

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, MARCH 20, 2024**

SUBJECT **Climate Projections for the Capital Region**

ISSUE SUMMARY

To present the updated report, *Climate Projections for the Capital Region (2024)*.

BACKGROUND

In 2017, the CRD Climate Action service engaged the Pacific Climate Impacts Consortium (PCIC) to complete the first scientific analysis of downscaled climate projections for the capital region. In 2023, the PCIC was reengaged to update the downscaled regional climate projections and results are provided in an updated report *Climate Projections for the Capital Region (2024)* (see Appendix A).

Climate science has been evolving since the CRD published the first climate projections report, and new information is now available to reevaluate the projections and provide the most up-to-date information on how the region's climate may change by the middle and end of this century. The report provides a common understanding of how projected changes in temperature and precipitation will play out locally, how impacts will differ throughout the seasons, and what the effect could be of new climate extremes. The report identifies some potential impacts of climate change on different sectors of the region, based on consultation with CRD and municipal staff.

The report is based on new scientific modelling and includes new indices for extreme heat, as well as a new guidance section to support users of the report and accompanying data. The report, along with other data and modelling efforts completed by the PCIC, will serve as a resource for local and regional planners, engineers, land managers, policymakers and decision makers to make better-informed decisions.

At a high level, the results of this study show that in the coming decades, the capital region can expect:

- warmer summer temperatures, with more extreme heat days and heatwaves
- warmer nights and a longer growing season
- less rain and more dry days in the summer months
- warmer winter temperatures and less frequent frost
- more precipitation falling in fall, winter and spring
- less snowfall and more rain in the colder months
- more rain delivered in extreme rainfall events

Next Steps

The CRD Climate Action service will continue to support regional climate adaptation planning efforts. Near-term actions include:

- Sharing the report results with CRD and local government staff, First Nations and other regional stakeholders.
- Developing public educational materials linking report results with associated actions for use by the CRD, local governments and other regional stakeholders.

- Supporting future climate adaptation planning efforts, including identifying data gaps and costs associated with future local or regional studies and programming, with municipal/electoral area governments (i.e., the CRD's Climate Action Inter-Municipal Working and Task Force).
- Supporting the completion of other climate adaptation-related actions identified in the CRD's Climate Action Strategy (2021).

Furthermore, the CRD will consider the results for regional service delivery in operational plans and long-range infrastructure planning.

ALTERNATIVES

Alternative 1

The Environmental Services Committee recommends to the Capital Regional District Board: That the *Climate Projections for the Capital Region (2024)* report be referred to municipal councils, the Electoral Areas Committee and First Nations for information.

Alternative 2

That this report be referred back to staff for additional information.

IMPLICATIONS

Alignment with Board & Corporate Priorities

The recommendations align with the Board's priority Climate Action & Environment initiative 3c to increase resilience, community and adaptation planning to address climate-related risks and disasters.

Alignment with Existing Plans & Strategies

The recommendations align with goal 2 of the CRD Climate Action Strategy to support the region on its pathway to livable, affordable and low-carbon communities that are prepared for climate change, and specifically contributes to the completion of action 2-4d to expand data collection and mapping efforts to identify vulnerabilities to the impacts of climate change.

Intergovernmental Implications

The data and mapping components can help local authorities prepare for climate impacts. By examining climate projections, community planners and emergency managers can better inform planning and policy initiatives. The data can also be used when updating local hazard, risk and vulnerability analyses (i.e., HRVAs). CRD staff will continue to engage the region's local governments through the CRD's Climate Action Inter-Municipal Working and Task Force on better understanding new climate adaptation related policy approaches and supporting implementation of existing programs and policies in a collaborative manner.

CONCLUSION

The recently completed report, *Climate Projections for the Capital Region (2024)*, expands upon climate change data analysis previously undertaken by the Pacific Climate Impacts Consortium and the CRD. Using the most recent scientific information, the study updated high-resolution climate projections for the capital region to better understand how our climate may change by the 2030s, 2050s and 2080s. The report is based on the work undertaken by the Pacific Climate Impacts Consortium, with support from the CRD, and was developed in consultation with CRD and municipal staff working groups. The report benefits multiple services within the CRD, as well as all local and First Nations governments and community partners in the region in becoming resilient to a changing climate.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board:
That the *Climate Projections for the Capital Region (2024)* report be referred to municipal councils, the Electoral Areas Committee and First Nations for information.

Submitted by:	Nikki Elliott, BES, MPA, Manager, Climate Action Programs
Concurrence:	Larisa Hutcheson, P.Eng., Acting General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT

Appendix A: Climate Projections for the Capital Region Report (2024) – Pacific Climate Impacts Consortium