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# **Flood Evacuation Plan**

For River Oaks Estate – Pacific Highway Ballina, NSW

John Harper Environmental Engineer



Ref No. LM070113

Amended April 2008



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The report relies on information supplied by the client and on findings obtained using accepted survey and assessment methodology. Specific survey methodology is described in the relevant section of the report.

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Conclusions to the report are professional opinions and LandPartners cannot guarantee acceptance or consent of the relevant determining/ consent authorities.

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Date - January 2008 and amended April 2008

Address of Development – Lots 1, 2, 3 and 5 DP1074242, and part of Lot 269 DP755684, Pacific Hwy, Ballina, NSW.

## **1 Site Description and Flood Characteristics**

The site is located between the Pacific Hwy and North Creek, Ballina.

Landpartners representatives met with the Ballina SES coordinator Gary Burnage on 26/06/07 to discuss the SES requirements for The Flood Evacuation Plan. The SES comments have been incorporated into the following plan.

The proposal site (i.e. Lots 1, 2, 3 and 5 DP1074242 and part Lot 269 DP755684) is located along the Pacific Highway, Ballina in north-eastern New South Wales (NSW). The Subject Site has a total area of approximately 44.7 ha and is best described as flat land which has recently been completely cleared of vegetation; however some Swamp Oak vegetation occurs within Lot 269. A drainline recently cleared of fringing vegetation also occurs within Lot 1. The Subject Site is currently zoned 2(a) - Residential and 1(d) – Rural (Urban Investigation) in the Ballina Local Environmental Plan (1987).

Flood levels at the site will generally be controlled by the west/northwest catchment and north creek. Lot 2 DP1074242 to the south of the site is to be a flood way for the catchments to the west/northwest of the site. This floodway is to be 30m wide floodway running through the western and southern sections of lot 2 (south of the site).

The building envelopes for the developed site will be filled to a minimum level of the 1 in 100yr flood event as specified by BSC *"Policy Statement 11"*. House floor levels will be a minimum of 500mm above this fill level (see Fig 1).

# 2 Flood Warnings

The SES provides flood updates on the hour over local radio and TV stations. These warnings include:

- Expected flood peak
- Road closures
- Long term weather forecasts
- Emergency Advice

The existing regional warning system involving flood measurement for the catchment would provide a minimum of approximately 4 hours warning for residents requiring evacuation.

Detail of Radio Station frequency and contact phone numbers are provided below

## **3 Preparations**

Listen to the local radio and be prepared for an expected flood event.

Emergency equipment and clothing:

Wet weather clothing

- > Torch
- Radio (battery)
- > Spare batteries
- Prescription medicines
- Basic food stuffs,

Be prepared for evacuation:

- ensure all goods, pets, livestock, motor vehicles, plant etc are stored / moved above flood level.
- switch off all electrical equipments
- stored water and the like should be identified.

## 4 Evacuation

Refer to sketch as detailed in Figure 2 for clear direction for evacuating the site

## 4.1 Flood warnings

Following the reporting of flood warnings residents / occupants are encouraged to monitor flood advice taking notice of the impact on their locality. It is important to note the estimated flood peak and expected time.

## 4.2 Preparations

Upon flood warning advice indicating a flood event may impact on the development, all activities identified in the contingency plan should be undertaken ensuring sufficient time is available to evacuate if needed.

#### 4.3 Evacuation

If Flood Warnings indicate severe flooding in the locality it is important that residents /occupants evacuate at a time to ensure any other location on the route has not been inundated by flood waters. The objective of timely evacuation ensures emergency personnel are not required to take undue risks providing assistance. The evacuation route would be advised at the time through radio. At present the route from the site would be along the Pacific Hwy travelling east to East Ballina as the highway currently gets cut off to the north.

The SES currently co-ordinates emergency accommodation through DOCS. This information would be communicated via radio.

## 4.4 Notification

Should Residents / occupants seek alternative accommodation, contact should be made to the local shelter to avoid confusion as to people's safety and potential costly searches being undertaken.

# **5** Contacts

SES Location - Ballina	Phone: 13 2500 or (02)6626 8655
<b>Police Location</b> – Ballina, 16 River Street 2478	Phone: (02) 66818699
<b>Closest Emergency Meeting Location -</b> Entrance to Site (refer to Figure 2)	To be advised on the day
Country Energy	Phone: <b>13 2356</b>
Telstra	Phone: 1800 687 829
Local Radio Stations 1. Freq: 99.9 Bay FM, Byron Bay 2. Freq: 94.5 ABC, North Coast 3. Freq: 101.9 Paradise FM, Ballina	Phone: (02) 6680 7999 Phone: (02) 6627 2011 Phone: (02) 6686 0101
4. Freq: 100.9 ZZZ FM, Lismore 5. Freq: 900 2LM, Lismore	Phone: (02) 6624 2433 Phone: (02) 6624 4244

## 6 Appendix

## **Appendix 1 Figures**

- Figure 1 Impact of Flooding on Development: Dwg No. LM070113-HY3B
- Figure 2Flood Evacuation Plan: Dwg No. LM070113-HY2C