BUILDING RESILIENCE TO DROUGHT AND FLOODS

EXAMPLES OF WHERE IT IS HAPPENING

FRASER VALLEY*: The Fraser Valley faces a high risk of a catastrophic loss from flooding, given the region's dense population and infrastructure within the flood plain area. The Fraser Valley has faced two major floods on record, and there is a one-in-three chance that a flood of similar magnitude will happen in the next 50 years.[27] While today there are about 600 km of dikes, 400 floodboxes, and 100 pump stations to protect communities and infrastructure in the flood plain, new models taking into account climate change projections predict a significant increase in the magnitude and frequency of large flood events, which would breach most existing dikes.[28]

PEACE RIVER*: Extreme flooding after record high rainfall in the Peace region in 2016 destroyed roads, homes and city infrastructure—a state of emergency that forced evacuations and left some rural residents stranded.[24]

COLDWATER RIVER: On the Coldwater River, conditions were so dry in 2015 that the Province had to issue water use restrictions under section 9 of the *Fish Protection Act*, requiring licence holders to reduce water use to leave enough water for coho, chinook and steelhead to move upstream.[21] Low flows and restrictions put pressure on the agricultural and ranching sector, which is a critical part of the local economy and accounts for about 75 per cent of total water demand in the Nicola region.[22]

SUNSHINE COAST: The Sunshine Coast experienced such severe water shortages in 2015 that the Regional District came within 30 days of running out of water—a nerve-wracking "down to the wire" scenario for the community and water managers alike.[19]

PORT ALBERNI: Evacuation orders were issued for areas of Courtenay and Port Alberni in December 2014 as heavy rains caused flooding in the Courtney, Somass, Puntledge, and Tsolum Rivers.[26]

COWICHAN RIVER*: In May 2016 Cowichan Lake already had the lowest water levels on record, leading to emergency measures to conserve the water supply for summer and fall flows in the Cowichan River, which are critical to spawning salmon.[23]

GULF ISLANDS: Wells and creeks across the Gulf Islands faced record low levels in summer 2015; on Salt Spring Island, the two primary water sources (Maxwell Lake and St. Mary's Lake) were at record low levels and residents reported wells running dry much earlier in the year.[20]

ELK RIVER: Torrential rains and widespread flooding in the Elk River in 2013 led to evacuation orders and several towns declaring a state of emergency as water levels swelled.[25]

* These rivers are also on the Outdoor Recreation Council of British Columbia's 2016 endangered rivers list. See Outdoor Recreation Council of British Columbia. (2016). The 2016 Endangered Rivers List for BC. Retrieved from http://orcbc.ca/pro_endangered.htm

This map is taken from the report: Simms, R. & Brandes, O.M. (2016, September). *Top 5 Water Challenges that will Define British Columbia's Future.* Victoria, Canada: POLIS Project on Ecological Governance, Centre for Global Studies, University of Victoria. Available at http://poliswaterproject.org/topfivechallenges. See full report for citations for each of the issues noted on the map.