



Ocean Falls Emergency Response Plan

HAZARD ANNEX – DAM FAILURE

Central Coast Regional District

*Updated by Frontier Resource Management Ltd
January, 2018*

Dam Failure Emergency Response Plan

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1 Dam Failure contact list

- See **Ocean Falls EOC call out list**
- Marine Emergency : 1-800-567-5111
- Coast Guard – Denny Island: 250-957-5706
- Boralex Power - Ocean Falls: 250-289-3868
- Boralex Power – Corp: 819-363-5860/5861
- BC Hydro Power Outage Emergency: 1-888-769-3766
- West Coast Helicopters: 250-982-2181
- DFO - Bella Bella: 250- 957-2363
- Shearwater Marine: 250-957-2305
- Western Canada Marine Response: 1-855-294-9116
- Call out to residences and businesses in OF flood zone.

Dam Failure Warning Issued

Contact:

Local Emergency Team (LET) - Ocean Falls Deputy EPC

Emergency Executive Committee – Coordinator
- CCRD Rep
- Secretary

Emergency Response Core Team - Communication Officer
- Public Information Officer
- ESS Officer

Emergency Response Operations – Fire Hall
- Boralex
- Marine Harvest
- Notify residents in dam failure flood zone

Dam Failure: Sound alarm, evacuate all in dam flood zone

2 Introduction

The Link Lake dam has been in place for over 100 years and along with the associated power generation plant, it is the main resource and economic feature in the Ocean Falls community. Power from the plant is provided to the local community and to neighboring Bella Bella and Denny Island. Much of Ocean Falls is situated below the spill zone of the dam.

The dam is made of concrete tied into the granite bedrock, so it is a very solid structure not likely to fail due to erosion. Failure would likely be caused by an earthquake or land slide in Link Lake generating an inland mini-tsunami.

3 Dam Failure Alert

Following a serious event like an earthquake or land slide, Boralex crews will inspect the integrity of the dam. If concerns of dam failure are identified, it is expected that the community and CCRD be alerted of the potential danger. In consultation with Boralex management, other experts and the Ocean Falls Deputy Emergency Coordinator, the decision to activate the Ocean Falls Dam Failure ERP and Evacuation Plan will be made. If evacuation is deemed not to be required, residents and businesses in the spill zone of the dam should still be notified of the concerns.

4 Flood Zone Evacuation

If there is a significant threat that the dam may fail, the Ocean Falls Evacuation Plan should be activated for the potential spill zone area. The spill zone area is similar to the tsunami zone below the dam structure (see Tsunami map in Appendix 1). Residents and workers in this area should evacuate to higher ground north of Link River or to Marten valley.

5 Dam Failure Response

In the event of massive dam failure due to earthquake or land slide, there would be little time to initiate evacuation, but response would have to be spontaneous.

- **Fire alarm siren should be triggered to warn people in the spill zone**
- People in the spill zone would immediately need to head to higher ground.
- Boralex crews may become cut off or disabled and not be able to initiate response or notification
- People working/living outside the spill zone would be the first available responders and would also be responsible to notify outside agencies.

- See also Boralex Ocean Falls Emergency Preparedness Plan in Appendix 2
- Water-borne debris would be the greatest immediate hindrance to rescue operations and helicopter assistance may be necessary.
- Given the danger of electric shock, only trained personnel should attempt rescue in vicinity of power generating facility and power lines.
- Marine based agencies like Coast Guard and DFO to be contacted for emergency help
- Swift water rescue personnel may also be required.

5.1 Community Leadership

Unlike most other emergencies, the local authority and industry representatives may be unavailable following the disaster due to their proximity to the event and potential loss. The establishment of a temporary leadership/command centre will be essential to increase the survival rate of victims and prevent further destruction.

The command centre would likely be set up at one of the homes at Marten Valley residential area.

5.2 Communications

Communication to the outside world may be challenging as the power may be cut off. Sat phone or VHF radio would be necessary. People with back-up power capability and satellite internet could also call for emergency help.

See 'Ocean Falls ERP Communication Annex'.

6 Resources at Risk

As per the Downstream Consequence of Failure Classification (see appendix 3), of the Link Lake dam is rated as having a **High consequence** classification. There is permanent population at risk, possibility of loss of life is 10 or less and there is potential for high economic losses affecting infrastructure, utilities and buildings.

Resources and infrastructure located below the Link Lake dam in the potential spill zone:

- Boralex power generating station and power lines
- Marine Harvest land based juvenile fish farm
- Link river bridge
- Ferry terminal
- Dock and marina

- Post Office and administration building
- Few residential homes
- Some shop and boat storage buildings
- Vacant buildings

7 Appendices

7.1 *Ocean Falls Tsunami Zone Map*

7.2 *Boralex Ocean Falls Emergency Preparedness Plan*

7.3 *Downstream Consequence of Failure Classification Interpretation Guideline*

Dam Safety Program, 2017