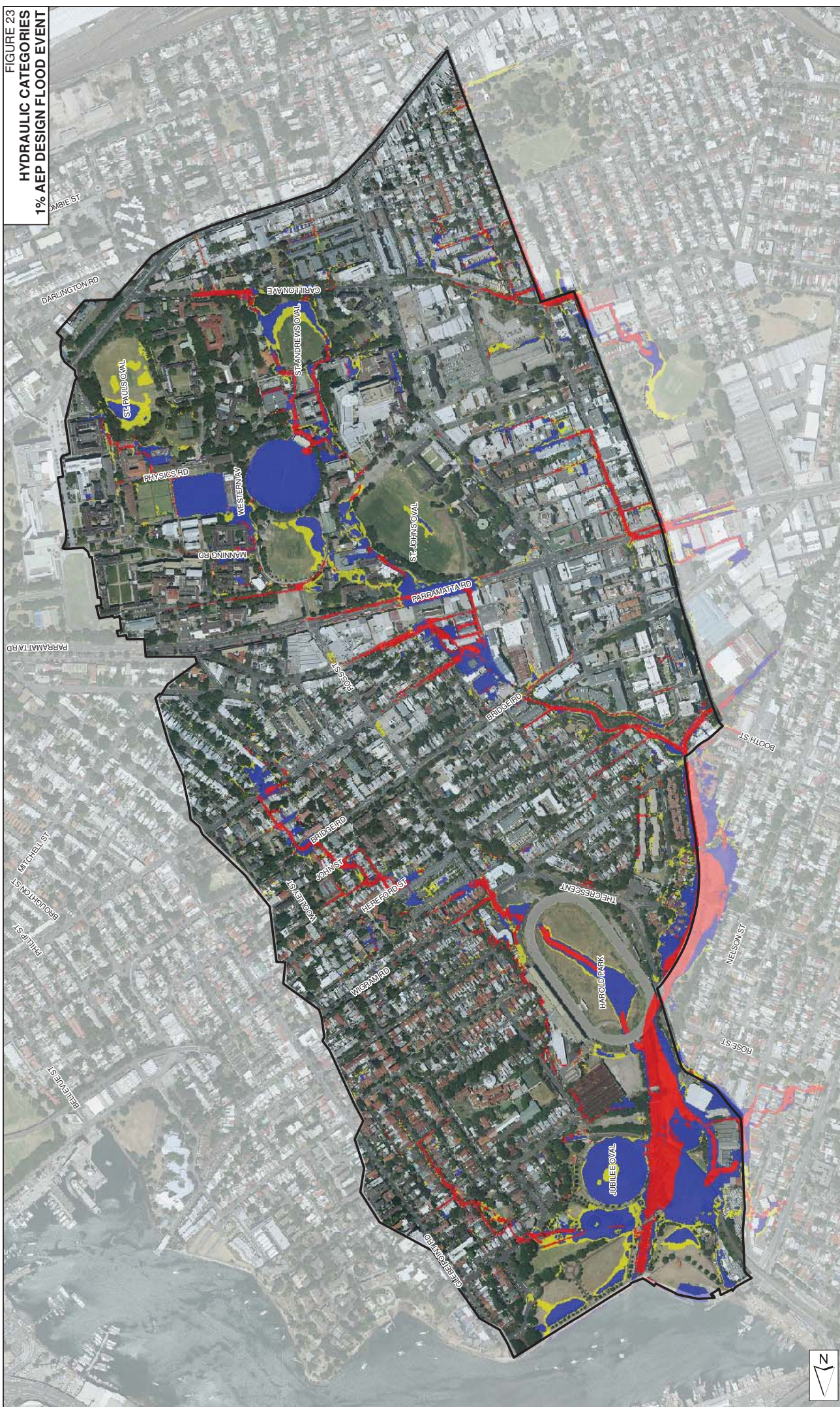
- █ Floodway
- █ Flood Storage
- █ Flood Fringe



*Disclaimer:*  
Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.



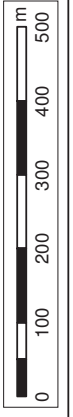
**FIGURE 23  
HYDRAULIC CATEGORIES  
1% AEP DESIGN FLOOD EVENT**



**Study Area**

**Hydraulic Categorisation**

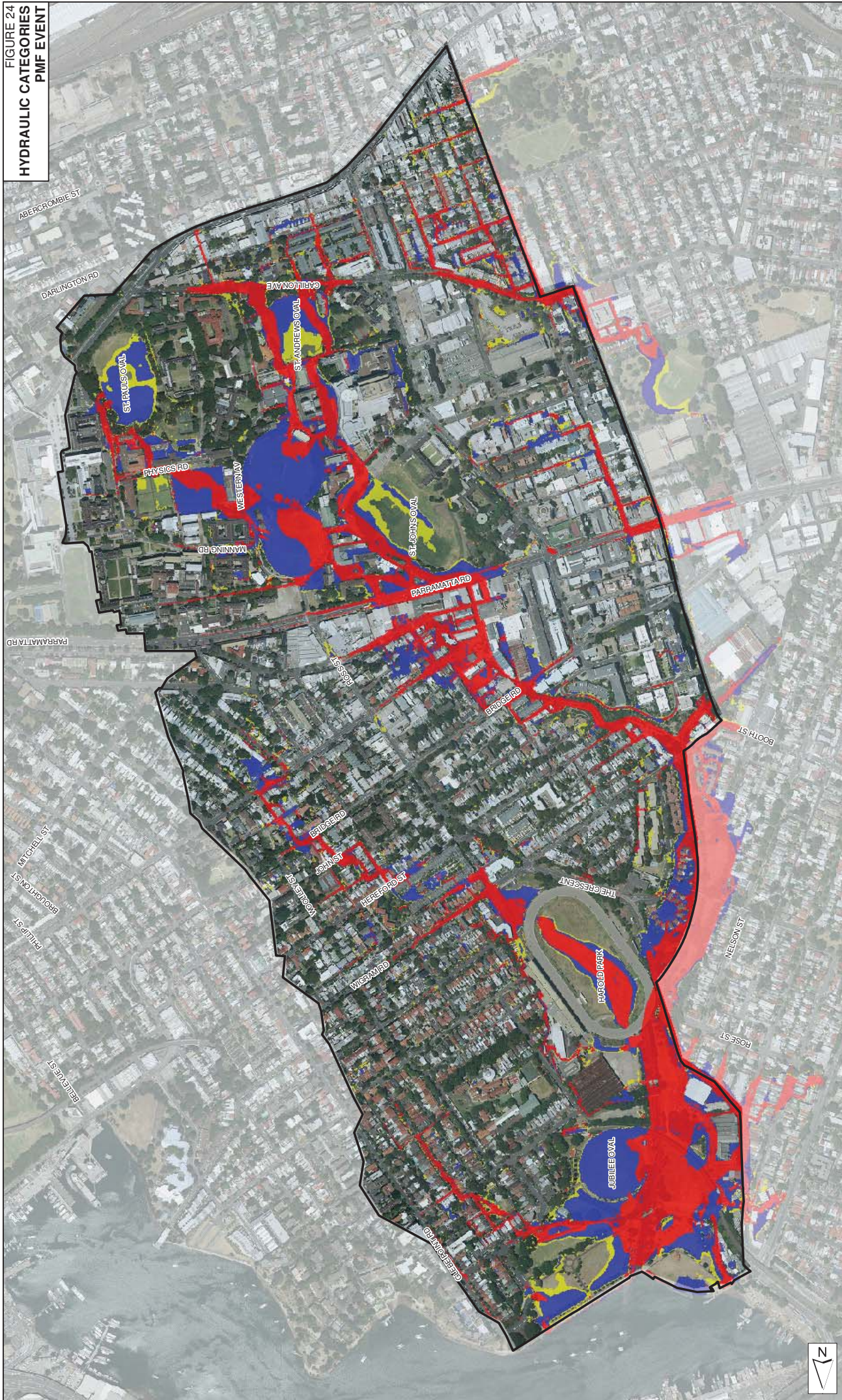
- █ Floodway
- █ Flood Storage
- █ Flood Fringe



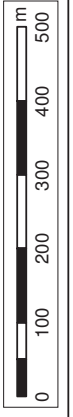
*Disclaimer:*  
Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.



FIGURE 24  
HYDRAULIC CATEGORIES  
PMF EVENT




  
 Study Area
   
**Hydraulic Categorisation**
  
 Floodway
   
 Flood Storage
   
 Flood Fringe



Disclaimer:  
 Inundation patterns, and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm flood affectation at individual allotments.



FIGURE 25  
ACCESS ROAD FLOODING  
1% AEP DESIGN FLOOD EVENT



Study Area  
● Tabulated Flooding Locations  
**Depth (m)**  
 0.1 - 0.25  
 0.25 - 0.5  
 0.5 - 0.75  
 0.75 - 1  
 > 1

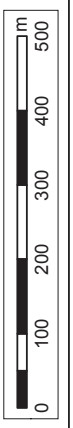
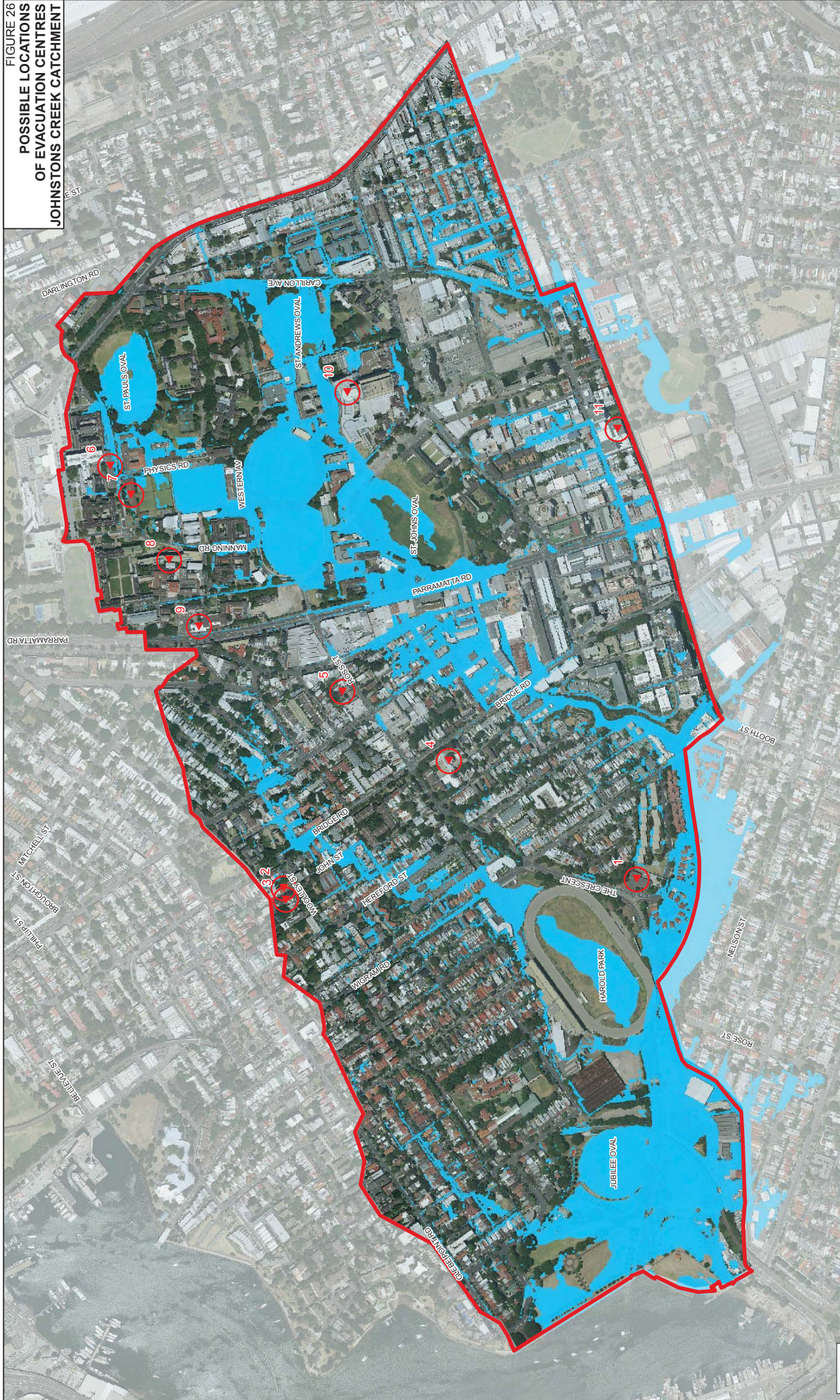




FIGURE 26  
 POSSIBLE LOCATIONS  
 OF EVACUATION CENTRES  
 JOHNSTONS CREEK CATCHMENT

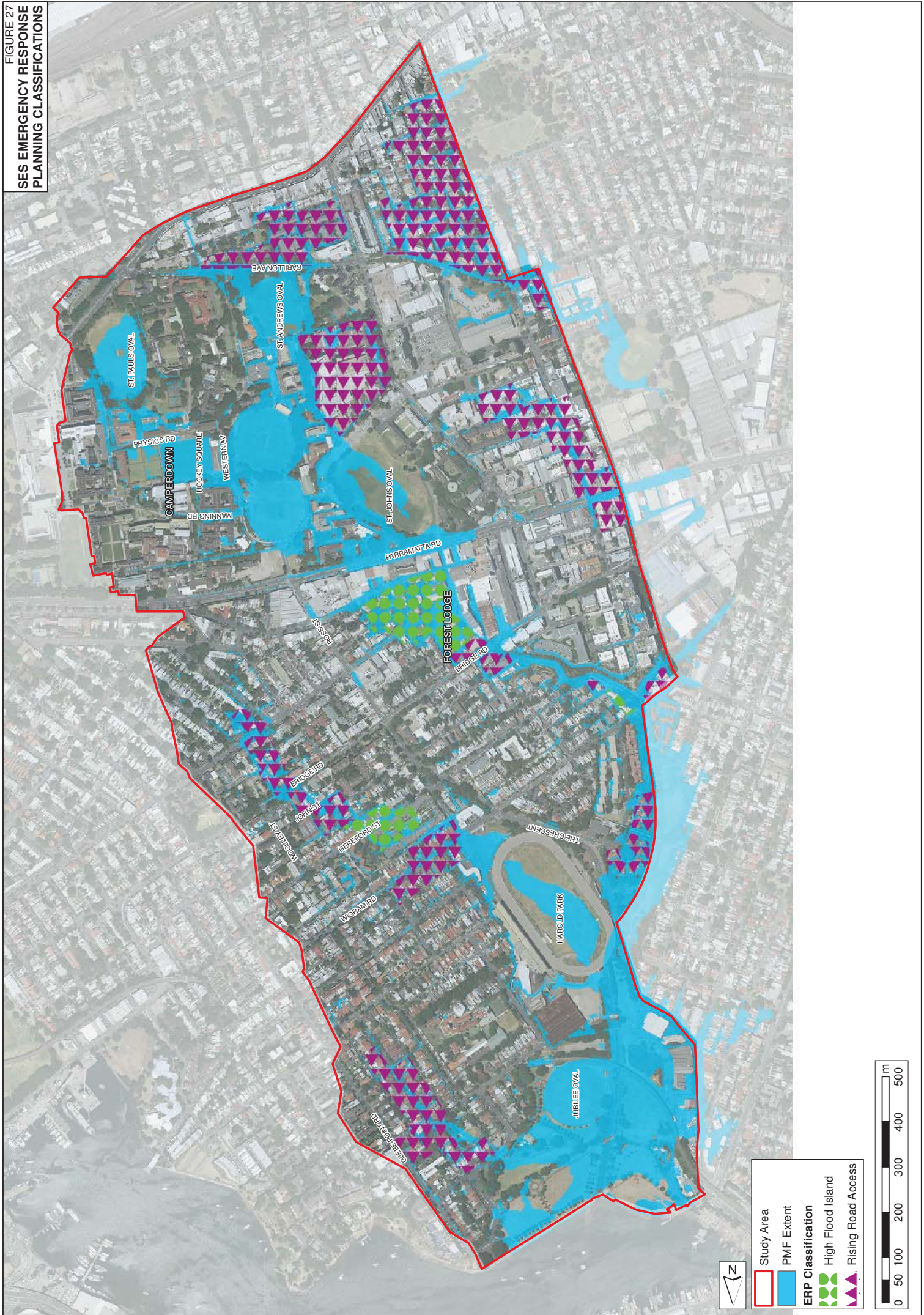


- Study Area
- ▲ Possible Evacuation Centres
- PMF Extent





FIGURE 27  
SES EMERGENCY RESPONSE  
PLANNING CLASSIFICATIONS

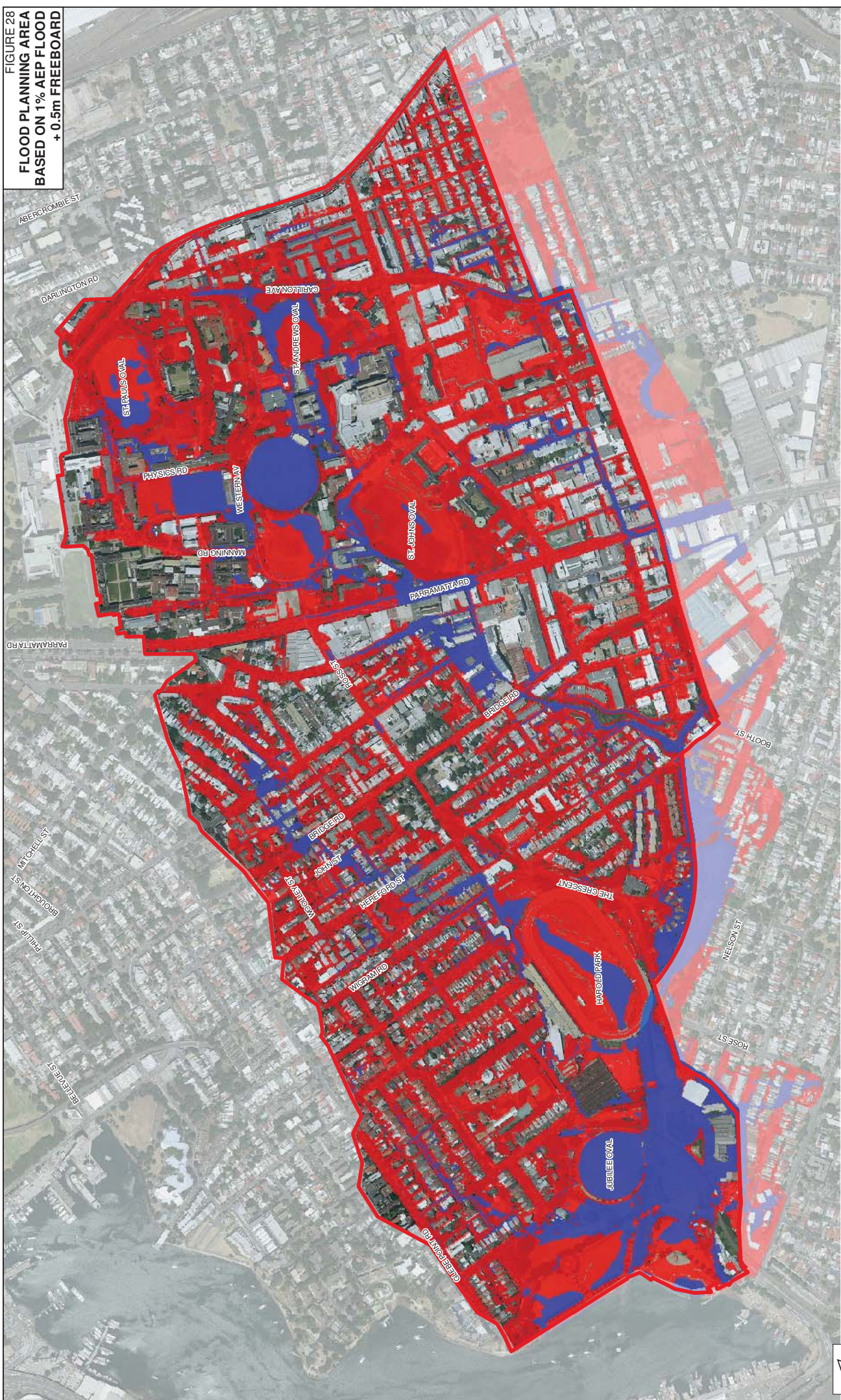


Study Area  
 PMIF Extent  
**ERP Classification**  
● High Flood Island  
▲ Rising Road Access

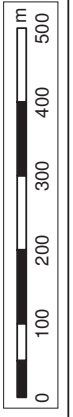




FIGURE 28  
**FLOOD PLANNING AREA  
 BASED ON 1% AEP FLOOD  
 + 0.5m FREEBOARD**

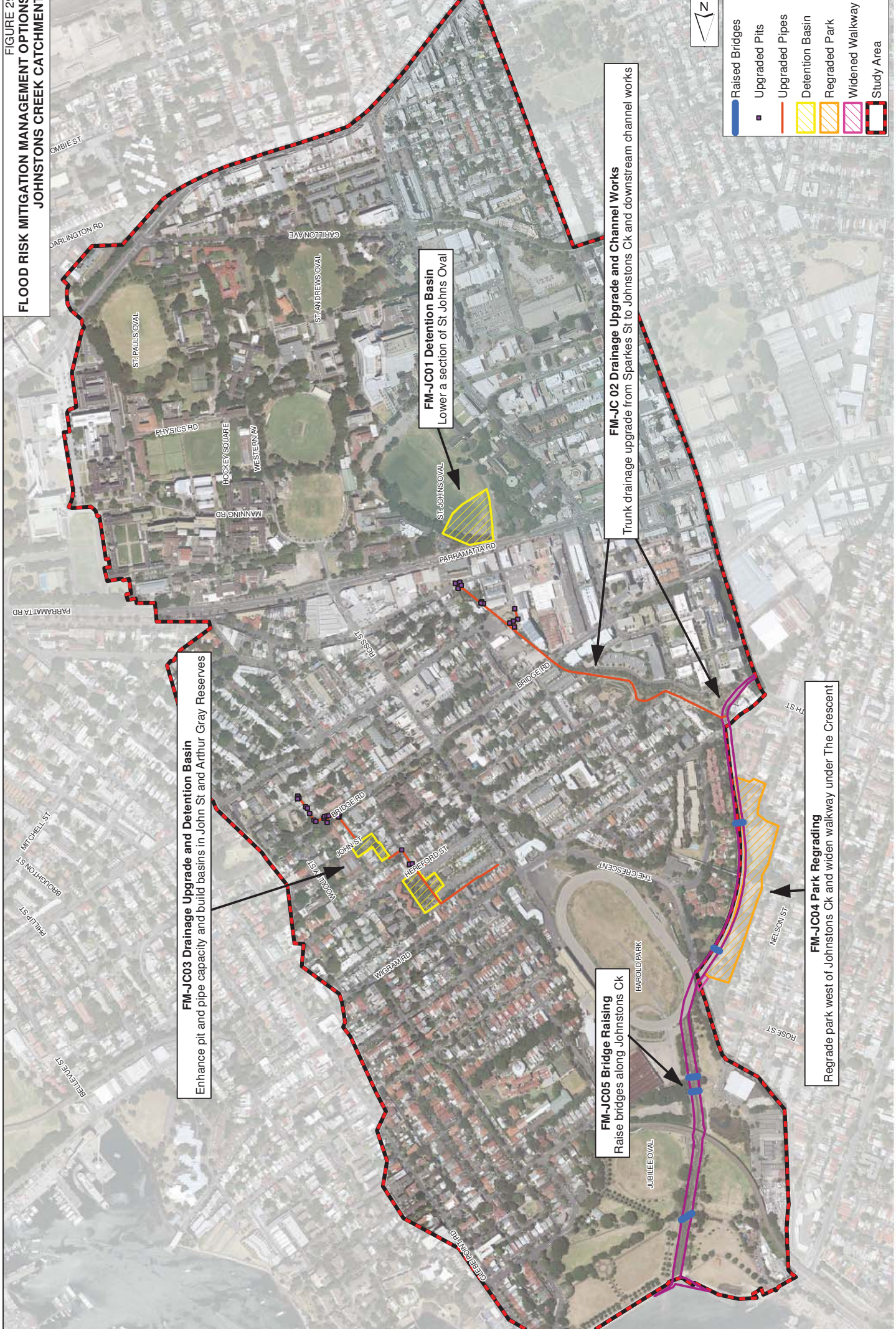


- Study Area
- 1% AEP Extent
- 1% AEP Extent + 0.5m





**FIGURE 29  
FLOOD RISK MITIGATION MANAGEMENT OPTIONS  
JOHNSTONS CREEK CATCHMENT**



**FM-JC03 Drainage Upgrade and Detention Basin**  
Enhance pit and pipe capacity and build basins in John St and Arthur Gray Reserves

**FM-JC01 Detention Basin**  
Lower a section of St Johns Oval

**FM-JC05 Bridge Raising**  
Raise bridges along Johnstons Ck

**FM-JC02 Drainage Upgrade and Channel Works**  
Trunk drainage upgrade from Sparkes St to Johnstons Ck and downstream channel works

**FM-JC04 Park Regrading**  
Regrade park west of Johnstons Ck and widen walkway under The Crescent

- Raised Bridges
- Upgraded Pits
- Upgraded Pipes
- Detention Basin
- Regraded Park
- Widened Walkway
- Study Area

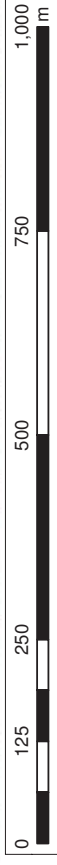
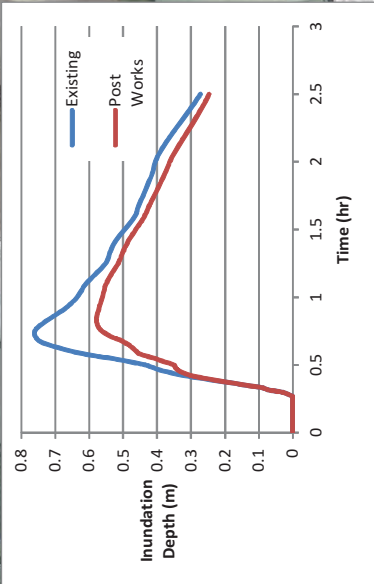
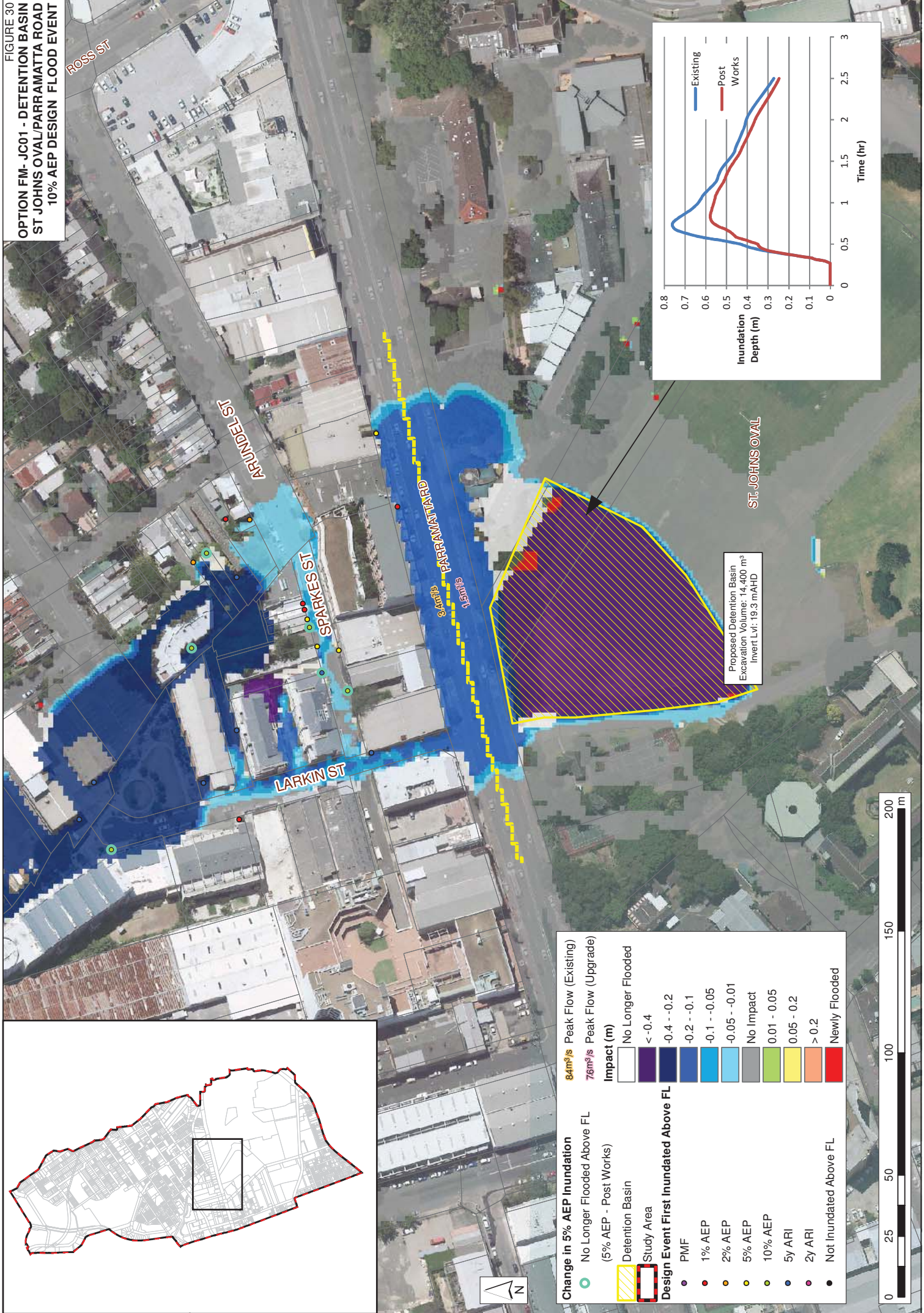




FIGURE 30  
 OPTION FM-JC01 - DETENTION BASIN  
 ST JOHNS OVAL/PARRAMATTA ROAD  
 10% AEP DESIGN FLOOD EVENT



Proposed Detention Basin  
 Excavation Volume: 14,400 m<sup>3</sup>  
 Invert Lvl: 19.3 m AHD

**Change in 5% AEP Inundation**

- 84m<sup>3</sup>/s Peak Flow (Existing)
- 76m<sup>3</sup>/s Peak Flow (Upgrade)

**Impact (m)**

- No Longer Flooded
- < -0.4
- 0.4 - -0.2
- 0.2 - -0.1
- 0.1 - -0.05
- 0.05 - -0.01
- No Impact
- 0.01 - 0.05
- 0.05 - 0.2
- > 0.2
- Newly Flooded

**Design Event First Inundated Above FL**

- No Longer Flooded Above FL
- (5% AEP - Post Works)
- Detention Basin
- Study Area

**Design Event First Inundated Above FL**

- PMF
- 1% AEP
- 2% AEP
- 5% AEP
- 10% AEP
- 5y ARI
- 2y ARI
- Not Inundated Above FL

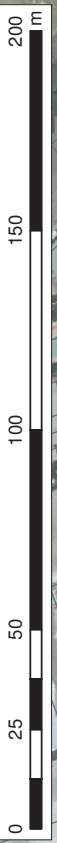




FIGURE 31  
 OPTION FM- JC02  
 DRAINAGE UPGRADE AND CHANNEL WORKS  
 SPARKES STREET/JOHNSTONS CREEK  
 FLOOD IMPACT MAP  
 5% AEP DESIGN FLOOD EVENT



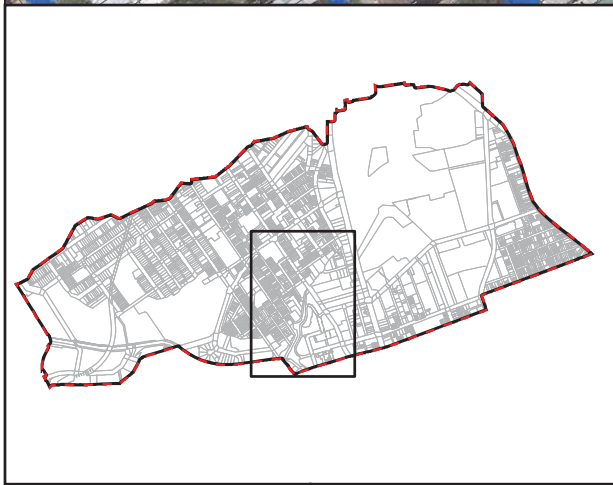
**Legend**

- Upgraded Pits
- Upgraded Pipes
- Channel Works
- Study Area
- Design Event First Inundated Above FL
- PMF
- 1% AEP
- 2% AEP
- 5% AEP
- 10% AEP
- 5y ARI
- 2y ARI
- Not Inundated Above FL
- No Longer Flooded Above FL (5% AEP - Post Works)
- Newly Flooded

Impact (m)	Color
No Longer Flooded	White
< -2.5	Dark Purple
-2.5 - -2	Blue
-2 - -1.5	Light Blue
-1.5 - -1	Teal
-1 - -0.5	Light Green
-0.05 - -0.01	Yellow-Green
No Impact	Yellow
0.01 - 0.05	Light Yellow
0.05 - 0.1	Orange
0.1 - 0.15	Light Orange
0.15 - 0.2	Dark Orange
> 0.2	Red



FIGURE 32  
 OPTION FM - JC02  
 DRAINAGE UPGRADE AND CHANNEL WORKS  
 SPARKES STREET/JOHNSTONS CREEK  
 HAZARD IMPACT MAP  
 5% AEP DESIGN FLOOD EVENT



**Legend**

- Upgraded Pits
- Upgraded Pipes
- Channel Works
- Study Area

**Design Event First Inundated Above FL**

- PMF
- 1% AEP
- 2% AEP
- 5% AEP
- 10% AEP
- 5y ARI
- 2y ARI
- Not Inundated Above FL
- No Longer Flooded Above FL

**Change in Hydraulic Hazard**

- (5% AEP - Post Works)
- Newly Low Hazard (Prev. High Hazard)
- Low Hazard (Unchanged)
- High Hazard (Unchanged)
- Newly High Hazard (Prev. Low Hazard)