

# WAVERLEY- WOOLLAHRA

## Local Emergency Management Plan

### 2018

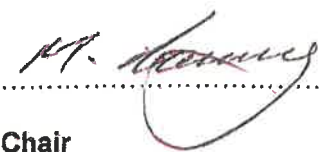


## Part 1 – Administration

### Authority

The Waverley-Woollahra Local Emergency Management Plan (EMPLAN) has been prepared by the Waverley-Woollahra Local Emergency Management Committee in compliance with the State Emergency & Rescue Management Act 1989.

APPROVED



Chair

Waverley-Woollahra Local Emergency Management Committee

Dated: 21/9/2018

ENDORSED



Chair

Mark Walton APM  
Assistant Commissioner  
Central Metropolitan Region

Sydney Metropolitan Regional Emergency Management Committee

Dated: 11/10/18

### Version Control

Document	Approval Date	Endorsed by REMC	Comment
EMPlan 2016	17/11/17 – Field	17/11/17	Initial EM Plan
EMPlan 2018	21/09/2018		New Risk Table & Community Profile from 2016 Census data

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## Purpose

Details arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Local Government Area(s) covered by this plan.

It encompasses arrangements for:

- emergencies controlled by combat agencies;
- emergencies controlled by combat agencies and supported by the Local Emergency Operations Controller (LEOCON);
- emergency operations for which there is no combat agency; and
- circumstances where a combat agency has passed control to the LEOCON.

## Objectives

The objectives of this plan are to:

- define participating organisation and Functional Area roles and responsibilities in preparation for, response to and recovery from emergencies;
- set out the control, co-ordination and liaison arrangements at the Local level;
- detail activation and alerting arrangements for involved agencies; and
- detail arrangements for the acquisition and co-ordination of resources.

## Scope

The plan (public and restricted components) describes the arrangements at Local level to prevent, prepare for, respond to and recover from emergencies and also provides policy direction for the preparation of Sub Plans and Supporting Plans:

- Arrangements detailed in this plan are based on the assumption that the resources upon which the plan relies are available when required; and
- The effectiveness of arrangements detailed in this plan are dependent upon all involved agencies preparing, testing and maintaining appropriate internal instructions, and/or standing operating procedures.

## Principles

The following principles are applied in this plan:

- a) The Emergency Risk Management (ERM) process is to be used as the basis for emergency planning in New South Wales. This methodical approach to the planning process is to be applied by Emergency Management Committees at all levels.
- b) Responsibility for preparation, response and recovery rests initially at Local level. If Local agencies and available resources are not sufficient they are augmented by those at Regional level.
- c) Control of emergency response and recovery operations is conducted at the lowest effective level.
- d) Agencies may deploy their own resources from their own service from outside the affected Local area or Region if they are needed.
- e) The Local Emergency Operations Controller (LEOCON) is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. EOCONs would not normally assume control from a combat agency unless the situation can no longer be contained. Where necessary, this should only be done after consultation with the Regional Emergency Operations Controller (REOCON) and agreement of the combat agency and the appropriate level of control.
- f) Emergency preparation, response and recovery operations should be conducted with all agencies carrying out their normal functions wherever possible.
- g) Prevention measures remain the responsibility of authorities/agencies charged by statute with the responsibility.

## Test and Review Process

The Waverley-Woollahra Local Emergency Management Committee (LEMC) will review this Plan every three (3) years, or following any:

- activation of the Plan in response to an emergency;
- legislative changes affecting the Plan; and
- exercises conducted to test all or part of the Plan.

## References

This plan is not to be read in isolation to associated NSW Legislation, policy, plans, sub-plans and supporting plans.

## Part 2 – Community Context

### Annexure A – Community Profile

#### General

The areas covered by this Plan are those suburbs and localities within the boundaries of the Waverley and Woollahra Local Government Areas (LGA). The (combined) area is approximately 21 km<sup>2</sup> and is located in Sydney's eastern suburbs. The area contains 19 suburbs and 5 other localities. Neighbouring LGAs are Randwick and City of Sydney.

The area has a large residential population and distribution, however the suburb of Bondi Junction holds substantial commercial and retail centres; Bondi is a popular tourist location and the northern aspects of the LGA borders the Sydney harbour

Suburbs and *localities* include:

Bellevue Hill	<i>Charing Cross</i>	<i>HMAS Watson</i>	<i>Rose Bay North</i>
<i>Ben Buckler</i>	Darling Point	North Bondi	Tamarama
Bondi	<i>Diamond Bay</i>	Paddington	Vaucluse
Bondi Beach	Double Bay	Point Piper	Watsons Bay
Bondi Junction	Dover Heights	Queens Park	Waverley
Bronte	Edgecliff	Rose Bay	Woollahra

The two LGAs have an estimated population of 132,000 with Woollahra Municipality having 58,456 and Waverley Council 73,300<sup>1</sup>. According to Destination NSW the current population increase is just over 1% per annum.

In addition to residential and working population, approximately 2.7 million people travel into the area per annum to visit various tourist locations and commercial business areas such as Bondi<sup>2</sup> and Double Bay. During the summer period population swells occur due to shopping, special events, evening functions and overnight stays. A number of Consulates are also located in the Woollahra LGA.

There are four major commercial precincts located at:

- **Bondi Junction** - which has over 39,000 people on average passing through the area each day and is the primary retail centre for the area. It includes Bondi Junction Plaza, Carousel, and Eastgate shopping centres, Eastern Suburbs Railway/Bus Interchange and numerous office blocks.
- **Double Bay** – has over 2,000 people on average working in the area each day. Double Bay contains about 24,000m<sup>2</sup> of retail floor space and about 37,000m<sup>2</sup> of non-retail floor space. The major industries of employment are retail, accommodation and food services. It also contains significant health care services such as general practice, dental and specialist medical services.

<sup>1</sup> ABS Estimated Resident Population 2017, sourced .idcommunity demographics

<sup>2</sup> <http://www.destinationnsw.com.au/wp-content/uploads/2013/01/Bondi-Visitor-Profile-YE-Dec-2016.pdf?x15361>

- **Charring Cross** – is a major intersection within the Waverley LGA. There are two main roads that are intersecting which are Carrington and Bronte Roads. There are over 30 retail business and 3 licences premises being Charring Cross Hotel, Robin Hotel and Bronte RSL. Each of these establishments could possibly accommodate 2,000 patrons at one time. This is a major bus route linking Bondi Junction with city, Bronte Beach and Randwick.
- **Edgecliff** – is a busy bus/rail interchange that houses an underground car park and commercial centre and is surrounded by high rise apartments.

In common with other metropolitan Local Government Councils both Woollahra and Waverley have:

- Low to high density residential areas
- Commercial and industrial areas
- Major open spaces and protected reserves
- Topographical features and attractions including coastal cliffs, beaches, lowlands
- Tourism and local attractions including sports venues
- Major secondary education facilities

Suburbs closer to Sydney City LGA include terrace houses and narrow streets that are subject to traffic congestion, restricted space due to parked cars and may pose access issues for emergency vehicles and heavy equipment.

### Topography

The topography of the area is dominated by a series of ridges and slopes. The main ridge extends from Point Piper through Bellevue Hill. This ridge falls away to Double Bay in the west and Rose Bay in the east. The area to the north of Rose Bay rises quite steeply to South Head. The most impressive feature of Waverley-Woollahra LEMC area is the coastline which consists of headlands, beaches, sand dunes and undulating topography.

There are two suburbs located on headlands along Sydney Harbor that have limited number of access/egress roads. Those suburbs are Point Piper and Watsons Bay settlement on South Head and including HMAS Watson.

Waverley is flanked by several large portions of open space. The most significant of these are Moore Park, Queens Park and Centennial Park. Not far from Bondi Junction is Cooper Park and further north Royal Sydney Golf links occupies land in the band of formerly unstable sand between Rose Bay and Bondi. On the north and south points of the Eastern Suburbs peninsula are the Sydney Harbour and Botany Bay National Parks. The Pacific Ocean is on the eastern boundary and includes Bondi Beach, Tamarama Beach and Bronte Beach.

### Climate

Waverley and Woollahra's temperatures vary from averages of 18 – 26 degrees Celsius in summer and 8 – 17 degrees in winter. Summer can rise to over 40 degrees. Weather and climate extremes can have significant social and environmental impacts with heat waves and severe storms as

examples.<sup>3</sup> For contemporary weather predictions, refer to the Bureau of Meteorology.  
<http://www.bom.gov.au/nsw/forecasts/sydney>

### Land Use

The Waverley-Woollahra LEMC area encompasses the foreshore of the entrance to Sydney Harbour and the coastline of the Pacific Ocean to the east. Both providing expansive beaches, rock outcrops and open lands for leisure activities. Apart from Bondi Junction and smaller suburban retail strips the LGAs are predominantly low to medium-density residential in nature, though it also includes major arterial roads, two railway stations, 2 bus interchanges, bus stops, harbour wharves, one Australian Navy establishment, and other open space areas

Waverley is a denser urban area than Woollahra and the primary land use is residential. Waverley/Woollahra does not have any land zoned for industrial purpose, but has a strong commercial and employment base with the Bondi Junction sub-regional commercial centre.

Waverley is bound by the cliffs of Dover Heights, Bondi Beach, Tamarama Beach and Bronte Beach, extending to Waverley Cemetery and up to Bondi Junction.

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<sup>3</sup> Bureau of Meteorology, Australian Climate and Weather Extremes Monitoring System, Australian Government.

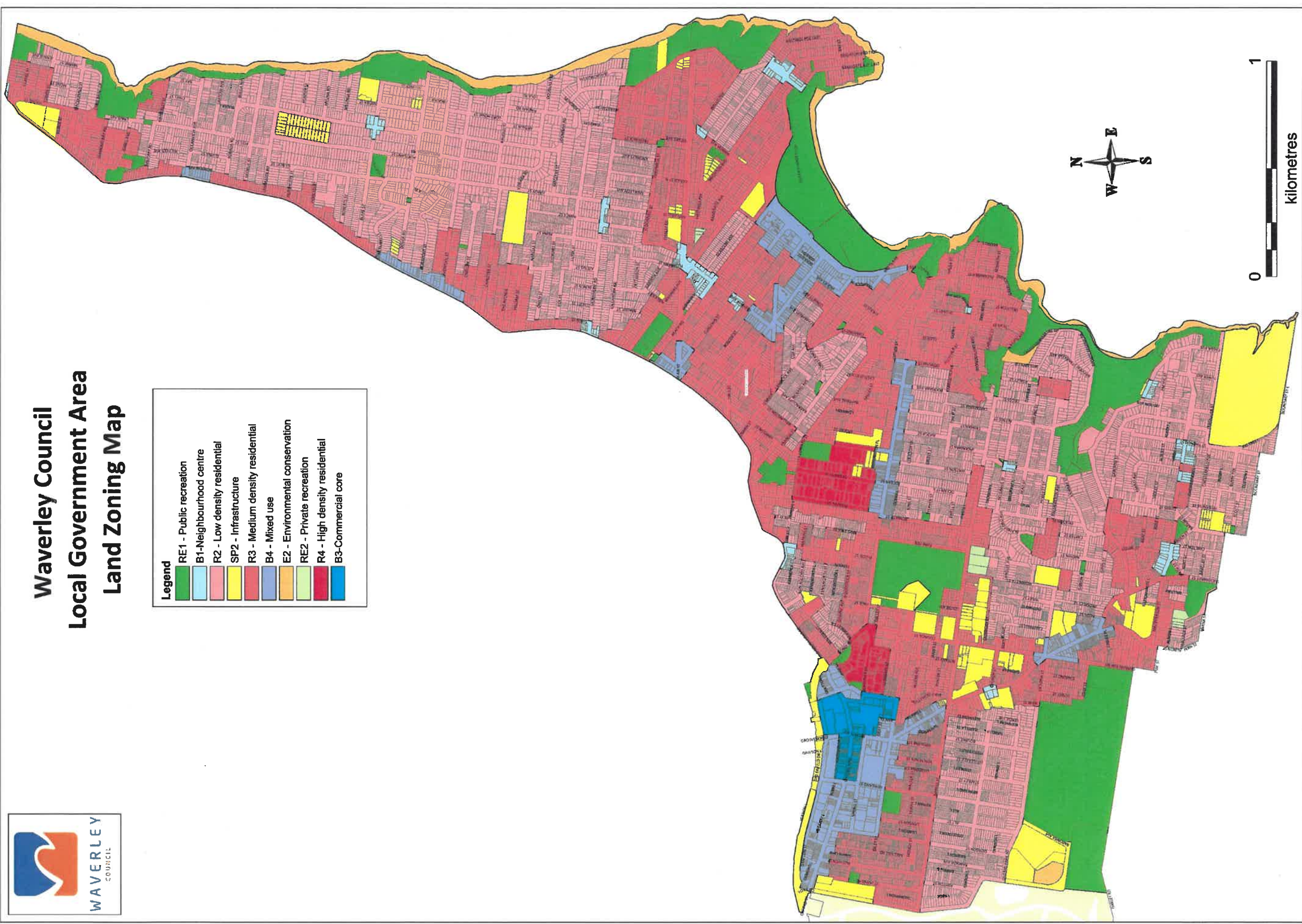


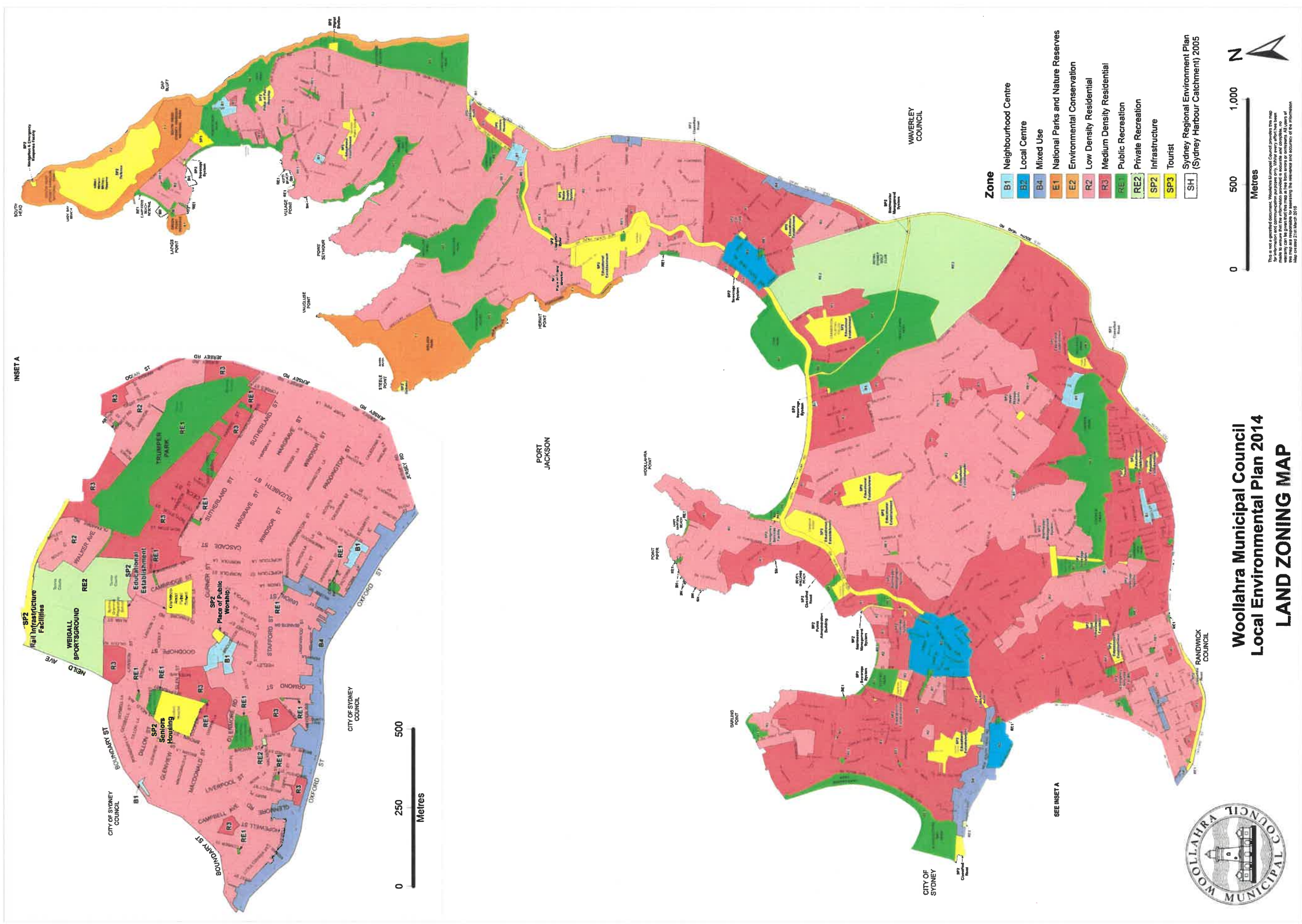


# Waverley Council Local Government Area Land Zoning Map

**Legend**

RE1 - Public recreation
B1-Neighbourhood centre
R2 - Low density residential
SP2 - Infrastructure
R3 - Medium density residential
B4 - Mixed use
E2 - Environmental conservation
RE2 - Private recreation
R4 - High density residential
B3-Commercial core







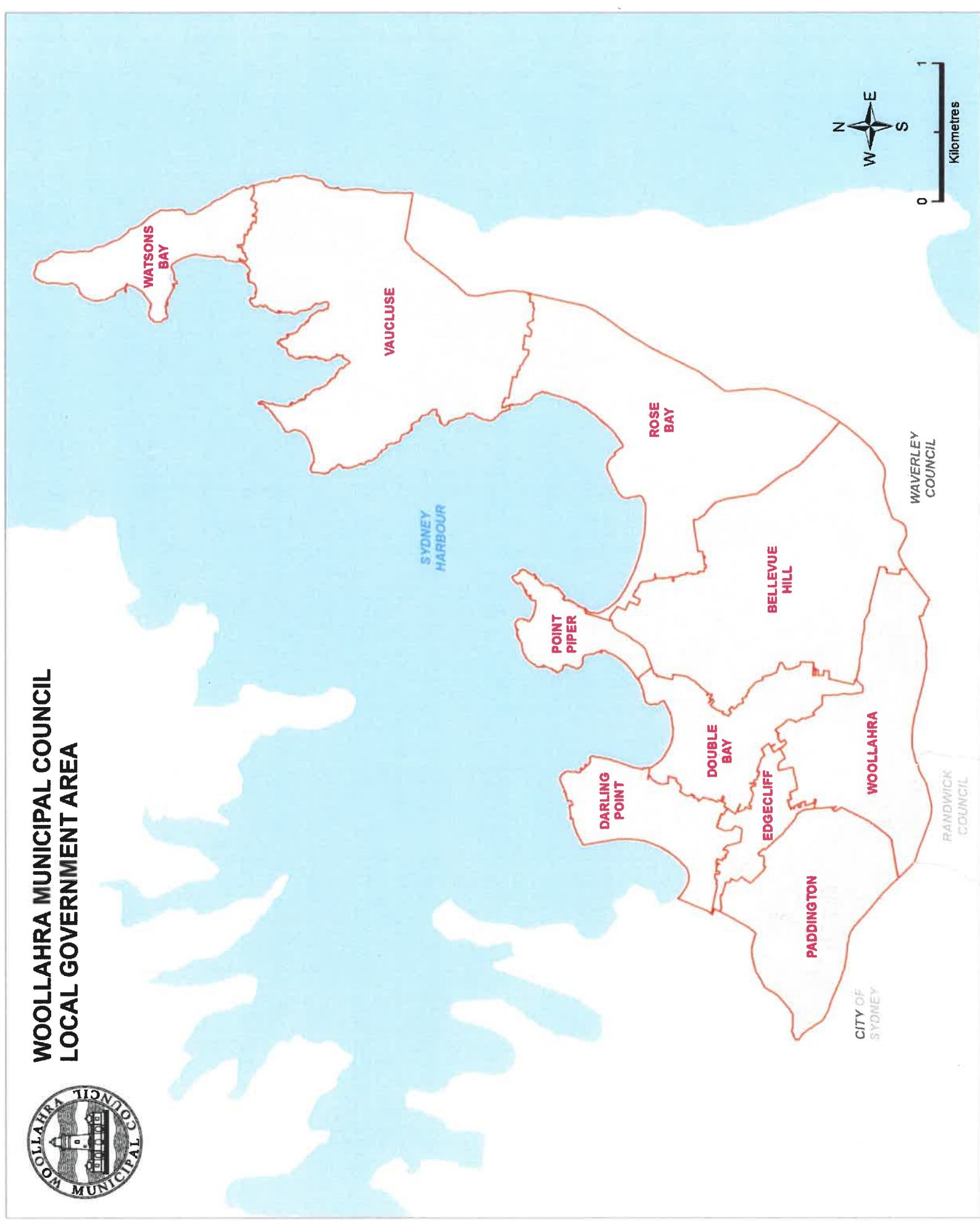
# Waverley Council Local Government Area

**Legend**

- Suburb
- Business centre
- Park



**WOOLLAHRA MUNICIPAL COUNCIL  
LOCAL GOVERNMENT AREA**



## Population and People

Detailed Profiles by LGA available on Waverley and Woollahra Council Websites.

Significant population areas situated along the coastal fringe and have exposure to coastal threats..

Though Woollahra LGA is slightly larger in geographical area than Waverley LGA it records 40% less resident density per m<sup>2</sup>. The average household size is 2.22 persons.

## Language

Waverley and Woollahra LGAs are some of the most multicultural areas in NSW. More than 32% of residents were born overseas. Approximately 18% (20%- Waverley and 16%- Woollahra) are from a non-English speaking background which is broad ranging.

The largest non-English speaking country of birth in Woollahra Municipality was China and Brazil for the Waverley Council area. Over 50 languages are spoken by residents other than English. The numbers of linguistic groups are listed in the tables below.<sup>4</sup>

### Woollahra Municipality – Total persons (Usual residence)

Language	Qty	Language	Qty	Language	Qty
English only	41,041	Portuguese	324	Afrikaans	96
Mandarin	892	Hungarian	291	Indonesian	94
French	715	Filipino/Tagalog	187	Dutch	91
Greek	683	Japanese	178	Hindi	85
Spanish	578	Polish	143	Swedish	83
Italian	559	Korean	133	Serbian	70
Cantonese	558	Vietnamese	130	Turkish	61
Russian	487	Arabic	123	Croatian	61
Hebrew	431	Persian/Dari	105	Czech	54
German	371	Thai	102	No stated	4,823

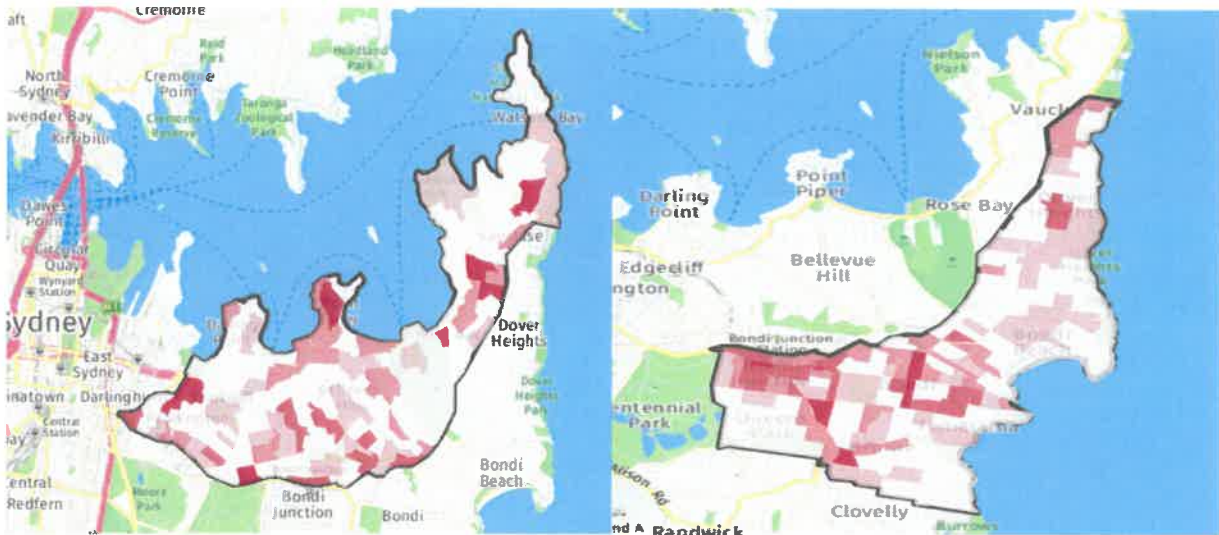
### Waverley Council - Total persons (Usual residence)

Language	Qty	Language	Qty	Language	Qty
English only	45,873	Hungarian	385	Czech	137
Russian	1,484	Cantonese	362	Indonesian	124
Spanish	1,416	Japanese	348	Slovak	117
Portuguese	1,259	Filipino/ Tagalog	302	Serbian	103
French	1,179	Polish	223	Vietnamese	98
Italian	1,103	Swedish	210	Persian/Dari	97
Hebrew	907	Arabic	206	Croatian	92
Mandarin	745	Thai	178	Hindi	79
Greek	676	Dutch	173	Afrikaans	73
German	636	Korean	158	Not stated	6,833

<sup>4</sup> Census Data, 2016 via <https://profile.id.com.au>

### English as a second language - Proficiency

Of those that speak another language there are 1,865 (619 from Woollahra and 1,246 from Waverley) people that state that they do not speak English at all or very well. The location of those that are not fluent in English is set out below for each LGA.<sup>5</sup>



This informs emergency managers on the probable effectiveness public safety information has when distributed in the English language. It also assists with decisions related to what interpretation services may be required during emergencies and also effective public education strategies outside of emergency situations.

### Age Groups

The average age of the population in Woollahra is 39 and Waverley 35. Waverley LGA has a greater number of persons in the 20-35 age bracket which are primarily clustered in the Bondi suburbs. Woollahra LGA proportionally has an elder population with greater number of persons above 60 than Waverley suburbs. Waverley has 6,000 residents over 70 years and Woollahra 7,000.

These statistics assist in identifying indicative levels of resilience, dependency or self-help able to be undertaken by the affected population. It also assists in informing public education programs.

### Need for Assistance

This informs emergency managers when considering evacuations, ongoing welfare of persons and additional assistance personnel during emergency situations.

- 1990 of Waverley’s population reported a need for assistance
- 1438 of Woollahra’s population reported a need for assistance

<sup>5</sup> <https://atlas.id.com.au>

### Number of Motor Vehicles per Dwelling

NSW Evacuation Guidelines makes recommendation that evacuees be encouraged to make their own way to a safer location, seek accommodation and assistance from family and friends or insurance companies where possible.

Emergency management planning and response considers the ability of people to be able to move under their own resources or are reliant upon other transport modes. This potentially places reliance upon public transport or the emergency management arrangements to facilitate movement.

- 17.2% of Waverley residences do not have available private transport.
- 12.7% of Woollahra residences do not have available private transport

### Connectivity

This informs the public information strategies related to electronic methods used and probable community access related to public information.

- 7.9% of residences in Waverley inform of no connectivity.
- 5.9% of residences in Woollahra inform of no connectivity.

### Private Dwellings

Approximately 1/3 of the residential population resides in multi-storey buildings.

- 31.8% of Waverley residents and 30.7% of Woollahra residents live in medium density housing
- 51.4% of Waverley residents and 48.1% of Woollahra residents live in high density housing
- 15.1% of Waverley residents and 19.9% of Woollahra residents live in separate dwellings.

### Commuter Profile

A significant majority of commuters travel to work utilising private vehicles. Bus and rail transport modes are equally utilised outside of private vehicles. Any possible interruption to road or rail transport routes is a consideration for emergency managers and responders.

### Commercial/Retail Premises

The following are commercial/retail precincts in Woollahra LGA.

• Double Bay	• Oxford Street Paddington	• Vaucluse
• Rose Bay – Old South Head Road	• Five Ways Paddington	• Watsons Bay
• Rose Bay - New South Head Road	• Edgecliff	

The following are commercial/retail precincts in Waverley LGA.

• Bronte Beach	• Bondi Beach	• Bondi Terminus
• McPherson Street	• North Queens Street Woollahra	• Rose Bay Village
• Charing Cross	• Plumber Road – Rose Bay	• Rose Bay North
• Bondi Junction	• Bellevue Hill	• Dover Heights
• Bondi Road		

## Industrial

None

## Education Facilities

Approximately 6,500 school students' attending- 24 schools located within the designated area. These schools consist of:

Kambala Girls School, Kincoppal Rose Bay, Cranbrook, Scots College, Reddam House, Ascham Primary (Private), Bellevue Hill Public Double Bay Public, Paddington Public Rose Bay Public Schools, Waverley College, St Catherine's Girls School, St Charles School, Bronte School, Dover Heights High School, Bondi Public School, Rose Bay Secondary, Waverley Public School, Clovelly Public School, St Clairs Secondary, Montessori Primary School, Kessor Torah College, Moriah Secondary College.

- Kambala is an Early Learning Centre to year 12 Independent Anglican girls' school, located in Rose Bay.
- Kincoppal-Rose Bay, is a is non-selective co-educational primary school and a girls only high school for approximately 905 students from kindergarten to Year 12, including 146 boarders.
- Cranbrook is an Anglican independent day and boarding school for boys, Pre-school to Year 12.
- The Scots College is an independent Presbyterian day and boarding school for boys, and currently caters for approximately 1800 students from Kindergarten to year 12, including 250 Boarders from years 5 to 12
- Reddam House is a co-educational, non-denominational school for children from Kindergarten through to Year 12.
- Ascham Primary has more than 1,200 girls enrolled with over 110 boarders across Years 7 to year 12, in five boarding houses
- Bellevue Hill Public is a co-educational school catering for children from kindergarten to year 6
- Double Bay Public School is a co-educational school catering for children from kindergarten to year 6
- Paddington Public School is a co-educational school catering for children from kindergarten to year 6
- Rose Bay Public is a co-educational school catering for children from kindergarten to year 6
- Waverley College...has approximately 800 boy students attending from year 7 - 12
- St Catherine's Girls' School...has approximately 800 girl students attending from year K-12
- St Charles School...has 500 boys and girls students attending from K - 6
- Rose Bay Secondary High School has approximately 1,000 boys and girl students from year 7-12
- Bondi Public School has 515 boys and girls attending from year K-6
- Bondi Beach Public School has 528 boys and girls attending from K-6
- Waverley Public School has 214 boys and girls attending from K-6
- Bronte Public School has 374 boys and girls attending from K-6
- Clovelly Public School has 545 boys and girls attending from K-6
- St Clairs Secondary has 474 girls attending from year 7-12
- Montessori Primary School has 200 boys and girls attending from K-6
- Kessor Torah College has 500 boys and girls attending from age's year 2 – 18
- Moriah Secondary Collage has 750 boys and girls attending from K-12
- Reddam House Secondary College has 750 boys and girls attending from K-12



### Average Age of Dwellings

The period in which suburbs were established and average age of dwellings can inform emergency managers about secondary hazards that may occur as a consequence of an emergency situation or hazard impact. This allows emergency responders and managers opportunity to provide appropriate public safety advice and prioritise appropriate actions and activities.

Paddington is the oldest area within the Woollahra Municipality dating back to the mid 1800's

### Tourism

Both LGAs rely heavily on tourism, local and international origins. There are a number of facilities and attractions that cause significant influxes of people into the area with estimated population increases to total approximately 3,000,000 visitors per annum.

Per annum, Waverley LGA can receive over:

- 372,841 domestic visitors
- 711,157 overnight visitors
- 1,654,007 international visitors

Per annum, Woollahra LGA can receive over:

- 210, 000 domestic visitors
- 112,000 overnight visitors
- 24,000 international visitors

These visitors are attracted to tourist attractions including:

- Westfield, Bondi Junction
- Bondi Beach
- Tamarama Beach
- Bronte Beach
- Coastal Walk from Bondi Beach to Waverley Cemetery
- The harbour foreshore
- Hermitage Walk – Sydney Harbour National Park
- The Gap
- Double Bay
- Oxford Street Paddington

Population and Demographics - Table 1

Suburb	Pop#	Median Age	Population in the Work Force		Mode of transport (to Work)		Family Composition					Dwellings							No Vehicle	No Internet		Indigenous Persons
					Public	Private Vehicle	Avg children /family	One Parent Family	Couple with Child Dependents		Avg persons /dwelling	Avg Age of Dwellings	Separate House	Semi-detached, terrace house, townhouse etc	Flat, unit, apartment etc	Sole Occupant						
Bellevue Hill	11,436	36	5,483	48%	1,428	2,686	1.9	261	2%	1,271	11%	2.5		1,471	531	2,547	940	8%	391	174	1.5%	29
Bondi	9,614	33	5,531	57%	1,861	2,098	1.7	225	2%	700	7%	2.1		388	459	2,990	1,247	13%	896	595	6%	38
Bondi Beach	10,748	33	6,773	63%	2,346	2,438	1.6	262	2%	698	6%	2		258	586	3,795	1,650	15%	1,233	552	5%	45
Bondi Junction	8,660	35	4,693	54%	1,821	1,338	1.7	267	3%	648	7%	2.1		358	966	2,162	1,232	14%	1,024	535	6%	27
Bronte	6,827	37	3,696	54%	879	1,718	1.8	165	2%	830	12%	2.5		911	408	1,106	630	9%	296	259	4%	32
Darling Point	4,358	47	1,994	46%	630	829	1.5	93	2%	296	7%	2		135	303	2,015	675	15%	229	118	3%	10
Double Bay	4,687	38	2,584	55%	838	972	1.7	152	3%	341	7%	2.1		298	204	1,454	680	14%	380	30	1%	9
Dover Heights	3,940	39	1,980	50%	280	1,226	2	102	2%	608	15%	2.9		858	190	273	238	6%	83	79	2%	3
Edgecliff	2,801	38	1,389	50%	672	358	1.4	45	2%	162	6%	1.8		56	310	1,113	450	23%	310	101	4%	10
North Bondi	8,581	34	4,756	55%	1,254	2,213	1.8	222	3%	1,000	12%	2.4		890	758	1,522	853	10%	522	76	1%	19
Paddington	10,669	35	5,881	55%	1,867	1,819	1.6	275	2%	884	8%	2		150	3,424	1,529	1,847	15%	857	299	3%	15
Point Piper	1,404	48	612	43%	74	339	1.7	43	3%	98	7%	2.3		148	29	300	137	10%	29	3	0.2%	4
Queens Park	2,930	38	1,542	53%	392	610	1.8	93	3%	386	13%	2.5		395	392	290	266	9%	153	51	2%	17
Rose Bay	6,359	37	2,887	45%	816	1,377	1.7	311	3%	667	10%	2.3		598	637	1,468	1,057	11%	262	157	2%	14
Tamarama	1,450	35	832	57%	228	349	1.6	32	2%	120	8%	2.3		104	85	331	118	8%	77	5	0.3%	3
Vaucluse	9,051	39	4,328	48%	672	2,497	1.9	262	3%	1,283	14%	2.8		1,579	387	1,077	627	7%	117	96	1%	27
Watsons Bay	918	35	467	51%	52	150	1.9	21	2%	92	10%	2.4		132	40	88	82	9%	25	11	1%	0
Waverley	4,253	38	2,076	49%	648	821	1.7	165	4%	384	9%	2.2		277	406	859	539	13%	355	24	0.5%	30
Woollahra	7,927	40	3,923	49%	1,326	1,466	1.7	231	3%	746	9%	2.1		550	1,691	1,396	1,104	15%	395	182	2%	12

Note: % in relation to suburb population rounded to nearest whole number

Population Age Group by Suburb - Table 2

Suburb	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
<b>Bellevue Hill</b>	<b>647</b>	<b>594</b>	<b>667</b>	<b>729</b>	<b>660</b>	<b>956</b>	<b>946</b>	<b>784</b>	<b>710</b>	<b>710</b>	<b>691</b>	<b>609</b>	<b>642</b>	<b>451</b>	<b>296</b>	<b>221</b>	<b>187</b>	<b>217</b>
<i>Assistance Dependent</i>	4	7		9	6	5		7		6		14		17		46		56
<b>Bondi</b>	<b>566</b>	<b>328</b>	<b>276</b>	<b>282</b>	<b>697</b>	<b>1,458</b>	<b>1,492</b>	<b>978</b>	<b>731</b>	<b>481</b>	<b>409</b>	<b>380</b>	<b>381</b>	<b>284</b>	<b>290</b>	<b>193</b>	<b>185</b>	<b>203</b>
<i>Assistance Dependent</i>	0	10		6	6	6		15		16		35		25		65		71
<b>Bondi Beach</b>	<b>617</b>	<b>317</b>	<b>227</b>	<b>239</b>	<b>832</b>	<b>1,887</b>	<b>1,928</b>	<b>1,387</b>	<b>841</b>	<b>503</b>	<b>447</b>	<b>347</b>	<b>333</b>	<b>246</b>	<b>194</b>	<b>156</b>	<b>131</b>	<b>116</b>
<i>Assistance Dependent</i>	7	3		6		8		10		20		24		22		54		41
<b>Bondi Junction</b>	<b>483</b>	<b>339</b>	<b>289</b>	<b>284</b>	<b>609</b>	<b>1,233</b>	<b>1,031</b>	<b>777</b>	<b>597</b>	<b>475</b>	<b>467</b>	<b>412</b>	<b>416</b>	<b>305</b>	<b>275</b>	<b>209</b>	<b>229</b>	<b>231</b>
<i>Assistance Dependent</i>	5	7		3	6	6		5		7		20		20		68		84
<b>Bronte</b>	<b>496</b>	<b>422</b>	<b>358</b>	<b>297</b>	<b>318</b>	<b>547</b>	<b>695</b>	<b>668</b>	<b>572</b>	<b>553</b>	<b>471</b>	<b>337</b>	<b>356</b>	<b>237</b>	<b>165</b>	<b>131</b>	<b>107</b>	<b>98</b>
<i>Assistance Dependent</i>	0	12		0	3	7		0		12		9		25		36		32
<b>Darling Point</b>	<b>171</b>	<b>124</b>	<b>105</b>	<b>79</b>	<b>151</b>	<b>326</b>	<b>379</b>	<b>302</b>	<b>223</b>	<b>235</b>	<b>238</b>	<b>240</b>	<b>300</b>	<b>266</b>	<b>204</b>	<b>163</b>	<b>172</b>	<b>239</b>
<i>Assistance Dependent</i>	0	3		0	0	6		4		0		4		13		33		68
<b>Double Bay</b>	<b>228</b>	<b>194</b>	<b>181</b>	<b>212</b>	<b>303</b>	<b>508</b>	<b>466</b>	<b>346</b>	<b>322</b>	<b>284</b>	<b>258</b>	<b>233</b>	<b>293</b>	<b>217</b>	<b>192</b>	<b>138</b>	<b>142</b>	<b>169</b>
<i>Assistance Dependent</i>	0	6		3	0	3		4		3		5		13		28		61
<b>Dover Heights</b>	<b>247</b>	<b>278</b>	<b>304</b>	<b>260</b>	<b>255</b>	<b>202</b>	<b>176</b>	<b>271</b>	<b>287</b>	<b>290</b>	<b>331</b>	<b>263</b>	<b>234</b>	<b>164</b>	<b>111</b>	<b>86</b>	<b>89</b>	<b>91</b>
<i>Assistance Dependent</i>	6	6		3	3	5		0		3		7		6		14		34
<b>Edgecliff</b>	<b>90</b>	<b>49</b>	<b>36</b>	<b>32</b>	<b>109</b>	<b>285</b>	<b>286</b>	<b>181</b>	<b>118</b>	<b>99</b>	<b>99</b>	<b>81</b>	<b>111</b>	<b>92</b>	<b>77</b>	<b>64</b>	<b>71</b>	<b>100</b>
<i>Assistance Dependent</i>	0	0		0	0	0		4		3		0		8		18		48
<b>North Bondi</b>	<b>738</b>	<b>534</b>	<b>361</b>	<b>323</b>	<b>469</b>	<b>886</b>	<b>1,059</b>	<b>939</b>	<b>753</b>	<b>573</b>	<b>456</b>	<b>357</b>	<b>374</b>	<b>229</b>	<b>176</b>	<b>119</b>	<b>103</b>	<b>133</b>
<i>Assistance Dependent</i>	7	6		6	6	0		4		15		15		15		22		49
<b>Paddington</b>	<b>743</b>	<b>461</b>	<b>323</b>	<b>341</b>	<b>805</b>	<b>1,600</b>	<b>1,535</b>	<b>1,307</b>	<b>1,021</b>	<b>790</b>	<b>640</b>	<b>547</b>	<b>656</b>	<b>526</b>	<b>347</b>	<b>190</b>	<b>153</b>	<b>153</b>
<i>Assistance Dependent</i>	6	9		0	0	6		20		22		19		25		39		48
<b>Point Piper</b>	<b>49</b>	<b>60</b>	<b>74</b>	<b>49</b>	<b>75</b>	<b>90</b>	<b>74</b>	<b>83</b>	<b>71</b>	<b>100</b>	<b>99</b>	<b>126</b>	<b>121</b>	<b>113</b>	<b>49</b>	<b>53</b>	<b>51</b>	<b>64</b>
<i>Assistance Dependent</i>	0	0		0	0	3		0		3		6		3		7		18
<b>Queens Park</b>	<b>258</b>	<b>196</b>	<b>147</b>	<b>137</b>	<b>133</b>	<b>168</b>	<b>232</b>	<b>257</b>	<b>280</b>	<b>204</b>	<b>198</b>	<b>160</b>	<b>186</b>	<b>119</b>	<b>91</b>	<b>80</b>	<b>40</b>	<b>43</b>
<i>Assistance Dependent</i>	0	0		0	0	0		5		4		6		12		21		21
<b>Rose Bay</b>	<b>678</b>	<b>482</b>	<b>495</b>	<b>441</b>	<b>485</b>	<b>786</b>	<b>907</b>	<b>851</b>	<b>654</b>	<b>607</b>	<b>508</b>	<b>476</b>	<b>554</b>	<b>442</b>	<b>297</b>	<b>255</b>	<b>241</b>	<b>242</b>
<i>Assistance Dependent</i>	4	12		7	6	0		9		10		25		24		75		99
<b>Tamarama</b>	<b>99</b>	<b>51</b>	<b>55</b>	<b>46</b>	<b>79</b>	<b>151</b>	<b>263</b>	<b>180</b>	<b>134</b>	<b>104</b>	<b>85</b>	<b>58</b>	<b>42</b>	<b>34</b>	<b>25</b>	<b>18</b>	<b>10</b>	<b>17</b>
<i>Assistance Dependent</i>	0	4		0	0	0		3		0		5		0		4		12
<b>Vaucluse</b>	<b>595</b>	<b>608</b>	<b>691</b>	<b>722</b>	<b>469</b>	<b>390</b>	<b>507</b>	<b>613</b>	<b>657</b>	<b>714</b>	<b>685</b>	<b>522</b>	<b>518</b>	<b>417</b>	<b>277</b>	<b>232</b>	<b>191</b>	<b>243</b>
<i>Assistance Dependent</i>	3	17		6	5	6		9		9		15		22		57		103
<b>Watsons Bay</b>	<b>53</b>	<b>73</b>	<b>49</b>	<b>77</b>	<b>122</b>	<b>36</b>	<b>42</b>	<b>59</b>	<b>79</b>	<b>57</b>	<b>59</b>	<b>45</b>	<b>48</b>	<b>27</b>	<b>31</b>	<b>15</b>	<b>19</b>	<b>29</b>
<i>Assistance Dependent</i>	0	0		3	0	0		0		3		3		0		3		8
<b>Waverley</b>	<b>308</b>	<b>213</b>	<b>158</b>	<b>185</b>	<b>198</b>	<b>310</b>	<b>423</b>	<b>400</b>	<b>360</b>	<b>286</b>	<b>195</b>	<b>188</b>	<b>182</b>	<b>146</b>	<b>137</b>	<b>137</b>	<b>147</b>	<b>282</b>
<i>Assistance Dependent</i>	0	0		0	0	4		9		5		31		51		103		178
<b>Woollahra</b>	<b>408</b>	<b>341</b>	<b>290</b>	<b>234</b>	<b>386</b>	<b>640</b>	<b>621</b>	<b>576</b>	<b>525</b>	<b>486</b>	<b>414</b>	<b>399</b>	<b>465</b>	<b>395</b>	<b>316</b>	<b>209</b>	<b>193</b>	<b>284</b>
<i>Assistance Dependent</i>	0	8		7	0	0		6		13		16		17		46		91

## Transport Routes and Facilities

- Edgecliff Railway Station and bus interchange - New South Head Road Edgecliff
- Bondi Junction Railway Station and bus interchange - Grafton Street Bondi Junction

## Transport Emergency Plans

Requested from Waverley Local Area Command

### Road Link Information

<b>Major Road Links</b>
Bondi Junction Bus and Rail Interchange
Syd Einfeld Drive
Bondi Road
Carrington Road
York Road
Oxford Street
Bronte Road
Campbell Parade
Old South Head Road
Military Road
New South Head Road
Victoria Road
Hopetoun Avenue
Edgecliff Road

### Rail Link

- Edgecliff Railway Station, New South Head Road, Edgecliff
- Bondi Junction Railway Station, Grafton Street, Bondi Junction

### Economy and Industry

- The Gross Regional Product for Waverley is estimated at \$4.01billion with the largest industry being Retail Trade
- The Gross Regional Product for Woollahra is estimated at \$4.11 billion with the largest industry being Health care and Social Assistance

### Community Dependencies

- Public Transport
- Aged care
- Refer Vulnerable Facilities Attachment in Part 3 – Restricted Section

## Annexure B – Hazards and Risks Summary

A Local Emergency Risk Management (ERM) Study was undertaken by the Waverley Woollahra Local Emergency Management Committee on 19<sup>th</sup> July 2018. The LEMC identified the following hazards as having risk of causing loss of life, property, utilities, services and/or the community's ability to function within its normal capacity. These hazards have been identified as having the potential to create an emergency. The Risk Management Study utilised the National Emergency Risk Assessment Guidelines Practice Guide, 2015.

### Consequence Table<sup>6</sup>

ELEMENTS	CONSEQUENCES				
	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHI C
People	<b>NONE OR ISOLATED</b> cases of injuries that do not require medical intervention Nil or less than 20 people displaced and able to be self sufficient.	<b>ISOLATED</b> cases of minor injuries & first aid treatment Small number of people displaced (20 to100) and requiring very little assistance.	<b>ISOLATED</b> cases of serious injury (hospitalisation) & medical treatment cases. Small to moderate number of people displaced (100 to 1000) and/or requiring some assistance.	<b>MULTIPLE</b> cases of life threatening & serious injuries (hospitalisation) Moderate to large number of people displaced (1000 to 3000) and/or requiring assistance.	<b>WIDESPREAD</b> cases of: Multiple deaths or life threatening or serious injuries. >3000 people displaced & requiring assistance or long term support.
Property	<b>NONE OR ISOLATED</b> cases of minor damage to property that can be repaired by owners or without emergency agency assistance.	<b>ISOLATED</b> cases of minor damage to property that requires emergency agency assistance.	<b>ISOLATED</b> cases of moderate damage to property requiring external assistance to repair.	<b>MULTIPLE</b> cases of major damage to property or isolated cases of total loss.	<b>WIDESPREAD</b> cases of major damage and complete loss of properties.
Infrastructure	<b>NONE OR ISOLATED</b> cases of minor damage to infrastructure that can be repaired by owners and does not disrupt service/supply	<b>ISOLATED</b> cases of minor damage to infrastructure that disrupts supply/service to very few individual properties	<b>ISOLATED</b> cases of failure of service delivery or supply affecting some parts of the community	<b>MULTIPLE</b> cases of failure of service delivery or supply affecting large parts of the community	<b>WIDESPREAD</b> cases of long term failure or loss of significant infrastructure, service delivery or supply
Environment	<b>NONE OR ISOLATED</b> cases of very short term impact on the environment not requiring human intervention	<b>ISOLATED</b> cases of medium term impact on the environment not requiring human intervention	<b>ISOLATED</b> cases of impact on the environment requiring human intervention	<b>MULTIPLE</b> cases of intermediate impact on the environment requiring human intervention	<b>WIDESPREAD</b> cases of intermediate or long term impact on environment requiring human intervention
Economic	<b>NONE OR ISOLATED</b> cases of impact on industry without causing economic losses beyond insurance capability	<b>ISOLATED</b> cases of very short term impact on industry without causing economic losses beyond insurance capability	<b>ISOLATED</b> cases of impact on industry causing some economic losses beyond insurance recovery capability	<b>MULTIPLE</b> cases of impact on industry causing economic losses beyond insurance recovery capability	<b>WIDESPREAD</b> cases of impact on industry causing major economic losses
Animals	<b>NONE OR ISOLATED</b> cases of tock/Companion animals injured or displaced and able to be cared for by owners	<b>ISOLATED</b> cases of stock/companion animals injured or displaced and able to be cared for by owners	<b>ISOLATED</b> cases of stock/companion animals injured or displaced and external assistance required	<b>MULTIPLE</b> cases of stock/companion animals dead, injured or displaced and external assistance required	<b>WIDESPREAD</b> cases of stock/companion animals dead, injured or displaced and external assistance required

<sup>6</sup> Central Metropolitan Region EM PLAN, November 2017

Risk Management Table<sup>7</sup>

		CONSEQUENCE LEVEL						
		Historical	Insignificant	Minor	Moderate	Major	Catastrophic	
LIKELIHOOD <sup>8</sup>	Once or more per year	Almost Certain	Medium	Medium	High	Extreme	Extreme	
	Once per 10 years	Likely	Low	Medium	High	Extreme	Extreme	
	Once per 100 years	Unlikely	Low	Low	Medium	High	Extreme	
	Once per 1000 years	Rare	Very Low	Low	Medium	High	High	
	Once per 10,000 years	Very Rare	Very Low	Very Low	Low	Medium	High	
	Once per 100,000 years	Extremely Rare	Very Low	Very Low	Low	Medium	High	

<sup>7</sup> Qualitative Risk Level Matrix, National Emergency Risk Assessment Guidelines Practice Guide, Australian Institute for Disaster Resilience, 2015, p.41

<sup>8</sup> Likelihood level, Risk Analysis, National Emergency Risk Assessment Guidelines Practice Guide, 2015, p.39

Waverley-Woollahra LEMC Risk Assessment Table (2018)

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency	Consequence Management Guide
Agricultural Disease (Animal/Animal)	An agriculture/horticulture incident that results, or has potential to result, in the spread of a communicable disease or infestation.	Unlikely	Minor	Low	Department of Primary Industries	
Coastal Erosion	Localised or widespread damage to built environment	Rare	Minor	Low	NSW SES	
Communicable Disease (Human/Animal)	Pandemic illness that affects, or has potential to affect, large portions of the human or animal population	Unlikely	Major	High	Department of Health	Pandemic CMG
Dam/Reservoir Failure	A dam/reservoir is compromised that results in localised or widespread flooding.	Rare	Moderate	Medium	Sydney Water NSW SES	Flood CMG
Earthquake	Earthquake of significant strength that results in localised or widespread damage.	Rare	Catastrophic	High	LEOCON	Earthquake CMG
Explosion	Explosion caused as a result of an incident or accident.	Unlikely	Major	High	LEOCON <i>(Unless an act of terrorism)</i>	Explosion CMG
Fire (Bush or Grass)	Major fires in areas of bush or grasslands.	Unlikely	Insignificant	Low	F&R NSW	

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency	Consequence Management Guide
Fire – Major Structural	Serious industrial, structural, commercial or residential fire in complexes, warehouses, vulnerable facilities, high rise, medical facilities	Likely	Moderate	High	F & R NSW	Major Structural Fire CMG
Flood (Flash)	Heavy rainfall causes excessive localised flooding with minimal warning time	Likely	Minor	Medium	NSW SES	Flood CMG
Hazardous Materials Release	Hazardous material released as a result of an incident or accident.	Rare	Minor	Low	F & R NSW	
Heatwave	A sequence of abnormally hot conditions having the potential to affect a community adversely.	Likely	Moderate	High	SEOCON	Heatwave Sub Plan
Infrastructure / Utilities Failure	Failure of services resulting in utilities, communications or infrastructure failure in the public domain and between emergency services	Unlikely	Moderate	Medium	LEOCON	Infrastructure Failure CMG
Landslip / Subsidence	Landslip / subsidence resulting in significant or widespread damage.	Rare	Moderate	Medium	LEOCON	Landslip CMG
Storm - Severe	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding.(includes tornado)	Likely	Moderate	High	NSW SES	Storm CMG



Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency	Consequence Management Guide
Structural Collapse	Collapse of bridge / building owing to structural failure or impact from external/internal event of other hazards /incidents.	Rare	Major	High	F&R NSW (USAR) LEOCON	Major Structural Collapse CMG
Transport Emergency (Air)	Aircraft crashes resulting in large number of fatalities, injuries and/or damage to property.	Unlikely	Minor	Low	LEOCON	
Transport Emergency – Rail, Road, Water	A major rail incident involving people being trapped on trains. A major vehicle accident disrupting arterial roads for extended periods, or accident that results in significant environmental damage.	Rare	Major	High	LEOCON	Transport Emergency CMG
Tsunami	A tsunami wave of magnitude that presents a risk to land and marine elements.	Rare	Minor	Low	NSW SES	

### Annexure C – Local Sub Plans, Supporting Plans and Policies

Responsibility for the preparation and maintenance of appropriate sub and supporting plans rest with the relevant Combat Agency Controller or the relevant Functional Area Coordinator.

Any sub/supporting plans are developed in consultation with the Waverley-Woollahra LEMC and the community.

The plans listed below are supplementary to this EMPLAN. The sub/supporting plans have been endorsed or supported by the LEMC and are determined as compliant and complimentary to the arrangements listed in this EMPLAN.

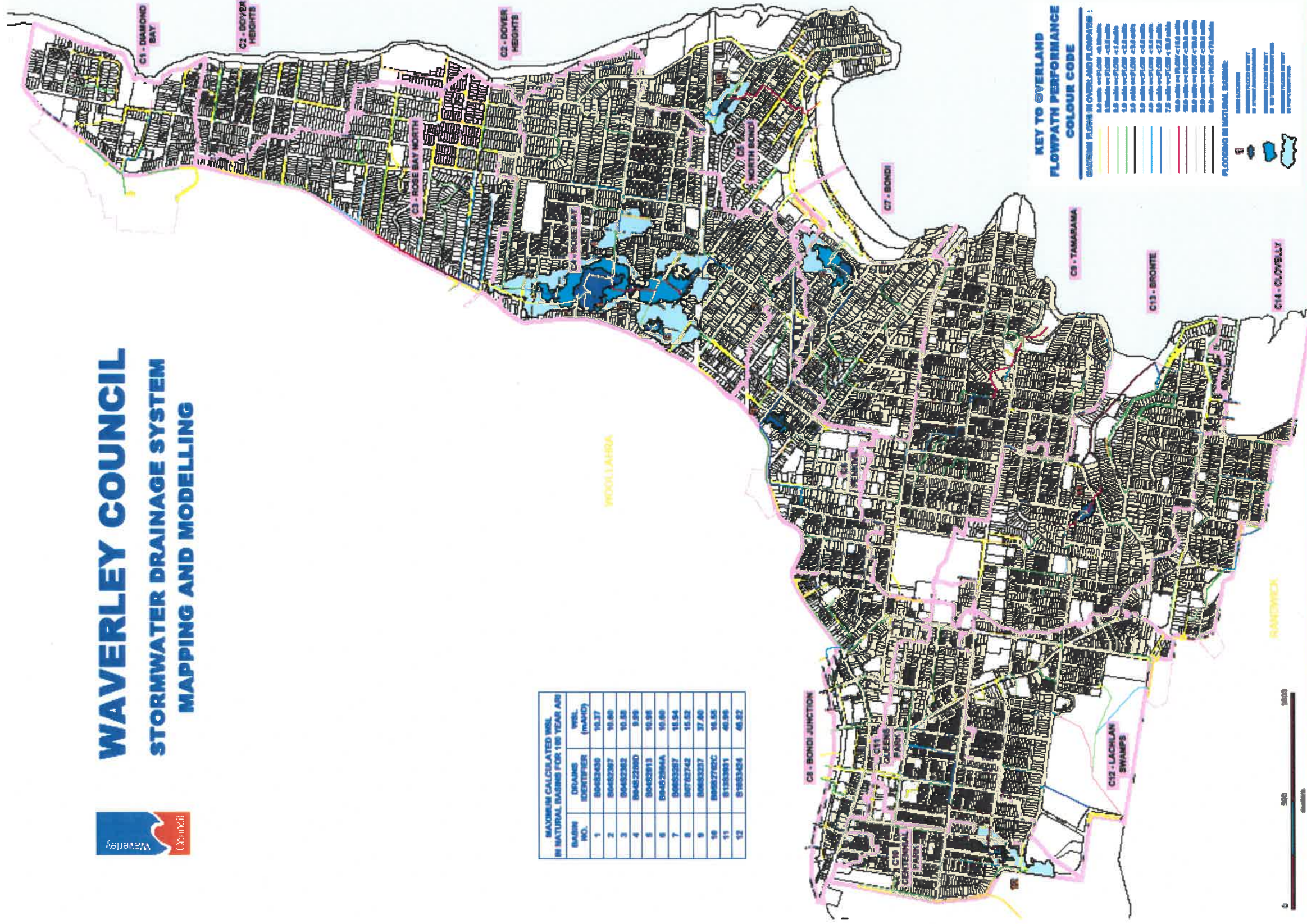
These plans are retained by the LEMO or the responsible agency on behalf of the LEMC and public release versions are available (where applicable) on the Council or relevant agency Website.

Plan/Policy	Purpose	Combat / Responsible Agency
<b>Queens Park Plan</b>	Requested from Centennial Parks Trust	Other
<b>National Parks &amp; Wildlife Plan</b>	Requested from National Parks Trust	Other
<b>Waverley Flood Plain Map</b>	See Attached	Other
<b>Woollahra Flood Plain Map</b>	See Attached	Other
<b>South East Sydney LHD Health Plan</b>	Health Coordination Plan	South East Sydney LHD
<b>State Heat Wave Plan</b>	State Wide Coordination	State Emergency Operations Controller
<b>NSW State Storm Plan</b>	Action Plan for major storms	State Emergency Operations Controller

Waverley Council - Stormwater Drainage System



**WAVERLEY COUNCIL**  
**STORMWATER DRAINAGE SYSTEM**  
**MAPPING AND MODELLING**



**MAXIMUM CALCULATED WML IN NATURAL BASINS FOR 100 YEAR ARI**

BASIN NO.	DRAIN IDENTIFIER	WML (ROUND)
1	06462430	10.37
2	06462067	10.00
3	06462262	10.38
4	06462260	9.98
5	06462013	10.00
6	06462066A	10.00
7	06652267	11.94
8	06762742	11.52
9	06652327	37.40
10	06652702C	14.00
11	01102001	40.00
12	01062406	40.02

**KEY TO OVERLAND FLOWPATH PERFORMANCE COLOUR CODE**

**MAXIMUM FLOWS IN OVERLAND FLOWPATHS:**

- 0.0 m/s to < 0.02 m/s
- 0.02 m/s to < 0.05 m/s
- 0.05 m/s to < 0.10 m/s
- 0.10 m/s to < 0.15 m/s
- 0.15 m/s to < 0.20 m/s
- 0.20 m/s to < 0.25 m/s
- 0.25 m/s to < 0.30 m/s
- 0.30 m/s to < 0.35 m/s
- 0.35 m/s to < 0.40 m/s
- 0.40 m/s to < 0.45 m/s
- 0.45 m/s to < 0.50 m/s
- 0.50 m/s to < 0.55 m/s
- 0.55 m/s to < 0.60 m/s
- 0.60 m/s to < 0.65 m/s
- 0.65 m/s to < 0.70 m/s
- 0.70 m/s to < 0.75 m/s
- 0.75 m/s to < 0.80 m/s
- 0.80 m/s to < 0.85 m/s
- 0.85 m/s to < 0.90 m/s
- 0.90 m/s to < 0.95 m/s
- 0.95 m/s to < 1.00 m/s
- 1.00 m/s to < 1.05 m/s
- 1.05 m/s to < 1.10 m/s
- 1.10 m/s to < 1.15 m/s
- 1.15 m/s to < 1.20 m/s
- 1.20 m/s to < 1.25 m/s
- 1.25 m/s to < 1.30 m/s
- 1.30 m/s to < 1.35 m/s
- 1.35 m/s to < 1.40 m/s
- 1.40 m/s to < 1.45 m/s
- 1.45 m/s to < 1.50 m/s
- 1.50 m/s to < 1.55 m/s
- 1.55 m/s to < 1.60 m/s
- 1.60 m/s to < 1.65 m/s
- 1.65 m/s to < 1.70 m/s
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- 1.85 m/s to < 1.90 m/s
- 1.90 m/s to < 1.95 m/s
- 1.95 m/s to < 2.00 m/s
- 2.00 m/s to < 2.05 m/s
- 2.05 m/s to < 2.10 m/s
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- 2.70 m/s to < 2.75 m/s
- 2.75 m/s to < 2.80 m/s
- 2.80 m/s to < 2.85 m/s
- 2.85 m/s to < 2.90 m/s
- 2.90 m/s to < 2.95 m/s
- 2.95 m/s to < 3.00 m/s
- 3.00 m/s to < 3.05 m/s
- 3.05 m/s to < 3.10 m/s
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- 3.50 m/s to < 3.55 m/s
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- 3.60 m/s to < 3.65 m/s
- 3.65 m/s to < 3.70 m/s
- 3.70 m/s to < 3.75 m/s
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- 3.80 m/s to < 3.85 m/s
- 3.85 m/s to < 3.90 m/s
- 3.90 m/s to < 3.95 m/s
- 3.95 m/s to < 4.00 m/s
- 4.00 m/s to < 4.05 m/s
- 4.05 m/s to < 4.10 m/s
- 4.10 m/s to < 4.15 m/s
- 4.15 m/s to < 4.20 m/s
- 4.20 m/s to < 4.25 m/s
- 4.25 m/s to < 4.30 m/s
- 4.30 m/s to < 4.35 m/s
- 4.35 m/s to < 4.40 m/s
- 4.40 m/s to < 4.45 m/s
- 4.45 m/s to < 4.50 m/s
- 4.50 m/s to < 4.55 m/s
- 4.55 m/s to < 4.60 m/s
- 4.60 m/s to < 4.65 m/s
- 4.65 m/s to < 4.70 m/s
- 4.70 m/s to < 4.75 m/s
- 4.75 m/s to < 4.80 m/s
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- 9.90 m/s to < 9.95 m/s
- 9.95 m/s to < 10.00 m/s

**FLOODING IN STRUCTURAL BASINS:**

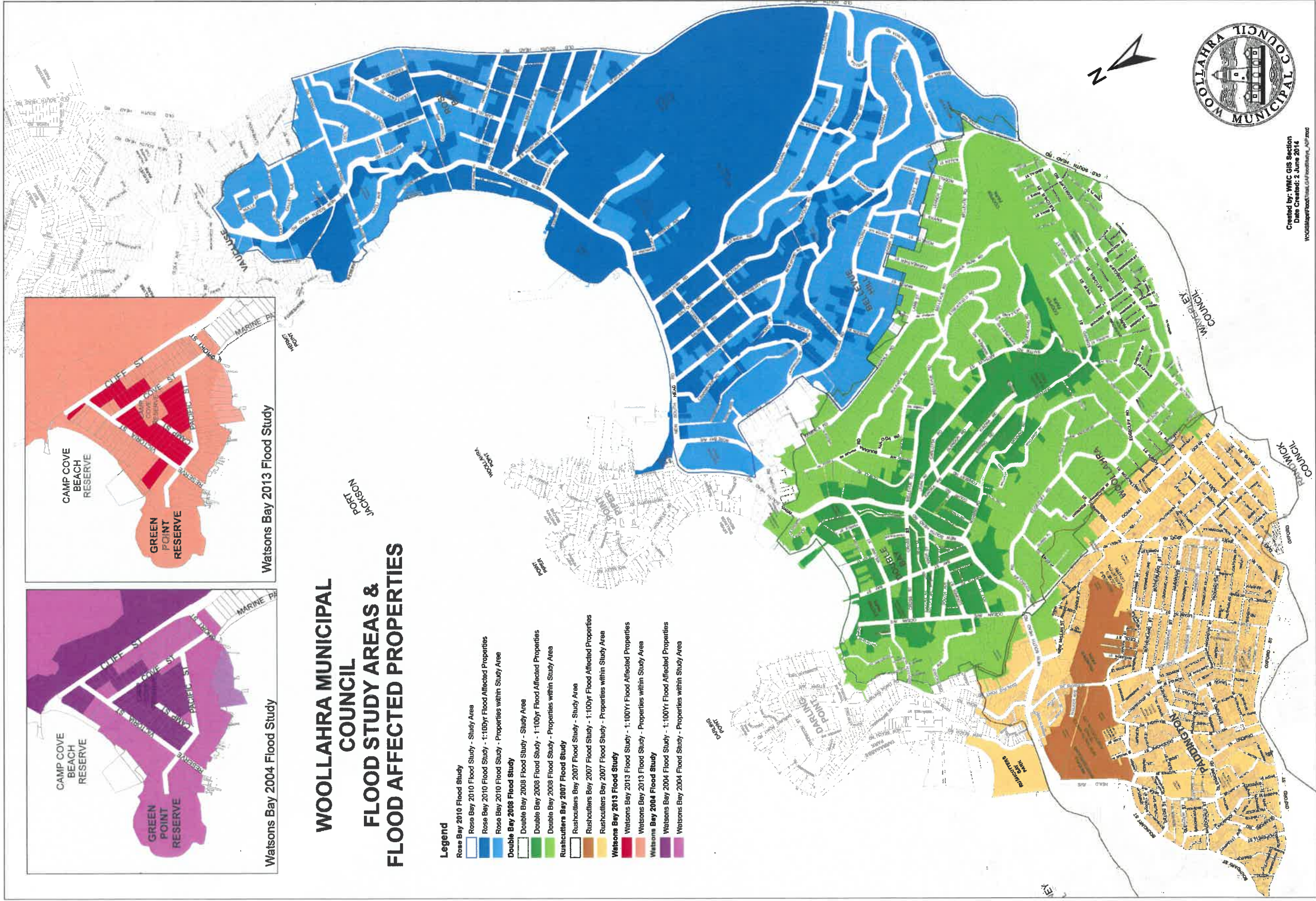
- NO FLOODING
- MINOR FLOODING
- MODERATE FLOODING
- SEVERE FLOODING
- EXTREME FLOODING

PROJECT NUMBER: 06-07-100  
 APPROX. SCALE: 1:10,000 AT A3

MAP NUMBER: **C14**  
 REVISION: AUGUST 2007

**OVERLAND FLOWPATHS PERFORMANCE - 100 YR ARI**

Woolahra Municipal Council - Flood Study Areas & Flood Affected Properties



## Annexure D – Consequence Management Guides (CMG)

Consequence management guides have been produced to assist emergency managers and agencies to address the initial response and initial recovery aspects of an actual or imminent emergency situation. Details within the CMGs are restricted and retained in confidence by the LEMC.

The following is a list of consequence management guides that have been produced for hazards that have been rated Moderate or require significant coordination and therefore require pre-operational planning.

- 1 Earthquake CMG
- 2 Explosion CMG
- 3 Fire – Major Structural
- 4 Flood CMG
- 5 Infrastructure Failure
- 6 Landslip / Subsidence / Rockfall
- 7 Pandemic
- 8 Storm
- 9 Structural Collapse – Building / Bridge
- 10 Transport Emergency – Road, Rail, Marine & Transport Hub
- 11 Utilities – Electrical-Communications - Water

**Part 3 – Restricted Operational Information**  
**Not for public distribution**