

# GIPPSLAND LAKES



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## ASSOCIATED REPORTS

- | Gippsland Lakes Flood Level Modelling Project
- | SKM Series of Gippsland Lakes Flood Warning System Reports
- | List any reports that refer to this river system.
- | Mitchell Basin, Water Resources division? DSE?

## ACCURACY & CONFIDENTIALITY

Use this information as a guide to the possible effects of a flood. This card is based on estimates of flood behaviour and particular effects may occur at heights different from those indicated here. They may also occur at slightly different heights in different floods. This card may contain sensitive information about the effects of flooding on private property. Specific reference to private addresses or businesses must be made directly to owners or other emergency services but not via broadcast or print media.

# APPENDIX A.08 – FLOOD THREATS

## OVERVIEW OF RIVER SYSTEM

### WEATHER PATTERNS

Low pressure weather systems off the NSW south coast (east coast lows) often cause heavy rain in the **Gippsland Lakes** catchment resulting in significant lake rises. So, too, do low pressure weather systems entering the catchment from central Australia and rainfall on the Great Divide and adjoining catchments.

### THE CATCHMENT

The **Gippsland Lakes** are a series of coastal lagoons with a catchment of over 2 million hectares spreading from Warragul in the west, Lakes Entrance in the East and Mt Hotham to the north.

The seven major river systems of the **Thomson, Macalister, Latrobe, Avon, Mitchell, Nicholson** and **Tambo** Rivers all empty into the Gippsland Lakes, travelling west to east and joining Bass Strait through an artificial entrance at the township of Lakes Entrance.

Flooding on the Gippsland Lakes is very complex and the predictions take into account how much water is travelling down the river systems that lead into the lakes, along with wind, tide and coastal ocean levels. When the volume of water from the rivers reaches the lakes in relation to each other and how quickly it can escape through the entrance are key considerations. These predictions will never be perfect as every flood is different and the Gippsland Lakes is a dynamic environment.

Unlike rivers, when the lakes flood it doesn't come through fast and furiously, peak and then recede. It rises slowly and hangs around for up to a week or more with levels rising and falling with tidal and wind conditions and as different river volumes move through the system. Some people and properties can be isolated for up to two weeks.

Flooding occurs as a result of flooding in the Gippsland Lakes caused in turn by flooding of the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson & Tambo Rivers which lead into the Lakes.

Flooding typically occurs after those rivers have experienced flooding with peaks slow to rise and recede, sometimes taking up to 14 days.

### FLOOD RISKS

Boat ramps, jetties and car parks flood early causing unwary boat owners to return and find their cars flooded.

There are hundreds of boats moored around the lakes system that will require their mooring lines lengthened once the lakes reach 0.80m. Mooring lines will need to be extended and reduced regularly during the event and jetties will be difficult to access from land during the event.

### RURAL FLOOD RISK

- | Low lying areas around the lakes edge eg: Boole Poole, The Barrier, Ocean Grange, Nungurner, Banksia Peninsula, Newlands Arm and Lake Bunga.

### HEALTH & ENVIRONMENTAL RISKS

Septic tanks, low lying sewerage pump stations and public toilets, which can cause sewerage overflows into floodwaters and homes and salt water inundation into the sewerage system.

Chemicals in rural sheds

### PROPERTIES AT RISK IN A 1% EVENT

The table below is a breakdown of the number of properties impacted in a 1% AEP riverine event. These figures are supported by mapping from lidar data and intensive intelligence gathering and represent a very

accurate assessment. There are no figures current for Raymond Island until the cadastre is reset?? There are a total of 2357 properties at risk in a 1% AEP event.

Community	# properties flooded in 1% AEP					
	Residential	Business	Industrial	Rural	Special Purpose	Total
Lakes Entrance	571	297	10	9	5	892
Loch Sport	507	42	8	0	0	557
Paynesville	342	54	38	0	0	434
Hollands Landing	22	0	0	19	0	41
Eagle Point	89	0	0	30	0	119
Metung	53	59	0	51	0	163
Seacombe	0	0	0	40	0	40
Boole Poole	31	0	0	18	0	49
The Barrier	0	0	0	28	0	28
Ocean Grange	0	0	0	9	0	9
Nungurner	7	0	0	3	0	10
Banksia Peninsula	0	0	0	8	0	8
Newlands Arm	5	0	0	0	0	5
Lake Bunga	0	0	0	2	0	2
Raymond Island						
<b>TOTAL</b>	<b>1627</b>	<b>452</b>	<b>56</b>	<b>217</b>	<b>5</b>	<b>2357</b>

# HISTORICAL FLOODS

Significant floods have occurred in the Gippsland Lakes as shown in the table below. Impacts of significant events are discussed below the table. NB there are other Minor and Moderate flood events that are not yet included.

EVENT	LAKES ENTRANCE	METUNG	PAYNESVILLE / EAGLE POINT	RAYMOND ISLAND	LOCH SPORT	HOLLANDS LANDING
1893	-	-	1.67	1.67	-	-
1952	1.80	1.69	1.49	1.49	1.52	-
1978	1.00	1.66	1.66	1.66	-	-
1990	1.20	-	-	-	-	-
1998	1.30	1.75	1.35	1.35	-	-
2007	1.40	1.50	1.51	1.51	1.42	-
2010 Sep						
2011 Jul						
2011 Aug						
2012 Mar 9						
Major	1.30	1.90	1.30	1.30	1.40	0.90
Moderate	1.10	1.60	1.10	1.10	1.20	-
Minor	0.90	0.80	0.70	0.70	0.90	0.70

< Minor
  Minor
  Moderate
  Major

## 1990 FLOOD EVENT

### WEATHER SYSTEM

By early morning Friday 20th April, a low pressure centre had developed over western NSW which intensified and moved to the southeast locating just off the far south NSW coast by early morning Saturday 21st April. At this stage a strengthening and extremely moist south easterly airstream had extended across Gippsland to the Great Dividing Range and intense rainfall had commenced. The intense rainfall persisted for a period of 35 to 48 hours over a substantial part of the area.

### FORECASTS

Indications on Friday 20<sup>th</sup> April were that prolonged and heavy rain would be required to overcome the dry state of Gippsland catchments. In addition, the low flows observed in Gippsland streams over the preceding weeks suggested substantial runoff would be needed to cause rivers to rise to flood level.

Although rain with local heavy falls was the main theme of meteorological forecasts and outlooks issued for Gippsland on the Friday, it was considered the dryness of catchments would lessen the likelihood of immediate flooding from even moderately heavy rain.

## 1998 FLOOD EVENT

### WEATHER SYSTEM

There had been 2.5 years of drought in the lead up to the 1998 flood event.

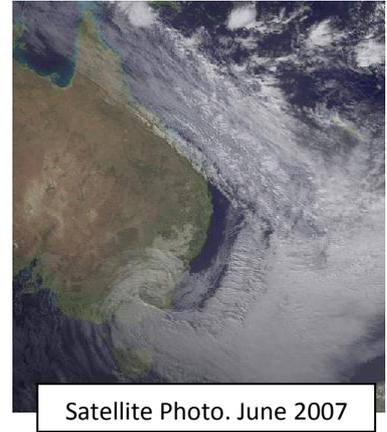
On June 23-24 the BoM reported a severe weather event with an intense low pressure system building across the east coast of Victoria.

## 2007 FLOOD EVENT

### WEATHER SYSTEM

During June 2007 four major east coast lows formed off the coast of NSW and east of Victoria. Each east coast low produced varying amounts of heavy rain. In the week commencing 17<sup>th</sup> June, BoM weather forecasts began to mention an east coast low that was likely to bring considerable rain to Gippsland.

As this low pressure system weakened and moved away from the east coast, BoM weather forecasts began to refer to another east coast low, scheduled for the following week. It is this east coast low that produced the heavy rainfall that resulted in the significant flood event.



Satellite Photo. June 2007

A low pressure trough over South Australia on Mon 25<sup>th</sup> moved eastwards over Victoria on Tues 26<sup>th</sup> to form an intense low pressure system in eastern Bass Strait near the south coast of NSW. The low deepened rapidly overnight on the 27<sup>th</sup> and became complex and moved close to eastern Victoria early on Thu 28<sup>th</sup>.

### FORECASTS

BoM weather forecasts predicted a number of days in advance the commencement of heavy rain on Wed 27<sup>th</sup> and for the rain to continue until the early part of Thu 28<sup>th</sup> before easing. Rainfall totals for the 48 hours commencing 9am on the Wednesday were expected to range mostly between 100-175mm over the eastern and mountain parts of Gippsland with some isolated falls above 200mm possible.

### EVENT

The intense rainfall over Gippsland and the southern slopes of the Great Dividing Range was well in excess of infiltration capacity and caused all seven of the rivers that flow into the Gippsland Lakes - the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson and Tambo – to flood. In turn this caused flooding through the Lakes system which at various times and degrees was exacerbated by unhelpful wind conditions and tidal variations including a king tide.

This event was the largest in recent times with levels rising over 1.3m above normal lake level as floodwaters from the surrounding rivers entered, this event was estimated to be around a 20 year ARI event. Lake levels would have been even higher had the Latrobe catchment been subjected to higher rainfalls and severe flooding.

For the first time BoM issued flood warnings for the Gippsland Lakes. Peak levels around the Lakes were influenced by the high inflows combined with tidal conditions and winds and were in general a little higher than experienced in 1998.

Wind and tide influences and the timing of the floodwaters entering the lakes from the different river systems caused the peaks in Paynesville, Metung and lakes Entrance to occur ahead of Lake Wellington.

### IMPACTS

The flood caused substantial community disruption and damage. Estimated direct damage was of the order of \$110 million and total damage upwards of \$116 million. Difficulties in quantifying indirect and intangible damages means that the total cost of this flood to the community may never be fully assessed.

All lakeside communities were impacted to different degrees including Hollands Landing, Seacombe, Loch Sport, Paynesville, Eagle Point, Raymond Island, Metung, Mosquito Point, Tambo Bay and Lakes Entrance. There were many isolations in most of these communities for an extended period. The Raymond Island Ferry ceased operating and isolated residents for 7 days causing over 70 residents and visitors to leave the island. In all 13 houses and 30 sheds were inundated in the town and along the north western shoreline of the Island.

## MAJOR WATER STORAGES

There are no major water storages over 1,000ML on the Gippsland Lakes.

## LEVEES

There are no levees in the Gippsland Lakes.

## MAJOR ROAD CLOSURES

Riverine Flooding	Flash Flooding
<b>Princes Hwy</b> – The Esplanade Lakes Entrance <b>Myer St</b> – Lakes Entrance <b>Raymond Island Ferry</b> – Raymond Island <b>National Park Rd</b> - Loch Sport <b>Hollands Landing Rd</b> - Hollands Landing <b>Burrabogie Island Bridge</b> - Paynesville <b>The Esplanade</b> - Paynesville	

## GAUGE LOCATIONS

Gauge Name	Location	Gauge Zero m AHD	No.
Hollands Landing		0.00	
Loch Sport		0.00	
Paynesville		0.00	
Metung		0.00	
Lakes Entrance		0.00	

## GAUGE LEVEL INFORMATION

Gauge Name	Flood Class / Event	Gauge Height (m)	ARI (1 in X years)
<b>Hollands Landing</b>	2007 Jun	2.00	100
	<b>Major</b>	<b>0.90</b>	
	<b>Minor</b>	<b>0.70</b>	
<b>Loch Sport</b>	Lake Reeve	1.90	100
	1952	1.52	
		1.50	~20-50
	2007 Jun	1.42	
	<b>Major</b>	<b>1.40</b>	
	<b>Moderate</b>	<b>1.20</b>	<b>~2-10</b>
	<b>Minor</b>	<b>0.90</b>	<b>~1-5</b>
<b>Paynesville</b>		2.00	100
		1.70	50
	1893	1.67	
	1978	1.66	
	2007 Jun	1.51	
	1952	1.49	
	1998	1.35	
		1.50	20
	<b>Major</b>	<b>1.30</b>	<b>~10</b>
	<b>Moderate</b>	<b>1.10</b>	
<b>Minor</b>	<b>0.80</b>	<b>~1-3</b>	
<b>Minor</b>	<b>0.70</b>		
<b>Metung</b>		2.10	100
	<b>Major</b>	<b>1.90</b>	<b>~50</b>
	1998	1.75	
	1952	1.69	
	1978	1.66	
	<b>Moderate</b>	<b>1.60</b>	
	2007 Jun	1.50	20
		<b>1.40</b>	<b>~4</b>
		<b>1.10</b>	<b>~2-5</b>
	<b>Minor</b>	<b>0.80</b>	
<b>Lakes Entrance</b>	(Town)	1.80	100
	(Town)	1.71	
	(Town)	1.60	50
	(Town)	1.40	
	(Bullock Island)	1.30	
	<b>Major</b>	<b>1.30</b>	<b>~20</b>
	(Bullock Island)	1.20	
	<b>Moderate</b>	<b>1.10</b>	
(Bullock Island)	1.00	~2-5	
<b>Minor</b>	<b>0.90</b>		

## APPENDIX B.08 - FLOOD PEAK TRAVEL TIMES

Travel times are calculated as the time the peak of the event takes to move from one gauge to the next. Note the onset of flooding can occur before the peak water level occurs.

Due to the high level of variability in antecedent catchment conditions, flood travel times can vary significantly, as demonstrated in previous floods.

Travel times listed here are **INDICATIVE ONLY** and are **HIGHLY VARIABLE**.

**NO INFORMATION AVAILABLE**



Minor 0.80m  
Moderate 1.10m  
Major 1.30m

## LOCATION

Paynesville is situated on the Gippsland Lakes 15km from Bairnsdale along the Mitchell River and is bordered by Lakes King & Victoria and separated from Raymond Island by McMillan Straits. The only access for Raymond Island is via a ferry from Paynesville across McLennan Straits. East Gippsland Shire & Gippsland Ports operate marinas here and there are many private jetties.

## FLOOD BEHAVIOUR

Flooding in this community occurs as a result of flooding in the Gippsland Lakes caused in turn by flooding of the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson & Tambo Rivers which lead into the Lakes.

Flooding typically occurs after those rivers have experienced flooding with peaks slow to rise and recede, sometimes taking up to 14 days.

Many parts of Paynesville are above flood levels and will be inconvenienced by alternative routes to Bairnsdale and no access to shops locally. There are however many low lying dwellings and businesses that will be impacted with above floor flooding and isolation. The highest risk to Paynesville is the isolation of properties on Burrabogie Island, including the Allawah Caravan Park, Gippsland Water Police, Gippsland Ports yard and Slip Bight Marina.

There are many marinas and jetties around Paynesville where boats will need to have their mooring lines adjusted as lake heights build and recede. Many of these become inaccessible due to road closures and authorities need to be mindful of people trying to gain access through flood waters. Early warning of expected heights and perhaps utilisation of the Coast Guard and Water Police to adjust mooring lines should be a consideration.

Low lying areas of Paynesville have marine industry and boat building yards. These will have chemicals stored at levels that are flood prone. There is a boat petrol bowsers near the Gippsland Ports yard on Slip Road and a boat sewerage pump out facility. There are no Petrol Stations that may be impacted. There are public toilets at .... which may require sandbagging of the pans.

# CONSEQUENCES AND IMPACTS SUMMARY

| The table below is a breakdown of the number of properties impacted in a 1% AEP riverine event.

Land Use	#
Residential	342
Business	54
Industrial	38
Rural	0
<b>Total</b>	<b>434</b>

| The table below is a breakdown of the number of properties impacted at each gauge height at the Paynesville Gauge.

Gauge Height	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Flooded	0	0	1	7	28	47	60	70	84	101	114	131
Isolated	0	0	0	0	86	86	176	176	176	176	176	176

## FLOOD WARNINGS

The BoM is able to predict flood heights 12-52 hours ahead of peaks in this location as part of the Gippsland Lakes Flood Warning System.

## ROAD CLOSURES

The highest access risk is to those on Burrabogie Island. Access to properties and businesses on Burrabogie Island can be impacted for up to 14 days depending on the extent and duration of the peak. When Slip Road and / or King Street is flooded, all properties on the Island are isolated. Many will not be aware that if isolated, they will be for up to **two weeks**. It is important to ensure those at risk have either evacuated or have enough medication and supplies.

**Early notification is imperative for those on Burrabogie Island.**

Access to Eagle Point from Bairnsdale is via :-

- ▶ Bairnsdale-Paynesville Rd which is subject to flooding from the Mitchell River and can be cut for several days;
- ▶ Forge Creek Rd, which is subject to local flash flooding just south of Racecourse Rd in Bairnsdale for generally up to 24 hours; or
- ▶ West on Princes H'way – south on Bengworden Rd – east on Humphreys Lane – south on Forge Creek Rd – east on Bairnsdale-Paynesville Rd

Refer to the Mitchell River Flood Intelligence Card for access interruptions on Paynesville & Forge Creek Rds.

## Local Road Closures

Slip Rd	Milton Ave	Windjammer Crt
Victoria St	King St	Wellington St
The Esplanade	Fleischer St	View St
Raymond St	Devon St	The Beacons
Aquarius Way	North Quay	

## COMMUNITY PROFILE

The population is generally elderly with many living alone and without family support within the district. There is no shop on the Island for resupply. The Raymond Island community is relatively self sufficient and has a good community flood plan, but consideration must be given to those at high risk and in need of assistance to move belongings to higher levels and to evacuate. A Relief Centre should be an early consideration.

The following is a demographic profile of Paynesville as at the 2006 census.

Pop'n	Dwellings	Language	Needs Assistance	Age Profile
396	211	English 100%	Disability   4.6%   Living Alone   37%   No Car   6%	Avg   61yrs   <15   12%   55-74   48%    15-54   26%    >75   14%

## GAUGE LEVEL INFORMATION

Flood Class	Flood Event	Paynesville
	1893	1.67
	1978	1.66
	1952	1.49
	2007 Jun	1.50
	1990 Apr	
	1998	1.35
<b>Major</b>		<b>1.30</b>
<b>Moderate</b>		<b>1.10</b>
<b>Minor</b>		<b>0.80</b>

# DETAILED CONSEQUENCES & IMPACTS – FLOOD INTELLIGENCE CARD

Gauge	No.	Location	Datum Type
Paynesville Gauge		Gippsland Ports Jetty, Slip Road, Burrabogie Island, Paynesville	AHD

**NB** Depths quoted are above ground level and do not necessarily indicate above floor flooding. Properties are considered isolated when 20cm of water is across the road

Height (m)	Consequences	Operational Considerations
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0.0 – 0.2	~ Tidal Variation	
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0.60	<b>ROADS</b>   <b>Water over Road</b> ▷ King Street Boat Ramp & car park ▷ Access to GLYC & jetties	
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0.70	<b>SUMMARY</b>   Raymond Island Ferry is unable to operate	
	<b>ROADS</b>   <b>Water over Road</b> ▷ Country Club Hotel Jetty, Boat Ramp & Car Park off Milton Ave ▷ Milton Ave ▷ Gippsland Lakes Yacht Club forecourt	

0.80	<b>MINOR FLOOD LEVEL</b> <hr/> <b>SUMMARY</b>   Lake levels will be high and some properties on the canals will have water lapping at the revetment walls <hr/> <b>ROADS</b>   <b>Water over Road</b> ▷ Slip Rd near Gippsland Ports Yard (access to the Ports Yard, Water Police & marina) ▷ Boat Ramp & car park off Milton Ave ▷ Walking / bike path to Eagle Point	Advise Gippsland Ports and East Gippsland Shire regarding need for boat mooring lines to be extended.
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0.90	<b>PROPERTIES</b>   <b>Flooded</b> ▷ 1 properties in total ▷ 1 new up to 0.10m [Charlie Group]	
	<b>ROADS</b>   <b>Water over Road</b> ▷ Slip Rd @ Aquarius Way ▷ Slip Rd @ King St Boat Ramp ▷ The Esplanade nth of Victoria St	

- ▷ Victoria St @ The Esplanade

#### | Road Closed

- ▷ Country Club Hotel Jetty, Boat Ramp & Car Park off Milton Ave
- ▷ Milton Ave
- ▷ Gippsland Lakes Yacht Club forecourt

1.00

### PROPERTIES

#### | Flooded

- ▷ 72 properties in total
- ▷ 6 new up to 0.10m [Delta Group]
- ▷ 1 previously up to 0.20m

### ROADS

#### | Water over Road

- ▷ Access to Gippsland Lakes Yacht Club

#### | Road Closed

- ▷ Slip Rd near Gippsland Ports Yard (access to the Ports Yard, Water Police & marina)
- ▷ Boat Ramp & car park off Milton Ave
- ▷ Walking / bike path to Eagle Point
- ▷ And previously listed

1.10

### MODERATE FLOOD LEVEL

#### SUMMARY

- | 86 properties on Burrabogie Island are now isolated due to flooding on Slip Rd
- | Properties facing the Canals will experience shallow flooding over the revetment walls

### PROPERTIES

#### | Flooded

- ▷ 28 properties in total
- ▷ 21 new up to 0.10m [Echo Group]
- ▷ 7 previously up to 0.30m
- ▷ Critical Properties - 5
  - Allawah Caravan Park, Slip Rd
  - Gippsland Water Police, Slip Rd
  - Gippsland Ports, Slip Rd
  - Paynesville Motor Cruiser Club, Slip Rd
  - Gippsland Lakes Yacht Club, The Esplanade

#### | Isolated

- ▷ 86 properties in total
- ▷ 86 new [Echo Group]
- ▷ Nil previously

- ▷ Critical Properties – 6
  - Allawah Caravan Park, Slip Rd
  - Slip Bight Marina, Slip Rd
  - Paynesville Motor Cruiser Club, Slip Rd
  - Gippsland Ports, Slip Rd,
  - Water Police, Slip Rd
  - Bulls Cruisers, Slip Rd

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**ROADS**
**| Water over Road**

- ▷ Raymond St
- ▷ Aquarius Way
- ▷ Milton Ave [west of Marina Dve]
- ▷ Vacant Block cnr / Victoria St & The Esplanade which is used for Raymond Island residents once ferry is not working

**| Road Closed**

- ▷ Slip Rd @ Aquarius Way
- ▷ Slip Rd @ King St Boat Ramp
- ▷ The Esplanade nth of Victoria St
- ▷ Victoria St @ The Esplanade
- ▷ And previously listed

1.20

**PROPERTIES**
**| Flooded**

- ▷ 47 properties in total
- ▷ 19 new up to 0.10m [Foxtrot Group]
- ▷ 28 previously up to 0.40m

**| Isolated**

- ▷ 86 properties in total
- ▷ Nil new
- ▷ 86 previously

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**ROADS**
**| Water over Road**

- ▷ Marina Drive
- ▷ Access to Allawah Caravan Park
- ▷ The Esplanade sth of Victoria St

**| Road Closed**

- ▷ Access to Gippsland Lakes Yacht Club
- ▷ And previously listed

1.30

**MAJOR FLOOD LEVEL**


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**SUMMARY**

- | 176 properties now isolated on Burrabogie Island, Devon & Fleischer Sts and The Esplanade
-

**PROPERTIES****| Flooded**

- ▷ 60 properties in total
- ▷ 13 new up to 0.10m [Golf Group]
- ▷ 47 previously up to 0.50m

**| Isolated**

- ▷ 176 properties in total
- ▷ 90 new [Golf Group]
- ▷ 86 previously
- ▷ Critical Properties – 4
  - Fishermans Wharf
  - Community Centre
  - Child Care Centre
  - Coast Guard

**ROADS****| Water over Road**

- ▷ Mitchell St
- ▷ King St
- ▷ Fleischer St
- ▷ Raymond St
- ▷ King S between Burrabogie Island Bridge & Slip Rd

**| Road Closed**

- ▷ Raymond St
- ▷ Aquarius Way
- ▷ Milton Ave [west of Marina Dve]
- ▷ Vacant Block cnr / Victoria St & The Esplanade which is used for Raymond Island residents once ferry is not working
- ▷ And previously listed

**1.35****1998 FLOOD EVENT****1.40****PROPERTIES****| Flooded**

- ▷ 70 properties in total
- ▷ 10 new up to 0.10m [Hotel Group]
- ▷ 60 previously up to 0.60m
- ▷ Critical Properties - 1
  - Gippsland Ports Yard

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS**

**| Water over Road**

- ▷ Paynesville Motor Cruiser Club & Slip Bight Marina access Rd and car park

**| Road Closed**

- ▷ Marina Drive
- ▷ Access to Allawah Caravan Park
- ▷ The Esplanade sth of Victoria St
- ▷ And previously listed

1.50

**2007 FLOOD EVENT & 1 in 20 ARI****PROPERTIES****| Flooded**

- ▷ 84 properties in total
- ▷ 14 new up to 0.10m [India Group]
- ▷ 70 previously up to 0.70m

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS****| Water over Road**

- ▷ Devon St
- ▷ Victoria St near Wellington St
- ▷ The Esplanade shopping precinct near ferry approaches

**| Road Closed**

- ▷ Mitchell St
- ▷ King St
- ▷ Fleischer St
- ▷ Raymond St
- ▷ King S between Burrabogie Island Bridge & Slip Rd
- ▷ And previously listed

1.60

**PROPERTIES****| Flooded**

- ▷ 101 properties in total
- ▷ 17 new up to 0.10m [Juliet Group]
- ▷ 84 previously up to 0.80m

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS**

**| Water over Road**

- ▷ North Quay @ View St
- ▷ Windjammer Crt @ Aquarius Way
- ▷ Wellington St between The Esplanade & Victoria St

**| Road Closed**

- ▷ Paynesville Motor Cruiser Club & Slip Bight Marina access Rd and car park
- ▷ And previously listed

**1.70****1 in 50 YEAR FLOOD LEVEL****PROPERTIES****| Flooded**

- ▷ 114 properties in total
- ▷ 13 new up to 0.10m [Kilo Group]
- ▷ 101 previously up to 0.90m

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS****| Water over Road**

- ▷ View St, either end
- ▷ The Beacons]

**| Road Closed**

- ▷ Devon St
- ▷ Victoria St near Wellington St
- ▷ The Esplanade shopping precinct near ferry approaches
- ▷ And previously listed

**1.80****PROPERTIES****| Flooded**

- ▷ 131 properties in total
- ▷ 17 new up to 0.10m [Lima Group]
- ▷ 101 previously up to 1.00m

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS**

**| Road Closed**

- ▷ North Quay @ View St
- ▷ Windjammer Crt @ Aquarius Way
- ▷ Wellington St bet The Esplanade & Victoria St
- ▷ And previously listed

**1.90****PROPERTIES****| Flooded**

- ▷ 145 properties in total
- ▷ 14 new up to 0.10m [Mike Group]
- ▷ 131 previously up to 1.10m

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS****| Water over Road**

- ▷ .....

**| Road Closed**

- ▷ View St, either end
- ▷ The Beacons]
- ▷ And previously listed

**2.00****1 in 100 YEAR FLOOD LEVEL****PROPERTIES****| Flooded**

- ▷ ...

**| Isolated**

- ▷ 176 in total
- ▷ Nil new
- ▷ 176 previously

**ROADS****| Water over Road**

- ▷ View St [either end]
- ▷ The Esplanade [Wellington to Victoria Sts]
- ▷ Wellington [The Esplanade to King St]
- ▷ King St [Slip Rd to Wellington St]
- ▷ Windjammer Crt
- ▷ Fort King Pl [near Tanjil]

**| Road Closed**

- ▷ Previously listed

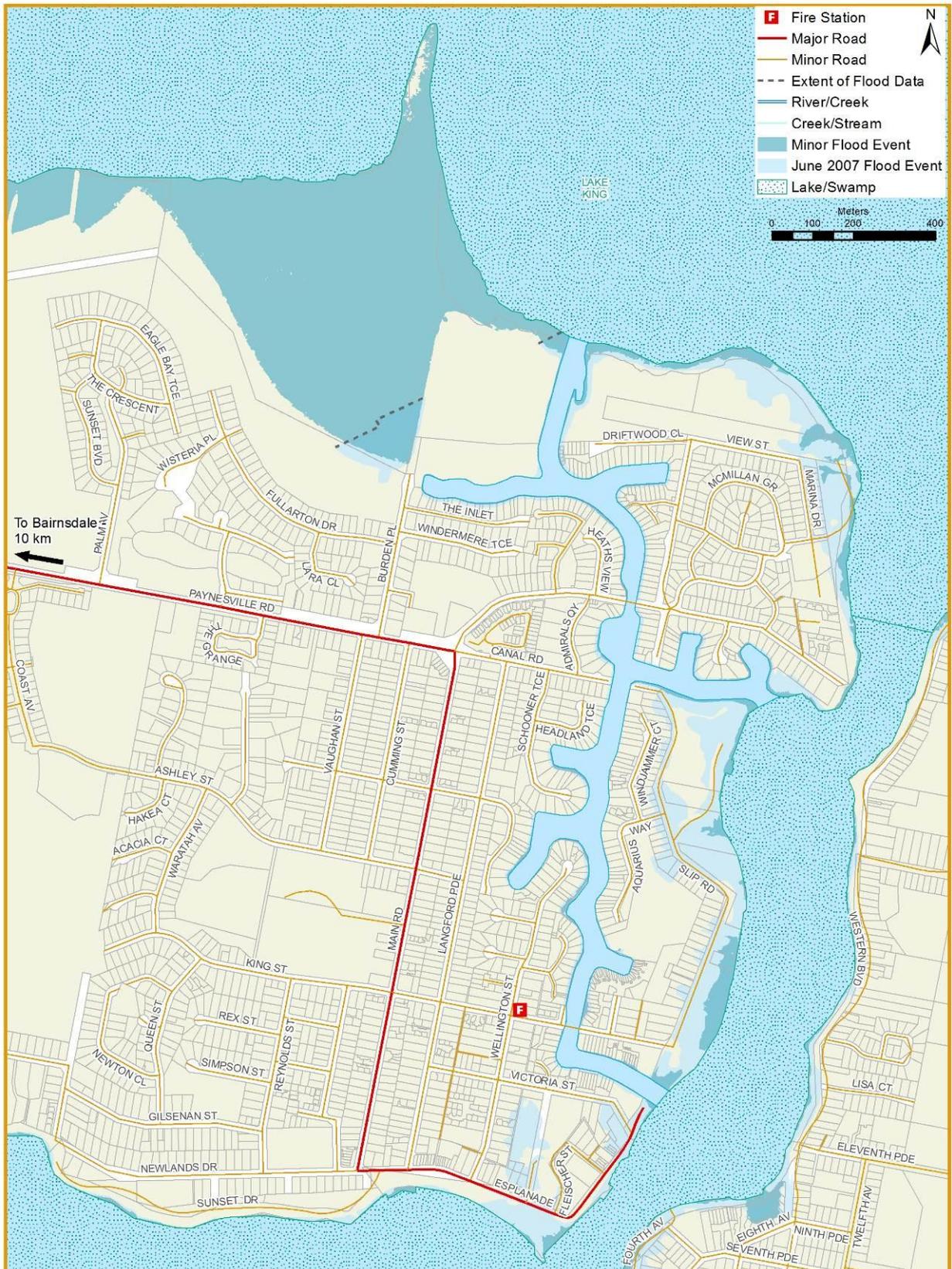
## DETAILED PROPERTY LISTINGS

NB – Individual residence floor heights are unknown, the information provided represents flooding impact at ground levels only

Height (m)	Group Name	No of Properties	Property Address
0.70	ALPHA		Nil
0.80	BRAVO		Nil
0.90	CHARLIE	1	Slip Rd [67]
1.00	DELTA	6	Marina Dve [20, 22] Slip Rd [69, 71, 73] Raymond St [3]
1.10	ECHO	21 85 isolated 1 accomm isolated	Marina Dve [4, 6, 10, 12, 14, 18] Slip Rd [25, 27, 63, 65, 117] The Esplanade [47, 49] King St [1-5, 7, 9, 11, 13, 15, 16, 17] Canal Frontage properties [not mapped] Allawah Caravan Park [Aquarius Way]
			<b>Isolated</b> Slip Rd [25-119 odd no's. (45)] Windjammer Crt [all (20)] Aquarius Way [all (20)] Allawah Caravan Park Slip Bight Marina Paynesville Motor Cruiser Club Gippsland Ports Bulls Cruisers King St boat ramp and car park
1.20	FOXTROT	19	Marina Dve [2, 8] Fort King Rd [82, 80] Slip Rd [29, 39, 43, 61, 81, 85, 87, 89, 115, 119] Wellington St [10, 12, 14, 16, 18]
1.30	GOLF	13 55 isolated	Fort King Rd [78] Slip Rd [37, 41, 45, 47, 49, 59, 75, 77, 91] The Esplanade [43, 45] Wellington St [8]
			<b>Isolated</b> King St [1-5, 2-6, 7, 9, 11, 13, 15, 16, 17] Mitchell St [12, 13, 14, 15, 16, 17, 18, 1-18/19, 19a] Devon St [2, 4, 6] Fleischer St [6] The Esplanade [59, 61, 63, 63a, 65, 71, 73, 1-3/77, 1-3/81, 1-3/85] Fishermans Wharf Community Centre Child Care Centre Coast Guard
1.40	HOTEL		

Height (m)	Group Name	No of Properties	Property Address
		<b>10</b>	Slip Rd [31, 33, 35, 51, 57, 93, 99, 113] Wellington St [6, 32]
1.50	INDIA	<b>14</b>	Marina Dve [17] Fort King Rd [74, 76, 84] Slip Rd [53, 101, 103, 105, 107, 111] Mitchell St [12] Victoria St [15] Wellington St [34, 36]
1.60	JULIET	<b>17</b>	View St [24] Marina Dve [5, 7, 9, 11, 13, 15, 19] Slip Rd [55, 95, 109] King St [2-6] Mitchell St [14] Victoria St [17] The Esplanade [37, 39] Wellington St [2]
1.70	KILO	<b>13</b>	View St [18, 22] Marina Dve [3] Slip Rd [97] Mitchell St [13, 15, 16, 17a, 18] Victoria St [32a] The Esplanade [33, 35, 37]
1.80	LIMA	<b>17</b>	North Quay [20] View St [18, 22] Marina Dve [1] McMillan Gve [25, 23, 29, 31, 33] Fort King Rd [86] Slip Rd [95] King St [20] Wellington St [3, 5, 7, 9-11, 13]
1.90	MIKE	<b>14</b>	North Quay [18] View St [16, 20] McMillan Gve [23, 35] Victoria St [26, 32b, 28, 30] Mariners Pl [2, 3, 4] Wellington St [15, 18]

Paynesville



**DISCLAIMER**  
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# APPENDIX C.0b – FLOOD EMERGENCY PLAN

## RAYMOND ISLAND



**Minor 0.70m**  
**Moderate 1.10m**  
**Major 1.30m**

### LOCATION

Raymond Island is on the Gippsland Lakes, bordered by Lakes King & Victoria and separated from Paynesville via McLennan Straits. There is no permanent access to the Island, it is accessed via car ferry across McLennan Straits from Paynesville or by boat.

### FLOOD BEHAVIOUR

Raymond Island is cut off early when the ferry is unable to operate (0.725m). This isolation of the Island can be for up to two weeks.

Flooding in this community occurs as a result of flooding in the Gippsland Lakes caused in turn by flooding of the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson & Tambo Rivers which lead into the Lakes.

Wind can also impact levels on the Lake Victoria side by up to half a metre.

Flooding typically occurs after those rivers have experienced flooding with peaks slow to rise and recede, sometimes taking up to 14 days.

### CONSEQUENCES AND IMPACTS SUMMARY

The table below is a breakdown of the number of properties impacted in a 1% AEP riverine event. Numbers for Raymond Island are not complete, to come from the WGCMA.

Land Use	#
Residential	0
Business	0
Industrial	0
Rural	0
<b>Total</b>	<b>0</b>

The table below is a breakdown of the number of properties impacted at each gauge height. Isolated internally means they are no longer able to move around the Island.

Gauge Height	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Flooded	12	14	22	24	30	39	57	74	90	129	149	161
Isolated	All											
Isolated Internally	0	5	5	27	36	36	67	70	75	75	75	88

## FLOOD MITIGATION SYSTEMS

There are no flood mitigation systems on Raymond Island.

## FLOOD WARNINGS

The BoM is able to predict flood heights 12-52 hours ahead of peaks in this location as part of the Gippsland Lakes Flood Warning System.

## ROAD CLOSURES

Raymond Island is isolated early for an extended duration. Access to the Island is via the Raymond Island Ferry from Paynesville, which is unable to operate once Lake Levels reach 0.725m. Once the ferry is unable to operate, Raymond Island is isolated for an extended period of time, up to 14 days or more depending upon the extent of lake height and duration of the peak remaining above minor.

Many will not be aware that if isolated, they will be for some time. It is important to ensure those at risk have either evacuated or have enough medication and supplies.

A barge is available for emergency vehicle access but is unable to operate from a lake height similar to the ferry due to the access points being flooded.

A water taxi is available for passenger traffic only, utilising various jetties on both the Island and Paynesville side of McMillan Straits. These jetties may have access reduced due to flooding.

The Gippsland Water Police & Coast Guard both operate from Paynesville and may be used for emergency access depending upon conditions.

Access to the Princes Highway and Bairnsdale can be cut with the Paynesville Rd and Forge Creek Rd being closed during events in the Mitchell River.

Full intelligence on when a road is closed and what component is listed in the attached detailed consequences and impacts section.

### Local Road closures

1st Pde	5th Pde	Ferry Access
2nd Ave	6th Ave	Gravelly Pt Rd
3rd Pde	9th Pde	Tea Tree Ln
4th Ave	Centre Rd	Western Blvd



## COMMUNITY PROFILE

The population is generally elderly with many living alone and without family support within the district. There is no shop on the Island for resupply. The Raymond Island community is relatively self sufficient and has a good community flood plan, but consideration must be given to those at high risk and in need of assistance to move belongings to higher levels and to evacuate. A Relief Centre should be an early consideration.

The following is a demographic profile of Eagle Point as at the 2006 census.

Pop'n	Dwellings	Language	Needs Assistance	Age Profile
396	211	English 100%	Disability   4.6%   Living Alone   37%   No Car   6%	Avg   61yrs   <15   12%   55-74   48%    15-54   26%    >75   14%

## GAUGE LEVEL INFORMATION

Flood Class	Flood Event	Paynesville
	1893	1.67
	1978	1.66
	1952	1.49
	2007 Jun	1.50
	1990 Apr	
	1998	1.35
<b>Major</b>		<b>1.30</b>
<b>Moderate</b>		<b>1.10</b>
<b>Minor</b>		<b>0.70</b>

# DETAILED CONSEQUENCES AND IMPACTS – FLOOD INTELLIGENCE CARD

Gauge	No.	Location	Datum Type
Paynesville Gauge		Gippsland Ports Jetty, Slip Road, Burrabogie Island, Paynesville	AHD

**NB** Depths quoted are above ground level and do not necessarily indicate above floor flooding. Properties are considered isolated when 20cm of water is across the road

Height (m)	Consequences	Operational Considerations
------------	--------------	----------------------------

**0.0 – 0.2** | ~ Tidal Variation

**0.70** **MINOR FLOOD LEVEL**

### SUMMARY

| ALL of Raymond Island is now cut off from Paynesville until the flood waters recede, which can be up to 2 weeks. The Ferry can take on ballast to continue operations for a short period.

### PROPERTIES

#### | Flooded

- ▷ 12 properties in total
- ▷ 12 new up to 0.10m [Alpha Group]

### ROADS

#### | Water over Road

- ▷ 2<sup>nd</sup> Ave north of 3<sup>rd</sup> Pde

| Elderly and those at risk may need assistance lifting belongings to higher levels and may need to be evacuated prior to the ferry stopping

| Sandbagging requirements, road closed signs and any resupply needs will need to be taken across prior to the ferry stopping

| Refer Raymond Island community plan attached

**0.80** **PROPERTIES**

#### | Flooded

- ▷ 14 properties in total
- ▷ 2 new up to 0.10m [Bravo Group]
- ▷ 12 previously up to 0.20m

#### | Isolated

- ▷ ALL of Raymond Island

#### | Isolated Internally

- ▷ 5 properties in total
- ▷ Nil previously

### ROADS

#### | Water over Road

- ▷ 2<sup>nd</sup> Ave north of 3<sup>rd</sup> Pde
- ▷ 4th between 5th & 7th
- ▷ Raymond Island Ferry access
- ▷ Western Blvd [northern end]

**0.90** **PROPERTIES**

#### | Flooded

- ▷ 22 properties in total

- ▷ 8 new up to 0.10m [Charlie Group]
- ▷ 14 previously up to 0.30m

| **Isolated**

- ▷ ALL of Raymond Island

| **Isolated Internally**

- ▷ 5 properties in total
- ▷ nil new
- ▷ 5 previously

**ROADS**

| **Water over Road**

- ▷ 4th between 5th & 7th
- ▷ Raymond Island Ferry access
- ▷ Western Blvd [northern end]
- ▷ Tea Tree Lane

| **Road Closed**

- ▷ 2<sup>nd</sup> Ave north of 3<sup>rd</sup> Pde

1.00

**MODERATE FLOOD LEVEL**

**PROPERTIES**

| **Flooded**

- ▷ 24 properties in total
- ▷ 02 new up to 0.10m [Delta Group]
- ▷ 22 previously up to 0.40m

| **Isolated**

- ▷ ALL of Raymond Island

| **Isolated Internally**

- ▷ 27 properties in total
- ▷ 22 new [Delta Group]
- ▷ 5 previously

**ROADS**

| **Water over Road**

- ▷ Tea Tree Lane
- ▷ 3rd Ave @ 6th Ave
- ▷ 4th Ave @ 5th Pde
- ▷ 5th Pde @ 4th Ave

| **Road Closed**

- ▷ 2<sup>nd</sup> Ave north of 3rd Pde
- ▷ 4th between 5th & 7th
- ▷ Raymond Island Ferry access
- ▷ Western Blvd [northern end]
- ▷ And previously listed

## 1.10

**PROPERTIES****| Flooded**

- ▷ 30 properties in total
- ▷ 06 new up to 0.10m [Echo Group]
- ▷ 24 previously up to 0.50m

**| Isolated**

- ▷ ALL of Raymond Island

**| Isolated Internally**

- ▷ 36 properties in total
- ▷ 9 new [Echo Group]
- ▷ 27 previously

**ROADS****| Water over Road**

- ▷ 4th Ave @ 5th Pde
- ▷ 5th Pde @ 4th Ave
- ▷ 3rd Ave @ 6th Ave
- ▷ 4th Ave between 3rd & 7th
- ▷ Centre Rd [north]

**| Road Closed**

- ▷ 4th between 5th & 7th
- ▷ Raymond Island Ferry access
- ▷ Western Blvd [northern end]
- ▷ Tea Tree Lane
- ▷ And previously listed

## 1.20

**PROPERTIES****| Flooded**

- ▷ 39 properties in total
- ▷ 09 new up to 0.10m [Foxtrot Group]
- ▷ 30 previously up to 0.60m

**| Isolated**

- ▷ ALL of Raymond Island

**| Isolated Internally**

- ▷ 36 properties in total
- ▷ Nil new
- ▷ 36 previously

**ROADS****| Water over Road**

- ▷ 4th Ave between 3rd & 7th
- ▷ Centre Rd [north]
- ▷ 2nd Ave @ 6th Pde
- ▷ 3rd Pde @ 6th Pde
- ▷ 4th Ave
- ▷ 6th Pde @ 3rd Pde

**| Road Closed**

- ▷ Tea Tree Lane
- ▷ 3rd Ave @ 6th Ave
- ▷ 4th Ave @ 5th Pde
- ▷ 5th Pde @ 4th Ave
- ▷ And previously listed

**1.30****MAJOR FLOOD LEVEL****PROPERTIES****| Flooded**

- ▷ 57 properties in total
- ▷ 18 new up to 0.20m [Golf Group]
- ▷ 39 previously up to 0.70m

**| Isolated**

- ▷ ALL of Raymond Island

**| Isolated Internally**

- ▷ 67 properties in total
- ▷ 31 new [Golf Group]
- ▷ 36 previously

**ROADS****| Water over Road**

- ▷ 2nd Ave @ 6th Pde
- ▷ 3rd Pde @ 6th Pde
- ▷ 4th Ave
- ▷ 6th Pde @ 3rd Pde
- ▷ 7th Pde @ 5th Ave
- ▷ 3rd Pde @ 4th Ave

**| Road Closed**

- ▷ 4th Ave @ 5th Pde
- ▷ 5th Pde @ 4th Ave
- ▷ 3rd Ave @ 6th Ave
- ▷ 4th Ave between 3rd & 7th
- ▷ Centre Rd [north]
- ▷ And previously listed

**1.35****1998 FLOOD EVENT****1.40****PROPERTIES****| Flooded**

- ▷ 74 properties in total
- ▷ 17 new up to 0.10m [Hotel Group]
- ▷ 57 previously up to 0.80m

**| Isolated**

- ▷ ALL of Raymond Island

#### | Isolated Internally

- ▷ 70 in total
- ▷ 03 new [Hotel Group]
- ▷ 67 previously

### ROADS

#### | Water over Road

- ▷ 7th Pde @ 5th Ave
- ▷ 3rd Pde @ 4th Ave

#### | Road Closed

- ▷ 4th Ave between 3rd & 7th
- ▷ Centre Rd [north]
- ▷ 2nd Ave @ 6th Pde
- ▷ 3rd Pde @ 6th Pde
- ▷ 4th Ave
- ▷ 6th Pde @ 3rd Pde
- ▷ And previously listed

1.50

### 2007 FLOOD EVENT & 1 in 20 ARI

### PROPERTIES

#### | Flooded

- ▷ 90 properties in total
- ▷ 16 new up to 0.10m [India Group]
- ▷ 74 previously up to 0.90m

#### | Isolated

- ▷ ALL of Raymond Island

#### | Isolated Internally

- ▷ 75 in total
- ▷ 5 new [India Group]
- ▷ 70 previously

### ROADS

#### | Water over Road

- ▷ 8th Ave 9th Pde
- ▷ 8th Ave @ 5th Pde
- ▷ Gravelly Pt Dve [at Western Blvd south & Western Blvd north to east end of Island]
- ▷ Centre Rd [Gravelly Pt Rd-Tea Tree Ln]

#### | Road Closed

- ▷ 2nd Ave @ 6th Pde
- ▷ 3rd Pde @ 6th Pde
- ▷ 4th Ave
- ▷ 6th Pde @ 3rd Pde
- ▷ 7th Pde @ 5th Ave

- ▷ 3rd Pde @ 4th Ave
- ▷ And previously listed

**1.60****PROPERTIES****| Flooded**

- ▷ 129 properties in total
- ▷ 39 new up to 0.10m [Juliet Group]
- ▷ 90 previously up to 1.00m

**| Isolated**

- ▷ ALL of Raymond Island

**| Isolated Internally**

- ▷ 75 in total
- ▷ Nil new
- ▷ 75 previously

**ROADS****| Water over Road**

- ▷ 8th Ave 9th Pde
- ▷ 8th Ave @ 5th Pde
- ▷ Gravelly Pt Dve [at Western Blvd south & Western Blvd north to east end of Island]
- ▷ Centre Rd [Gravelly Pt Rd-Tea Tree Ln]

**| Road Closed**

- ▷ 7th Pde @ 5th Ave
- ▷ 3rd Pde @ 4th Ave
- ▷ And previously listed

**1.70****1 in 50 YEAR FLOOD LEVEL****PROPERTIES****| Flooded**

- ▷ 149 properties in total
- ▷ 20 new up to 0.10m [Kilo Group]
- ▷ 129 previously up to 1.10m

**| Isolated**

- ▷ 75 in total
- ▷ Nil new
- ▷ 75 previously

**ROADS****| Water over Road**

- ▷ 7th Pde
- ▷ 8th Ave @ 3rd Pde

**| Road Closed**

- ▷ 8th Ave @ 9th Pde is impassable
- ▷ 8th Ave 9th Pde
- ▷ 8th Ave @ 5th Pde

- ▷ Gravelly Pt Dve [at Western Blvd south & Western Blvd north to east end of Island]
- ▷ Centre Rd [Gravelly Pt Rd-Tea Tree Ln]
- ▷ And previously listed

**1.80****PROPERTIES****| Flooded**

- ▷ 161 properties in total
- ▷ 11 new up to 0.10m [Lima Group]
- ▷ 149 previously up to 1.20m

**| Isolated**

- ▷ 88 in total
- ▷ 13 new
- ▷ 75 previously
- ▷ Critical Properties – 1
  - A'Beckett Park – School Camp on 1<sup>st</sup> Parade

**ROADS****| Water over Road**

- ▷ Nil

**| Road Closed**

- ▷ 8th Ave 9th Pde
- ▷ 8th Ave @ 5th Pde
- ▷ Gravelly Pt Dve [at Western Blvd south & Western Blvd north to east end of Island]
- ▷ Centre Rd [Gravelly Pt Rd-Tea Tree Ln]
- ▷ And previously listed

**1.90****PROPERTIES****| Flooded**

- ▷ 173 properties in total
- ▷ 12 new up to 0.10m [Mike Group]
- ▷ 161 previously up to 1.30m

**| Isolated**

- ▷ 88 in total
- ▷ Nil new
- ▷ 88 previously

**ROADS****| Water over Road**

- ▷ Nil

**| Road Closed**

- ▷ 7th Pde
- ▷ 8th Ave @ 3rd Pde
- ▷ And previously listed

2.00

**1 in 100 YEAR FLOOD LEVEL****PROPERTIES****| Flooded**

- ▷ 188 properties in total
- ▷ 15 new up to 0.10m [... Group]
- ▷ 173 previously up to 1.4m

**| Isolated**

- ▷ 88 in total
- ▷ Nil new
- ▷ 88 previously

**ROADS****| Water over Road**

- ▷ All low lying roads in the south west corner of Raymond Island, Western Blvd, Gravelly Point Dve, Centre Rd and Tee Tree Lane are subject to flooding, with some patches up to a depth of 1.4m

**| Road Closed**

- ▷ Previously listed

## DETAILED PROPERTY LISTINGS

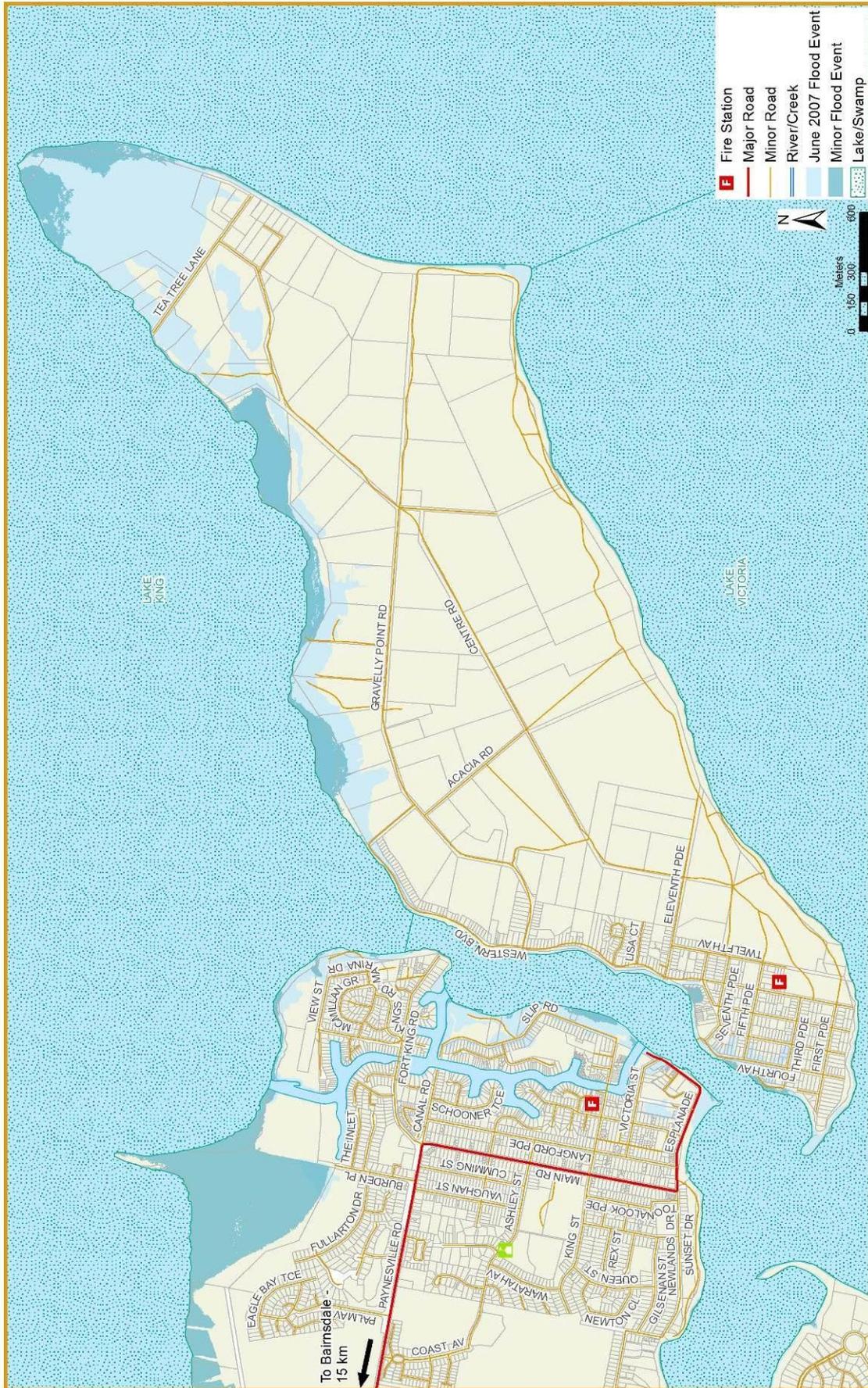
**NB – Individual residence floor heights are unknown, the information provided represents flooding impact at ground levels only**

Height (m)	Group Name	No of Properties	Property Address
0.70	ALPHA	<b>12</b>	<ul style="list-style-type: none"> <li>  Centre Rd [40]</li> <li>  Gravelly Pt Rd [131, 135, 153]</li> <li>  8<sup>th</sup> Ave [72b, 74, 76, 78, 80, 82, 84, 86]</li> </ul>
0.80	BRAVO	<b>2</b> 5 isolated	<ul style="list-style-type: none"> <li>  Gravelly Pt Rd [Lot 14, Lot 20]</li> </ul> <p><b>Isolated</b></p> <ul style="list-style-type: none"> <li>  2<sup>nd</sup> Ave [35, 37, 39, 41]</li> <li>  4th Ave [1]</li> </ul>
0.90	CHARLIE	<b>8</b>	<ul style="list-style-type: none"> <li>  Tea Tree Ln [26, 30, 36, 42, 45, 465]</li> <li>  Gravelly Pt Rd [155, 175]</li> </ul>
1.00	DELTA	<b>2</b> 22 isolated	<ul style="list-style-type: none"> <li>  1<sup>st</sup> Pde [29]</li> <li>  4th Ave [1]</li> </ul> <p><b>Isolated</b></p> <ul style="list-style-type: none"> <li>  Western Blvd [179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221]</li> </ul>
1.10	ECHO	<b>6</b> 1 accomm 9 isolated	<ul style="list-style-type: none"> <li>  Tea Tree Ln [475]</li> <li>  Centre Rd [275]</li> <li>  Western Blvd [213, 215]</li> <li>  1st Pde [31]</li> <li>  1st Pde [1-25 - A'Beckett Park]</li> </ul> <p><b>Isolated</b></p> <ul style="list-style-type: none"> <li>  2<sup>nd</sup> Ave [29-31, 33, 37, 39, 41]</li> <li>  4<sup>th</sup> Ave [29, 30, 31, 32]</li> </ul>
1.20	FOXTROT	<b>9</b>	<ul style="list-style-type: none"> <li>  Tea Tree Ln [485]</li> <li>  Gravelly Pt Rd [215, 330]</li> <li>  Western Blvd [205, 209, 211, 219]</li> <li>  3rd Pde [8]</li> <li>  6th Ave [54]</li> </ul>
1.30	GOLF	<b>18</b> 31 isolated	<ul style="list-style-type: none"> <li>  Western Blvd [179, 191, 193, 195, 197, 201, 203, 207, 217]</li> <li>  1st Pde [33]</li> <li>  2nd Ave [14]</li> <li>  3rd Pde [1, 9, 11]</li> <li>  6th Ave [23, 25, 30, 32]</li> </ul> <p><b>Isolated</b></p> <ul style="list-style-type: none"> <li>  4<sup>th</sup> Ave [33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69]</li> <li>  3<sup>rd</sup> Pde [8, 9, 11, 13, 14]</li> </ul>
1.40	HOTEL	<b>17</b> 3 isolated	<ul style="list-style-type: none"> <li>  Sanctuary Ct [20, 26, 30, 40, Lot 5a, Lot 6a]</li> <li>  Gravelly Pt Rd [390]</li> </ul>

Height (m)	Group Name	No of Properties	Property Address
			3rd Pde [13, 14] 4th Ave [3, 5] 5th Pde [3, 4, 5] 6th Ave [34, 50, 52]
			<b>Isolated</b> Sanctuary Ct [20, 26, 30]
1.50	INDIA	<b>16</b> 5 isolated	Gravelly Pt Rd [110] Western Blvd [177, 181, 183, 185, 187, 189, 199, 221] 2nd Ave [23] 3rd Pde [16] 5th Pde [6, 7, 8] 6th Ave [57, 59] Isolated 4th Ave [27, 39, 30, 31, 32]
1.60	JULIET	<b>39</b>	Gravelly Pt Rd [145, 190] Western Blvd [69, 85, 87, 91, 111, 113] 1st Pde [2, 4] 2nd Ave [21] 3rd Pde [17, 18, 19] 4th Ave [7] 6th Ave [24, 26, 27, 36, 44, 49, 51, 53, 55] 7th Ave [4, 1-8/6, 7, 9, 11, 13] 8th Ave [56, 72a, ]
1.70	KILO	<b>20</b>	Western Blvd [93, 169, 173, 175] 10th Ave [1, 3, 5, 7] 3rd Pde [21] 6th Ave [22, 42, 43-47] 7th Ave [3, 5, 15] 8th Ave [19, 48, 50, 52, 54]
1.80	LIMA	<b>11</b> 13 isolated including 1 accomm	Western Blvd [167] 3rd Pde [3, 5] 4th Ave [26] 5th Pde [13-15] 6th Ave [20, 29, 38, 41] 8th Ave [26, 42] <b>Isolated</b> 1st Pde [1-25 – A'Beckett Park] 1st Pde [2, 4] 2nd Ave [13, 14, 15, 17, 19, 21, 23] 4th Ave [1, 3, 5]
1.90	MIKE	<b>12</b>	Gravelly Pt Rd [130, 165] 3rd Pde [23] 4th Ave [22, 24] 5th Pde [12] 6th Ave [13, 15, 40] 8th Ave [15, 28, 46]
2.00		<b>15</b>	2nd Ave [13, 15, 17] 4th Ave [13, 15, 17, 18, 20] 6th Ave [18, 31, 33, 39] 8th Ave [36, 38, 40]

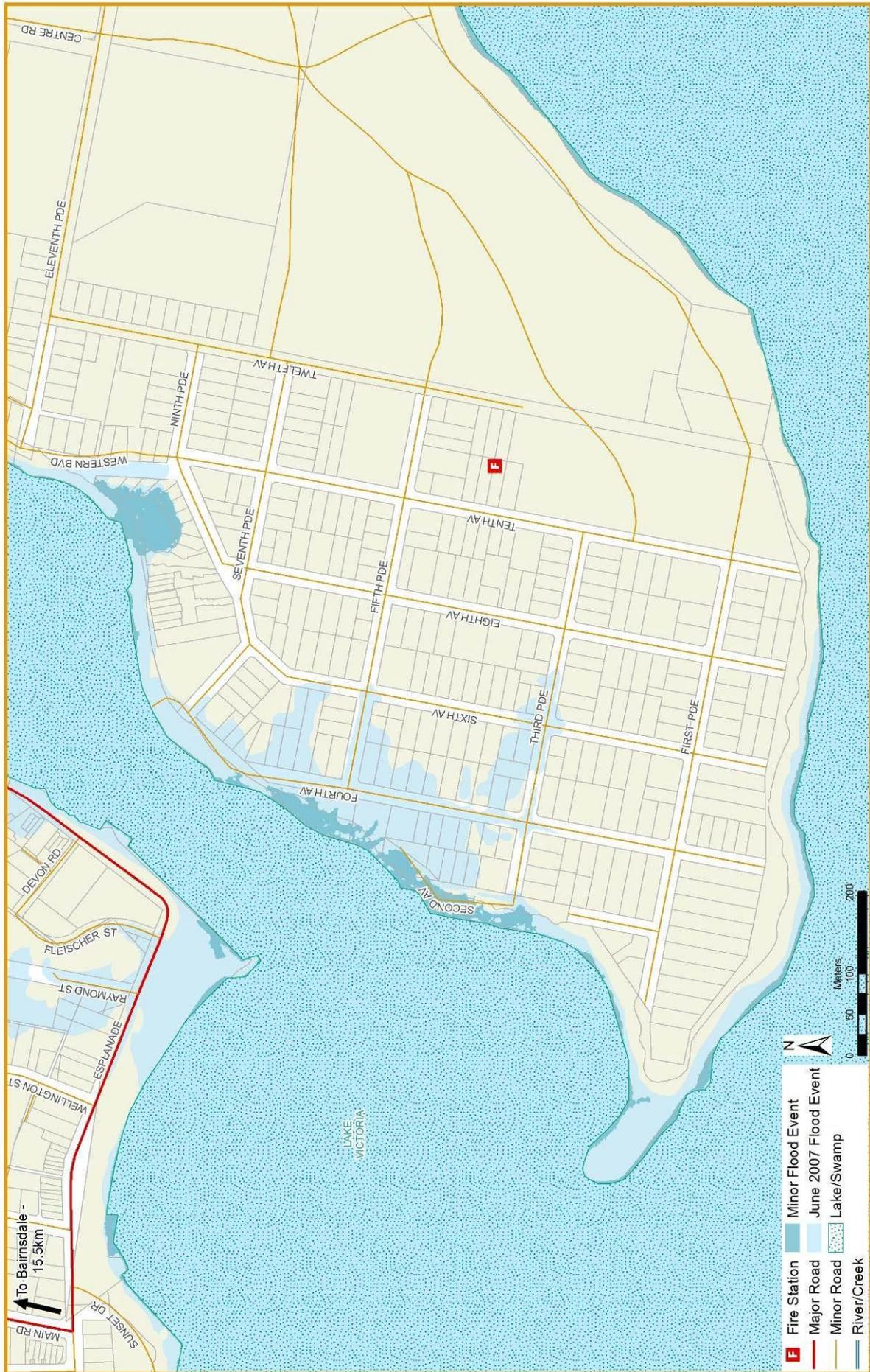
# MAPS

## Raymond Island



DISCLAIMER  
This map publication is prepared by the Victoria State Emergency Services for the purpose of disseminating emergency management information. The State Emergency Services disclaims any liability (including for negligence) to any person in respect of anything and the consequences of anything, which may be done in reliance on the information in this publication. No liability is accepted or intended in respect of any information in this publication. Flood information is provided by East Gippsland CMA (June 2007). VicMap Data is sourced from Department of Sustainability and Environment, November 2012.

# Raymond Island



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# APPENDIX C.08c – FLOOD EMERGENCY PLAN

## EAGLE POINT

Minor 0.80m  
Moderate 1.10m  
Major 1.30m

### LOCATION

Eagle Point is a community on the shores of Lake King and the banks of the Mitchell River, approximately 12km from Bairnsdale. The Silt Jetties from part of the Eagle Point community and are at the mouth of the Mitchell River jutting out into Lake King.

### FLOOD BEHAVIOUR

Flooding in this community occurs as a result of flooding in the Gippsland Lakes caused in turn by flooding of the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson & Tambo Rivers which lead into the Lakes.

Flooding typically occurs after those rivers have experienced flooding with peaks slow to rise and recede, sometimes taking up to 14 days.

Flooding on the Silt Jetties is also as a result of riverine flooding in the Mitchell River.

Early notification is imperative for those on the Silt Jetties. Properties along the Mitchell River Silt Jetties are generally isolated early due to flows from the Mitchell River, which can be of a very high velocity.

The most at risk properties are on Rivermouth Rd on the Silt Jetties between the Mitchell River and Lake King, and those facing Lake King along Bay Road.

There are two caravan parks, one at risk [Lakeview Waterfront Caravan Park on Bay Road] and one not at risk [Eagle Point Caravan Park on School Rd].

Boat ramps, jetties and car parks flood early causing unwary boat owners to return and find their cars flooded.

## CONSEQUENCES AND IMPACTS SUMMARY

The table below is a breakdown of the number of properties impacted in a 1% AEP riverine event..

Land Use	#
Residential	89
Business	0
Industrial	0
Rural	30
<b>Total</b>	<b>119</b>

The table below is a breakdown of the number of properties impacted at each gauge height..

Gauge Height	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Flooded	27	41	63	76	86	92	100	106	110	119	121	127
Isolated	0	0	0	0	17	17	17	17	17	17	17	17

## FLOOD MITIGATION SYSTEMS

There are no flood mitigation systems for Eagle Point.

## FLOOD WARNINGS

The BoM is able to predict flood heights 12-52 hours ahead of peaks in this location as part of the Gippsland Lakes Flood Warning System.

## ROAD CLOSURES

The highest access risk for Eagle Point is for those residing on the Silt Jetties east of the boat ramp. Access to the Silt Jetties from Eagle Point is via Rivermouth Rd, which is subject to riverine flooding from the Mitchell River and estuarine flooding from Lake King. The floodwaters rushing from the Mitchell River across to Lake King can be of a very high velocity. Many will not be aware that if isolated, they may be for up to two weeks. It is important to ensure those at risk have either evacuated or have enough medication and supplies.

Access to Eagle Point from Bairnsdale is via :-

- ▶ Bairnsdale-Paynesville Rd which is subject to flooding from the Mitchell River and can be cut for several days;
- ▶ Forge Creek Rd, which is subject to local flash flooding just south of Racecourse Rd in Bairnsdale for generally up to 24 hours; or
- ▶ West on Princes H'way – south on Bengworden Rd – east on Humphreys Lane – south on Forge Creek Rd – east on Bairnsdale-Paynesville Rd

Refer to Mitchell River Flood Intelligence Card for access interruptions on Paynesville Rd and Forge Creek Rd Full intelligence on road closures is in the following [detailed consequences table](#).

### Local Road closures

Bay Road	Loganwood Court	Yalca Court
Eagle Bay Drive	Rivermouth Rd, Silt Jetties	

## COMMUNITY PROFILE

The population is generally elderly with many living alone and without family support within the district. Many have recently moved to the area, do not have knowledge of local disasters and do not have close family support for preparation and/or evacuation. During holiday times there are a large number of holiday makers. There is a small shop at the Eagle Point Caravan Park for resupply. Once the Silt Jetties are cut off, they may remain so for up to 10 days. Consideration must be given to those at high risk and in need of assistance to move property to higher levels and to evacuate. A Relief Centre should be an early consideration for those on the Silt Jetties.

The following is a demographic profile of Eagle Point as at the 2006 census.

Pop'n	Dwellings	Language	Needs Assistance	Age Profile
643	297	English 100%	Disability   3.7%   Living Alone   11%   No Car   3%	Avg   54yrs   <15   18%   15-54   37%   55-74   33%   >75   12%

## GAUGE LEVEL INFORMATION

Flood Class	Flood Event	Paynesville
	1893	1.67
	1978	1.66
	1952	1.49
	2007 Jun	1.50
	1990 Apr	
	1998	1.35
<b>Major</b>		<b>1.30</b>
<b>Moderate</b>		<b>1.10</b>
<b>Minor</b>		<b>0.80</b>

# DETAILED CONSEQUENCES AND IMPACTS – FLOOD INTELLIGENCE CARD

Gauge	No.	Location	Datum Type
Paynesville Gauge		Gippsland Ports Jetty, Slip Road, Burrabogie Island, Paynesville	AHD

**NB** Depths quoted are above ground level and do not necessarily indicate above floor flooding. Properties are considered isolated when 20cm of water is across the road

Height (m)	Consequences	Operational Considerations
------------	--------------	----------------------------

**0.0 – 0.?** | ~ Tidal Variation

**0.70**

**SUMMARY**

- | 27 properties will start to see flooding in areas adjacent to the lake on Bay Rd, Rogerson Crt, Green St & Rivermouth Rd.
- | The boat ramp and car park on Bay Rd will start to flood.
- | All roads are currently open

**PROPERTIES**

| **Flooded**

- ▷ 27 properties in total
- ▷ 27 up to 0.10m [Alpha Group]

**ROADS**

| **Water over Road**

- ▷ Boat ramp and Jetty on Bay Rd

| Check for any cars and trailers at the Bay Rd boat ramp car park.

**0.80**

**MINOR FLOOD LEVEL**

**SUMMARY**

- | 14 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There a now a total of 41 properties on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 20cm across part of the property.
- | Yalca Court will have water across the road.

**PROPERTIES**

| **Flooded**

- ▷ 41 properties in total
- ▷ 14 new up to 0.10m [Bravo Group]
- ▷ 27 previously up to 0.20m

| **Isolated**

- ▷ Nil

**ROADS**

| **Water over Road**

- ▷ Yalca Crt

| Notice to boat owners, Gippsland Ports and East Gippsland Shire regarding boat mooring lines.

| Elderly and those at risk may need assistance lifting belongings to higher levels

| Consult with DHS re vulnerable people

| East Gippsland Shire re road closures

| Possible doorknocking required

- ▷ Boat ramp and Jetty on Bay Rd

| **Road Closed**

- ▷ nil

0.90

**SUMMARY**

- | 22 properties in Bay Rd, Rivermouth Rd & Yalca Crt not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 63 properties in Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 30cm across part of the property.
- | Lake King Waterfront Caravan Park on Bay Rd will start to flood in the north east corner adjacent to the lake.
- | Rivermouth Rd at the boat ramp will start to see water from the lake but may already have water from the Mitchell River flooding across it
- | Rivermouth Rd at the boat ramp and Yalca Court will have water across the road.

- | Ground crew reconnaissance

- | Liaise with Caravan Park owner

- | Last chance for residents east of the boat ramp on Rivermouth Rd to have dry egress

- | Consider advising of relocation for residents along Rivermouth Rd east of the boat ramp

**PROPERTIES**

| **Flooded**

- ▷ 63 properties in total
- ▷ 22 new up to 0.10m [Charlie Group]
- ▷ 41 previously up to 0.30m

| **Isolated**

- ▷ Nil

**ROADS**

| **Water over Road**

- ▷ Rivermouth Rd @ the boat ramp
- ▷ Yalca Crt

| **Road Closed**

- ▷ Boat ramp and Jetty on Bay Rd

- | Lake King Waterfront Caravan Park on Bay Road which has many permanents will start to flood in the north east corner

1.00

**SUMMARY**

- | 13 properties in Bay Rd & Rivermouth Rd not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 76 properties in Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 40cm across part of the property.
- | The car park and access to the Eagle Point boat ramp on Rivermouth Rd is now flooded.

- | Check cars in boat ramp car park

- | Marine radio re any cars and trailers parked in boat ramp car parks (whole of lakes)

- | Water running across Rivermouth Rd @ the boat ramp from the Mitchell River can be very swift and

Height (m)	Consequences	Operational Considerations
	<p>  Yalca Court is now closed.</p> <hr/> <p><b>PROPERTIES</b></p> <p>  <b>Flooded</b></p> <ul style="list-style-type: none"> <li>▷ 76 properties in total</li> <li>▷ 13 new up to 0.10m [Delta Group]</li> <li>▷ 63 previously up to 0.40m</li> </ul> <p>  <b>Isolated</b></p> <ul style="list-style-type: none"> <li>▷ Homes on Rivermouth Rd east of the boat ramp may have reduced access depending upon flows from the Mitchell River</li> </ul> <hr/> <p><b>ROADS</b></p> <p>  <b>Water over Road</b></p> <ul style="list-style-type: none"> <li>▷ Rivermouth Rd @ the boat ramp</li> <li>▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties</li> </ul> <p>  <b>Road Closed</b></p> <ul style="list-style-type: none"> <li>▷ Boat ramp and Jetty on Bay Rd</li> <li>▷ Yalca Crt</li> </ul>	<p>dangerous</p>

<p><b>1.10</b></p>	<p><b>MODERATE FLOOD LEVEL</b></p> <hr/> <p><b>SUMMARY</b></p> <p>  10 properties in Bay Rd &amp; Rivermouth Rd not previously affected will start to see flooding in areas adjacent to the lake.</p> <p>  There are now a total of 86 properties in Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt &amp; Eagle Bay Dve experiencing levels of flooding up to 50cm across part of the property.</p> <p>  Rivermouth Rd will now be impassable at the Boat Ramp on the Silt Jetties isolating 17 properties on Rivermouth Rd.</p> <p>  Yalca Crt and Rivermouth Rd at the boat ramp are closed.</p> <hr/> <p><b>PROPERTIES</b></p> <p>  <b>Flooded</b></p> <ul style="list-style-type: none"> <li>▷ 86 properties in total</li> <li>▷ 10 new up to 0.10m [Echo Group]</li> <li>▷ 76 previously up to 0.50m</li> </ul> <p>  <b>Isolated</b></p> <ul style="list-style-type: none"> <li>▷ 17 properties along Rivermouth Rd, east of the boat ramp</li> </ul> <hr/> <p><b>ROADS</b></p> <p>  <b>Water over Road</b></p> <ul style="list-style-type: none"> <li>▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties</li> </ul> <p>  <b>Road Closed</b></p> <ul style="list-style-type: none"> <li>▷ Boat ramp and Jetty on Bay Rd</li> </ul>	<p>  Consider sectorisation</p> <hr/> <p>  Elderly and those at risk may need assistance with relocation</p> <hr/> <p>  Consult with DHS re vulnerable people</p>
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- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp

**1.20****SUMMARY**

- | 6 properties in Bay Rd not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 92 properties in Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 60cm across part of the property.
- | 17 properties along Rivermouth Rd continue to be isolated east of the boat ramp by high flowing flood waters from the Mitchell River.
- | The Bay Rd boat ramp car park will start to flood.
- | Yalca Crt, Rivermouth Rd at the boat ramp and the Bay Rd boat ramp and car park are now closed.

**PROPERTIES****| Flooded**

- ▷ 92 properties in total
- ▷ 06 new up to 0.10m [Foxtrot Group]
- ▷ 86 previously up to 0.60m

**| Isolated**

- ▷ 17 in total
- ▷ 17 previously

**ROADS****| Water over Road**

- ▷ Bay Rd boat ramp car park
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties

**| Road Closed**

- ▷ Boat ramp and Jetty on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp

**1.30****MAJOR FLOOD LEVEL****SUMMARY**

- | 8 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There are not a total of 100 properties on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 70cm across part of the property.

- | 17 properties on the Silt Jetties remain isolated.
- | Yalca Crt, Rivermouth Rd at the boat ramp, the Bay Rd boat ramp and car park and the Rivermouth Rd boat ramp and car park are now closed.

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**PROPERTIES**
**| Flooded**

- ▷ 100 properties in total
- ▷ 08 new up to 0.10m [Golf Group]
- ▷ 92 previously up to 0.70m

**| Isolated**

- ▷ 17 in total
- ▷ 17 previously

---

**ROADS**
**| Water over Road**

- ▷ Bay Rd boat ramp car park

**| Road Closed**

- ▷ Boat ramp and Jetty on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties

1.35

**1998 FLOOD EVENT**

1.40

**SUMMARY**

- | 6 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 106 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 80cm across part of their property.
- | 17 properties on the Silt Jetties are still isolated.
- | Yalca Crt, Rivermouth Rd at the boat ramp, the Bay Rd boat ramp and car park and the Rivermouth Rd boat ramp and car park are now closed.

---

**PROPERTIES**
**| Flooded**

- ▷ 106 properties in total
- ▷ 06 new up to 0.10m [Hotel Group]
- ▷ 100 previously up to 0.80m

**| Isolated**

- ▷ 17 in total
- ▷ 17 previously

---

**ROADS**
**| Water over Road**

- ▷ Bay Rd boat ramp car park

**Road Closed**

- ▷ Boat ramp and Jetty on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties

1.50

**2007 FLOOD EVENT & 1 in 20 Year Flood Level****SUMMARY**

- | 4 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 110 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 90cm across part of their property.
- | 17 properties on the Silt Jetties are still isolated.
- | Eagle Bay Drive will now have water over the road.
- | Yalca Crt, Rivermouth Rd at the boat ramp, the Bay Rd boat ramp and car park and the Rivermouth Rd boat ramp and car park are now closed.

**PROPERTIES****Flooded**

- ▷ 110 properties in total
- ▷ 04 new up to 0.10m [India Group]
- ▷ 106 previously up to 0.90m

**Isolated**

- ▷ 17 in total
- ▷ 17 previously

**ROADS****Water over Road**

- ▷ Eagle Bay Drive
- ▷ Bay Rd boat ramp car park

**Road Closed**

- ▷ Boat ramp, Jetty and car park on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties

1.60

**SUMMARY**

- | 9 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 119 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 100cm across part of their property.

- | 17 properties on the Silt Jetties are still isolated.
- | Yalca Crt, Rivermouth Rd at the boat ramp, the Bay Rd boat ramp and car park and the Rivermouth Rd boat ramp and car park are now closed.

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**PROPERTIES**
**| Flooded**

- ▷ 119 properties in total
- ▷ 09 new up to 0.10m [Juliet Group]
- ▷ 110 previously up to 1.00m

**| Isolated**

- ▷ 17 in total
  - ▷ 17 previously
- 

**ROADS**
**| Water over Road**

- ▷ Eagle Bay Drive

**| Road Closed**

- ▷ Boat ramp, Jetty and car park on Bay Rd
  - ▷ Yalca Crt
  - ▷ Rivermouth Rd @ the boat ramp
  - ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties
- 

1.70

**1 in 50 YEAR FLOOD LEVEL**
**SUMMARY**

- | 2 properties not previously affected will start to see flooding in areas adjacent to the lake.
  - | There are now a total of 121 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 1.10m across part of their property.
  - | 17 properties on the Silt Jetties are still isolated.
  - | Loganwood Crt and Bay Rd **between Loganwood Crt & Grandview Rd will have water over the road.**
  - | Eagle Bay Drive, Yalca Crt, Rivermouth Rd at the boat ramp, the Bay Rd boat ramp and car park and the Rivermouth Rd boat ramp and car park are now closed.
- 

**PROPERTIES**
**| Flooded**

- ▷ 121 properties in total
- ▷ 02 new up to 0.10m [Kilo Group]
- ▷ 119 previously up to 1.10m

**| Isolated**

- ▷ 17 in total
  - ▷ 17 previously
- 

**ROADS**
**| Water over Road**

- ▷ Bay Rd between Loganwood Crt & Grandview Rd

- ▷ Loganwood Crt

| **Road Closed**

- ▷ Boat ramp, Jetty and car park on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties
- ▷ Eagle Bay Drive

1.80

**SUMMARY**

- | 6 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 127 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 1.20m across part of their property.
- | 17 properties on the Silt Jetties are still isolated.

**PROPERTIES**

| **Flooded**

- ▷ 127 properties in total
- ▷ 06 new up to 0.10m [Lima Group]
- ▷ 121 previously up to 1.20m

| **Isolated**

- ▷ 17 in total
- ▷ 17 previously

**ROADS**

| **Road Closed**

- ▷ Bay Rd between Loganwood Crt & Grandview Rd
- ▷ Loganwood Crt
- ▷ Boat ramp, Jetty and car park on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties
- ▷ Eagle Bay Drive

1.90

**SUMMARY**

- | 3 properties not previously affected will start to see flooding in areas adjacent to the lake.
- | There are now a total of 130 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 1.30m across part of their property.
- | 17 properties on the Silt Jetties are still isolated.
- | Yalca Crt, Loganwood Crt, Bay Rd between Loganwood Crt & Grandview Rd, Rivermouth Rd at the boat ramp, the Bay Rd boat ramp and car park and the Rivermouth Rd boat ramp and car park are now closed.

**PROPERTIES****| Flooded**

- ▷ 130 properties in total
- ▷ 03 new up to 0.10m [Mike Group]
- ▷ 121 previously up to 1.30m

**| Isolated**

- ▷ 17 in total
- ▷ 17 previously

**ROADS****| Water over Road**

- ▷ Nil

**| Road Closed**

- ▷ Boat ramp, Jetty and car park on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties
- ▷ Eagle Bay Drive
- ▷ Bay Rd between Loganwood Crt & Grandview Rd
- ▷ Loganwood Crt

**2.00****1 in 100 Year Flood Level****SUMMARY**

| There are now a total of 130 Properties impacted on Bay Rd, Rogerson Crt, Green St, Rivermouth Rd, Yalca Crt & Eagle Bay Dve experiencing levels of flooding up to 1.40m across part of their property.

| 17 properties **on the Silt Jetties are still isolated.**

**PROPERTIES****| Flooded**

- ▷ 130 properties in total
- ▷ 130 previously up to 1.40m

**| Isolated**

- ▷ 17 in total
- ▷ 17 previously

**ROADS****| Water over Road**

- ▷ Bay Rd out the front of the Caravan Park

**| Road Closed**

- ▷ Boat ramp, Jetty and car park on Bay Rd
- ▷ Yalca Crt
- ▷ Rivermouth Rd @ the boat ramp
- ▷ Car park and access to the Eagle Point boat ramp on Rivermouth Rd on the Silt Jetties
- ▷ Eagle Bay Drive
- ▷ Bay Rd between Loganwood Crt & Grandview Rd

Height (m)

Consequences

Operational  
Considerations

▶ Loganwood Crt

## DETAILED PROPERTY LISTINGS

**NB – Individual residence floor heights are unknown, the information provided represents flooding impact at ground levels only**

Height (m)	Group Name	No of Properties	Property Address
0.70	ALPHA	27	<ul style="list-style-type: none"> <li>  Bay Rd [29, 53, 55, 57, 161, 163, 165, 167, 199, 203, 205, 207, 209, 211]</li> <li>  Rogerson Crt [1, 3]</li> <li>  Green St [2]</li> <li>  Rivermouth Rd [84, 90, Lot 1, 104, 130, 140, 200, 490, 496, 500]</li> </ul>
0.80	BRAVO	14	<ul style="list-style-type: none"> <li>  Bay Rd [59, 169, 171, 173, 177, 201, 217, 225, 227]</li> <li>  Rogerson Crt [2]</li> <li>  Green St [3]</li> <li>  Yalca Crt [Lot 5]</li> <li>  Eagle Bay Dve [63, 65]</li> </ul>
0.90	CHARLIE	22	<ul style="list-style-type: none"> <li>  Bay Rd [Caravan Park, 157, 175, 179, 183, 213, 215]</li> <li>  Yalca Crt [Lot 16]</li> <li>  Rivermouth Rd [70, 72, 190, 172, 174, 176, 178, Lot 5, 180, 182, 184, 186, 260, 290]</li> </ul>
1.00	DELTA	13	<ul style="list-style-type: none"> <li>  Bay Rd [17, 159, 181, 221]</li> <li>  Rivermouth Rd [68, 81, 85, 87, 89, 95, 101, 103, 105]</li> </ul>
1.10	ECHO	10	<ul style="list-style-type: none"> <li>  Bay Rd [189, 191, 193, 195, 197, 219, 223]</li> <li>  Rivermouth Rd [76, 78, 300]</li> </ul>
1.20	FOXTROT	6	<ul style="list-style-type: none"> <li>  Bay Rd [15, 133, 143, 147, 149, 185]</li> </ul>
1.30	GOLF	8	<ul style="list-style-type: none"> <li>  Bay Rd [127, 131, 135, 139, 141, 145, 151]</li> <li>  Rivermouth Rd [83]</li> </ul>
1.40	HOTEL	6	<ul style="list-style-type: none"> <li>  Bay Rd [125, 129, 137, 151, 153, 155]</li> </ul>
1.50	INDIA	4	<ul style="list-style-type: none"> <li>  Bay Rd [13, 187]</li> <li>  Green St [3a, 3b]</li> </ul>
1.60	JULIET	9	<ul style="list-style-type: none"> <li>  Bay Rd [8, 121, 123]</li> <li>  Green St [4]</li> <li>  Yalca Crt [Lot 19]</li> <li>  Rivermouth Rd [107, 109, 111, 115]</li> </ul>
1.70	KILO	2	<ul style="list-style-type: none"> <li>  Bay Rd [119]</li> <li>  Yalca Crt [Lot 6]</li> </ul>
1.80	LIMA	6	<ul style="list-style-type: none"> <li>  Bay Rd [87, 89, 91, 93, 95, 117]</li> </ul>
1.90	MIKE	3	<ul style="list-style-type: none"> <li>  Bay Rd [111, 113, 115]</li> </ul>

# MAPS

## Eagle Point



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# APPENDIX C.08d – FLOOD EMERGENCY PLAN

## METUNG



Minor 0.80m  
Moderate 1.60m  
Major 1.90m

## LOCATION

This flood intelligence card covers the communities of Metung, Mosquito Point and Tambo Bay. Metung is on a spit of land jutting out into Lake King. **Mosquito Point** is on Boole Poole Peninsula, in close proximity to Metung and accessible only by boat. **Tambo Bay** is on Lake King, near the mouth of the Tambo River to the west of Metung

## FLOOD BEHAVIOUR

Flooding in this community occurs as a result of flooding in the Gippsland Lakes caused in turn by flooding of the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson & Tambo Rivers which lead into the Lakes.

Flooding typically occurs after those rivers have experienced flooding with peaks slow to rise and recede, sometimes taking up to 14 days.

Metung and Tambo Bay are not generally at risk of large numbers of dwellings being flooded, however access is impacted. Mosquito Point has areas where dwellings experience flooding, with the only access being by water, the boat ramp at Metung being flooded has an impact on their access.

Boat ramps, jetties and car parks flood early causing unwary boat owners to return and find their cars flooded.

Areas of Tambo Bay and Mosquito Point have septic tanks, which can cause sewerage overflows into floodwaters & homes.

There are public toilets at Shaving Point which may require sandbagging.

## CONSEQUENCES AND IMPACTS SUMMARY

The table below is a breakdown of the number of properties impacted in a 1% AEP riverine event..

Land Use	#
Residential	53
Business	59
Industrial	0
Rural	351
<b>Total</b>	<b>163</b>

The table below is a breakdown of the number of properties impacted at each gauge height.

Gauge Height	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
Flooded	15	20	32	36	41	46	46	51	56	59	59	59
Isolated	0	0	0	0	0	0	0	0	3	3	3	3

## FLOOD MITIGATION SYSTEMS

There are no flood mitigation systems for Metung.

## FLOOD WARNINGS

The BoM is able to predict flood heights 12-52 hours ahead of peaks in this location as part of the Gippsland Lakes Flood Warning System.

## ROAD CLOSURES

Access to Metung is via the Princes Highway and Metung Road. If Metung Rd becomes unpassable, Stirling Drive is an alternative.

Mosquito Point is only accessible by boat, generally from Metung, however during flooding events ability to moor at Metung is reduced.

**Tambo Bay** is accessible via Metung Rd, Punt Rd and then Reynolds Rd.

Some roads within Metung will be flooded causing isolation. Many will not be aware that if isolated, they will be for some time. It is important to ensure those at risk have either evacuated or have enough medication and supplies.

Full intelligence on road closures is in the following [detailed consequences table](#).

Local Road closures		
Beach Rd	Archibald Dve	Rosherville Rd
Lake Rd	Lake Grove	Metung Rd
King St	Hugh St	

## COMMUNITY PROFILE

The population is generally elderly with many living alone and without family support within the district. There is a high tourist population in the low lying areas during peak holiday times and many boating enthusiasts who have launched their boats from the boat ramps and may be unable to return when the lakes are high.

The following is a demographic profile of Metung as at the 2006 census.

Pop'n	Dwellings	Language	Needs Assistance	Age Profile
726	.....	English 100%	Disability   3.7%   Living Alone   24%   No Car   3%	Avg   54yrs   <15   16%   55-74   37%   15-54   35%   >75   12%

## GAUGE LEVEL INFORMATION

Flood Class	Flood Event	Paynesville
<b>Major</b>		<b>1.90</b>
	1952	1.69
	1978	1.66
<b>Moderate</b>		<b>1.60</b>
	2007 Jun	1.50
	1990 Apr	
	1998	1.35
<b>Minor</b>		<b>0.80</b>

# DETAILED CONSEQUENCES AND IMPACTS – FLOOD INTELLIGENCE CARD

Gauge	No	Location	Datum Type
Metung Gauge	584021	Metung	AHD

**NB** Depths quoted are above ground level and do not necessarily indicate above floor flooding. Properties are considered isolated when 20cm of water is across the road

Height (m)	Consequences	Operational Considerations
------------	--------------	----------------------------

**0.0 – 0.?** | ~ Tidal Variation

**0.70**

**PROPERTIES**

| **Flooded**

- ▷ 11 properties in total
- ▷ 11 up to 0.10m [Alpha Group]

---

**ROADS**

| **Water over Road**

- ▷ Boat ramp and car park at Shaving Point

**0.80**

**PROPERTIES**

| **Flooded**

- ▷ 15 properties in total
- ▷ 4 new up to 0.10m [Bravo Group]
- ▷ 11 previously up to 0.20m

| Notice to boat owners, Gippsland Ports and East Gippsland Shire regarding boat mooring lines.

**0.90**

**MINOR FLOOD LEVEL**

---

**PROPERTIES**

| **Flooded**

- ▷ 20 properties in total
- ▷ 5 new up to 0.10m [Charlie Group]
- ▷ 15 previously up to 0.30m

---

**ROADS**

| **Water over Road**

- ▷ Front lawn of Metung Hotel

| **Road Closed**

- ▷ Boat ramp and car park at Shaving Point

| Check cars in boat ramp car park

| Marine radio re any cars and trailers parked in boat ramp car parks (whole of lakes)

**1.00**

**PROPERTIES**

| **Flooded**

- ▷ 32 properties in total
- ▷ 12 new up to 0.10m [Delta Group]
- ▷ 20 previously up to 0.40m

**1.10**

**PROPERTIES**

| **Flooded**

- ▷ 36 properties in total
- ▷ 4 new up to 0.10m [Echo Group]
- ▷ 32 previously up to 0.50m

**ROADS****| Water over Road**

- ▷ Beach Rd [near Archibald & Lake Rds]

**| Road Closed**

- ▷ Front lawn of Metung Hotel

**1.20****PROPERTIES****| Flooded**

- ▷ 41 properties in total
- ▷ 5 new up to 0.10m [Foxtrot Group]
- ▷ 36 previously up to 0.60m

**ROADS****| Water over Road**

- ▷ Metung Marina car park
- ▷ Village Green
- ▷ Turning circle at end of Kurnai Ave
- ▷ Toilet Block at Shaving Point

**1.30****PROPERTIES****| Flooded**

- ▷ 46 properties in total
- ▷ 5 new up to 0.10m [Golf Group]
- ▷ 41 previously up to 0.70m

**ROADS****| Water over Road**

- ▷ Reserve Rd
- ▷ Rosherville Rd

**| Road Closed**

- ▷ Beach Rd [near Archibald & Lake Rds]??

**1.35****1998 FLOOD EVENT****1.40****PROPERTIES****| Flooded**

- ▷ 46 properties in total
- ▷ Nil new
- ▷ 46 previously up to 0.80m

**ROADS****| Water over Road**

- ▷ Metung Rd @ Metung Marina
- ▷ Metung Rd @ McMillans of Metung
- ▷ Metung Rd @ Shaving Point boat ramp car park
- ▷ Metung Yacht Club car park

**| Road Closed**

- ▷ Metung Marina car park
- ▷ Village Green
- ▷ Turning circle at end of Kurnai Ave
- ▷ Toilet Block at Shaving Point

**1.50 2007 FLOOD EVENT & 1 in 20 Year Flood Level****PROPERTIES****| Flooded**

- ▷ 51 properties in total
- ▷ 5 new up to 0.10m [India Group]
- ▷ 46 previously up to 0.90m

**ROADS****| Water over Road**

- ▷ Metung Rd @ Shaving Point

**| Road Closed**

- ▷ Reserve Rd
- ▷ Rosherville Rd

**1.60 PROPERTIES****| Flooded**

- ▷ 56 properties in total
- ▷ 5 new up to 0.10m [Juliet Group]
- ▷ 51 previously up to 1.00m

**| Isolated**

- ▷ 3 in total [Juliet Group]

**ROADS****| Water over Road**

- ▷ Metung Rd @ McMillans of Metung
- ▷ Beach Rd near Mairburn Rd

**| Road Closed**

- ▷ Metung Rd @ Shaving Point
- ▷ And previously listed

**1.70 MODERATE FLOOD LEVEL & 1 in 50 YEAR FLOOD LEVEL****PROPERTIES****| Flooded**

- ▷ 59 properties in total
- ▷ 3 new up to 0.10m [Kilo Group]
- ▷ 56 previously up to 1.10m

**| Isolated**

- ▷ 3 in total
- ▷ 3 previously

**ROADS****| Road Closed**

- ▷ Metung Rd @ Shaving Point
- ▷ And previously listed

Height (m)	Consequences	Operational Considerations
1.80	<p><b>PROPERTIES</b></p> <ul style="list-style-type: none"> <li>  <b>Flooded</b> <ul style="list-style-type: none"> <li>▷ 59 properties in total</li> <li>▷ Nil new</li> <li>▷ 59 previously up to 1.20m</li> </ul> </li> <li>  <b>Isolated</b> <ul style="list-style-type: none"> <li>▷ 3 total</li> <li>▷ 3 previously</li> </ul> </li> </ul> <hr/> <p><b>ROADS</b></p> <ul style="list-style-type: none"> <li>  <b>Water over Road</b> <ul style="list-style-type: none"> <li>▷ Beach Rd near Waterholes Rd</li> </ul> </li> <li>  <b>Road Closed</b> <ul style="list-style-type: none"> <li>▷ Metung Rd @ McMillans of Metung</li> <li>▷ Beach Rd near Mairburn Rd</li> <li>▷ And previously listed</li> </ul> </li> </ul>	
1.90	<p><b>MAJOR FLOOD LEVEL</b></p> <hr/> <p><b>PROPERTIES</b></p> <ul style="list-style-type: none"> <li>  <b>Flooded</b> <ul style="list-style-type: none"> <li>▷ 59 properties in total</li> <li>▷ 0 new up to 0.10m [Mike Group]</li> <li>▷ 59 previously up to 1.30m</li> <li>▷ Critical Properties – 2 <ul style="list-style-type: none"> <li>▪ The Moorings Resort</li> <li>▪ McMillans of Metung Resort</li> </ul> </li> </ul> </li> <li>  <b>Isolated</b> <ul style="list-style-type: none"> <li>▷ 3 in total</li> <li>▷ 3 previously</li> </ul> </li> </ul>	
2.10	<b>1 in 100 Year Flood Level</b>	

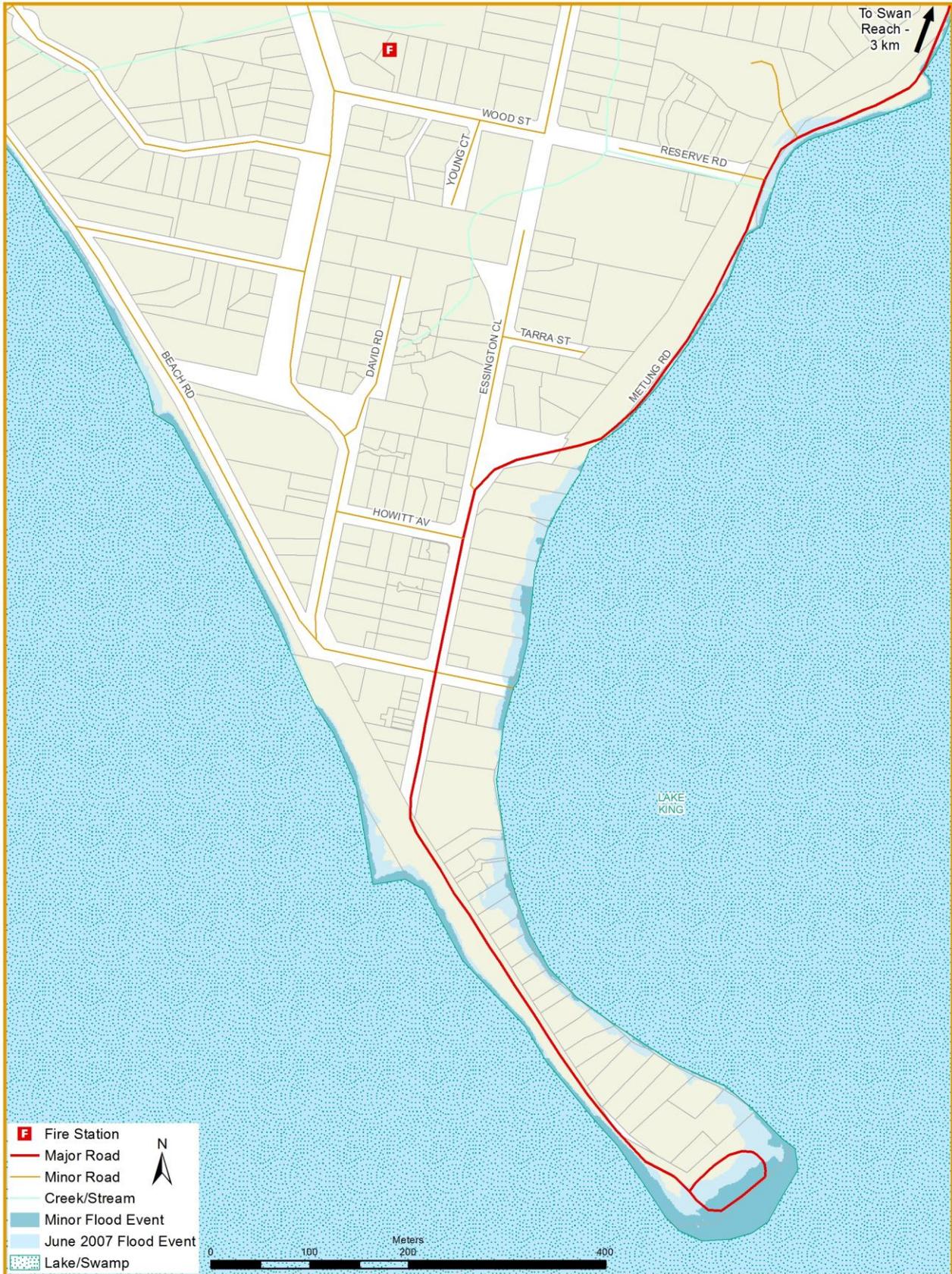
## DETAILED PROPERTY LISTINGS

**NB – Individual residence floor heights are unknown, the information provided represents flooding impact at ground levels only**

Height (m)	Group Name	No of Properties	Property Address
0.70	ALPHA	11	Beach Rd [32, 34, 36, 70a, 70b] Mosquito Point [6 properties]
0.80	BRAVO	4	Beach Rd [6, 72] Mosquito Point [2 properties]
0.90	CHARLIE	5	Beach Rd [62 (Metung Hotel), 68] Mosquito Point [3 properties]
1.00	DELTA	12	Beach Rd [16, 20, 22, 30, 38c, 74, 76, 78] Mosquito Point [4 properties]
1.10	ECHO	4	Beach Rd [24, 38d] Reserve Rd [35] Mosquito Point [1 property]
1.20	FOXTROT	5	Beach Rd [18] Mosquito Point [4 properties]
1.30	GOLF	5	Beach Rd [8, 10] Mosquito Point [3 properties]
1.40	HOTEL	0	
1.50	INDIA	5	Beach Rd [26, 28, 42, 44 (The Moorings), 50 (Marillee at Metung)]
1.60	JULIET	5 3 isolated	Beach Rd [2, 12, 38b] Mosquito Point [1, 1]  <b>Isolated</b> Metung Rd [2, 6, 8]
1.70	KILO	3	Beach Rd [38a] Mosquito Point [2]

# MAPS

## Metung



- Fire Station
- Major Road
- Minor Road
- Creek/Stream
- Minor Flood Event
- June 2007 Flood Event
- Lake/Swamp

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# APPENDIX C.08e – FLOOD EMERGENCY PLAN

## LAKES ENTRANCE



## LOCATION

Lakes Entrance lies where the Gippsland Lakes join Bass Strait. It lies at the easterly most end of the Gippsland Lakes System on the Princes Highway between Bairnsdale and Orbost.

## FLOOD BEHAVIOUR

### LAKES FLOODING

Flooding in this community occurs as a result of flooding in the Gippsland Lakes caused in turn by flooding of the Latrobe, Thomson, Macalister, Avon, Mitchell, Nicholson & Tambo Rivers which lead into the Lakes.

Flooding typically occurs after those rivers have experienced flooding with peaks slow to rise and recede, sometimes taking up to 14 days.

Flooding is also caused by increases in lake height due to tidal influence and south westerly winds pushing water on to Lakes Entrance.

Peaks occur with each high tide with water entering streets and properties through the storm water drains as well as from the lake. This creates an unusual capacity to access properties and people during low tides that are flooded during high tide.

There are many marinas and jetties where boats will need to have their mooring lines adjusted as lake heights build and recede. Many of these become inaccessible due to road closures and authorities need to be mindful of people trying to gain access through flood waters. Early warning of expected heights and perhaps utilisation of the Coast Guard and Water Police to adjust mooring lines should be a consideration.

## FLASH FLOODING

Lakes Entrance is subject to flash flooding due to the topography of steep hills to the north and the inability of water to drain effectively in the township due to the low lying nature of the town and the drainage system.

## STORM SURGE

Lakes Entrance is susceptible to storm surge and high tidal flooding but is not part of any flood warning system. Refer to the Storm Emergency Plan for specific information – this plan is not yet drafted.

## TSUNAMI

Lakes Entrance is subject to tsunami. There are some maps relating to velocity and depth of tsunami based on three different trench origins. These maps are attached.

## CONSEQUENCES AND IMPACTS SUMMARY

The table below is a breakdown of the number of properties impacted in a 1% AEP riverine event..

Land Use	#
Residential	571
Business	297
Industrial	10
Special Use	9
Rural	5
<b>Total</b>	<b>892</b>

The table below is a breakdown of the number of properties impacted at each gauge height.

Gauge Height	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Flooded	5	32	83	147	223	329	409	453	505	561	597
Isolated	0	0	0	29	58	173	194	211	211	211	211

## FLOOD MITIGATION SYSTEMS

Duck Bill valves have been installed and are continuing to be installed on storm water drains to relieve flooding via the storm water drains.

## FLOOD WARNINGS

The BoM is able to predict flood heights 12-52 hours ahead of peaks in this location as part of the Gippsland Lakes Flood Warning System.

## ROAD CLOSURES

Many roads on the spit of land between Cunninghame Arm and North Arm are subject to flooding via the storm water drains.

Access to Lakes Entrance is via :-

- ▶ Princes Highway via Kalimna to the west which is subject to flooding in Lakes Entrance (The Esplanade) and can be cut for several days;
- ▶ Princes Highway via Nowa Nowa to the east which is subject to flooding in Lakes Entrance (The Esplanade) and can be cut for several days;
- ▶ Palmers Rd / Colquhoun Rd to the north depending upon local rain events.

## Local Road closures

Barkes Avenue	Golf Links Rd	Mechanics St
Bowler St	Hunter St	Middle St
Bulmer St	Jemmeson St	North Arm Ave
Carpenter St	Jennings St	Princes Hwy
Carstairs Ave	Jetty St	Roadknight St
Church St	Lambert St	Rowe St
Cunninghame St	Lake St	Short St
Devitt St	Laura St	Stock St
Eastern Beach Rd	Long St	The Esplanade
Fish St	Mackillops Lane	Whitters St
Gray St	Marine Pde	

## COMMUNITY PROFILE

| Lakes Entrance is a relatively young community with many people new to the area. There are many caravan parks in low lying areas which inflate the population of Lakes Entrance during peak holiday times .

| The following is a demographic profile of Lakes Entrance as at the 2006 census.

Pop'n	Dwellings	Language	Needs Assistance	Age Profile
5549	2204	English 99.5%	Disability   6.5%   Living Alone   30%   No Car   10%	Avg   47yrs   <15   17%   15-54   43%   55-74   29%   >75   12%

## GAUGE LEVEL INFORMATION

Flood Class	Flood Event	Town Gauge	Bullock Island
<b>Major</b>	<b>1990 &amp; 1998</b>	<b>1.60</b>	<b>1.30</b>
Bullock Island	1952		1.69
	2007 Jun	1.40	1.50
	1990 Apr		1.20
<b>Moderate</b>			<b>1.10</b>
	1978	1.71	1.00
<b>Minor</b>			<b>0.90</b>

# DETAILED CONSEQUENCES AND IMPACTS – FLOOD INTELLIGENCE CARD

Gauge	No	Location	Datum Type
Lakes Entrance Gauge		Bullock Island	AHD

**NB** Depths quoted are above ground level and do not necessarily indicate above floor flooding. Properties are considered isolated when 20cm of water is across the road

Height (m)	Consequences	Operational Considerations
------------	--------------	----------------------------

**0.0 – 0.2** | ~ Tidal Variation

**0.70 OPEN AREAS / INFRASTRUCTURE**

- ▷ Eastern Beach access Rd, playground & car park

**0.80**

**PROPERTIES**

| **Flooded**

- ▷ 5 properties in total
- ▷ 5 new up to 0.10m [Alpha Group]
- ▷ Accommodation premises - 1

| Boat mooring lines may require lengthening

**ROADS**

| **Water over Road**

- ▷ The Esplanade @ and west of Bulmer Street

**OPEN AREAS**

- ▷ Popular fishing area & car park on Bullock Island east of the Bullock Island Bridge
- ▷ Boat ramp on Marine Pde near Barks Ave

**0.90**

**MINOR FLOOD LEVEL**

**SUMMARY**

- | 27 properties not previously affected will start to see flooding.
- | There are now a total of 32 properties experiencing levels of flooding up to 20cm across part of the property.
- | Several roads in the central part of Lakes Entrance will have water over the road including The Esplanade, marine Parade, Laura Street, Mechanics St and the Devitt St / Bulmer St intersection.

**PROPERTIES**

| **Flooded**

- ▷ 32 properties in total
- ▷ 27 new up to 0.10m [Bravo Group]
- ▷ 5 previously up to 0.20m

**ACCOMMODATION PREMISES**

| **Flooded**

- ▷ 4 premises in total
- ▷ 3 new up to 0.10m [Bravo Group]

**ROADS**

| **Water over Road**

- ▷ The Esplanade @ and west of Bulmer St
- ▷ Marine Pde @ Carstairs Ave
- ▷ Laura St

- ▷ The Esplanade @ Laura St
- ▷ Mechanics St @ Staunton St
- ▷ Devitt St / Bulmer St intersection

#### | Road Closed

- ▷ Eastern Beach access Rd, playground and car park

#### OPEN AREAS

- ▷ nil new

#### CRITICAL INFRASTRUCTURE

- ▷ Fishermans Co-op on Bullock Island , especially sub station & plant room
- ▷ Petrol Station on The Esplanade

1.00

#### SUMMARY

- | 51 properties not previously affected will start to see flooding.
- | There are now a total of 83 properties experiencing levels of flooding up to 30cm across part of the property.

#### PROPERTIES

##### | Flooded

- ▷ 83 properties in total
- ▷ 51 new up to 0.10m [Charlie Group]
- ▷ 32 previously up to 0.30m

#### ACCOMMODATION PREMISES

##### | Flooded

- ▷ 8 premises in total
- ▷ 4 new up to 0.10m [Charlie Group]

#### ROADS

##### | Water over Road

- ▷ Barkes Ave @ Marine Parade
- ▷ Box St
- ▷ Bulmer St between The Esplanade & Church St
- ▷ Gray St
- ▷ Hunter St (western end)
- ▷ Lake St
- ▷ Long St sth of Princes Hwy
- ▷ Mackillops Lane
- ▷ Middle St sth of Princes Hwy
- ▷ Stock St
- ▷ The Esplanade between Carpenter & Myer Sts
- ▷ Whiter St between The Esplanade & Roadknight St

##### | Road Closed

- ▷ The Esplanade @ and west of Bulmer St
- ▷ Boat ramp on Marine Pde near Barkes Ave
- ▷ And previously listed

#### OPEN AREAS

- ▷ Boat ramp car park on Marine Parade near Laura St

#### CRITICAL INFRASTRUCTURE

- ▷ Sewerage pump "C" station [Marine Pde]
- ▷ Sewer Man Hole –sonar head [Jemmeson St]

| Businesses on the Esplanade at risk of flooding, including accommodation houses and caravan parks

| Boat mooring lines may require lengthening

| Community /Business Assets that may require sandbagging:

- No 1 The Esplanade – lift well
- Rear of commercial shops [Coates Rd & Myers St]

▷ Sewer Pump “D” Station [Palmers Rd]

1.10

**MODERATE FLOOD LEVEL****SUMMARY**

- | 64 properties not previously affected will start to see flooding.
- | There are now a total of 147 properties experiencing levels of flooding up to 40cm across part of the property.
- | There is no access for through traffic on The Esplanade at Laura St and on Marine Pde at Carstairs Ave
- | Properties to the west of Laura St & Bullock Island can not access the rest of Lakes Entrance

**PROPERTIES****| Flooded**

- ▷ 147 properties in total
- ▷ 64 new up to 0.10m [Delta Group]
- ▷ 83 previously up to 0.40m

**| Isolated**

- ▷ 29 total
- ▷ 29 new as listed in Road Impacts section

**ACCOMMODATION PREMISES****| Flooded**

- ▷ 14 premises in total
- ▷ 6 new up to 0.10m [Delta Group]

**| Isolated**

- ▷ 1 total
- ▷ 1 new as listed in Road Impacts section

**ROADS****| Water over Road**

- ▷ Barks Ave between Gray St & The Esplanade isolating all properties on Hunter St
- ▷ Devitt St / North Arm Ave intersection
- ▷ Fish St @ Long St
- ▷ North Arm Ave
- ▷ Rowe St between Mechanics & Bulmer Sts

**| Road Closed**

- ▷ Marine Pde @ Carstairs Ave
- ▷ Laura St
- ▷ The Esplanade @ Laura St
- ▷ Mechanics St @ Staunton St
- ▷ Devitt St / Bulmer St intersection
- ▷ Carstairs Ave
- ▷ There is no access for through traffic on The Esplanade at Laura St and on Marine Pde at Carstairs Ave
- ▷ Properties to the west of Laura St & Bullock Island can not access the rest of Lakes Entrance

**OPEN AREAS**

- ▷ Apex Park & playground, Marine Parade
- ▷ Boat ramp on Marine Parade near Laura St
- ▷ Tennis Courts on Rowe St

- ▷ Safeway car park

---

**ESSENTIAL INFRASTRUCTURE**

- ▷ CFA Brigade, 12 Bulmer St
  - ▷ Lakes Community & Sporting Club
- 

1.20

**PROPERTIES****| Flooded**

- ▷ 223 properties in total
- ▷ 76 new up to 0.10m [Echo Group]
- ▷ 147 previously up to 0.50m

**| Isolated**

- ▷ 58 total
  - ▷ 29 new as listed in Road Impacts section
  - ▷ 29 previously
- 

**ACCOMMODATION PREMISES****| Flooded**

- ▷ 26 premises in total
- ▷ 12 new up to 0.10m [Echo Group]
- ▷ 14 previously

**| Isolated**

- ▷ 2 total
  - ▷ 1 new as listed in Road Impacts section
  - ▷ 1 previous
- 

**ROADS****| Water over Road**

- ▷ Carpenter St between The Esplanade & Church St
- ▷ Church St between Mechanics St & east of Bulmer St
- ▷ Jetty St south of Princes Hwy
- ▷ Marine Pde between Laura St & The Esplanade
- ▷ Marine Pde @ Barkes Ave this isolates all Marine Pde properties between The Esplanade & Barkes Ave
- ▷ Mechanics St between Rowe & Orme Sts
- ▷ Short St south of Princes Hwy
- ▷ The Esplanade east of Carstairs Ave

**| Road Closed**

- ▷ Barkes Ave @ Marine Parade
  - ▷ Box St
  - ▷ Bulmer St between The Esplanade & Church St
  - ▷ Gray St
  - ▷ Hunter St (western end)
  - ▷ Lake St
  - ▷ Long St sth of Princes Hwy
  - ▷ Mackillops Lane
  - ▷ Middle St sth of Princes Hwy
  - ▷ Stock St
  - ▷ The Esplanade between Carpenter & Myer Sts
  - ▷ The Esplanade east of Barkes Ave
  - ▷ Whiters St between The Esplanade & Roadknight St
  - ▷ Boat ramp car park on Marine Parade near Laura St
  - ▷ And previously listed
-

**OPEN AREAS**

- ▷ Boat ramp Car park on Marine Pde near Barks Ave
- ▷ Gippsland Ports Yard on Bullock Island
- ▷ Gippsland Lakes Fishing Club & boat ramp & car park on Bullock Island Rd

**CRITICAL INFRASTRUCTURE**

- ▷ Council Library/Business Centre, Mechanics St
- ▷ Petrol Station, 120 Marine Pde

**1.30****MAJOR FLOOD LEVEL & 1 in 20 year ARI****PROPERTIES****| Flooded**

- ▷ 329 properties in total
- ▷ 106 new up to 0.10m [Foxtrot Group]
- ▷ 223 previously up to 0.60m

**| Isolated**

- ▷ 174 properties in total
- ▷ 116 new as listed in Road Impacts Section
- ▷ 58 previously

**ACCOMMODATION PREMISES****| Flooded**

- ▷ 40 premises in total
- ▷ 14 new up to 0.10m [Foxtrot Group]

**| Isolated**

- ▷ 13 total
- ▷ 11 new as listed in Road Impacts section
- ▷ 2 previously

**ROADS****| Water over Road**

- ▷ Marine Pde between Laura St & Carstairs Ave
- ▷ The Esplanade @ Carstairs Ave
- ▷ Orme St
- ▷ Church St between Bulmer & Myer Sts
- ▷ Myer St between The Esplanade & Church St
- ▷ Carpenter St @ Eastern Creek
- ▷ Jemmeson St @ Roadknight St
- ▷ Endeavour Crt
- ▷ Cunninghame St
- ▷ Eastern Beach Rd @ Merrangbaur St

**| Road Closed**

- ▷ Barks Ave between Gray St & The Esplanade
- ▷ Devitt St / North Arm Ave intersection
- ▷ Fish St @ Long St
- ▷ North Arm Ave
- ▷ Rowe St between Mechanics & Bulmer Sts
- ▷ Apex Park & playground, Marine Parade
- ▷ Boat ramp on Marine Parade near Laura St
- ▷ Safeway car park
- ▷ And listed previously

**ESSENTIAL INFRASTRUCTURE**

- ▷ Ambulance Station, 21 Mechanics St
- ▷ Coast Guard

1.40

**2007 Flood Event****PROPERTIES****| Flooded**

- ▷ 409 properties in total
- ▷ 80 new up to 0.10m [Golf Group]
- ▷ 329 previously up to 0.70m

**| Isolated**

- ▷ 252 properties in total
- ▷ 78 new as listed in Road Impacts section
- ▷ 174 previously

**ACCOMMODATION PREMISES****| Flooded**

- ▷ 44 premises in total
- ▷ 4 new up to 0.10m [Golf Group]

**ROADS****| Water over Road**

- ▷ The Esplanade between Bulmer & Carpenter Sts
- ▷ Carpenter St between Devitt & Church Sts
- ▷ Myer St between Church & Lambert Sts
- ▷ The Esplanade between Myer & Stock Sts
- ▷ Eastern Beach Rd @ Cunninghame Crt

**| Road Closed**

- ▷ Carpenter St between The Esplanade & Church St
- ▷ Church St between Mechanics St & east of Bulmer St
- ▷ Jetty St south of Princes Hwy
- ▷ Marine Pde between Laura St & The Esplanade
- ▷ Marine Pde @ Barkes Ave - this isolates all Marine Pde properties between The Esplanade & Barkes Ave
- ▷ Mechanics St between Rowe & Orme Sts
- ▷ Short St south of Princes Hwy
- ▷ The Esplanade east of Carstairs Ave
- ▷ Boat ramp Car park on Marine Pde near Barkes Ave
- ▷ Gippsland Ports Yard on Bullock Island
- ▷ Gippsland Lakes Fishing Club & boat ramp & car park on Bullock Island Rd

**OPEN AREAS**

- ▷ Football Oval, Rowe St
- ▷ Tennis Courts, Rowe St

**CRITICAL INFRASTRUCTURE**

- ▷ Cunninghame Arm Medical Centre, 8 Whifers St

1.50

**PROPERTIES****| Flooded**

- ▷ 453 properties in total
- ▷ 44 new up to 0.10m [Hotel Group]

- ▷ 409 previously up to 0.80m

**| Isolated**

- ▷ 194 total
- ▷ Nil new as listed in Road Impacts Section
- ▷ 194 previously

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**ACCOMMODATION PREMISES**

**| Flooded**

- ▷ 50 premises in total
- ▷ 6 new up to 0.10m [Hotel Group]

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**ROADS**

**| Water over Road**

- ▷ Lambert St @ North Arm Ave
- ▷ The Esplanade between Stock & Whitters St
- ▷ Mourilyan St @ Roadknight St

**| Road Closed**

- ▷ Marine Pde between Laura St & Carstairs Ave
- ▷ The Esplanade @ Carstairs Ave
- ▷ Orme St
- ▷ Church St between Bulmer & Myer Sts
- ▷ Myer St between The Esplanade & Church St
- ▷ Carpenter St @ Eastern Creek
- ▷ Jemmeson St @ Roadknight St
- ▷ Endeavour Crt
- ▷ Cunninghame St
- ▷ Eastern Beach Rd @ Merrangbaur St

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**OPEN AREAS**

- ▷ Bowls Club on cnr Rowe & Bulmer St
- ▷ Walking track & open area on the SW cnr of Bullock Island

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**1.60**

**1 in 50 year ARI**

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**PROPERTIES**

**| Flooded**

- ▷ 505 properties in total
- ▷ 52 new up to 0.10m [India Group]
- ▷ 453 previously up to 0.90m

**| Isolated**

- ▷ 211 total properties
- ▷ 17 new as listed in Road Impacts section
- ▷ 194 previously

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**ACCOMMODATION PREMISES**

**| Flooded**

- ▷ 53 premises in total
- ▷ 3 new up to 0.10m [India Group]

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**ROADS**

**| Water over Road**

- ▷ Lambert St between Carpenter & Myer Sts
- ▷ The Esplanade between Whitters & Clarkes Sts
- ▷ The Esplanade between Clarkes & Short Sts

- ▷ Bowler St
- ▷ Short St between Princes Hwy & Roadknight St
- ▷ Jetty St between Princes Hwy & Roadknight St.

#### | Road Closed

- ▷ The Esplanade between Bulmer & Carpenter Sts
- ▷ Carpenter St between Devitt & Church Sts
- ▷ Myer St between Church & Lambert Sts
- ▷ The Esplanade between Myer & Stock Sts
- ▷ Eastern Beach Rd @ Cunninghame Crt

#### ESSENTIAL INFRASTRUCTURE

- ▷ Police Station, 40a Myer St
- ▷ Petrol Station, 12 Princes Highway

1.70

#### PROPERTIES

##### | Flooded

- ▷ 561 properties in total
- ▷ 56 new up to 0.10m [Juliet Group]
- ▷ 505 previously up to 1.00m

##### | Isolated

- ▷ 95 total properties as previously

#### ACCOMMODATION PREMISES

##### | Flooded

- ▷ 53 premises in total
- ▷ 0 new up to 0.10m [Juliet Group]

#### ROADS

##### | Water over Road

- ▷ Carpenter St between Devitt & Lambert Sts
- ▷ Golf Links Rd east of Merrangbaur St
- ▷ Middle St between Princes Hwy & Roadknight St .

##### | Road Closed

- ▷ Lambert St @ North Arm Ave
- ▷ The Esplanade between Stock & Whifers St
- ▷ Mourilyan St @ Roadknight St
- ▷ Walking track & open area on the SW cnr of Bullock Island

#### ESSENTIAL INFRASTRUCTURE

- ▷ Police Station, 40a Myer St
- ▷ Petrol Station, 12 Princes Highway

1.80

#### 1 in 100 year ARI

#### PROPERTIES

##### | Flooded

- ▷ 597 properties in total
- ▷ 36 new up to 0.10m [Kilo Group]
- ▷ 561 previously up to 1.10m

#### ACCOMMODATION PREMISES

##### | Flooded

- ▷ 54 premises in total
- ▷ 1 new up to 0.10m [Kilo Group]

**ROADS****| Water over Road**

- ▷ Eastern Beach Rd @ Endeavour Crt
- ▷ Jennings St
- ▷ Princes Hwy between Short & Jetty Sts
- ▷ Roadknight St @ Myer St
- ▷ Roadknight St @ Whikers St

**| Road Closed**

- ▷ Lambert St between Carpenter & Myer Sts
- ▷ The Esplanade between Whikers & Clarkes Sts
- ▷ The Esplanade between Clarkes & Short Sts
- ▷ Bowler St
- ▷ Short St between Princes Hwy & Roadknight St
- ▷ Jetty St between Princes Hwy & Roadknight St

1.90

**PROPERTIES****| Flooded**

- ▷ 630 properties in total
- ▷ 33 new up to 0.10m [Lima Group]
- ▷ 597 previously up to 1.20m

**| Isolated**

- ▷ 359 in total
- ▷ 148 new including the Lakes Entrance Relocatable Home village

**ACCOMMODATION PREMISES****| Flooded**

- ▷ 55 premises in total
- ▷ 1 new up to 0.10m [Lima Group]

**ROADS****| Water over Road**

- ▷ School Rd @ Carpenter St
- ▷ Long St between Princes Hwy & Roadknight St
- ▷ Princes Hwy between Jetty & Middle Sts

**| Road Closed**

- ▷ Carpenter St between Devitt & Lambert Sts
- ▷ Golf Links Rd east of Merrangbaur St
- ▷ Middle St between Princes Hwy & Roadknight St

**ESSENTIAL INFRASTRUCTURE**

- ▷ East Gippsland Water Eastern Beach Water Treatment Plant isolated

2.00

**PROPERTIES****| Flooded**

- ▷ 673 properties in total
- ▷ 13 new up to 0.10m [Mike Group]
- ▷ 630 previously up to 1.30m

**| Isolated**

- ▷ 359 in total
- ▷ 148 new including the Lakes Entrance Relocatable Home village

**ACCOMMODATION PREMISES****| Flooded**

- ▷ 55 premises in total
- ▷ Nil new

**ROADS****| Water over Road**

- ▷ Princes Hwy between Middle & Long Sts

**| Road Closed**

- ▷ Eastern Beach Rd @ Endeavour Crt
- ▷ Jennings St
- ▷ Princes Hwy between Short & Jetty Sts
- ▷ Roadknight St @ Myer St
- ▷ Roadknight St @ Whifers St



## DETAILED PROPERTY LISTINGS

**NB – Individual residence floor heights are unknown, the information provided represents flooding impact at ground levels only. VICSES cannot guarantee the information in this section. It is based on flood mapping at a point in time and does not take into consideration changes to the landform, height of floor level or localised works for special access. This information is intended as a guide for flood planning ONLY.**

Height (m)	Group Name	No of Properties	Property Address
0.80	ALPHA	<ul style="list-style-type: none"> <li>  5</li> <li>  1 Accommodation</li> <li>  161 rooms</li> </ul>	<ul style="list-style-type: none"> <li>  Eastern Beach Rd [42 – Eastern Beach Caravan Park – 161 sites]</li> <li>  Marine Pde [6-12]</li> <li>  Mechanics St [17]</li> <li>  Jetty Rd [15]</li> <li>  Staunton St [15]</li> </ul>
0.90	BRAVO	<ul style="list-style-type: none"> <li>  27</li> <li>  3 Accommodation</li> <li>  Petrol Station</li> </ul>	<ul style="list-style-type: none"> <li>  Box St [10, 12, 14]</li> <li>  Endeavour Crt [16]</li> <li>  Lake St [4-6 – Fountain Court Holiday Units – 8 rooms]</li> <li>  Laura St [5, 9]</li> <li>  Marine Pde [38, 90, 114, 116, 210]</li> <li>  Middle St [19, 21]</li> <li>  Staunton St [5]</li> <li>  The Esplanade [95, 163, 557, 569, 571, 573, 575, 577]</li> <li>  The Esplanade [151-159 – Comfort Inn &amp; Suites Emmanuel]</li> <li>  The Esplanade [413 - Petrol Station &amp; house]</li> <li>  The Esplanade [477 - Slipway Fish &amp; Chips]</li> <li>  The Esplanade [683-687 – Koonwarra House &amp; Family Holiday Park]</li> </ul>
1.00	CHARLIE	<ul style="list-style-type: none"> <li>  51 properties</li> <li>  4 Accommodation</li> </ul>	<ul style="list-style-type: none"> <li>  Barks Ave [20, 22, 24, 26]</li> <li>  Gray St [5, 7, 9, 11]</li> <li>  Hunter St [17]</li> <li>  Laura St [4, 6, 7, 8, 10]</li> <li>  Long St [23, 24]</li> <li>  Mackillops Ln [1, 2]</li> <li>  Marine Pde [18, 40, 70, 152-164, 168, 212, 216]</li> <li>  Marine Pde [164 – Lakeside Motel]</li> <li>  Marine Pde [166 - RSL Glenara]</li> <li>  Mechanics St [9, 11]</li> <li>  Middle St [16, 18, 20]</li> <li>  Orme St [1]</li> <li>  Stock St [6, 10]</li> <li>  Staunton St [7, 11-13]</li> <li>  The Esplanade [37, 59, 65, 99, 301, 383, 387, 559, 565, 567, 569, 609]</li> <li>  The Esplanade [607-Ultimate Holiday Apartments]</li> <li>  The Esplanade [621-625 – Waters Edge Holiday Park]</li> </ul>
1.10	DELTA	<ul style="list-style-type: none"> <li>  64 properties</li> <li>  6 Accommodation</li> <li>  CFA</li> <li>  Safeway</li> </ul>	<ul style="list-style-type: none"> <li>  Box St [2-8 DPI]</li> <li>  Bulmer St [7, 9]</li> <li>  Bulmer St [12 – CFA Brigade]</li> <li>  Carpenter St [10]</li> <li>  Church St [45, 47, 53]</li> <li>  Church St [Safeway &amp; Target Carpark]</li> <li>  Church St [33 - Woodbine Tourist Park]</li> <li>  Devitt St [17, 19]</li> <li>  Gray St [1-3 car park]</li> <li>  Hunter St [28, 30, 32]</li> </ul>

Height (m)	Group Name	No of Properties	Property Address
			Marine Pde [54, 58, 66, 228, 230]
			Marine Pde [76 - North Arm Tourist Park]
			Mechanics St [13-15 – Car Wash]
			Myer St [12, 14, 16, 18, 20]
			North Arm Ave [4, 6, 8]
			Orme St [3, 7]
			Princes Hwy [4]
			Roadknight St [8]
			Roadknight St [6-Ocean Bridge Quality Units]
			Rowe St [Tennis Courts]
			Stock St [4b, 6a, 7a, 7b, 8, 9a, 9b]
			Staunton St [8, 9]
			The Esplanade [105, 289, 301, 303, 377, 531, 541, 561, 563, 587, 605, 629, 653]
			The Esplanade [171-179 – The Pelican at Lakes Motel]
			The Esplanade [461 - Mini Golf]
			The Esplanade [500 - Lakes Community & Sporting Club]
			The Esplanade [611 – Footbridge Holiday Apartments]
			The Esplanade [649 – Idleours Caravan Park]

### 1.20 ECHO

	<b>76</b>	Barkes Ave [14-16]
	12 Accommodation	Bulmer St [5, 8, 9, 10, 11, 12, 14]
	Council Library/	Carpenter St [8, 14, 24]
	Business Centre	Devitt St [9, 14, 16]
	Petrol Station	Endeavour Crt [14]
		Hunter St [26, 15]
		Jetty Rd [13]
		Lake St [8]
		Marine Pde [20, 26, 132, 224, 226, 232, 234, 274]
		Marine Pde [120 - Petrol Station]
		Marine Pde [142 - The Bellevue]
		Marine Pde [280 – Roma Holiday Units]
		Mechanics St [6, 7]
		Mechanics St [Council Library / Business Centre]
		Merrangbaur St [9, 11]
		Myer St [10, 22]
		Orme St [9]
		Princes Hwy [6]
		Roadknight St [22, 26]
		Roadknight St [32 – Kickback Cottages]
		Short St [1, 3]
		Short St [5-Pomora House Boutique Bed & Breakfast]
		Stock [3, 5, 11, 12a]
		Staunton St [4]
		The Esplanade [77, 79-93, 145, 287, 293, 347, 351, 357, 419, 521, 591, 615, 619, 677]
		The Esplanade [1-35 – The Esplanade Resort & Spa]
		The Esplanade [187 – Uniting Church]
		The Esplanade [251-269 – Esplanade Motel]
		The Esplanade [271-277 – shopping & business mall]
		The Esplanade [287 – Post Office]
		The Esplanade [321 – Central Hotel Motel]
		The Esplanade [631 – Ponderosa]
		The Esplanade [637 – Sand Bar Motel]
		The Esplanade [639 – Cunninghame Shore Motel]
		The Esplanade [651 – Golden Terrace Holiday Park]
		The Esplanade [671 – Beaches Family Holiday Units]

### 1.30 FOXTROT

	<b>106</b>	Barkes Ave [2]
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Height (m)	Group Name	No of Properties	Property Address
		14 Accommodation	Carpenter St [6, 16, 18, 26]
		Ambulance Station	Church St [22, 26, 30, 32, 34a, 34b, 36, 55, 57, 60, 60a, 63, 64, 66]
		Coast Guard	
		Foodworks	Church St [11 - Church]
		Supermarket	Church St [27 - Bowls Club Car Park]
			Cunninghame St [10, 12]
			Devitt St [1-3/10, 11, 12, 15, 18]
			Endeavour Crt [13]
			Hunter St [4, 7, 12]
			Jetty Rd [11, 17]
			Long St [22]
			Marine Pde [14, 22, 24, 32, 196, 200, 242, 244, 260]
			Mechanics St [19, 30]
			Mechanics St [21 – Ambulance Station]
			Merrangbaur St [1, 5, 7]
			Middle St [14, 17]
			Myer St [11, 13, 15, 17, 19, 21, 24, 26, 28]
			Myer St [31 – Lakes Entrance Holiday Units]
			Myer St [32-34 - Foodworks Supermarket]
			Roadknight St [10 ]
			Rowe St [16, 22]
			Rowe St [4 - Riviera Beach Resort]
			Stock St [2, 4, 12]
			Whiters St [3]
			The Esplanade [43-55, 105, 125, 243, 277, 341, 345, 359, 513, 595, 601, 617, 641, 657, 665, 667, 673, 675, 697]
			The Esplanade [115 – Heyfield Motel]
			The Esplanade [131 – Best Western Banjo Paterson Motor Inn]
			The Esplanade [201– 215 The Bellevue]
			The Esplanade [221– RSL Glenara]
			The Esplanade [4/247 – Penthouse Luxury on the Waterfront]
			The Esplanade [247 – Harbour Views]
			The Esplanade [361– McDonalds Restaurant]
			The Esplanade [420 – Coast Guard]
			The Esplanade [603-605 – Beachcomber Holiday Flats]
			The Esplanade [635 – Best Western Coastal Waters Motor Inn]
			The Esplanade [645 – Abel Tasman Motel]
			The Esplanade [659-663 – Albatross Motor Inn]
			The Esplanade [669 – Riviera Backpackers]
			The Esplanade [679-681 – Black Swan Motor Inn]

#### 1.40 GOLF

		<b>80</b>	Carpenter St [5-9, 20, 21, 22, 26]
		4 Accommodation	Church St [59 – Lakes Jakaranda Holiday Units]
		Medical Centre	Church St [52-54 – Retravision & Sleep Zone]
		Football Oval	Devitt St [13, 15, 20]
			Eastern Beach Rd [31, 49]
			Endeavour Crt [9, 11]
			Fish St [4, 13, 15]
			Hunter St [2, 6, 8, 10, 11, 13, 14, 16, 18, 1-5/20]
			Jetty Rd [10, 12, 14]
			Lambert St [1, 10, 12]
			Long St [10]
			Marine Pde [16, 22a, 36, 54]
			Mechanics St [29-31]
			Merrangbaur St [3, 17, 19]
			Myer St [29]
			Orme St [5, 6, 12]
			Orme St [11-13 – Town Centre Apartments]
			Roadknight St [9, 11, 13, 28, 37]

Height (m)	Group Name	No of Properties	Property Address
			Rowe St [10, 14, 18, 20, 24, 26]
			Rowe St [Football Oval]
			The Esplanade [71, 229, 231, 233, 235, 239, 421, 503, 505, 507, 509, 511, 655]
			The Esplanade [643 – The Albacore]
			Whiters St [5-11 Lakes Southern Cross Caravan Park]
			Whiters St [8 - Cunninghame Arm Medical Centre]
<b>1.50 HOTEL</b>			
	<b>44</b>		Church St [21, 25, 56, 58, 61]
	6 Accommodation		Clarkes St [3, 5, 7]
			Cunninghame St [8]
			Eastern Beach Rd [14, 43, 45, 47]
			Endeavour Crt [5, 7]
			Fish St [11]
			Lambert St [14]
			Long St [4 – Killara Holiday Flats]
			Middle St [3, 5, 6]
			Myer St [33-35 – Silver Sands Tourist Park]
			North Arm Ave [10]
			Princes Hwy [13, 15, 19, 21, 23, 24, 28]
			Roadknight St [19, 23, 27, 29, 39, 41, 43, 45]
			Roadknight St [7 – Anchorage Holiday Units]
			Roadknight St [21 – Southern Cross Holiday Apartments]
			Roadknight St [31-33 – Echo Beach Tourist Park]
			Roadknight St [35 – Lazy Acre Log Cabins]
			Rowe St [35 - Bowls Club]
			The Esplanade [335]
<b>1.60 INDIA</b>			
	<b>52</b>		Church St [42 – Dahlsens]
	3 Accommodation		Church St [38-Lakes Sporting & Community Club car park]
	Police Station		Church St [35-43 – The Lakes Apartments]
	Petrol Station		Clarkes St [8]
			Cunninghame St [2-4, 6]
			Eastern Beach Rd [29]
			Endeavour Crt [3, 4, 12, 14]
			Fish St [2, 6, 9, 14, 16, 18, 20]
			Golf Links Rd [122-lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]
			Golf Links Rd [86-106 – Lakes Entrance Relocatable Home Village]
			Lambert St [8, 16]
			Long St [12]
			Middle St [15]
			Mourilyan St [3]
			Myer St [40a - Police Station]
			North Arm Ave [14, 16]
			Orme St [8, 10]
			Palmers Rd [30, 32]
			Princes Hwy [26]
			Princes Hwy [12 - Mobil Petrol Station]
			Roadknight St [1, 63, 75]
			Roadknight St [15 – Sandpiper Holiday Apartments]
			Rowe St [1-3/8]
<b>1.70 JULIET</b>			
	<b>56</b>		Bowler St [3]
			Eastern Beach Rd [4/12, 20, 22, 25, 26, 27, 28, 37, 41]
			Endeavour Crt [6, 8, 10]
			Fish St [8, 10, 22]
			Jemmeson St [1]
			Jetty Rd [3, 5]

Height (m)	Group Name	No of Properties	Property Address
			<ul style="list-style-type: none"> <li>  Long St [9, 15, 16, 18, 20]</li> <li>  Merrangbaur St [13, 15]</li> <li>  Middle St [4, 13]</li> <li>  Mourilyan St [5, 7, 10, 12]</li> <li>  Myer St [39, 46]</li> <li>  Princes Hwy [11, 17, 30]</li> <li>  Palmers Rd [20, 22, 24, 26, 34, 36, 38]</li> <li>  Roadknight St [54, 74, 76, 77, 79, 81, 83]</li> <li>  Rowe St [1-4/6]</li> <li>  Stock St [14]</li> </ul>
1.80	KILO		
		<ul style="list-style-type: none"> <li>  <b>36</b></li> <li>  1 Accommodation</li> </ul>	<ul style="list-style-type: none"> <li>  Church St [17]</li> <li>  Clarkes St [10, 11, 14]</li> <li>  Eastern Beach Rd [3/12, 23, 35]</li> <li>  Fish St [12]</li> <li>  Jemmeson St [4]</li> <li>  Long St [14]</li> <li>  Middle St [11]</li> <li>  Mourilyan St [9]</li> <li>  Myer St [37]</li> <li>  Princes Hwy [25]</li> <li>  Palmers Rd [10, 12, 14, 28]</li> <li>  Roadknight St [12c, 36, 40, 42, 44, 46, 48, 50, 65, 66, 67, 68, 69, 70, 71, 73]</li> <li>  Roadknight St [55 - Whikers Holiday Village]</li> <li>  Stock St [12c]</li> </ul>
1.90	LIMA		
		<ul style="list-style-type: none"> <li>  <b>33</b></li> <li>  1 Accommodation</li> </ul>	<ul style="list-style-type: none"> <li>  Bowler St [4, 5]</li> <li>  Clarkes St [9, 12]</li> <li>  Eastern Beach Rd [2/12, 19, 50, 54, 56]</li> <li>  Golf Links Rd [122-lots 20, 16]</li> <li>  Jemmeson St [6]</li> <li>  Jemmeson St [5 Lakes Haven Caravan Park &amp; Flats]</li> <li>  Jetty Rd [1a, 1b, 2, 4, 6, 8]</li> <li>  Merrangbaur St [21]</li> <li>  Mourilyan St [14]</li> <li>  Myer St [45]</li> <li>  Princes Hwy [5, 7, 9, 20, 27, 29, 32]</li> <li>  Palmers Rd [16]</li> <li>  Roadknight St [12b, 34, 78]</li> </ul>
2.00	MIKE		
		<ul style="list-style-type: none"> <li>  <b>13</b></li> </ul>	<ul style="list-style-type: none"> <li>  Mourilyan St [18, 20]</li> <li>  Myer St [48]</li> <li>  Roadknight St [12a, 16, 52, 56, 60, 64, 85, 91]</li> <li>  Stock St [12a, 12b]</li> </ul>

## DETAILED ROAD IMPACTS & ISOLATIONS

VICSES cannot guarantee the information in this section. It is based on flood mapping at a point in time and does not take into consideration changes to the landform, height of floor level or localised works for special access. This information is intended as a guide for flood planning ONLY.

Height (m)	First Impacted with up to 10cm water depth	Closed with $\geq$ 20cm water depth	Isolated Properties
0.70	Eastern Beach access Rd, playground and car park		
0.80	The Esplanade @ and west of Bulmer St Popular fishing area & car park on Bullock Island east of the Bullock Island Bridge Boat ramp on Marine Pde near Barkes Ave		
0.90	Marine Pde @ Carstairs Ave Laura St Carstairs Rd The Esplanade @ Laura St Mechanics St @ Staunton St Devitt St / Bulmer St intersection	Eastern Beach access Rd, playground and car park	
1.00	Barkes Ave @ Marine Parade Box St Bulmer St between The Esplanade & Church St Gray St Hunter St (western end) Lake St Long St sth of Princes Hwy Mackillops Lane Middle St sth of Princes Hwy Stock St The Esplanade between Carpenter & Myer Sts Whiters St between The Esplanade & Roadknight St Boat ramp car park on Marine Pde near Laura St	The Esplanade @ and west of Bulmer St Boat ramp on Marine Pde near Barkes Ave	
1.10	Barkes Ave between Gray St & The Esplanade this isolates all properties on Hunter St Devitt St / North Arm Ave intersection Fish St @ Long St North Arm Ave Rowe St between Mechanics & Bulmer Sts Apex Park & playground, Marine Parade Boat ramp on Marine Parade near Laura St	Marine Pde @ Carstairs Ave Laura St The Esplanade @ Laura St Mechanics St @ Staunton St Devitt St / Bulmer St intersection Carstairs Ave There is no access for through traffic on The Esplanade at Laura St and on Marine Pde at Carstairs Ave	<b>29 Properties Isolated</b> Laura St [4, 5, 6, 7, 8, 9, 10] Marine Pde [20, 22, 22a, 24, 26, 32, 36, 38, 40, 54, 58, 66, 70, 90, 114, 116] Marine Pde [76 – North Arm Tourist Park] The Esplanade [377, 383, 387, 419] The Esplanade [413 – Petrol Station & house]

Height (m)	First Impacted with up to 10cm water depth	Closed with >= 20cm water depth	Isolated Properties
	Safeway car park	Properties to the west of Laura St & Bullock Island can not access the rest of Lakes Entrance	
1.20	<ul style="list-style-type: none"> <li>  Carpenter St between The Esplanade &amp; Church St</li> <li>  Church St between Mechanics St &amp; east of Bulmer St</li> <li>  Jetty St south of Princes Hwy</li> <li>  Marine Pde between Laura St &amp; The Esplanade</li> <li>  Marine Pde @ Barkes Ave this isolates all Marine Pde properties between The Esplanade &amp; Barkes Ave</li> <li>  Mechanics St between Rowe &amp; Orme Sts</li> <li>  Short St south of Princes Hwy</li> <li>  The Esplanade east of Carstairs Ave</li> <li>  Boat ramp Car park on Marine Pde near Barkes Ave</li> <li>  Gippsland Ports Yard on Bullock Island</li> <li>  Gippsland Lakes Fishing Club &amp; boat ramp &amp; car park on Bullock Island Rd</li> </ul>	<ul style="list-style-type: none"> <li>  Barkes Ave @ Marine Parade</li> <li>  Box St</li> <li>  Bulmer St between The Esplanade &amp; Church St</li> <li>  Gray St</li> <li>  Hunter St (western end)</li> <li>  Lake St</li> <li>  Long St sth of Princes Hwy</li> <li>  Mackillops Lane</li> <li>  Middle St sth of Princes Hwy</li> <li>  Stock St</li> <li>  The Esplanade between Carpenter &amp; Myer Sts</li> <li>  The Esplanade east of Barkes Ave</li> <li>  Whitters St between The Esplanade &amp; Roadknight St</li> <li>  Boat ramp car park on Marine Parade near Laura Street</li> </ul>	<ul style="list-style-type: none"> <li>  <b>58 TOTAL</b></li> <li>  <b>29 New</b></li> <li>  <b>+ 29 Previous</b></li> <li>  Box St [10, 12, 14]</li> <li>  Gray St [5, 7, 9, 11]</li> <li>  Bulmer St [5, 7, 8, 9, 10, 11]</li> <li>  Bulmer St [12 – CFA Brigade]</li> <li>  Hunter St [17, 1-5/20, 26, 28, 30, 32]</li> <li>  Lake St [4-6 – Fountain Court Holiday Units]</li> <li>  Mackillops Lane [1, 2]</li> <li>  The Esplanade [301, 303]</li> </ul>
1.30	<ul style="list-style-type: none"> <li>  Marine Pde between Laura St &amp; Carstairs Ave</li> <li>  The Esplanade @ Carstairs Ave</li> <li>  Orme St</li> <li>  Church St between Bulmer &amp; Myer Sts</li> <li>  Myer St between The Esplanade &amp; Church St</li> <li>  Carpenter St @ Eastern Creek</li> <li>  Jemmeson St @ Roadknight St</li> <li>  Endeavour Crt</li> <li>  Cunninghame St</li> <li>  Eastern Beach Rd @ Merrangbaur St</li> </ul>	<ul style="list-style-type: none"> <li>  Barkes Ave between Gray St &amp; The Esplanade</li> <li>  Devitt St / North Arm Ave intersection</li> <li>  Fish St @ Long St</li> <li>  North Arm Ave</li> <li>  Rowe St between Mechanics &amp; Bulmer Sts</li> <li>  Apex Park &amp; playground, Marine Parade</li> <li>  Boat ramp on Marine Parade near Laura St</li> <li>  Safeway car park</li> </ul>	<ul style="list-style-type: none"> <li>  <b>174 TOTAL</b></li> <li>  <b>116 New</b></li> <li>  <b>+ 58 Previously</b></li> <li>  Barkes Ave [2, 14-16, 20, 22, 24, 26]</li> <li>  The Esplanade [59, 65, 71, 77, 79-93, 95, 99, 105, 125, 145, 163, 229, 231, 233, 235, 239, 243, 277, 289, 293, 335, 341, 345, 347, 351, 357, 359]</li> <li>  The Esplanade [115 – Heyfield Motel]</li> <li>  The Esplanade [131 – Best Western Banjo Paterson Motor Inn]</li> <li>  The Esplanade [151-159 Comfort Inn &amp; suites Emmanuel]</li> <li>  The Esplanade [171-179 – the Pelican at Lakes Motel]</li> <li>  The Esplanade [187 – Uniting Church]</li> <li>  The Esplanade [201-215 –</li> </ul>

Height (m)	First Impacted with up to 10cm water depth	Closed with >= 20cm water depth	Isolated Properties
			<ul style="list-style-type: none"> <li>  The Bellevue]</li> <li>  The Esplanade [221 – RSL Glenara]</li> <li>  The Esplanade [4/247 – Penthouse Luxury on the Waterfront]</li> <li>  The Esplanade [247 – Harbour Views]</li> <li>  The Esplanade [251-269 – Esplanade Motel]</li> <li>  The Esplanade [271-277 – shopping &amp; business mall]</li> <li>  The Esplanade [287 – Post Office]</li> <li>  The Esplanade [321 – Central Hotel Motel]</li> <li>  The Esplanade [361 – McDonalds]</li> <li>  Marine Pde [120, 132, 142, 152-164, 166, 168, 200, 210, 212, 216, 224, 226, 228, 230, 232, 234, 242, 244, 260, 274, 280, 296]</li> <li>  Marine Pde [120 – Petrol Stn]</li> <li>  Marine Pde [142 – The Bellevue]</li> <li>  Marine Pde [164 – Lakeside Motel]</li> <li>  Marine Pde [166 – RSL Glenara]</li> <li>  Marine Pde [280 – Roma Holiday Units]</li> <li>  Mechanics St [6, 7, 9, 11]</li> <li>  Mechanics St [Council Library Business Centre &amp; hall]</li> <li>  Hunter St [2, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18]</li> <li>  Staunton St [4, 5, 7, 8, 9, 11-13, 15]</li> <li>  Devitt St [9, 1-3/10, 11, 12, 13, 14, 15, 16, 17, 18]</li> <li>  North Arm Ave [4, 6, 8]</li> <li>  Rowe St [18, 20, 22, 24, 26]</li> </ul>

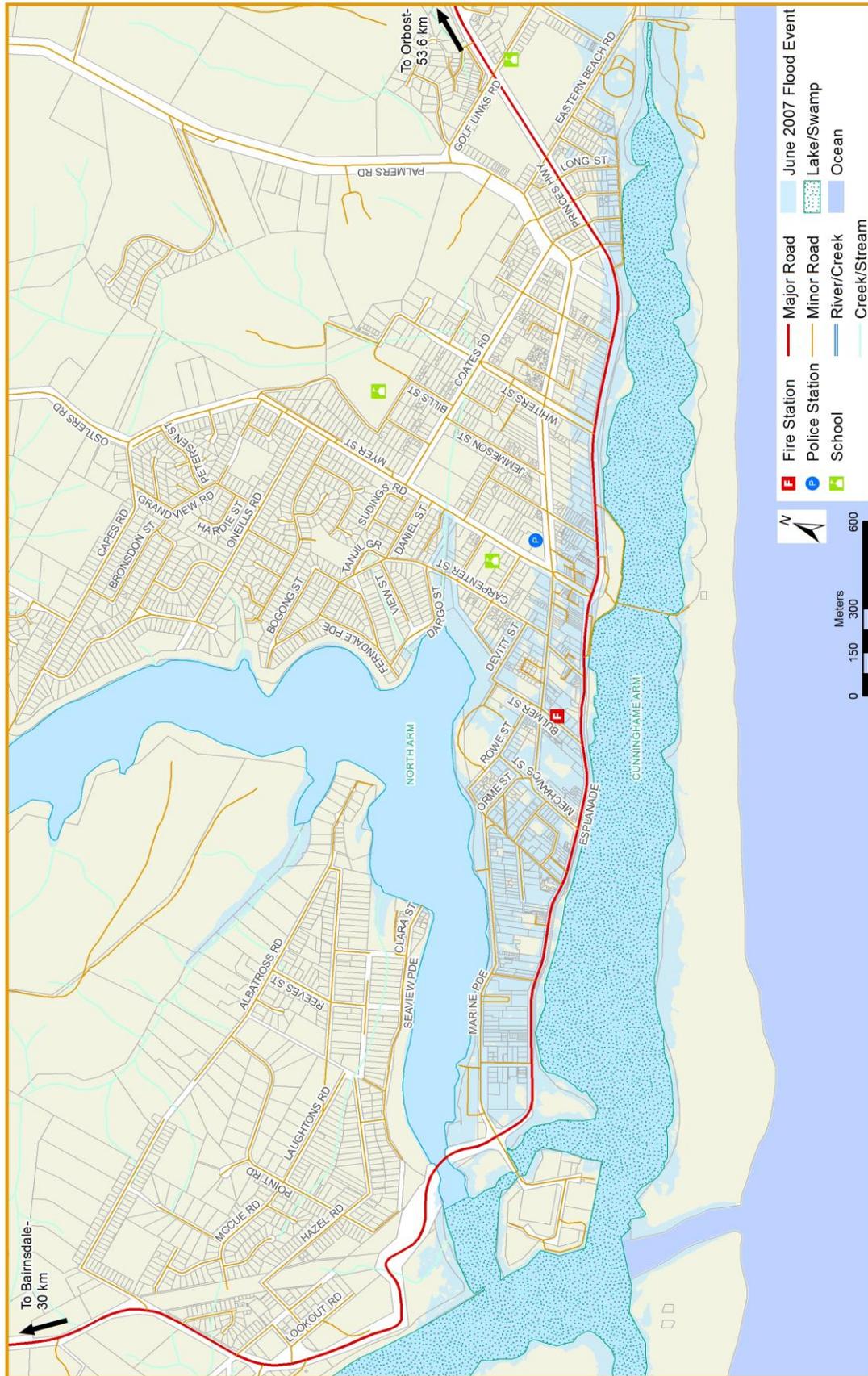
1.40	<ul style="list-style-type: none"> <li>  The Esplanade between Bulmer &amp; Carpenter Sts</li> <li>  Carpenter St between Devitt &amp; Church Sts</li> <li>  Myer St between Church &amp; Lambert Sts</li> </ul>	<ul style="list-style-type: none"> <li>  Carpenter St between The Esplanade &amp; Church St</li> <li>  Church St between Mechanics St &amp; east of Bulmer St</li> <li>  Jetty St south of Princes</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>252 TOTAL</b></li> <li>  <b>78 New</b></li> <li>  <b>+ 174 Previously</b></li> </ul>
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Height (m)	First Impacted with up to 10cm water depth	Closed with >= 20cm water depth	Isolated Properties
	<ul style="list-style-type: none"> <li>  The Esplanade between Myer &amp; Stock Sts</li> <li>  Eastern Beach Rd @ Cunninghame Crt</li> </ul>	<ul style="list-style-type: none"> <li>  Hwy</li> <li>  Marine Pde between Laura St &amp; The Esplanade</li> <li>  Marine Pde @ Barks Ave this isolates all Marine Pde properties between The Esplanade &amp; Barks Ave</li> <li>  Mechanics St between Rowe &amp; Orme Sts</li> <li>  Short St south of Princes Hwy</li> <li>  The Esplanade east of Carstairs Ave</li> <li>  Boat ramp Car park on Marine Pde near Barks Ave</li> <li>  Gippsland Ports Yard on Bullock Island</li> <li>  Gippsland Lakes Fishing Club &amp; boat ramp &amp; car park on Bullock Island Rd</li> </ul>	<ul style="list-style-type: none"> <li>  25 properties on Bulmer St between Church &amp; Devitt Sts and on Rowe St now isolated</li> <li>  Plus</li> <li>  Riviera Beach Resort, 4 Rowe St</li> <li>  Woodbine Tourist Park, 33 Church St</li> <li>  Bowls Club, 35 Rowe St</li> <li>  50 previously</li> </ul>
1.50	<ul style="list-style-type: none"> <li>  Lambert St @ North Arm Ave</li> <li>  The Esplanade between Stock &amp; Whitters St</li> <li>  Mourilyan St @ Roadknight St</li> <li>  Walking track &amp; open area on the SW cnr of Bullock Island</li> </ul>	<ul style="list-style-type: none"> <li>  Marine Pde between Laura St &amp; Carstairs Ave</li> <li>  The Esplanade @ Carstairs Ave</li> <li>  Orme St</li> <li>  Church St between Bulmer &amp; Myer Sts</li> <li>  Myer St between The Esplanade &amp; Church St</li> <li>  Carpenter St @ Eastern Creek</li> <li>  Jemmeson St @ Roadknight St</li> <li>  Endeavour Crt</li> <li>  Cunninghame St</li> <li>  Eastern Beach Rd @ Merrangbaour St</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>252 TOTAL</b></li> <li>  <b>0 New</b></li> <li>  <b>+ 252 Previously</b></li> </ul>
1.60	<ul style="list-style-type: none"> <li>  Lambert St between Carpenter &amp; Myer Sts</li> <li>  The Esplanade between Whitters &amp; Clarkes Sts</li> <li>  The Esplanade between Clarkes &amp; Short Sts</li> <li>  Bowler St</li> <li>  Short St between Princes Hwy &amp; Roadknight St</li> <li>  Jetty St between Princes Hwy &amp; Roadknight St</li> </ul>	<ul style="list-style-type: none"> <li>  The Esplanade between Bulmer &amp; Carpenter Sts</li> <li>  Carpenter St between Devitt &amp; Church Sts</li> <li>  Myer St between Church &amp; Lambert Sts</li> <li>  The Esplanade between Myer &amp; Stock Sts</li> <li>  Eastern Beach Rd @ Cunninghame Crt</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>269 TOTAL</b></li> <li>  <b>17 New</b></li> <li>  <b>+ 252 Previously</b></li> <li>  16 properties on Cunninghame Crt, Eastern Beach Rd west of Cunninghame Crt</li> <li>  Eastern Beach Caravan Park</li> </ul>
1.70	<ul style="list-style-type: none"> <li>  Carpenter St between Devitt &amp; Lambert Sts</li> </ul>	<ul style="list-style-type: none"> <li>  Lambert St @ North Arm Ave</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>269 TOTAL</b></li> </ul>

Height (m)	First Impacted with up to 10cm water depth	Closed with $\geq$ 20cm water depth	Isolated Properties
	<ul style="list-style-type: none"> <li>  Golf Links Rd east of Merrangbaur St</li> <li>  Middle St between Princes Hwy &amp; Roadknight St</li> </ul>	<ul style="list-style-type: none"> <li>  The Esplanade between Stock &amp; Whikers St</li> <li>  Mourilyan St @ Roadknight St</li> <li>  Walking track &amp; open area on the SW cnr of Bullock Island</li> </ul>	<ul style="list-style-type: none"> <li>  <b>0 New</b></li> <li>  <b>+ 269 Previously</b></li> </ul>
1.80	<ul style="list-style-type: none"> <li>  Eastern Beach Rd @ Endeavour Crt</li> <li>  Jennings St</li> <li>  Princes Hwy between Short &amp; Jetty Sts</li> <li>  Roadknight St @ Myer St</li> <li>  Roadknight St @ Whikers St</li> </ul>	<ul style="list-style-type: none"> <li>  Lambert St between Carpenter &amp; Myer Sts</li> <li>  The Esplanade between Whikers &amp; Clarkes Sts</li> <li>  The Esplanade between Clarkes &amp; Short Sts</li> <li>  Bowler St</li> <li>  Short St between Princes Hwy &amp; Roadknight St</li> <li>  Jetty St between Princes Hwy &amp; Roadknight St</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>269 TOTAL</b></li> <li>  <b>0 New</b></li> <li>  <b>+ 269 Previously</b></li> </ul>
1.90	<ul style="list-style-type: none"> <li>  School Rd @ Carpenter St</li> <li>  Long St between Princes Hwy &amp; Roadknight St</li> <li>  Princes Hwy between Jetty &amp; Middle Sts</li> </ul>	<ul style="list-style-type: none"> <li>  Carpenter St between Devitt &amp; Lambert Sts</li> <li>  Golf Links Rd east of Merrangbaur St</li> <li>  Middle St between Princes Hwy &amp; Roadknight St</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>417 TOTAL</b></li> <li>  <b>148 New</b></li> <li>  <b>+ 269 Previously</b></li> <li>  145 properties on the following roads are isolated once Golf Links Rd becomes impassable:</li> <li>  Golf Links Rd east of Meringbaur St</li> <li>  Moorabinda Crt</li> <li>  Merindah Crt</li> <li>  Robin St</li> <li>  Beveridge Rd</li> <li>  Gay St</li> <li>  Traplin's Luxury Apartments, 125 Golf Links Rd</li> <li>  Lakes Entrance Relocatable Home Village</li> <li>  Lakes Entrance Golf Club</li> </ul>
2.00	<ul style="list-style-type: none"> <li>  Princes Hwy between Middle &amp; Long Sts</li> </ul>	<ul style="list-style-type: none"> <li>  Eastern Beach Rd @ Endeavour Crt</li> <li>  Jennings St</li> <li>  Princes Hwy between Short &amp; Jetty Sts</li> <li>  Roadknight St @ Myer St</li> <li>  Roadknight St @ Whikers St</li> </ul>	<ul style="list-style-type: none"> <li>  <b>** TO BE UPDATED</b></li> <li>  <b>417 TOTAL</b></li> <li>  <b>0 New</b></li> <li>  <b>+ 417 Previously</b></li> </ul>

# MAPS

## Lakes Entrance



**DISCLAIMER**  
 This map publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The State Emergency Service disclaims any liability, including for negligence to any person in respect of anything and the consequences of anything, done, or not done of any kind including damages, costs, interest, loss of profits or special loss or damage, arising from any error, inaccuracy, incompleteness or other defect in this information, by any such person in whole or partial reliance upon the whole or part of the information in this map publication. Flood information is provided by East Gippsland CMA (June 2007). Mapping data is sourced from Department of Sustainability and Environment, November 2012.



## APPENDIX D.08 – FLOOD EVACUATION ARRANGEMENTS

The Incident Controller may make the decision to evacuate an at-risk community. Evacuation is the responsibility of VICPOL and will be conducted as per the EMMV and the MEMP.

## APPENDIX E.08 - FLOOD WARNING SYSTEM

### FLOOD WARNING

The Bureau of Meteorology provides a Flood Warning Service for the Mitchell River. They will provide estimated peaks for Bairnsdale once upstream gauges have peaked.

### LOCAL FLOOD WARNING SYSTEM ARRANGEMENTS

The Gippsland Lakes Flood Warning System has been developed. A new computer-modelling tool has been created to provide forecasts, new river and lakes gauges have been installed and new flood mapping has been produced.

The Bureau of Meteorology are now able to predict and provide warnings to those communities, sometimes several days ahead of flooding reaching those areas.

It is important to understand that different communities around the lakes will experience different flooding impacts during the same event because some towns have buildings and infrastructure closer to the water than in other towns.

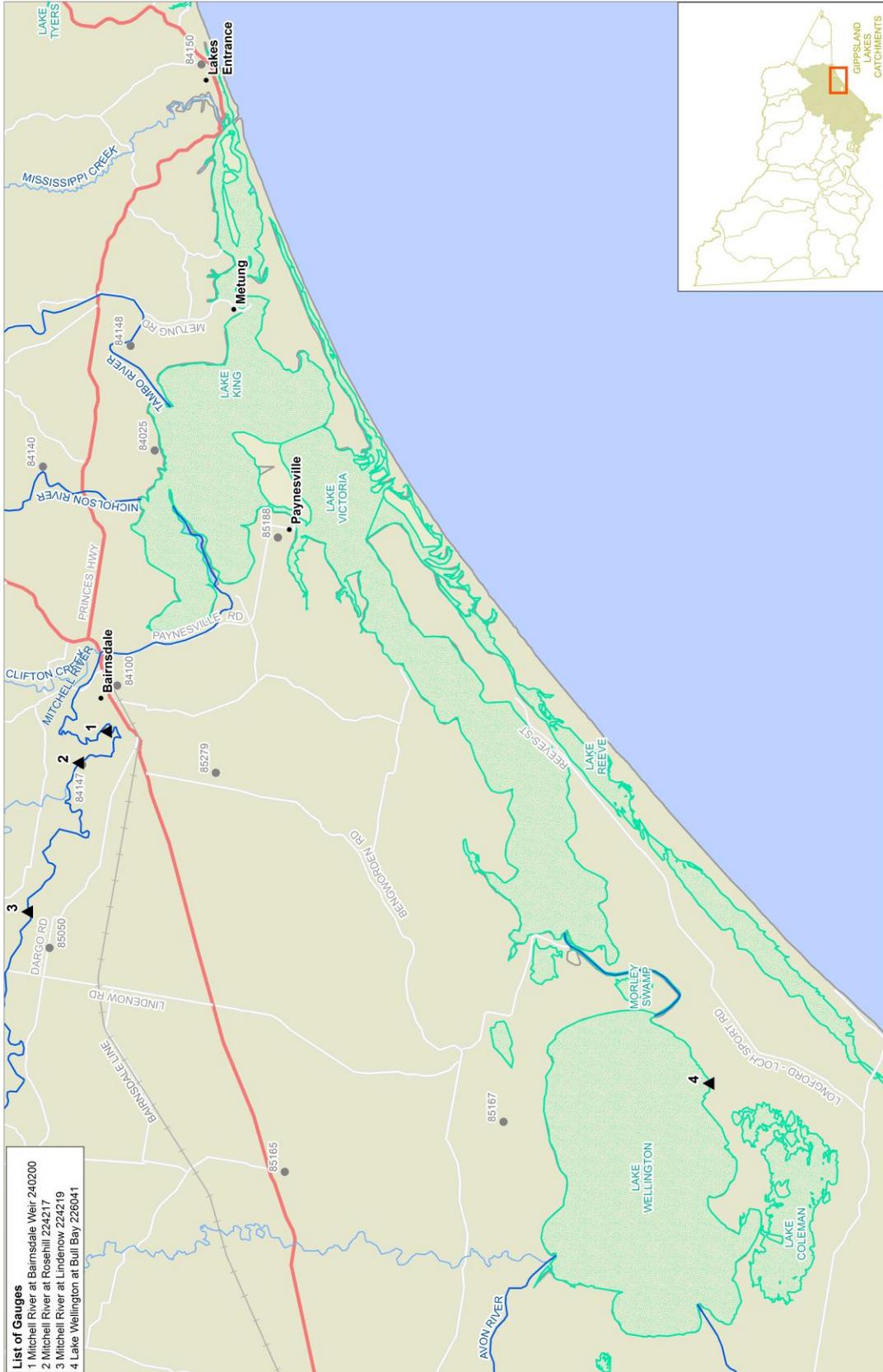
## APPENDIX F.08 – MAPS

Flood mapping showing Minor, Moderate & Major flood class levels and maps showing 10cm intervals of flooding are available from the West Gippsland Catchment Management Authority or the East Region SES for the following communities:

- Raymond Island
- Paynesville
- Eagle Point
- Tambo Bay
- Metung
- Mosquito Point
- Lakes Entrance

# Gippsland Lakes

## Gippsland Lakes Catchment



- List of Gauges**
- 1 Mitchell River at Bairnsdale Weir 240200
  - 2 Mitchell River at Roseshill 224217
  - 3 Mitchell River at Lindelow 224219
  - 4 Lake Wellington at Bull Bay 228041

Scale at A1  
 0 2.5 5 10  
 Kilometers  
 1:100,000

River Gauge  
 Rain Gauge  
 Township  
 Major Road  
 Secondary Road  
 Major River  
 River/Creek  
 Coastline

Lake/Swamp  
 Ocean

Gippsland Lakes Catchments

DISCLAIMER  
 This map is provided as a service by the Victorian State Emergency Service for the purpose of planning and preparedness. It is not intended to be used for any other purpose and the State Emergency Service disclaims any liability for the consequences of any use, or non-use, of any data, including damages, costs, interest, loss of profits or special loss or other consequences. The information is provided as a service and is subject to change without notice. The information is provided as a service and is subject to change without notice. The information is provided as a service and is subject to change without notice. The information is provided as a service and is subject to change without notice.