

Grim scenarios a ‘wake-up call’

For the safety of our residents and our visitors, this is as important as any endeavour taken on by our province.

“The business case for a substantial investment in flood management has been made. Armed with this information, we are ready to move forward to develop an action plan to protect our communities and the region overall from what could prove to be a national disaster,” Fraser Basin Council chairman Colin Hansen said after the study findings were released.

Coastal flood scenarios map

A map showing the estimated flood extents for:

- Scenario A (present day)
 - Scenario B (year 2100)
- Further extent of flooding



At the announcement, Naomi Yamamoto, minister of state for emergency preparedness, stressed that flood protection is a shared responsibility, but said the province is taking the report to heart. “Both for the safety of our residents and our visitors, this is as important as any endeavour taken on by our province,” she said.

Yamamoto said the cost of responding to a major event will far outweigh the costs associated with effective and productive planning, but she cautioned it would take time to implement flood mitigation.

The cost of increasing flood protection will be determined in the next phase, but Fraser Basin officials said an earlier study had pegged the cost of dike upgrades at \$9 billion.

“It gives you an idea of the order of magnitude,” said Steve Litke, senior program manager of watersheds and water resources with the Fraser Basin Council.

Individual communities have done some flood assessment, including Vancouver and Chilliwack, but Fraser Basin officials believe the study released Monday is the first comprehensive regional roundup.

The study says Lower Mainland flood risks are projected to worsen over the next 85 years, with increased flood frequency and size because of rising sea levels and other projected effects of climate change.

The analysis was based on worstcase scenarios today and in 2100. It shows the estimated damage from a Fraser River flood would be \$22.9 billion today, but \$32.7 billion in 2100, while a coastal flood from a winter storm surge would be \$19.3 billion today or \$24.7 billion in 2100.

In a Fraser River flood in 2100, more than 110,000 hectares of land was estimated to be under water. There would be significant transportation disruptions, with food supply affected, and the flow of goods into ports would also be inhibited.

An estimated 9,200 buildings would be damaged and 1,700 destroyed in a 2100 flood, an increase from 3,600 buildings damaged and 690 destroyed today, according to the study. More than 1.3 million tonnes of debris would be swept up in a 2100 flood, an increase from 656,000 tonnes today.

As assessment of 74 dikes — mostly constructed in the 1970s and '80s — showed 71 per cent are vulnerable to failure during either a major Fraser River or coastal flood.

The study also showed twothirds of the region's 26 First Nations reserves are vulnerable to flooding.

Region-wide flood protection planning has not halted ongoing upgrades in individual communities. But mayors said the findings of the study released Monday underscore the need — and urgency — for more work.

Chilliwack Mayor Sharon Gaetz said 22 kilometres of dikes have been upgraded in her community but more work is needed, which would require federal and provincial funding.

“Perhaps this (report) will give them more impetus to get it finished,” Gaetz said.

Delta, which has 64 kilometres of dikes surrounding its community, last raised its dikes between 3.4 metres and 4.2 metres in the 1980s, but routinely monitors their safety, Mayor Lois Jackson said.

A staff report suggests the dikes will likely have to be seismically upgraded and raised by 0.6 metres by 2050 and another 1.2 metres by 2100, which Jackson said is estimated to cost about \$1.9 billion.

At the same time, Delta has adopted guidelines for new construction that requires all new homes to be built 4.5 metres above sea level.

“It’s a good wake-up call,” Jackson said, referring to Monday’s study. “Everyone should be planning for it. If we’ve got one community that doesn’t raise its dikes, the water will flow in there.”