


North Coast of Vancouver Island - Summary table for climate impacts, projected changes and sectoral impacts

Climate Impact	Projected Changes	Evidence Quality	Sectoral Impacts	Impacts Summary ^a	Evidence Quality
Air Temperature	Average air temperatures may increase by 1.5°C (0.9°C to 2.3°C) by 2050 and 2.5°C (1.3°C to 3.7°C) by 2080 ^{1,2} and average air temperatures could reach as much as -8.5°C (low emissions, RCP2.6) to -12°C (high emissions, RCP8.5) by 2091-2100 ³ ; Likely more growing degree days: 313 (+189 to +478) more growing degree days by 2050 and 521 (+270 to +832) more growing degree days by 2080 ⁴ ; Likely more frost-free days: 23 (+13 to +35) more frost free days by 2050 and 35 more (+19 to +52) by 2080 ⁴ .	High	Threats to fisheries ⁵ , fish stocks and species distribution ^{4,5} , fisheries related tourism ² , water supply ² , traditional food resources as seasonality changes and becomes unpredictable ⁶ ; Potential positive benefits to tourism due to longer summers ^{2,7} .		Low
Precipitation	Average annual precipitation may increase by 6% (-1% to 10%) by 2050 and 8% (1% to 16%) by 2080 ¹ ; ~10% decrease in summer ¹ ; up ~15% more (low emissions RCP2.6) and ~21% (high emissions, RCP8.5) by 2091-2100 (relative to 1961-1990) ³ ; Winter snowfall may decrease by -25% (-42% to -8%) by 2050 and -33% (-59% to -13%) by 2080 ¹ ; Stronger Vancouver Island Coastal Current ⁸ .	High	Threats to fish stocks due to lower stream flows and decreased summer precipitation ⁴ ; Potential damaging impacts on ecosystems, ecosystem dynamics, habitats and altered current patterns ^{2,9} .		High
Sea Level Rise	Sea level may rise from 0.6m to 0.9m by 2100 ⁸ .	High	Threats to cultural and heritage resources ^{7,9} , traditional food sources ^{7,9} , docking and processing infrastructure ⁷ , access to, or loss of natural recreation and tourism assets ⁷ , marine infrastructure, operations and transportation lanes ⁷ .		High
Sea Surface Temperature	Average sea surface temperature to be ~11°C with RCP 2.6 and ~14°C with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline ¹ ; Increasing sea surface temperature by ~1.8°C and average temperature to be ~11-13°C by 2065-2078 compared to 1995-2008 baseline ⁸ .	High	Threats and changes to aquaculture productivity ⁷ , marine species distributions ^{5,12} , marine food resources for local communities ^{7,12} ; Potential positive effect on tourism due to warm water temperatures ⁷ ; Poleward species range shifts at a rate of 10-18 km/decade ¹² to 30.1 ± 2.34 (S.E.) km per decade from 2000 to 2050 ⁵ ; Economic impacts on communities due to changes in fish species and abundance ⁷ .		Medium
Ocean Acidification	Average ~7.95 pH with RCP 2.6 and ~7.68 pH unit with RCP 8.5 by 2091-2100 ¹ ; Decreasing ocean pH levels (increasing ocean acidification) ⁷ .	Medium	Threats to habitats and ecosystems ^{7,10} , calcifying organisms ^{7,10} , aquaculture industry ^{7,10} , food web structure ^{7,10} , species composition ^{7,10} , reproductive and recruitment success ^{7,10} , timing of growth and development stages ^{7,10} , prey availability ^{7,10} .		Medium
Oxygenation	Declining dissolved oxygen levels ⁷ .	Low	Threats to availability of food resources ⁷ , habitat range of species that tolerate low oxygen habitats; negative impacts to fisheries productivity ^{10,11} .		High
Streamflow					
Sea Surface Salinity	Likely declining sea surface salinity by ~1.5% with RCP 2.6 and ~3% with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline ³ ; Declining sea surface salinity by ~1% by 2065-2078 compared to 1995-2008 baseline ⁸ ; ~9% decrease in sea surface salinity at the mouth of the Homathko River ⁸ ; ~2.5% increase in sea salinity (~0.6 increase in psu unit) at Johnstone Strait by Port Neville ⁸ .	High	Threats to reproduction of seagrasses ⁹ , the availability of marine derived food resources ^{7,10} .		Low
Winds, Waves and Storms	Increasing frequency and intensity of storms and storm surge, flooding as mean sea level increases ^{2,4,7} ; estimated 75.3cm storm surge height for a 100-year storm surge event ¹¹ .	High	Threats to ecosystems and habitats ² , docking and fisheries processing infrastructure ⁷ , traditional harvesting practices due to unpredictable seasonality ⁶ .		Low
General	Increasing intensity of cumulative climate impacts ^{7,9,10} .	Medium	Threats to access to traditional foods ^{6,7,12} , biodiversity ¹⁰ , species abundance and distribution ^{5,12} , catch potential for all commercial fisheries ¹² , resource conservation due to ecosystem stress ⁷ , tourism and wildlife viewing opportunities as species distribution and habitat change ⁷ ; Northward shift in species range and abundance ¹² ; Health and economic implications for coastal communities due to altered access to traditional foods ^{6,7,12} .		Low

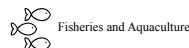
^a Unless indicated, all sectoral impacts are negative



Ecosystems



Communities



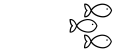




















Fisheries and Aquaculture



Marine Infrastructure

- 1 PCIC, Plan2Adapt: Summary of Climate Change for Stratcon 2050s & 2080s, Pacific Climate Impacts Consortium. <https://pacificclimate.org/analysis-tools/plan2adapt> (Accessed December 1, 2017).
- 2 PCIC, Climate summary for West Coast Region, Pacific Climate Impacts Consortium, Victoria, BC, 2013. https://www.pacificclimate.org/sites/default/files/publications/Climate_Summary-West_Coast.pdf
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- 7 MaPP, Climate Change Commitments from MaPP Sub-Regional Marine Plans and the Regional Action Framework (RAF), Marine Plan Partnership, 2016.
- 8 M.G.G. Foreman, W. Callendar, D. Masson, J. Morrison, I. Fine, A Model Simulation of Future Oceanic Conditions along the British Columbia Continental Shelf. Part II: Results and Analyses, Atmosphere-Ocean. 52 (2014) 20–38. doi:10.1080/07055900.2013.873014
- 9 J.M. Kershner, R.M. Gregg, K. Feifel, Climate Change Vulnerability Maps for the North Pacific Coast of British Columbia: Implications for Coastal and Marine Spatial Planning, EcoAdapt, Bainbridge Island, WA, 2014.
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- 11 T.A. Okey, H.M. Alidina, V. Lo, S. Jessen, Effects of climate change on Canada's Pacific marine ecosystems: a summary of scientific knowledge, Rev Fish Biol Fisheries. 24 (2014) 519–559. doi:10.1007/s11160-014-9342-1.
- 12 L.V. Weatherdon, Y. Ota, M.C. Jones, D.A. Close, W.W.L. Cheung, Projected Scenarios for Coastal First Nations' Fisheries Catch Potential under Climate Change: Management Challenges and Opportunities, PLoS ONE. 11 (2016) e0145285. doi:10.1371/journal.pone.0145285
- 13 D.S. Abeyirigunawardena, D.J. Smith, B. Taylor, Extreme Sea Surge Responses to Climate Variability in Coastal British Columbia, Canada, Annals of the Association of American Geographers. 101 (2011) 992–1010. doi:10.1080/00045608.2011.585929.

Central Coast - Summary table for climate impacts, projected changes and sectoral impacts

Climate Impact	Projected Changes	Evidence Quality	Sectoral Impacts	Impacts Summary ^a	Evidence Quality
Air Temperature	<p>Increasing average air temperatures by 1.6°C (0.9°C to 2.4°C) by 2050 and 2.4°C (1.3°C to 3.7°C) by 2080^{1,2};</p> <p>Average air temperatures may reach be ~7°C with low emission scenario (RCP 2.6) and ~11°C with high emission scenario (RCP 8.5) by 2091-2100³;</p> <p>Growing degree days: +287 (+171 to +425) by 2050 and +466 (+255 to +747) by 2080¹;</p> <p>Frost free days: +27(+13 to +39) by 2050 and +38 (+20 to +60) by 2080¹;</p> <p>Increasing winter minimum temperatures by 4-9°C and summer maximum temperatures by 3-4°C by 2080¹.</p>	High	<p>Threats to fisheries², fisheries related tourism², water supply²;</p> <p>Potential benefits to tourism due to longer warm seasons²;</p> <p>Potential increases in energy requirements for heating and cooling⁴.</p>	 	Medium
Precipitation	<p>Increasing average annual precipitation by 5% (0% to 11%) by 2050 and 9% (3% to 18%) by 2080, ~10% decrease in summer^{1,2};</p> <p>Decreasing winter snowfall by -23% (-40% to -6%) by 2050 and -30% (-60% to -12%) by 2080¹;</p> <p>Increasing average precipitation by ~15% with RCP 2.6 and ~29% with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline³.</p>	High	<p>Threats on fisheries due to increases in fresh water input and associated changes in salinity levels⁴;</p> <p>Potential damaging impacts on ecosystems and habitats²;</p> <p>Changes in access and seasonality of traditional food availability².</p>	 	High
Sea Level Rise	<p>Sea level rise from 0.75m to a little over 1m. Areas in the northern parts to experience a greater increase; ~1m⁷.</p>	Low	<p>Threats to cultural and heritage resources and traditional food sources^{5,7}, water quality and availability⁵, fisheries industry⁴, marine infrastructure, operations and transportation lanes⁵;</p> <p>Reduced access to, or loss of natural recreation and tourism assets⁵;</p> <p>Economic impacts on communities due to changes in fisheries⁵.</p>	  	Low
Sea Surface Temperature	<p>Average sea surface temperature to be ~11°C with RCP 2.6 and ~14°C with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline³;</p> <p>Increases in sea surface temperature by ~1.9°C and average temperature to be ~11-12.5°C by 2065-2078 compared to 1995-2008 baseline⁸.</p>	High	<p>Threats on fisheries industry⁵;</p> <p>Economic impacts on communities due to changes in fishery species abundance and distribution^{5,9}.</p>	 	Medium
Ocean Acidification	<p>Average ~7.95 ph unit with RCP 2.6 and ~7.68 ph unit with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline³;</p> <p>Decrease in pH levels will increase ocean acidity².</p>	Medium	<p>Threats to calcifying organisms^{5,8}, aquaculture industry^{5,8}, larger scale ecosystems^{5,8};</p> <p>Economic impacts on communities due to changes in fisheries^{5,8}.</p>	 	Medium
Oxygenation	<p>Decreases in dissolved oxygen levels³.</p>	Low	<p>Threats to fisheries industry⁴, the habitat range of species that tolerate low oxygen habitats⁵;</p> <p>Economic impacts on communities due to changes in fisheries⁵.</p>	 	Medium
Streamflow					
Sea Surface Salinity	<p>Declining sea surface salinity by ~1.5% with RCP 2.6 and ~3% with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline¹;</p> <p>Declining sea surface salinity by ~1% (~0.2 decrease in psu unit) by 2065-2078 compared to 1995-2008 baseline⁶,</p> <p>~4% increase in sea surface salinity (~0.8 increase in psu unit) around Penrose Island⁶,</p> <p>~1% increase in sea surface salinity (~0.5 increase in psu unit) around Klemtu to Butedale⁶.</p>	High	<p>Impacts on ecosystems and habitats⁴, fisheries⁶;</p> <p>Economic impacts on communities associated with impacts on fisheries^{4,9}.</p>	 	High
Winds, Waves and Storms	<p>Increasing frequency and severity of storm events^{2,5}.</p>	Medium	<p>Threats to ecosystems and habitats², water quality and availability for communities⁴, marine infrastructure, operations and transportation lanes⁴;</p> <p>Impacts on climate-sensitive sectors such as tourism and fisheries⁵.</p>	  	Medium
General	<p>Increasing intensity of cumulative climate impacts^{3,8}.</p>	High	<p>Threats to access to traditional foods^{5,9}, biodiversity⁹, species abundance and distribution⁹, catch potential for all commercial fisheries⁹, resource conservation due to ecosystem stress⁵, tourism and wildlife viewing opportunities as species distribution and habitat change⁵;</p> <p>Northward shift in species range and abundance⁹.</p>	  	High

^a Unless indicated, all sectoral impacts are negative



Ecosystems



Communities



Fisheries and Aquaculture





Marine Infrastructure

- 1 PCIC, Plan2Adapt: Summary of Climate Change for Central Coast 2050s & 2080s, Pacific Climate Impacts Consortium. <https://pacificclimate.org/analysis-tools/plan2adapt> (Accessed December 1, 2017).
- 2 PCIC, Climate summary for West Coast Region, Pacific Climate Impacts Consortium, Victoria, BC, 2013. https://www.pacificclimate.org/sites/default/files/publications/Climate_Summary-West_Coast.pdf
- 3 [IPCC WG5]. Canadian Centre for Climate Modelling and Analysis, Environment Canada, 2013. <https://www.canada.ca/en/environment-climate-change/services/climate-change/centre-modelling-analysis.html>
- 4 D.L. Spittlehouse, Climate Change, Impacts and Adaptation Scenarios: Climate Change and Forest and Range Management in British Columbia, British Columbia Ministry of Forests and Range Forest Science, 2008.
- 5 MaPP, Climate Change Commitments from MaPP Sub-Regional Marine Plans and the Regional Action Framework (RAF), Marine Plan Partnership, 2016.
- 6 M.G.G. Foreman, W. Callendar, D. Masson, J. Morrison, I. Fine, A Model Simulation of Future Oceanic Conditions along the British Columbia Continental Shelf. Part II: Results and Analyses, *Atmosphere-Ocean*. 52 (2014) 20–38. doi:10.1080/07055900.2013.873014.
- 7 J.M. Kershner, R.M. Gregg, K. Feifel, Climate Change Vulnerability Maps for the North Pacific Coast of British Columbia: Implications for Coastal and Marine Spatial Planning, EcoAdapt, Bainbridge Island, WA, 2014.
- 8 T.A. Okey, H.M. Alidina, V. Lo, A. Montenegro, S. Jessen, Climate Change Impacts and Vulnerabilities in Canada's Pacific Marine Ecosystems, CPAWS BC and WWF-Canada, Vancouver, BC, 2012.
- 9 L.V. Weatherdon, Y. Ota, M.C. Jones, D.A. Close, W.W.L. Cheung, Projected Scenarios for Coastal First Nations' Fisheries Catch Potential under Climate Change: Management Challenges and Opportunities, *PLoS ONE*. 11 (2016) e0145285.

North Coast - Summary table for climate impacts, projected changes and sectoral impacts

Climate Impact	Projected Changes	Evidence Quality	Sectoral Impacts	Impacts Summary ^a	Evidence Quality
Air Temperature	<p>Average air temperature may increase by 1.7°C (1.1°C to 2.5°C) by 2050 and 2.6°C (1.5°C to 4.3°C) by 2080^{1,2}; and average temperatures may reach ~7.5°C with low emission scenario (RCP 2.6) and ~11.5°C with high emission scenario (RCP 8.5) by 2091-2100³;</p> <p>Likely more growing degree days: 237 (+150 to +369) growing degree days by 2050 and +362 (+213 to +700) by 2080¹;</p> <p>Likely more frost free days: +24 (+13 to +36) frost free days by 2050 and +37 (+18 to +58) by 2080¹;</p> <p>Higher winter minimum temperatures (4–9°C higher) and summer maximum temperatures (3–4°C higher) by 2080¹.</p>	High	<p>Higher energy requirements for heating and cooling³;</p> <p>Lower water availability².</p>		Medium
Precipitation	<p>Annual precipitation may increase by 7% (3% to 12%) by 2050 and 12% (7% to 22%) by 208, in all seasons except summer^{1,2}; up to ~18% more precipitation with low emissions (RCP2.6) and ~25% more with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline⁶;</p> <p>Winter snowfall may decrease by -10% (-18% to +5%) by 2050 and -11% (-32% to -1%) by 2080¹;</p>	High	<p>Threats to ecosystems and habitats⁴, species abundance and/or distribution⁵, fisheries industry^{5,6}, food security⁷, slope stability², community safety due to increased risk of landslides²;</p> <p>Increases in fresh water input into oceans, associated impacts on fisheries⁶, freeze-thaw processes².</p>	 	High
Sea Level Rise	<p>Rising sea levels are likely: 0.6m to 1.2m. Areas in the northern parts may experience a greater increase ~1.2m⁷.</p>	Medium	<p>Threats to ecosystems and habitats⁴, species abundance and/or distribution⁴, fisheries industry^{5,6}, cultural and heritage resources^{5,7}, food security and traditional food sources^{5,7}, marine infrastructure, operations and transportation lanes⁵, access to, or loss of natural recreation and tourism assets⁵;</p> <p>Increase in coastal erosion and associated impacts on communities and marine infrastructure⁸.</p>	 	Medium
Sea Surface Temperature	<p>Increases in sea surface temperatures by ~2°C and average temperatures to be ~10-11.5°C by 2065-2078⁸; ~2.5°C increase in sea surface temperatures at the east of Dundas Islands⁶.</p>	High	<p>Threats to ecosystems and habitats⁴, species abundance and/or distribution^{5,10}, fisheries industry⁵, food security⁵;</p> <p>Economic impacts on communities due to changes in fisheries and ecosystem health⁹.</p>	 	Medium
Ocean Acidification	<p>Decreasing in pH levels leading to ocean acidification⁴.</p>	Low	<p>Threats to ecosystems and habitats^{5,9}, species abundance and/or distribution⁵, fisheries industry⁵, calcifying organisms^{5,9}, aquaculture industry^{5,9}, commercial harvests⁵, food security⁵;</p> <p>Economic impacts on communities due to changes in fisheries and ecosystem health⁹.</p>	 	Medium
Oxygenation	<p>Declining dissolved oxygen levels⁵.</p>	Low	<p>Threats to ecosystems and habitats⁵, species abundance and/or distribution⁵, fisheries industry⁵, habitat range of species that tolerate low oxygen habitats⁵, commercial harvests⁵, food security⁵;</p> <p>Economic impacts on communities due to changes in fisheries and ecosystem health⁵.</p>	 	Medium
Streamflow					
Sea Surface Salinity	<p>Decreasing sea surface salinity by ~1% (-0.2 decrease in psu unit) by 2065-2078 compared to 1995-2008 baseline⁶, ~1.4% increase in sea surface salinity (-0.4 increase in psu unit) around the east of Dundas Islands⁶, ~8% decrease in sea surface salinity (-1.2 decrease in psu unit) around Larcom Island⁶, ~5% increase in sea surface salinity (-1.2 increase in psu unit) north east of Gil Island⁶.</p>	High	<p>Threats to species abundance and/or distribution^{5,10}, fisheries industry⁵, food security⁵;</p> <p>Economic impacts on communities due to changes in fisheries and ecosystem health⁵.</p>		Medium

Winds, Waves and Storms	Increasing frequency and severity of storm events ^{2,5} .	Medium	<p>Threats to ecosystems and habitats⁵, species abundance and/or distribution^{5,10}, fisheries harvests⁵, food security⁵;</p> <p>Economic impacts on communities due to changes in fisheries and ecosystem health⁷;</p> <p>Increase in coastal erosion and associated impacts on communities and marine infrastructure⁸.</p>		High
General	Climate change effects are expected to become even more dramatic in coming years ⁹ .	High	<p>Threats to species abundance and distribution¹⁰, catch potential for all commercial fisheries¹⁰, salmon catch potential¹⁰, access to traditional foods^{5,10};</p> <p>Northward shift in species range and abundance¹⁰;</p> <p>Economic, social and cultural impacts on communities due to salmon running later, berries</p>		Medium

^α Unless indicated, all sectoral impacts are negative



Ecosystems



Communities



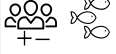
















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Marine Infrastructure

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- 10 L.V. Weatherdon, Y. Ota, M.C. Jones, D.A. Close, W.W.L. Cheung, Projected Scenarios for Coastal First Nations' Fisheries Catch Potential under Climate Change: Management Challenges and Opportunities, PLoS ONE. 11 (2016) e0145285.
- 11 R. Anderson, Kitkatla: Climate Change and Adaptations & Diet and Diabetes - Final Fieldwork Report, Forests and Oceans for the Future, University of British Columbia, 2005.

Haida Gwaii - Summary table for climate impacts, projected changes and sectoral impacts

Climate Impact	Projected Changes	Evidence Quality	Sectoral Impacts	Impacts Summary*	Evidence Quality
Air Temperature	<p>Average air temperatures may increase by 1.4°C (0.8°C to 2.2°C) by 2050 and 2.2°C (1.1°C to 3.5°C) by 2080^{1,2};</p> <p>South Haida Gwaii: Average air temperatures may reach ~7.5°C with low emission scenario (RCP 2.6) and ~11.5°C with high emission scenario (RCP 8.5) by 2091-2100³;</p> <p>North Haida Gwaii: Average air temperatures may reach ~8.5°C with low emission scenario (RCP 2.6) and ~12°C with high emission scenario (RCP 8.5) by 2091-2100³;</p> <p>Growing degree days: +317 (+182 to +506) by 2050 and +514 (+264 to +855) by 2080⁴;</p> <p>Frost free days: +22 (+13 to +31) by 2050 and +32 (+18 to +46) by 2080⁴;</p> <p>Increases in winter minimum temperatures by 4-9°C by 2080 and summer maximum temperatures by 3-4°C⁴.</p>	High	<p>Threats to fisheries⁵, fisheries related tourism², water supply²;</p> <p>Potential positive benefits to tourism due to warmer and longer summer season².</p>		High
Precipitation	<p>Increases in average annual precipitation by 7% (0% to 10%) by 2050 and 9% (4% to 17%) by 2080, and ~10% decrease in summer^{1,2};</p> <p>Decreasing winter snowfall by ~35% (-54% to -11%) by 2050 and ~48% (-72% to -22%) by 2080¹;</p> <p>South Haida Gwaii: Increasing average precipitation by ~18% (low emissions, RCP2.6) and ~25% (high emissions, RCP8.5) by 2091-2100 compared to 1961-1990 baseline¹;</p> <p>North Haida Gwaii: Increasing average precipitation by ~20% (low emissions, RCP2.6) and ~22% (high emissions, RCP8.5) by 2091-2100 compared to 1961-1990 baseline¹.</p>	High	<p>Potential damaging impacts on ecosystems and habitats²;</p> <p>Changes in access and seasonality of traditional foods².</p>	 	High
Sea Level Rise	<p>Extreme low projections of 0.1-0.31m, mean projections of 0.25 - 0.46m, extreme high projections of 0.95-1.16m³;</p> <p>Average sea level may increase by 0.7-1.32m. North and northwest coast may experience ~1.32m, northeast and the southwest coast may experience ~1-1.2m⁶.</p>	Medium	<p>Threats to cultural and historic sites⁵, coastal development and settlements due to flooding and erosion^{7,8}, marine infrastructure due to flooding and erosion^{7,8}, ecosystem health, resilience and productivity as well as coastal habitats, loss of wetlands and pollution¹;</p> <p>Ecological, economic, social and technological impacts and adaptation challenges⁸.</p>	  	Medium
Sea Surface Temperature	<p>South Haida Gwaii: Average sea surface temperature to be ~11.75°C with RCP 2.6 and ~14°C with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline¹;</p> <p>Increasing sea surface temperature by up to 1.5°C in less than 100 years⁵, or by ~2.1°C compared to 1995-2008 baseline⁹; average temperature to be ~10.5-12.5°C by 2065-2078⁹.</p>	High	<p>Potential positive benefits to seagrasses and the kelp species <i>Macrocystis</i> spp.⁵;</p> <p>Impacts on a variety of marine species⁵.</p>	 	High
Ocean Acidification	<p>Decreasing ocean pH levels. South Haida Gwaii: Average ~7.96 ph unit with RCP 2.6 and ~7.69 ph unit with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline¹.</p>	High	<p>Threats to calcifying organisms⁹, aquaculture industry^{5,8}, larger scale ecosystem effects^{5,8};</p> <p>Economic impacts on communities due to impacts on aquaculture and potential impacts on fisheries^{5,8}.</p>	  	Medium
Oxygenation	<p>Declining ocean oxygen levels⁹.</p>	High	<p>Impacts on ecosystems and habitats due to decreased salinity levels⁵, fisheries due to increases in fresh water input and associated changes in salinity levels⁹.</p>	 	High
Streamflow	<p>Changing timing of streamflow - earlier fresher, less snowpack, higher water volume earlier in spring⁸.</p>	Low	<p>Threats on salmon migration, spawning, and incubation⁸.</p>		Low
Sea Surface Salinity	<p>South Haida Gwaii: Decreasing sea surface salinity by ~1% with RCP 2.6 and ~3.4% with RCP 8.5 by 2091-2100 compared to 1961-1990 baseline¹;</p> <p>Decreasing sea surface salinity by less than 1% (-0.3 decrease in psu unit) by 2065-2078 compared to 1995-2008 baseline⁹, ~5% decrease in sea surface salinity (-1.2 decrease in psu unit) around Masset Inlet⁹.</p>	High	<p>Impacts on ecosystems and habitats due to decreased salinity levels⁵, fisheries due to increases in fresh water input and associated changes in salinity levels⁹.</p>	 	High
Winds, Waves and Storms	<p>Stronger future storm events¹⁰ and increases in storm surge frequency².</p>	High	<p>Threats to ecosystems and habitats², coastal development and settlements due to flooding and erosion^{2,8}, marine infrastructure and flood protection infrastructure due to severe weather events and associated wave and erosion damage^{2,7,8}, critical infrastructure such as utility lines, power, communications transmissions, and access to grocery and other supplies¹¹, marine and land transportation lanes due to severe weather events^{8,11}.</p>	  	High
General	<p>Increasing intensity of cumulative climate change impacts⁵.</p>	High	<p>Threats to species abundance and distribution¹², catch potential for all commercial fisheries¹², salmon catch potential¹², access to traditional foods^{5,12};</p> <p>Northward shift in species range and abundance¹².</p>	 	High

* Unless indicated, all sectoral impacts are negative



Ecosystems



Communities



Fisheries and Aquaculture



Marine Infrastructure

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