

Impact statements are intended to capture:

- A climatic threat/change (e.g. rising temperatures)
- The outcome of the climatic change (e.g. extreme heat event)
- The potential consequences associated with this outcome (e.g. heat stress)

Built Systems – Potential Impacts

1. Potential for more extreme rainfall events to increase turbidity in watershed, affecting water quality and requiring infrastructure upgrades (water filtration system).
2. Potential for more extreme rainfall events to create increased risk to infrastructure from erosion/slope failure (e.g. hospital, highway escarpment).
3. More extreme weather events possibly damaging infrastructure, impacting transportation network (e.g. access to bridges to North Island, BC Ferries, access for emergency response).
4. More extreme weather events which may potentially impact Quinsam Hatchery infrastructure.
5. More extreme weather events possibly damaging utility infrastructure, affecting energy supply.
6. Increase in extreme wind possibly creating loss of urban forest, increasing heat island effect.
7. Rising annual temperatures potentially increasing proliferation of knotweed and scotch broom, causing damage to infrastructure and increasing fire risk.
8. Possibility for rising annual temperatures to increase demand on energy resources and infrastructure.
9. Potential wildfires impacting Homalco territory.
10. Potential wildfires impacting infrastructure in wildfire interface area (e.g. Norm Wood Environmental Centre sanitary system, water facility).
11. Increased drought potentially impacting water flow to run sanitary systems.
12. Sea level rise and more extreme rainfall events possibly flooding critical infrastructure (e.g. fire hall, medical clinics, sea terminal, community services).
13. Sea level rise and more extreme rainfall events creating potential for failure of pump stations (e.g. MMC, Home Depot, Simms creek).
14. Sea level rise and more extreme rainfall events possibly backing up stormwater system, impacting sewer systems as well.
15. Sea level rise and more extreme rainfall events creating potential to damage Wei Wai Kum infrastructure and culturally significant sites (e.g. longhouses, cemetery, administration office).
16. Sea level rise and more extreme rainfall events creating possibility for contamination and exposure to hazardous materials from buildings, infrastructure, and landfills.
17. Sea level rise and coastal erosion potentially impacting public and private development/property (e.g. Ostler seawalk, Tyee Spit).

Natural Systems – Potential Impacts

1. Potential for increase in more extreme rainfall events to cause erosion, impacting escarpments along foreshore.
2. Potential for increase in more extreme rainfall events to cause overland flooding, affecting vegetation and soil quality (e.g. Nunns Creek estuary area).
3. More extreme rainfall events creating possibly impacting gravel restoration for fish spawning habitat.
4. Potential for increase in more extreme weather events to lead to watershed contamination (e.g. failure of Myra Falls mine containment system).
5. Rising river temperatures potentially impacting fish mortality (e.g. 5 species of salmon).

6. Rising annual temperatures and hotter summers potentially impacting pollinators and crops.
7. Rising annual temperatures possibly introducing new insects and pests (e.g. Pine Beetle, Douglas-fir Tussock moth, Gypsy Moth).
8. Potential for rising annual temperatures to threaten native species habitat.
9. Potential for rising annual temperatures to reduce snowpack and accelerating glacial melt, implicating downstream ecosystems.
10. Potential for rising annual temperatures to alter migratory and growth patterns of species.
11. Increase in drought possibly causing severe flooding, slope stability issues and landslides.
12. Increase in drought possibly causing more windfall and damage to trees during high wind events.
13. More frequent wildfires potentially impacting seedbanks and propagules.
14. Possibility of more frequent wildfires to create loss of greenspace and vegetation (e.g. McIvor Lake, Beaver Lodge forest lands).
15. More frequent wildfires possibly impacting wildlife and food availability.
16. Increase in extreme wind potentially causing riverbank erosion and increased turbidity.
17. Potential for rising ocean temperatures to increase ocean acidification, resulting in loss of aquatic species (e.g. local molluscs).

Human/Social Systems – Potential Impacts

1. Rising annual temperatures potentially increasing pathogens and vector borne diseases, affecting human health.
2. Rising annual temperatures compromising First Nations cultural traditions due to possible species loss and change.
3. Potential for rising ocean temperatures to impact aquaculture, the fishing industry, and recreational activities.
4. Potential for more extreme weather events to impact emergency response and management.
5. Potential for more extreme weather events to negatively impact homeless population.
6. More extreme weather events possibly affecting mental health.
7. More extreme weather events potentially affecting access to recreation and social gathering spaces.
8. Potential for more extreme weather events to adversely affect agricultural systems, decreasing food security.
9. More extreme weather events possibly displacing population.
10. More extreme rainfall and wildfire events potentially impacting tourism and the economy.
11. Potential for extreme wildfires to affect air quality and human health.
12. Potential for extreme wildfires to affect business continuity.
13. Possibility for more extreme drought to reduce potable water for human consumption (less water availability in reservoir).
14. More extreme heat events having potential to affect vulnerable populations.
15. More extreme heat events possibly leading to an increase in violence and crime.
16. Hotter summers and more extreme weather events creating potential increased risk to outdoor workers.