

The Great Surrey Sea?

By Jeff Nagel
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Oceanfront property in Maple Ridge and Langley? It may not be such an outlandish notion three centuries from now. Rising sea levels could put vast swaths of the Lower Mainland – including most of Richmond and Delta, and big parts of Surrey – under water if scientists' climate change forecasts come true.

The latest predictions were underscored this week by the Sierra Club of B.C., which released a Google Earth map that plots what a six-metre rise in sea level would do to Greater Vancouver.

The group used data published by the journal *Science*, which released a similar map of Florida, to hammer home calls for more aggressive action to combat climate change.

"The temperature is rising, the ice caps are melting and if we don't do anything about it soon, we are going to see significant impacts," said the Sierra Club's Kathryn Molloy.

The six-metre rise is the mid-range scenario *Science* suggests is likely in 300 years, based on new findings that the melting of glaciers and polar ice caps is accelerating.

The new map is alarming for anyone who lives in low-lying neighbourhoods.

It shows the waters of Boundary Bay spreading far inland through Cloverdale into Langley, with a second arm branching north along the present-day Serpentine River.

Only a narrow band of land near Tynehead Regional Park would link much of Surrey with the mainland. Virtually all of Richmond and Delta southwest of Hwy. 91 would be submerged.

Another new ocean arm would open up further north over about three-quarters of Pitt Meadows, Barnston Island, and parts of Coquitlam and Port Coquitlam.

Gone would be Vancouver International Airport and the Tsawwassen ferry terminal.

The Sierra Club wants B.C. to act by cutting reliance on energy sources like coal-fired power plants and oil and gas exploration.

"Scientists say we have only 20 years to reduce carbon emissions before the process of global warming reaches the point of no return," Molloy said, adding B.C. should follow California in aiming to cut greenhouse gas emissions 25 per cent by 2020.

Gordon Price, director of SFU's City program, said municipalities should not dismiss the threat of rising oceans.

"It's already happening, and it looks like the intensity of storms is going to increase," he said. "I just don't get why decision-makers – bright ones who think strategically – aren't addressing this or talking about it in any serious way."

Too many, Price said, are "technological optimists" who assume some solution will be devised to halt global warming or to build shoreline defences if that doesn't work.

Price said rising seas and climate change should influence decisions when vast sums of money are spent on public infrastructure, as well as broader decisions such as the development of Alberta's oil sands.

Greater Vancouver Regional District chair and Delta Mayor Lois Jackson said she doesn't take the issue lightly.

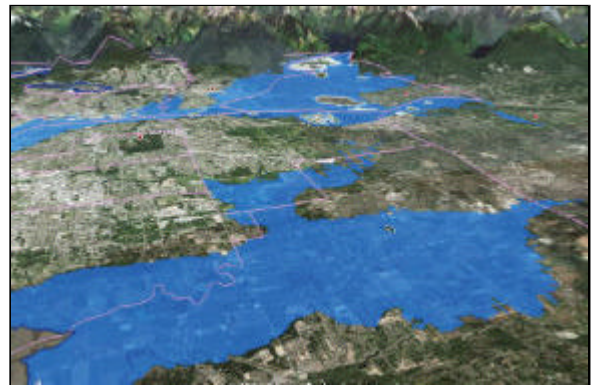
"I think it is incumbent on all elected people to begin reading and educating themselves on these issues," she said.

Jackson said she believes planners should consider at least a 50-year, rather than 25-year horizon.

"If we're going to be expending billions of dollars on roadways we want to make sure they're in the right place," Jackson added.

Other research suggests there's no need to start heading for higher ground in our lifetimes.

One newly published study by Australian researchers found that although the sea level rise is accelerating, it is only expected to rise by around 30 centimetres by 2100. Since 1870, they calculate, sea levels have risen by about 19.5 centimetres.



The Sierra Club of B.C. is using data from the journal *Science* and Google Earth maps to illustrate what a predicted six-metre rise in sea levels would do to local geography 300 years from now.

Another website that fuses Google Maps with sea level rise data offers a customizable map that lets viewers plug in whatever sea change they expect to occur. It's at <http://flood.firetree.net>

The Sierra Club Google Earth map can be accessed www.sierraclub.ca/bc/

Ocean threat

Here's how much land Greater Vancouver municipalities are forecast to lose to the sea by the year 2300, based on a six-metre ocean level rise:

Richmond – 91 %

Delta – 76 %

Pitt Meadows – 76 %

Port Coquitlam – 51 %

New Westminister – 32 %

Surrey – 23 %

Maple Ridge – 22 %

Burnaby – 7 %

Coquitlam – 9 %

Vancouver – 9 %

Langley – 6 %

White Rock – 3 %

North Vancouver – 3 %

Port Moody – 1 %

West Vancouver – 0 %

– Sierra Club of B.C.



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