

Report

Date January 9, 2024

File:

Subject Climate Change Risk and Vulnerability Assessment Project Update

PURPOSE

To provide a progress update and feedback on the climate change risk and vulnerability assessment. A presentation by staff and Urban Systems Ltd. will be provided.

BACKGROUND

Council's Strategic Plan (2019-2022) outlines the priority to "develop a comprehensive climate change risk and vulnerability assessment". This assessment serves as the foundational process for crafting a prioritized adaptation strategy at the municipal service level that focuses on building resilience and reducing vulnerabilities from natural hazards associated with climate change.

The Cowichan Valley Regional District (CVRD) Board adopted the [Regional Climate Change Adaptation Strategy](#) in 2021, identifying regional impacts and actions to respond to climate change. This strategy includes climate projections and impacts analysis, vulnerability and risk assessments, a climate change adaptation and risk management strategy, a greenhouse gas (GHG) mitigation strategy, and an implementation plan.

The Municipality's Climate Action and Energy Plan (CAEP) update in 2022 focussed on climate mitigation – the initiatives that reduce the amount of GHG emissions released into the atmosphere. Climate adaptation increases our ability to withstand the effects of climate change. The CAEP incorporates elements that address climate adaptation only through the co-benefits of mitigation projects. The Official Community Plan integrates a comprehensive climate action framework, with a specific goal to "prioritize climate action by reducing energy consumption and emissions and adapting to climate change." North Cowichan's Climate Adaptation Strategy will build from CVRD's regional work to tailor strategies for our community's context.

The project is composed of three phases:

- 1) Phase 1: Understand the local context and primary concerns (summary presented to [Committee of the Whole on October 10, 2023](#))
- 2) Phase 2: Conduct a vulnerability/risk assessment
- 3) Phase 3: Develop a climate change adaptation strategy

This report summarizes the findings from the vulnerability and risk assessment (Phase 2) and themes heard during First Nations engagement pending from Phase 1's previous report.

DISCUSSION

The primary goal of Phase 2 of this project is to conduct a vulnerability and risk assessment to support the development and prioritization of adaptation actions. This phase builds upon insights gathered during the engagement phase. Results are presented as a summary report, highlighting key risk theme areas.

A cross-departmental Steering Committee was established to provide guidance throughout the project, which also includes representation of CVRD staff. This committee contributes background and operational context, local knowledge, information on ongoing initiatives, and input into the phases of work. Urban Systems and the Steering Committee collaborated to identify the relevant climate hazards to North Cowichan and assess risk across the municipality's service areas. Feedback received in the project's initial phase was analyzed alongside the relevant risks.

The services provided by North Cowichan were reviewed against the following climate hazards: coastal storm surge/sea level rise, extreme wind, extreme cold, water shortages, severe wildfires, heatwaves, invasive species, landslides, and flooding.

The Phase 2 Summary Report (Attachment 1) provides an overview of the key themes that emerged from this phase of work. Outdoor service areas generally have the most frequent and higher-ranked risks, given their exposure to changing climate conditions. Environmental changes also accumulate and may not be driven by a specific event, so the consequences of the climate hazard may be easier to discount as human perception doesn't note that the change is taking place. Infrastructure assets have designed resiliency to climate hazards and are supported by operations and maintenance with respect to climate hazards, so they are less likely to present as a very high risk.

During the October 2023 presentation to Committee of the Whole on engagement findings, results from the September 25, 2023, workshop with First Nations were unavailable. To conclude Phase 1 engagement findings, Attachment 2 summarizes what was heard in discussion with Cowichan Tribes, Halalt First Nation, and Lyackson First Nation. Key takeaways highlighted include the importance of watershed health, the impacts of climate change on their communities, and the need to collaborate on action.

OPTIONS

1. **(Recommended Option)** THAT the Committee of the Whole direct staff to seek input from the Environmental Advisory Committee through review of the report dated January 9, 2024, titled "Climate Change Risk and Vulnerability Assessment – Project Update".
 - Feedback from both Council and the Environmental Advisory Committee will reflect the policy goals of Council and the environmental concerns of the community.
2. THAT the Committee of the Whole accept the findings presented in the Phase Two Summary Report and direct staff to proceed with development of adaptation strategies.
 - This option would conclude Phase 2: Conduct a vulnerability/risk assessment and direct staff to advance to the final phase of this project – to develop an action plan to address high-priority risks through a climate change adaptation strategy.

IMPLICATIONS

The overall resources required to develop the Risk and Vulnerability Assessment have been approved in the Business Plan and are progressing in accordance with the grant funding agreement with the Disaster Risk Reduction-Climate Adaptation Program. Activities and deliverables are intended to make the best use of resources available as well as minimize time commitments for interested parties providing feedback. Adaptation strategies will be developed in the final and next phase of this project, and another round of engagement will take place.

RECOMMENDATION

THAT the Committee of the Whole direct staff to seek input from the Environmental Advisory Committee through review of the report dated January 9, 2024, titled "Climate Change Risk and Vulnerability Assessment – Project Update".

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Approved to be forwarded to Council:



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Attachments:

- (1) Phase Two Summary Report
- (2) What We Heard Report – First Nations Workshop