

## Raising Dikes and Rolling Back: Coping with sea level rise on the BC coast



Photo credit: Evan Leeson



Tina Neale  
Climate Action Secretariat  
BC Expropriation Association  
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Ministry of  
Environment

In many cases, it will be more cost  
effective to prepare than to react.



The cover of the "Preparing for Climate Change: British Columbia's Adaptation Strategy" report. It features the British Columbia logo and the Ministry of Environment logo at the top. The background is a photograph of a coastal road with a rocky shoreline and a body of water. A white text box is overlaid on the image, containing the title and subtitle.

**BRITISH COLUMBIA**  
The Best Place on Earth

**Ministry of Environment**

**Preparing for Climate Change: British Columbia's Adaptation Strategy**

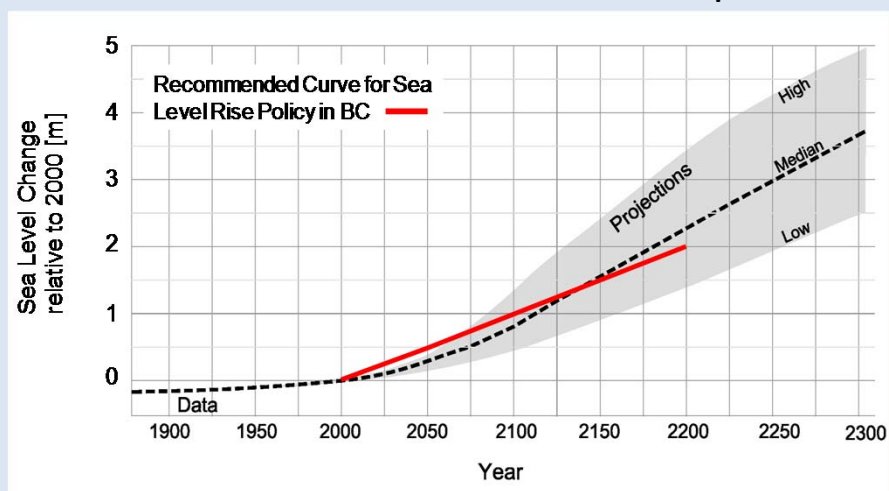
**Science & Tools to Support Decision-Making**  
**Government Decision-Making Processes**  
**Supporting Adaptation in Sectors**

## BC Sea Level Projections for 2100

Location	Global sea level rise = 1m (m)
Prince Rupert	0.95-1.16
Victoria	0.89-0.94
Vancouver	0.89-1.03
Fraser River Delta	1.2
Nanaimo	0.8
Patricia Bay	0.9

(Thomson, Bornhold and Mazzotti, 2008)

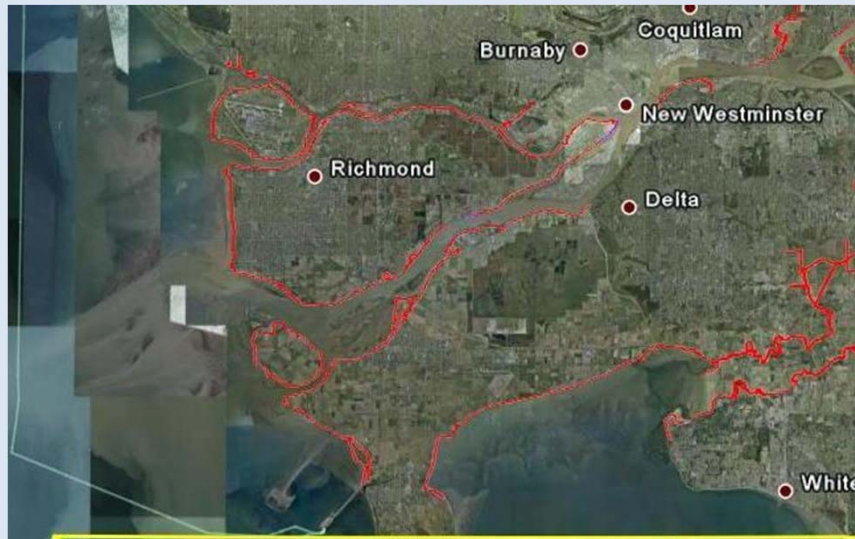
## How much sea level rise should we plan for?



(Draft Policy Discussion Paper)



## 125km sea dikes in Lower Mainland

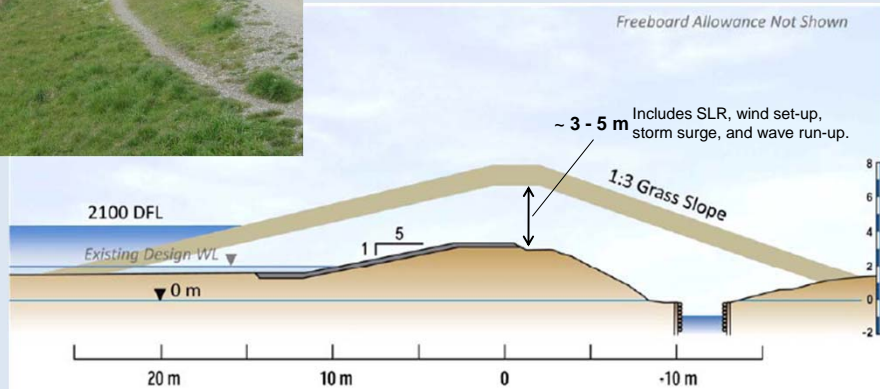


## 1m of SLR $\neq$ 1m dike crest elevation

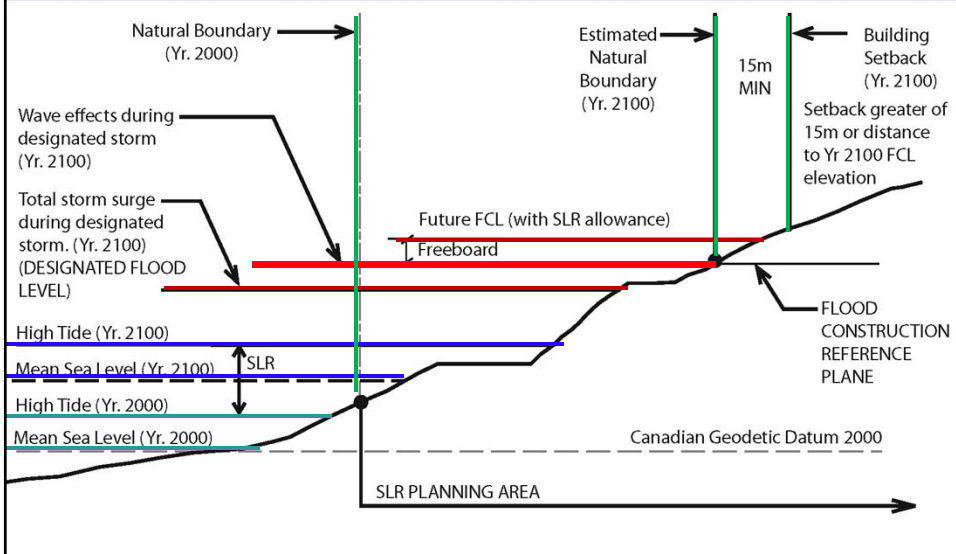
- Sea Level Rise
- Regional Uplift/Subsidence
- High Tide
- Storm Surge
- Wind/Wave Effects
- Freeboard

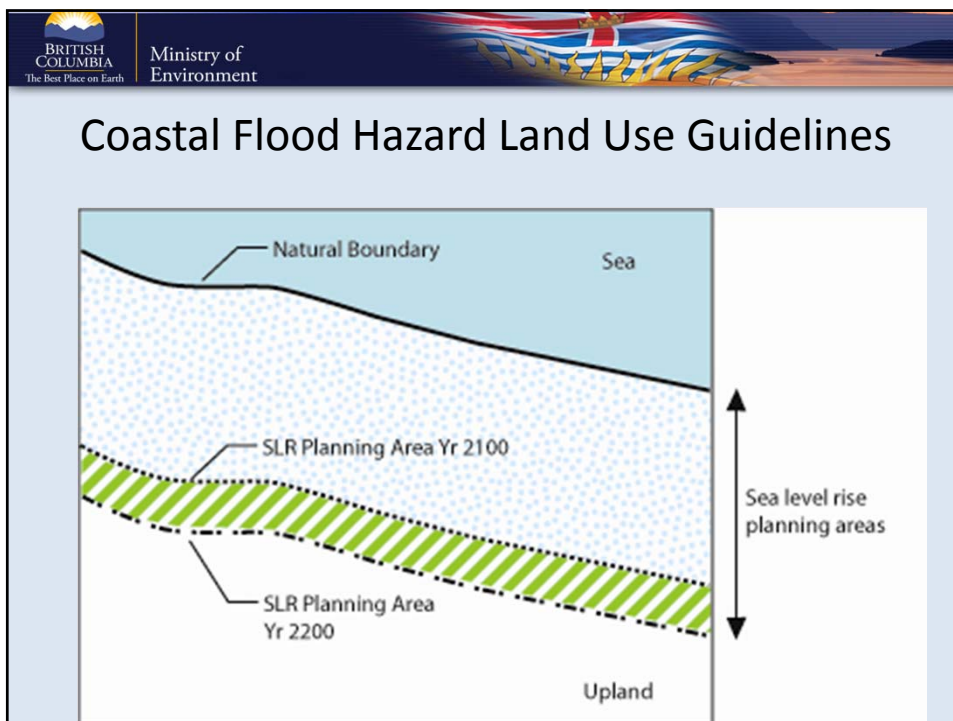


## Sea dike design guidelines



# Coastal Flood Hazard Land Use Guidelines







## There are many options to adapt to SLR!

- **Avoid**
- **Accommodate**
- **Protect**
- **Retreat**



Current



Retreat

## What's next for BC?

- **Engage the public**
  - King Tides Photo Event
  - SLR Website, fact sheets etc.
- **Costing study**
  - sea dikes and other options
- **Primer**
  - Describe and compare options
  - Toolkit for local governments
- **Assessment**
  - Flood, Erosion, Aquifers, Habitat, Land Use Planning





**Thank You**

Ministry of Environment  
Climate Action Secretariat

[http://www.env.gov.bc.ca/cas/adaptation/sea\\_level.html](http://www.env.gov.bc.ca/cas/adaptation/sea_level.html)

Tina.Neale@gov.bc.ca

Twitter: elae\_nit