Strata Energy Advisor Pilot Program

FINAL REPORT AND NEXT STEPS

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Climate Action Committee September 18, 2020

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Carbon Impact of Stratas in Metro Vancouver

- 7,200 + stratas (~300,000 households) in MV
- 700,000 tCO2e/year
- Every year 4-11% of stratas undertake a major project that affects energy/GHG emissions of the building (300-700 buildings)
- Big carbon reduction opportunity

Program Goals

- Better understand the barriers & opportunities to accelerate GHG reductions in strata buildings
- Learn how to work within strata decision-making process by providing support through identifying, approving, and implementing measures that save energy and GHGs.

Program Participation

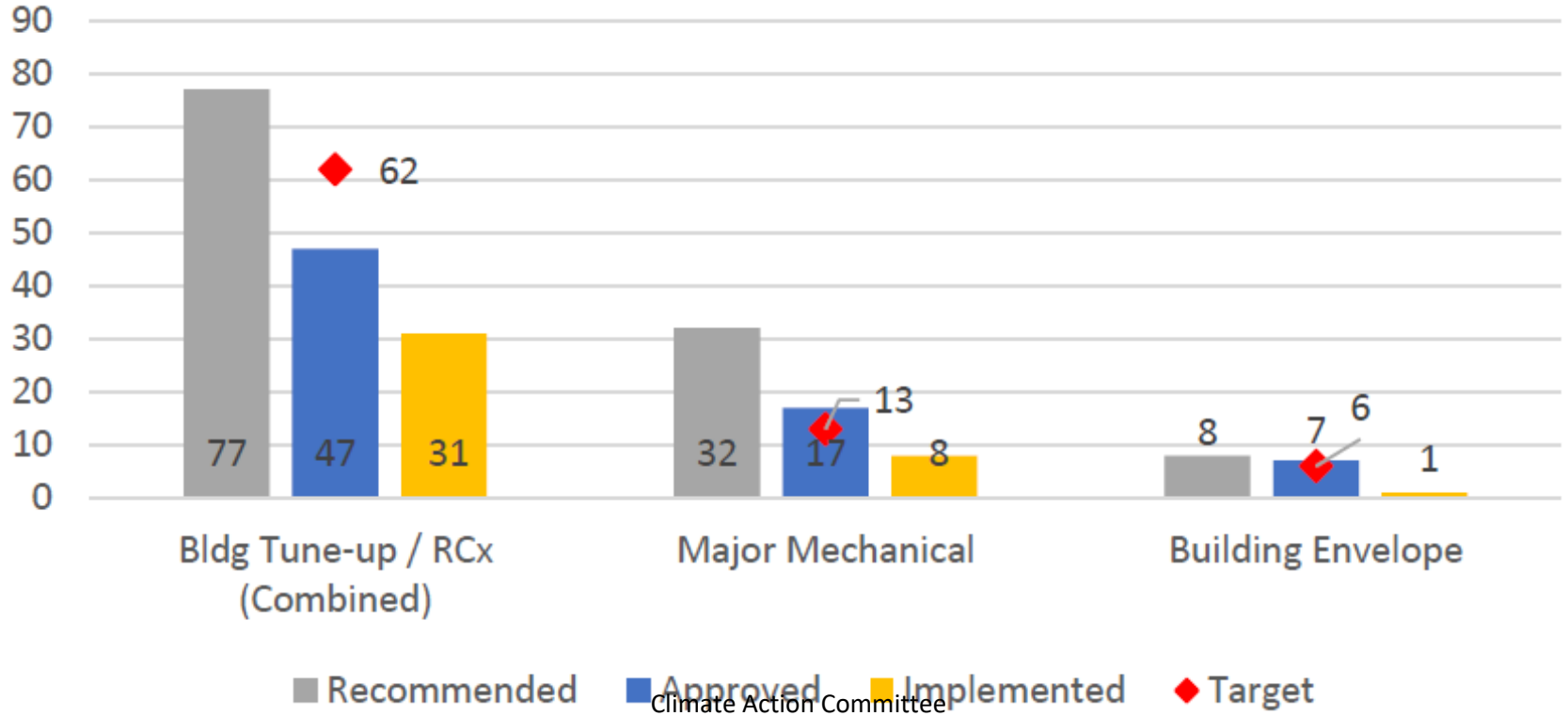
211 buildings registered for the program

99 buildings received a phone screening and 17 that screened out received “For Future Consideration” recommendations

82 walk-through energy assessments were completed and 82 business cases prepared

38 building completed energy efficiency projects, representing 3,642 residential units

Approved and Completed Projects



Funding Contributions & Grants

Grants Available

- Building Tune-Ups & Smart Building Upgrades
- Feasibility Studies – Major Mechanical & Building Envelope

Program Energy & Carbon Impacts

Annual Electricity Savings (kWh)	**Annual Natural Gas Savings** (GJ)	**Annual GHG Reductions** (tonnes)	**Lifetime GHG Reductions** (tonnes)
640,605	**3,758**	**215**	**2,265**

Future Program Potential

- **2030 Target (45%)** – reduce 30,000 tonnes/year from strata buildings
- **Opportunity** ~ 300-700 strata buildings undertake a major renewal projects/year
- **Scale-up** - Voluntary SEA program that captures 75% of renewal projects = ~ 2,000-5,000 tonnes of reductions/year
- **Cost** - approximately $3 million per year
- **Increased Impact** - Pair support programs like SEA with regulatory requirements that set limits on GHG emissions

Recommendation

Develop options for administration and delivery of an **ongoing, region-wide Strata Energy Advisor Program**, for consideration by the MVRD Board

Thank you

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2020 Update on Sustainability Innovation Fund Projects

WATER SERVICES

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Climate Action Committee: September 18, 2020

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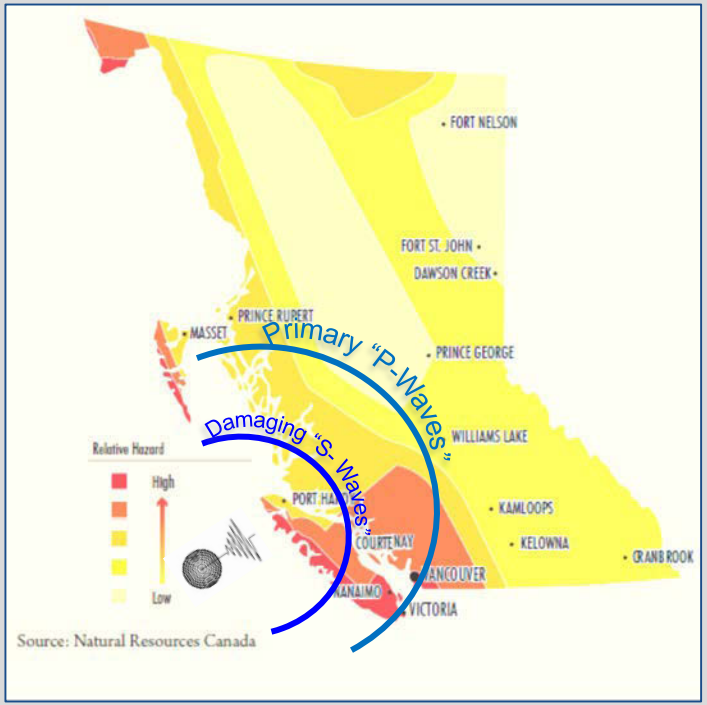
Earthquake Early Warning System: Complete

Purpose: Investigate EEW possibilities for critical water infrastructure

- Assessment report completed (2018) showing potential life safety and system applications
- Pilot design elements detailed (2019)
- Project completed (2019) within budget ($95K)
- New SIF funding approved (Feb 2020 - $270K) for follow-up pilot project implementation in 2020 / 2021)
    - Current status: RFP issued to solicit market vendor for pilot in 2020/2021



Residential Indoor and Outdoor End Uses of Water: Discontinued

Purpose: Improve understanding of residential indoor and outdoor water uses

- RFP was issued on January 24, 2020
- As a result of the current pandemic, the project will not be proceeding at this time

Greywater Reuse and Rainwater Harvesting Demonstration: In Progress

Purpose: to reduce potable water use for non-potable purposes by supporting uptake of water reuse systems in the region.

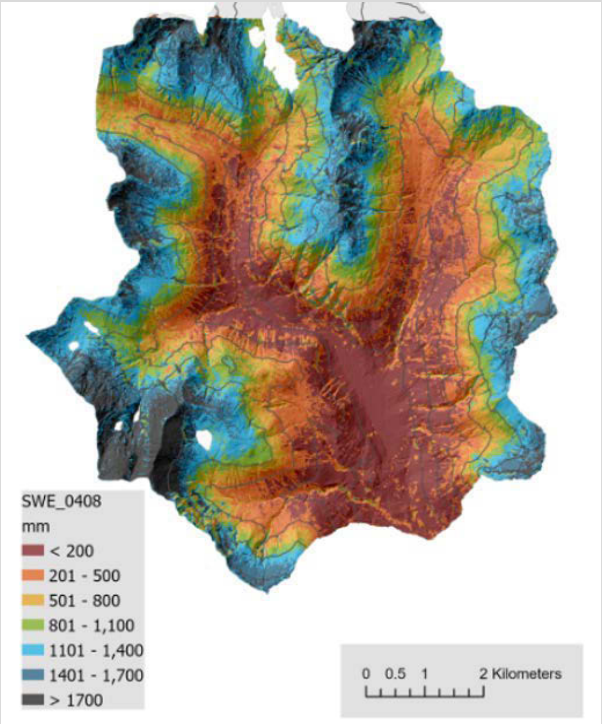
- Conducted a background review and technology scan.
- Created preliminary outline for the Guidebook.
- Progressing with interviews that will help to identify barriers to implementation and maintenance of water reuse systems.

Example of water reuse systems.
Reference: Onsite Non-Potable Water Reuse Practice Guide. San Francisco.

Next Generation Snowpack Monitoring: In Progress

Purpose: To modernize the watershed snow monitoring program by investigating new and emerging technologies and processes.

- Suitable technologies have been chosen.
- Data collection, processing, and validation methods have been refined.
- Additional analysis on strengths and limitations of each tool is required.

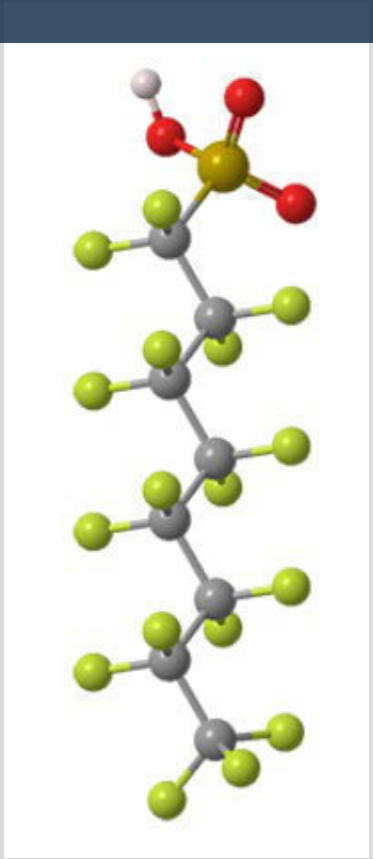


LiDAR snow map of Seymour Watershed

Treating Emerging Contaminants at the Seymour Capilano Filtration Plant: In Progress

Purpose: to evaluate resiliency of SCFP to treat changing source water quality from emerging contaminants.

- Develop understanding of future contaminants from climate change or anthropogenic activities
- Recommend operational improvements and evaluate modifications / new treatment methods
- RFP to be issued to pre-qualified consultants



Questions

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