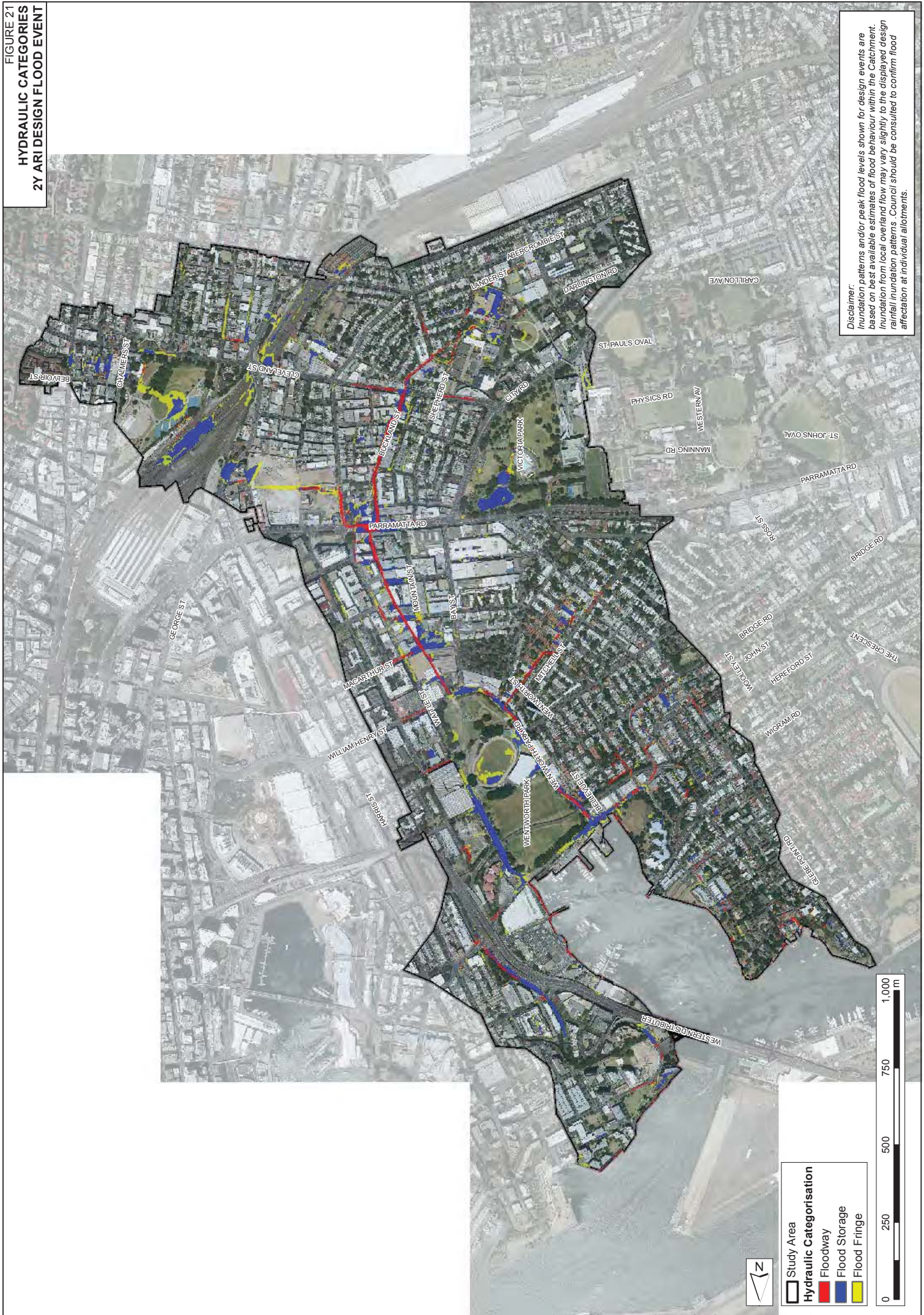
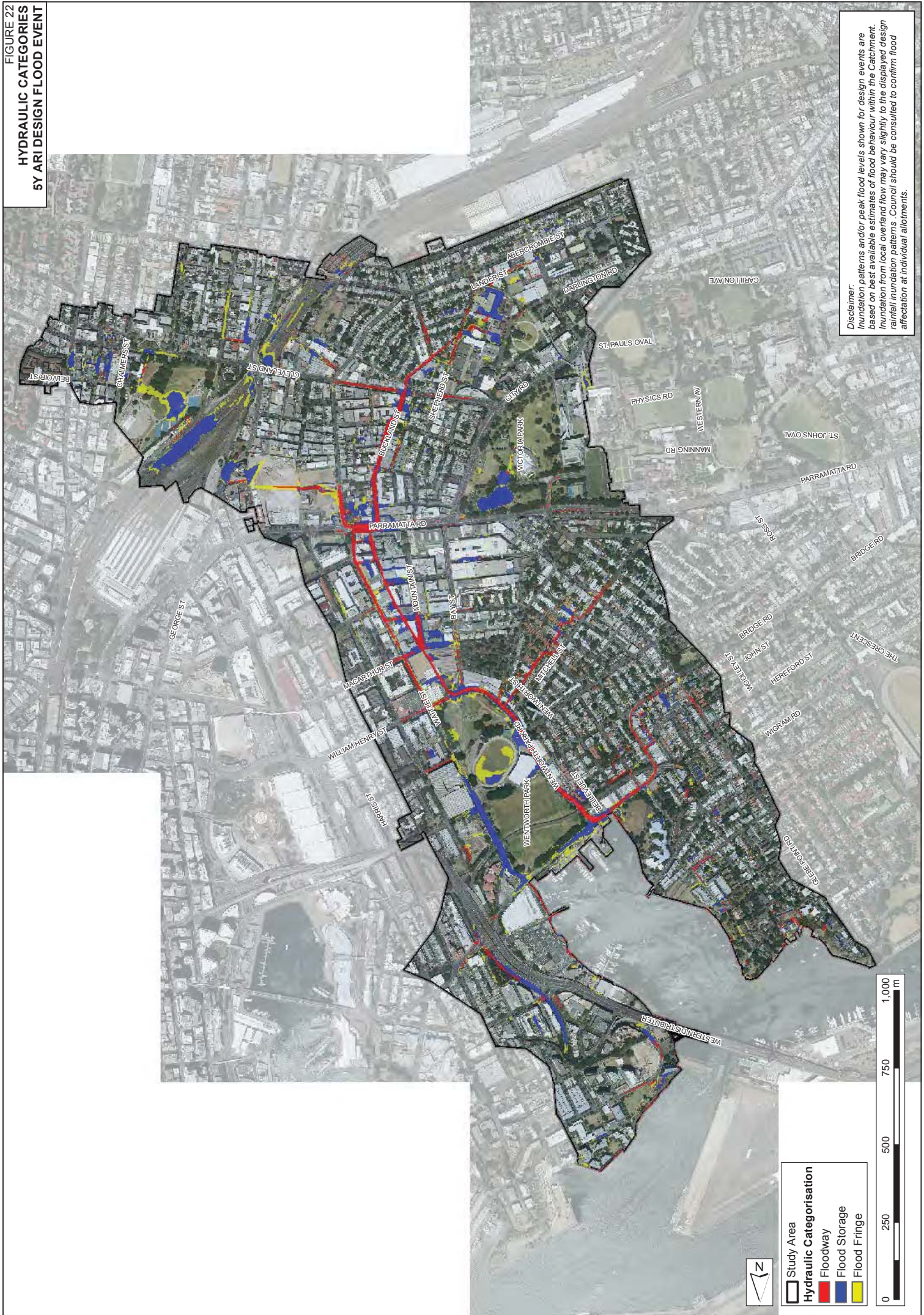


FIGURE 21
HYDRAULIC CATEGORIES
2Y ARI DESIGN FLOOD EVENT



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.

FIGURE 22
HYDRAULIC CATEGORIES
5Y ARI DESIGN FLOOD EVENT

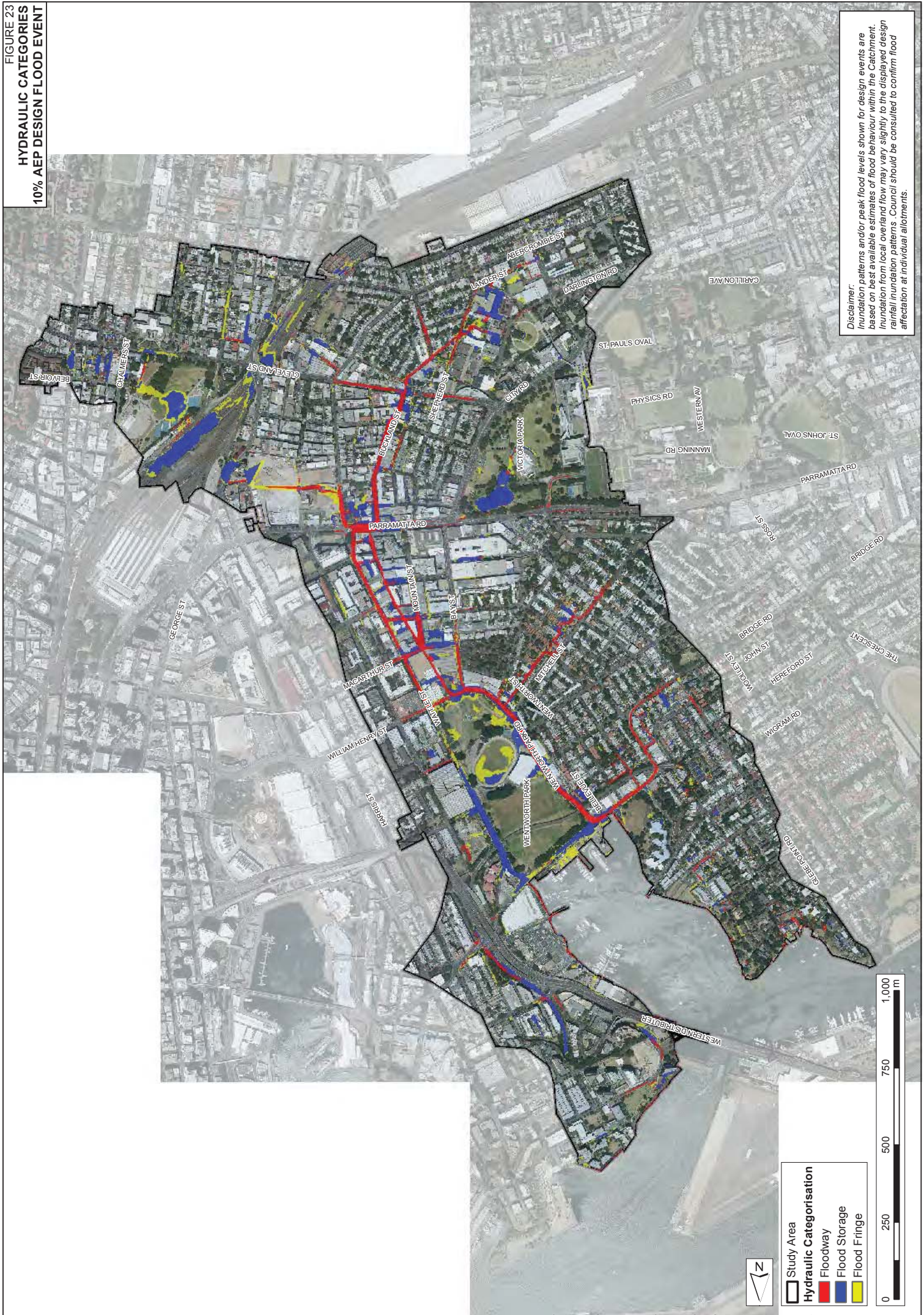


Disclaimer: Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm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

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

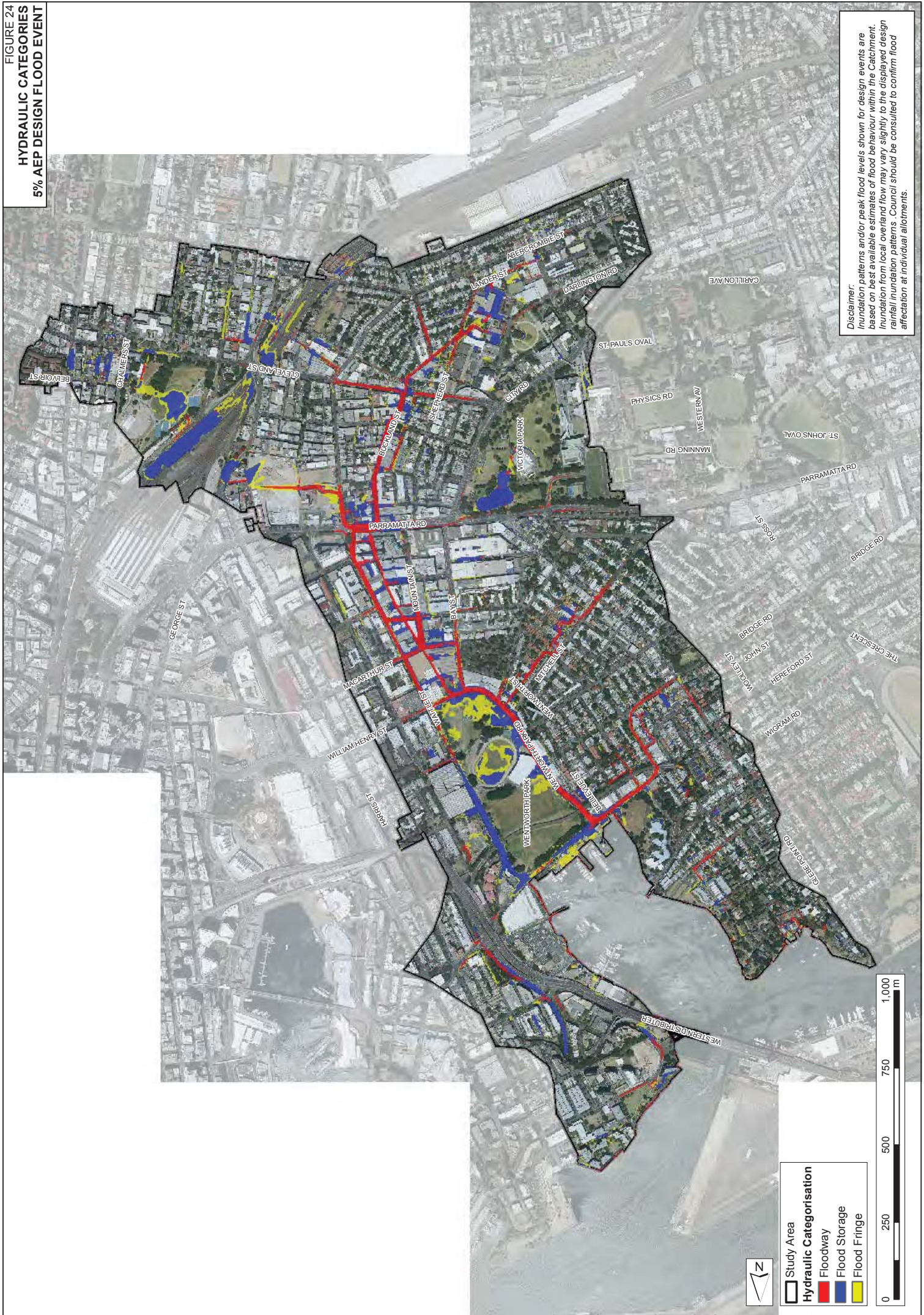


FIGURE 23
HYDRAULIC CATEGORIES
10% AEP DESIGN FLOOD EVENT



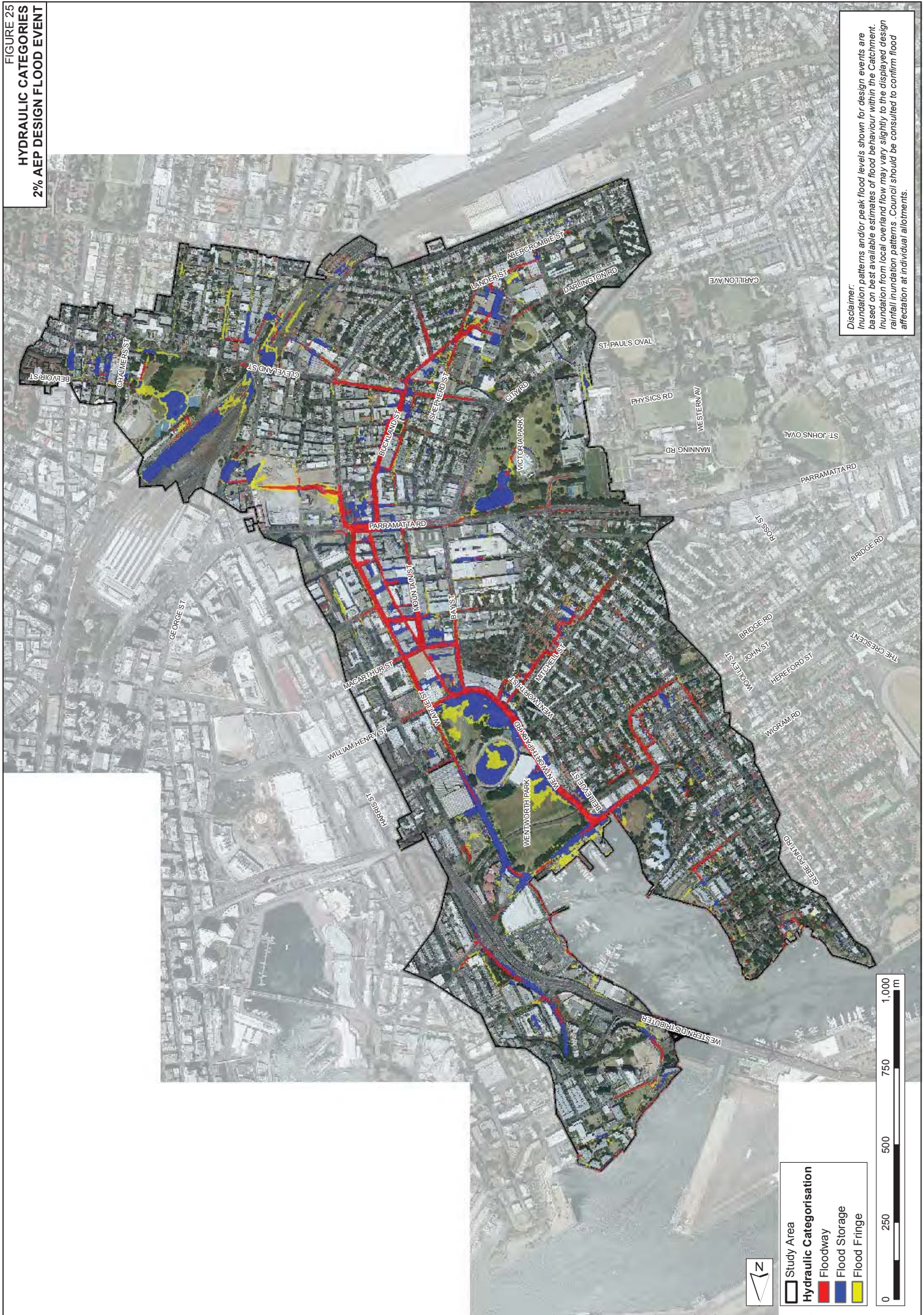
Disclaimer: Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm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

FIGURE 24
HYDRAULIC CATEGORIES
5% 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.

FIGURE 25
HYDRAULIC CATEGORIES
2% AEP DESIGN FLOOD EVENT

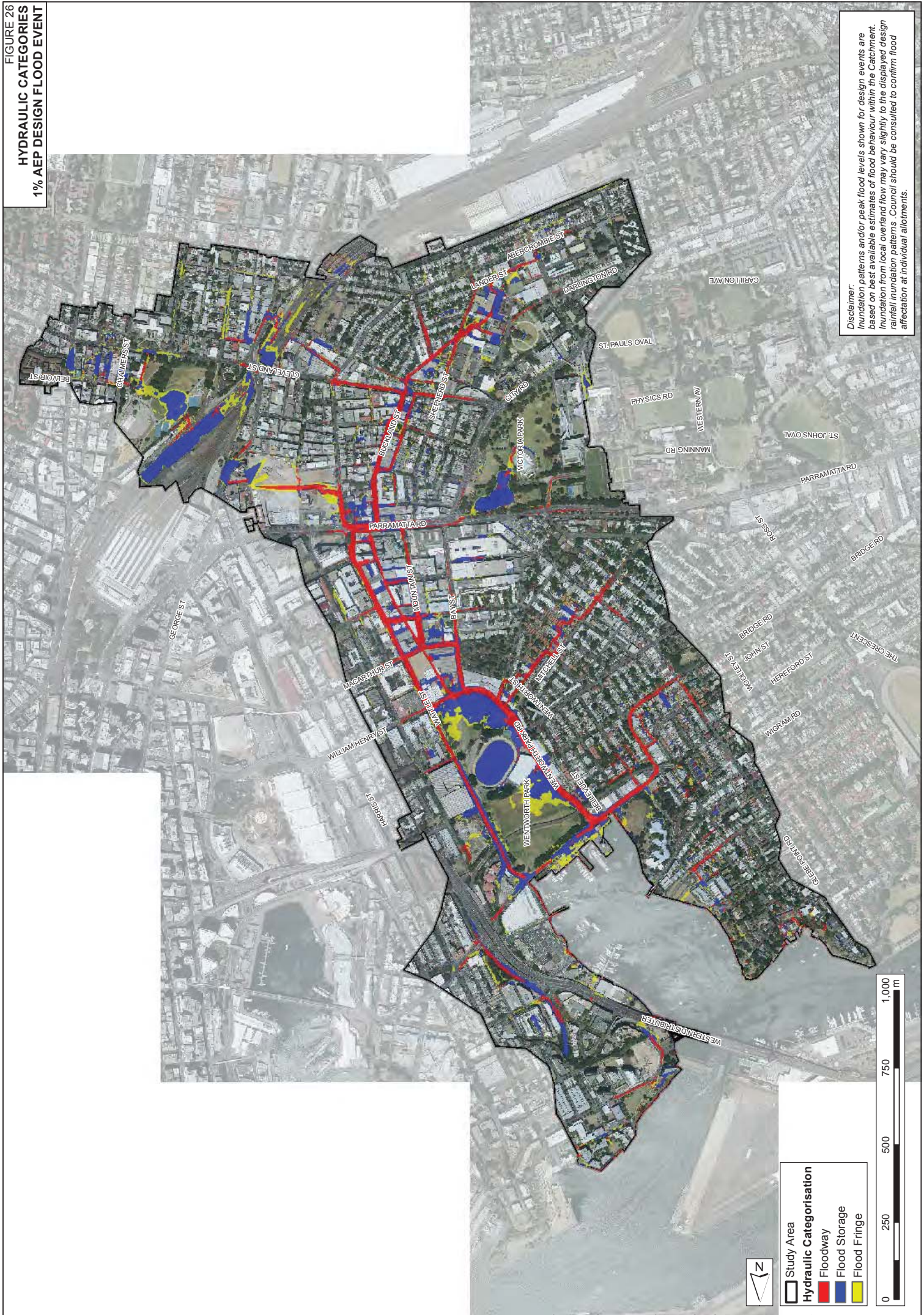


Disclaimer: Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour within the Catchment. Inundation from local overland flow may vary slightly to the displayed design rainfall inundation patterns. Council should be consulted to confirm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

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

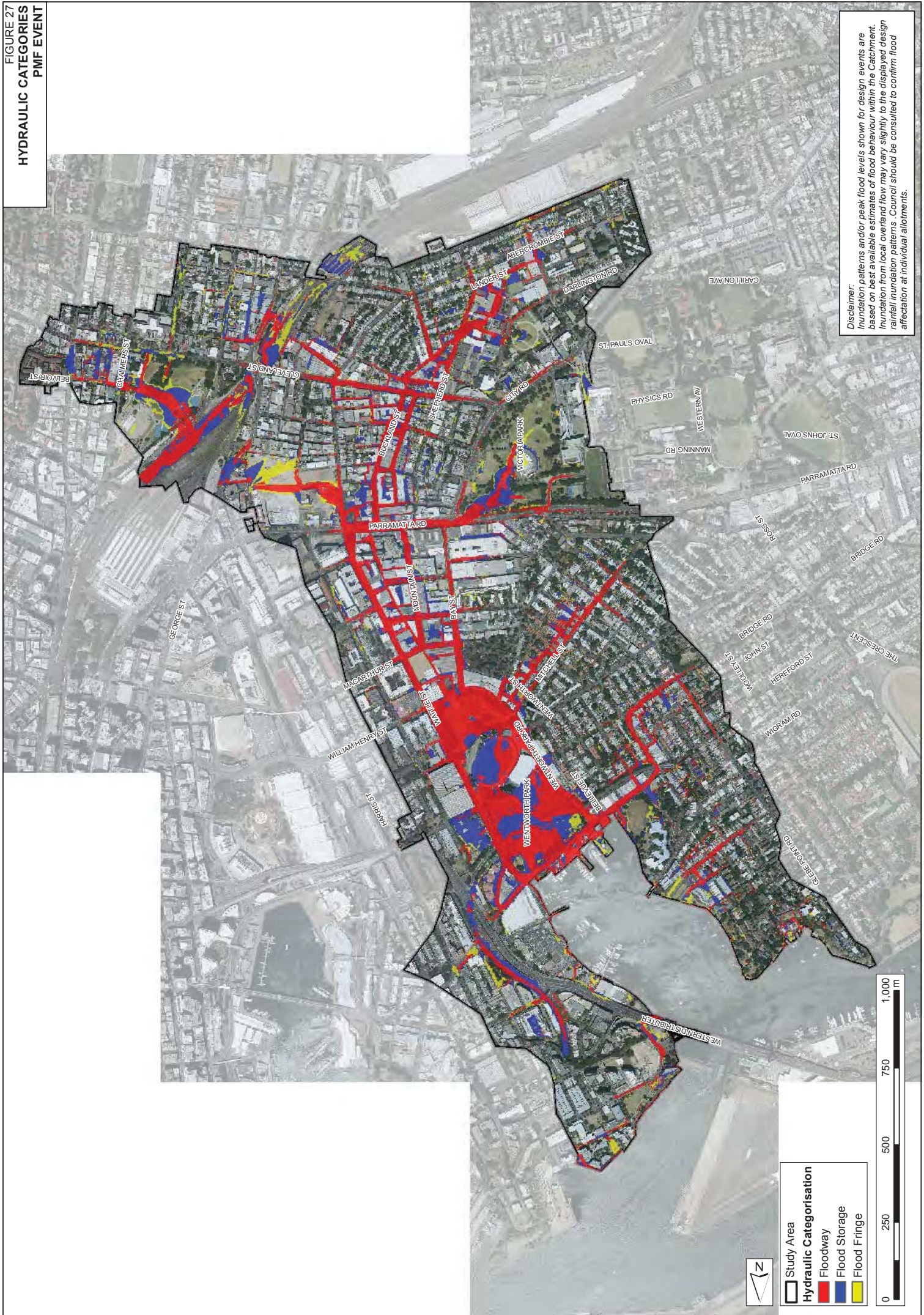


FIGURE 26
HYDRAULIC CATEGORIES
1% AEP DESIGN FLOOD EVENT



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.

FIGURE 27
HYDRAULIC CATEGORIES
PMF 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.

FIGURE 28
 ACCESS ROAD FLOODING
 1% AEP DESIGN FLOOD EVENT

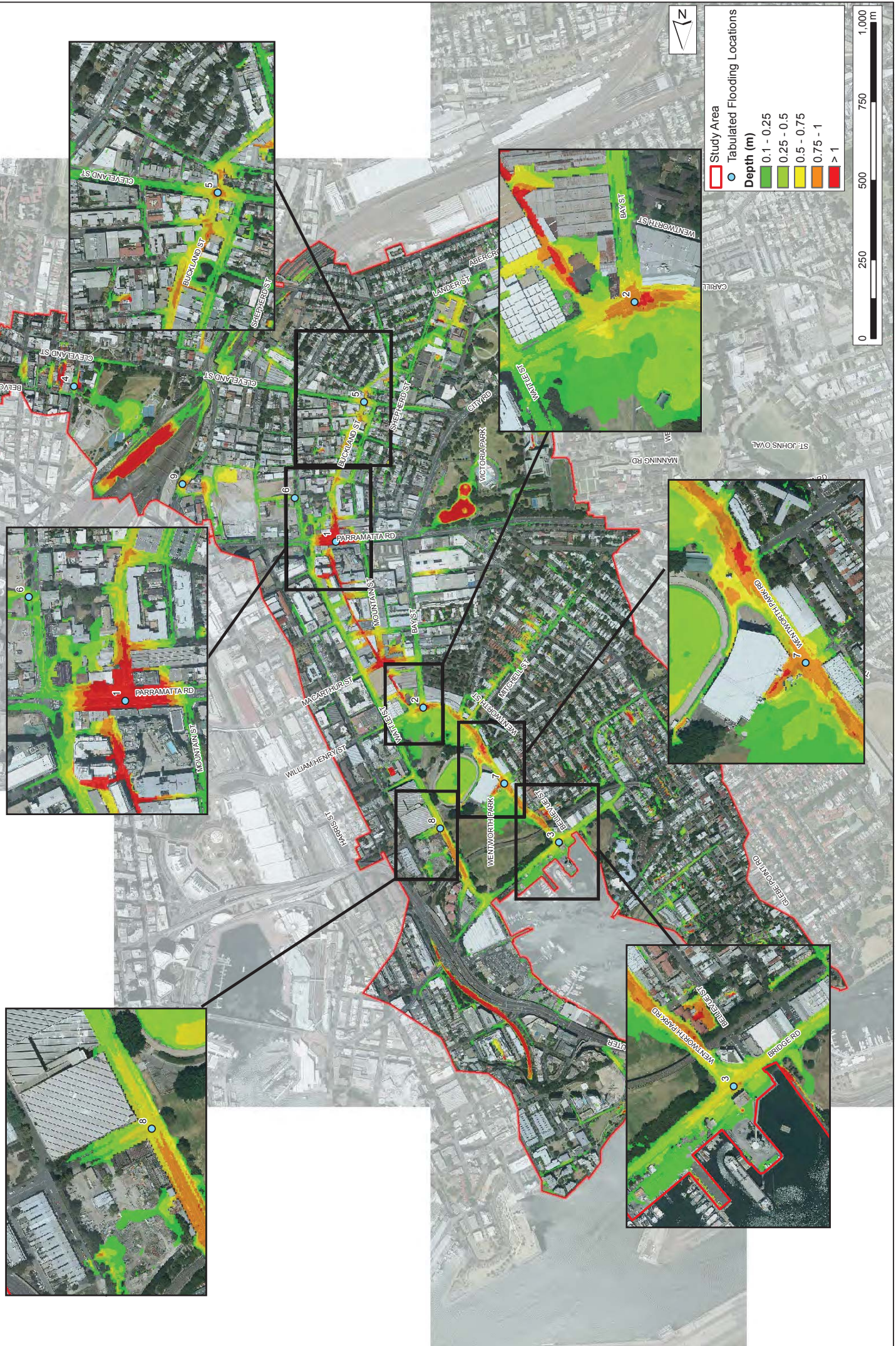


FIGURE 29
 POSSIBLE LOCATIONS
 OF EVACUATION CENTRES
 BLACKWATTLE BAY CATCHMENT

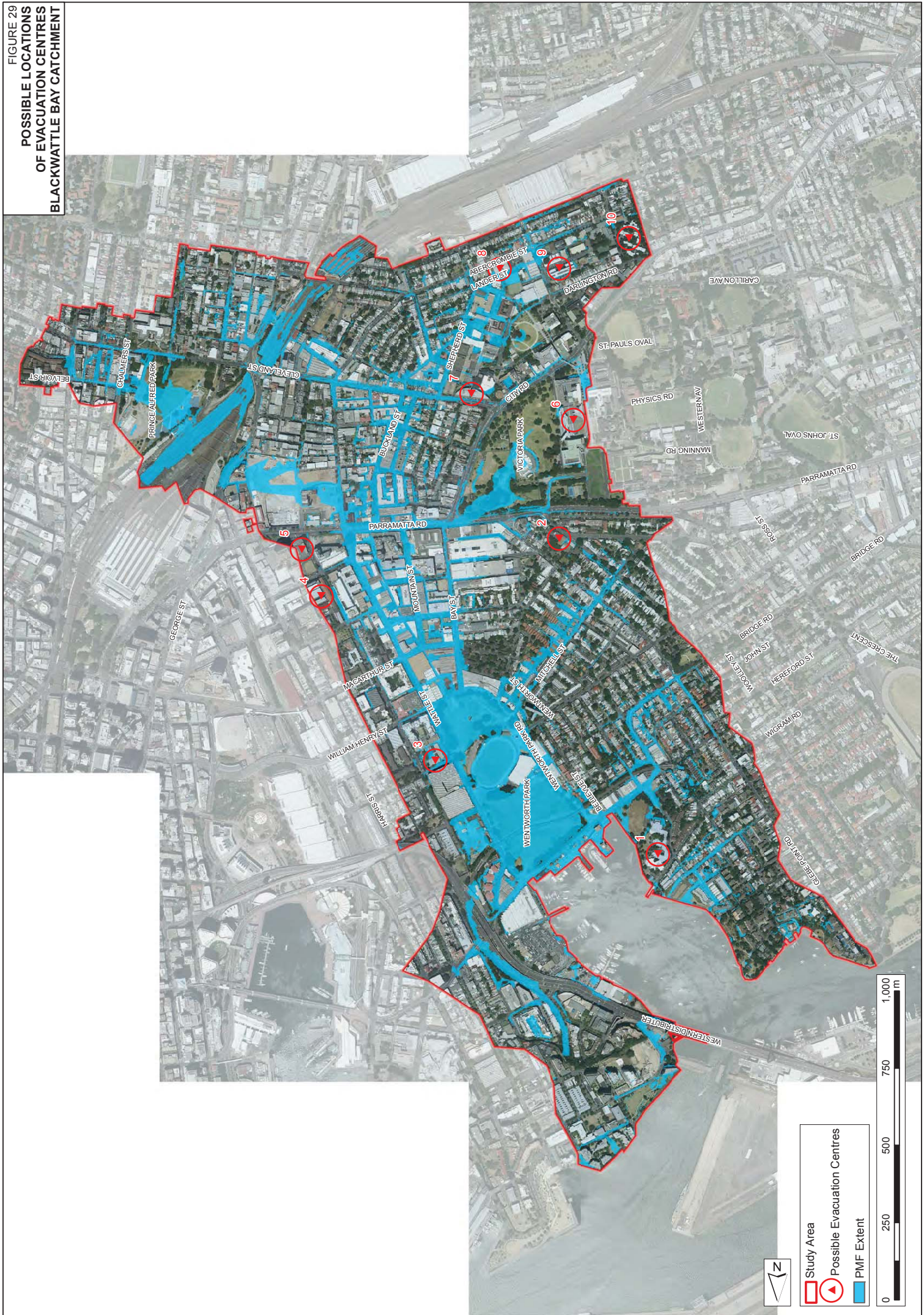
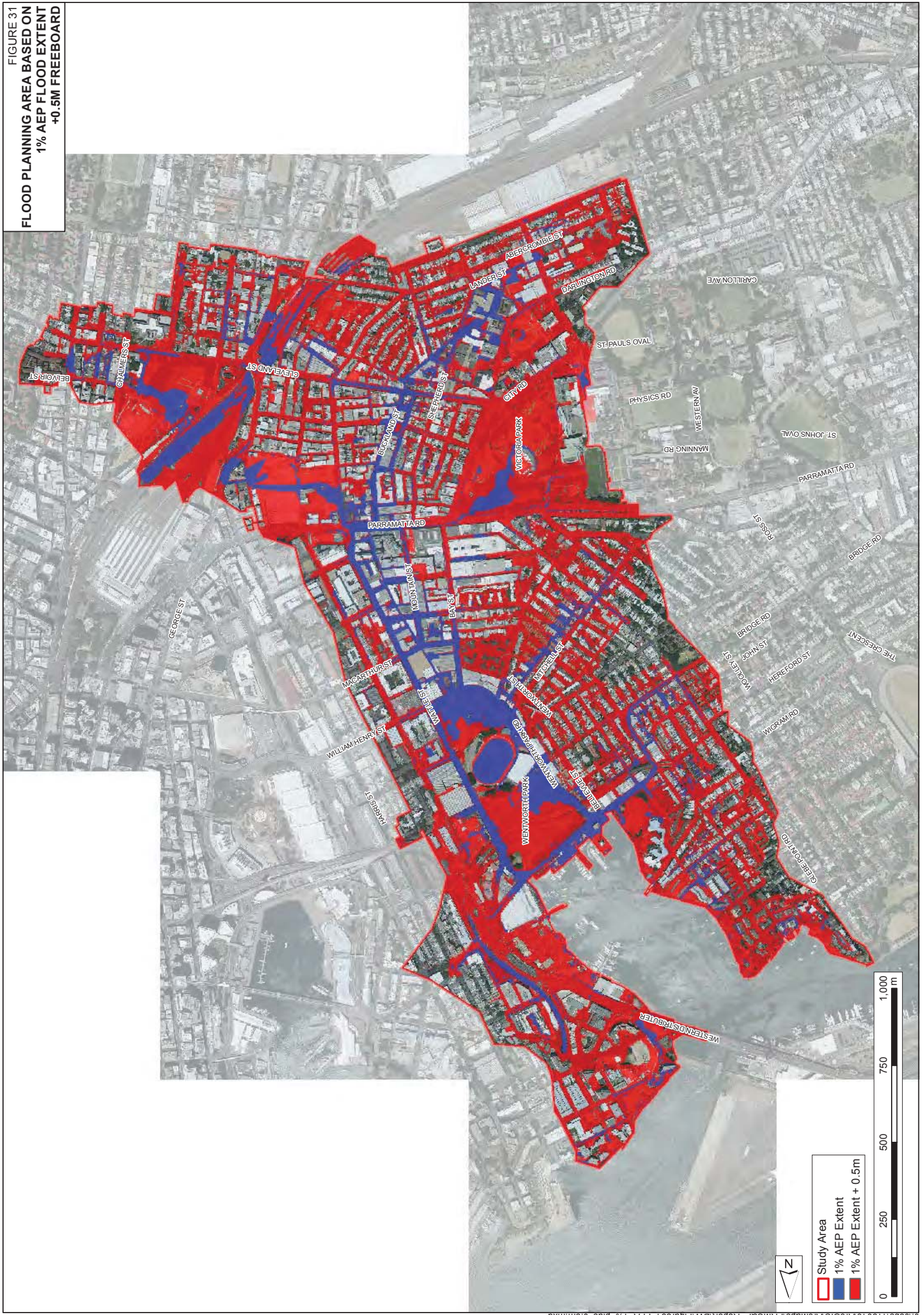


FIGURE 31
 FLOOD PLANNING AREA BASED ON
 1% AEP FLOOD EXTENT
 +0.5M FREEBOARD



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



FIGURE 32
**FLOOD RISK MITIGATION MANAGEMENT OPTIONS
 BLACKWATTLE BAY CATCHMENT**



FM-BB01 Additional Drainage and Detention Basin
 Add drainage pipe along Belvoir St and drain to a detention basin in Prince Alfred Park

FM-BB07 Drainage Upgrade and Underground Storage
 Upgrade capacity of trunk drainage between Wentworth Park and Cleveland St and put an underground storage tank under the council depot

FM-BB05 Additional Drainage
 Provide additional drainage pipes from City Rd/Broadway to Victoria Park

FM-BB02 Additional Drainage
 Add drainage pipe along Mitchell St

FM-BB03 Additional Outlet
 Add an additional outlet into the bay opposite Bellevue St

FM-BB04 Drainage Upgrade and Additional Outlet
 Add an additional outlet and upgrade the approach pipes along Bridge Rd

FM-BB06 Underground Storage
 Put an underground storage tank under the council depot

Legend

- Study Area
- New/Upgrade Pits
- New/Upgrade Pipes
- Detention Storage

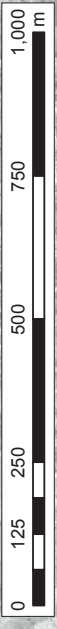
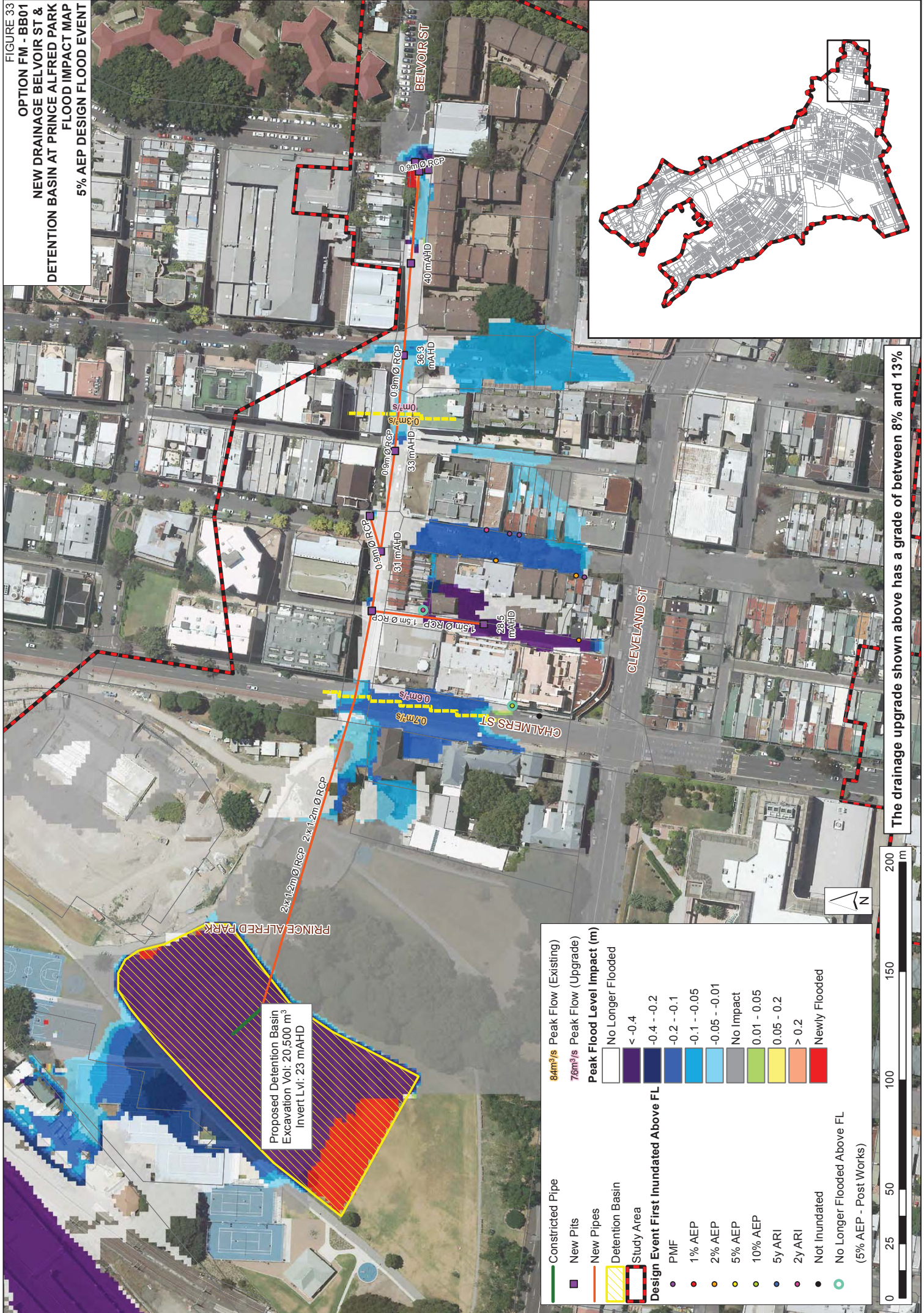


FIGURE 33
OPTION FM - BB01
NEW DRAINAGE BELVOIR ST &
DETENTION BASIN AT PRINCE ALFRED PARK
FLOOD IMPACT MAP
5% AEP DESIGN FLOOD EVENT



Proposed Detention Basin
 Excavation Vol: 20,500 m³
 Invert Lvl: 23 mAHD

	Constricted Pipe		84m ³ /s Peak Flow (Existing)
	New Pits		76m ³ /s Peak Flow (Upgrade)
	New Pipes		Peak Flood Level Impact (m)
	Detention Basin		No Longer Flooded
	Study Area		< -0.4
	Design Event First Inundated Above FL		-0.4 - -0.2
	PMF		-0.2 - -0.1
	1% AEP		-0.1 - -0.05
	2% AEP		-0.05 - -0.01
	5% AEP		No Impact
	10% AEP		0.01 - 0.05
	5y ARI		0.05 - 0.2
	2y ARI		> 0.2
	Not Inundated		Newly Flooded
	No Longer Flooded Above FL (5% AEP - Post Works)		

The drainage upgrade shown above has a grade of between 8% and 13%

