



Drinking Water & Watershed Protection

February 17th, 2022 // Technical Advisory Committee Meeting

AGENDA

ROUNDTABLE

INVITED
PRESENTATIONS

PROJECT
UPDATES

NEW
BUSINESS

AGENDA

Approval of the agenda

Adoption of minutes

- Minutes from Dec. 1, 2021

Roundtable Updates

Invited Presentations

Project Updates

New Business

Adjournment

ROUNDTABLE

Welcome to New
Committee
Members

All Committee
Members: Updates



INVITED PRESENTATIONS

Snowpack
Modelling

Wetland
Monitoring

Biosolids
Application

Water
Supply
Planning
Resilience
Study



**Dr. Bill Floyd -
MFLNRO / VIU**

The background of the slide features a close-up, macro shot of water droplets on a dark surface, creating a bokeh effect with soft, out-of-focus light spots. A large, solid blue circle is centered on the page, overlapping the water droplet background. The text is positioned within this blue circle.

**Jessica Pyett,
Mt. Arrowsmith
Biosphere Region
Research Institute**

The background of the slide is a close-up photograph of water with many small, clear bubbles. A large, semi-transparent blue circle is overlaid on the center of the image. The text is white and centered within this blue circle.

**Shelley Norum,
RDN Wastewater**

**Katrina Miller,
SYLVIS Environmental**

The background of the slide features a close-up photograph of numerous water droplets of varying sizes on a dark, reflective surface. A large, semi-transparent blue circle is overlaid on the left and center of the image, serving as a backdrop for the text.

**Jessica Beaubier,
RDN Climate Change
& Resilience
Coordinator**

PROJECT UPDATES

PRESENTATIONS

**Awareness &
Stewardship**

**Information
& Science**

**Policy &
Planning
Support**

**Water to
Earth Month
Planning**

**Demonstration
Sites & Signage**

Awareness & Stewardship





REGIONAL DISTRICT OF NANAIMO is celebrating **2022**

Water to Earth Month

MARCH 22 - APRIL 22

Activities and events to celebrate both World Water Day and Earth Day!

Get Involved RDN!

getinvolved.rdn.ca/team-watersmart

NALT
NANAIMO & AREA LAND TRUST

MAORRI
Moose, Ansenawak, Skegway, Regain, Research Institute

CITY OF NANAIMO
THE HARBOUR CITY

MOSAIC
FOREST MANAGEMENT

This year's themes are:
World Water Day -
Groundwater... Making the invisible, visible
Earth Day -
Climate change

Water to Earth Month Planning

Events for this year include:

- March 24- Streamside Landowners and Stewards Streamwalk @ Nanaimo River Regional Park
- March 26- Earth Hour Skate @ Nanaimo Ice Centre
- March 27- Earth and Water Day Swim @NAC
- April 2- Watersmart Gardening and Landscape Workshop @ Oliver Woods
- April 7- Rainwater Management Workshop @ Virtual
- April 8-10 MABR BioBlitz
- April 22- Earth Day Invasive Plant and Litter Removal work party @Bowen Park
- April 23- Natural Landscaping for Climate Change @ City of Nanaimo

Plus online contests and games for prize packs!

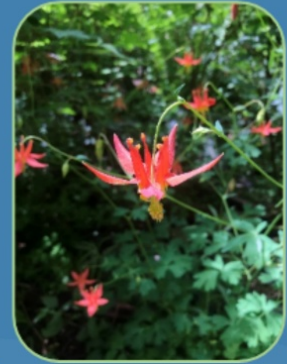


Demonstration Sites & Interpretive Signage

New for 2022 and beyond: support program for regional demonstration sites and interpretive signage!

The DWWP Action Plan 2.0 has identified the use of interpretive signage as a meaningful way to highlight and bring awareness to watershed features, watershed restoration and stewardship efforts, and community green infrastructure, such as raingardens, bioswales, xeriscape gardens, rainwater harvesting practices, and more.

- Support for demonstration sites and interpretive signage is included in the DWWP workplan and budget.
- Funding and staff support in developing key messaging and content for signs related to watershed protection and water conservation complements the existing regional water stewardship efforts through the RDN's Stewardship Seed Funding program, Community Watershed Monitoring Network, and other DWWP initiatives



DWWP is proposing a set of eligibility criteria by which to evaluate requests and opportunities to support watershed demonstration sites and interpretive signage in the region.

Demonstration Sites & Interpretive Signage

Proposed program eligibility:

- Non-profit environmental stewardship groups, local municipal governments within the RDN, as well as other Regional District of Nanaimo departments.
- For non-profit groups, priority may be given to organizations that have partnered on other DWWP initiatives.
- Projects must be jointly funded by other partners, donors, and/or include in-kind contributions.
- Eligible sites for interpretive signage include important watershed features watershed restoration, research or monitoring sites, or demonstration sites of community green infrastructure that aim protect or restore watershed function and the natural water cycle.

DWWP staff will support with interpretive signage content and key messaging development, graphics, and coordination between partners

Two Streams:
One to support municipal or internal RDN department projects (questionnaire);
Another for external applications from non-profit groups (application)

Demonstration Sites & Interpretive Signage

Key Next Steps:

- Develop interpretive signage criteria and Tool Kit.
- Develop public-facing program content: application forms and webpage.
- Pilot the initiative at the RDN Admin property for a bioswale enhancement and signage project.
- Develop a set of criteria/checklist and tracking framework to prioritize project support.



Questions, ideas or comments on what categories to include to prioritize project support?
Have a demonstration site or interpretive signage project in mind? Let us know!

Eligibility & Project Prioritization Checklist:

- o Project type
- o Location
- o Year planned
- o Funding partnerships
- o Site visibility
- o Installation & maintenance
- o First Nations involvement



**Information &
Science**

**Riparian
Restoration
Spatial
Analysis**

Regional Riparian Spatial Analysis for Restoration Prioritization

Request for
Proposals
posted Feb. 7th
- closes Mar. 1st

Approx. budget
\$35,000

PROPOSED SCOPE OF WORK

- **Compile existing data & perform primary data collection as required** to map and analyze current functional riparian cover levels across the region's major watercourses.
- **Quantify current riparian cover / vegetative extents** in terms of length, width / depth and quality. Quality should include consideration of vegetation types and diversity, age of stands, height, etc.
- **Present criteria for health / prioritization of areas** based on defensible ecological, geomorphological, cultural, climate change and regulatory parameters, and other parameters as advised.
- **Use that criteria to map areas where the riparian vegetative area is deficient**, to identify priority areas for restoration, enhancement, or improvement.
- **Present the results spatially in a map format as well as tabulated in accompanying tables.** Results should be summarized by both catchment level (watershed / water region) and corridor (watercourse) level, and illustrate current state as well as priority areas for improvements.
- **Create an interactive map tool** to allow decision-makers, practitioners and community members to interact with the results on multiple scales. The interactive map should have the capacity to include relevant supporting data such as water quality monitoring locations, previous restoration sites, fish presence, eagle nest trees, etc.

**Regional
Strategy for
Rainwater
Management**

**French
Creek Phase
3 Water
Budget**

**BC
Watershed
Security
Strategy &
Fund**

Policy & Planning Support



Regional Strategy for Rainwater Management



Timeline

- ✓ Document Review
- ✓ Technical Workshop #1 (July 2021)
- ✓ Jurisdictional Review
- ✓ Technical Workshop #2 (October 2021)
- ✓ Public Engagement (Nov 2021 - Jan 2022)
- Draft Strategy Refinement (February - March 2022)
Feedback from partners and public reviewers incorporated into the final strategy + Reporting out on what we heard.
- Final Strategy Presented to RDN Board for Endorsement (March - April 2022)
Following endorsement will be implementation of the strategic recommendations across the partners that are involved with rainwater management in region.

Received good input from public engagement period (35 surveys, 41 participants in virtual open house).

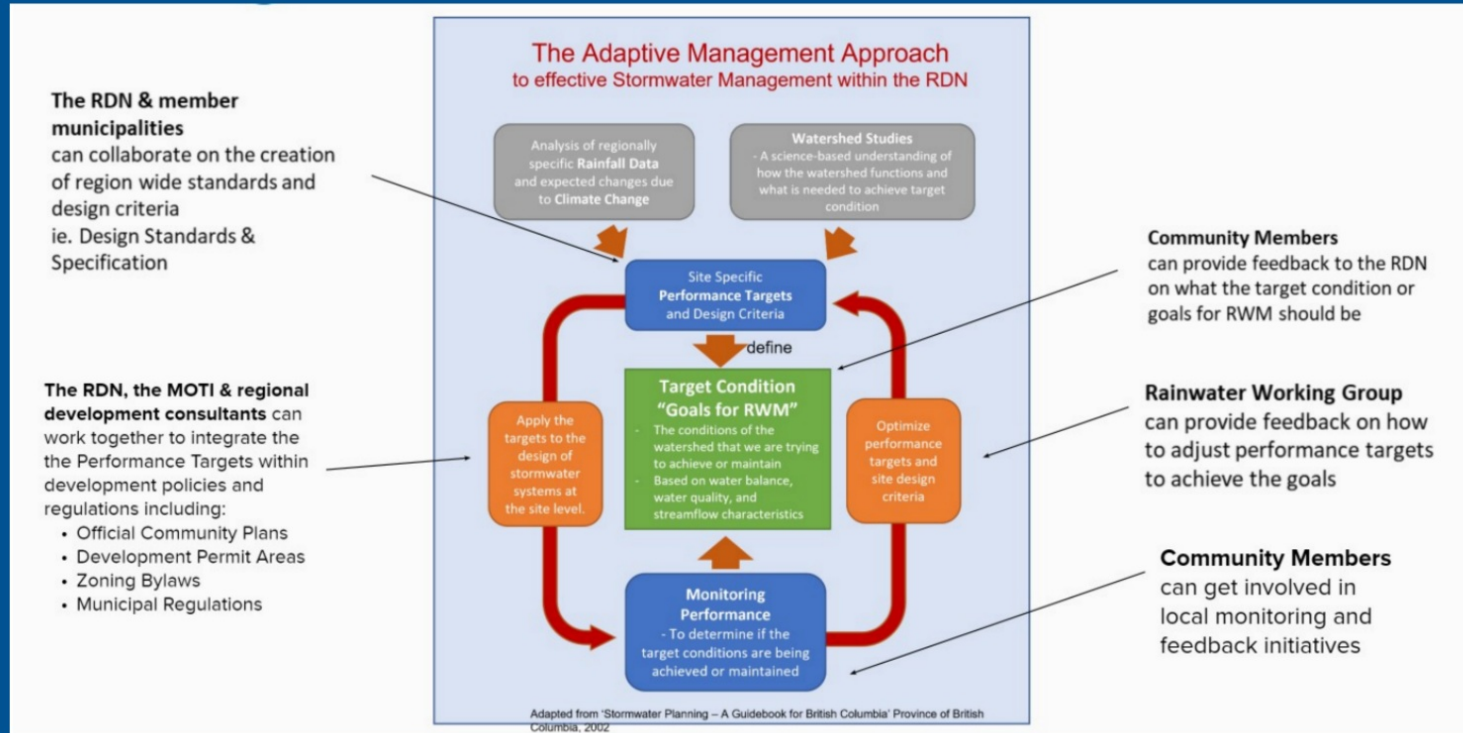
This is being worked into final draft along with feedback from Technical Reviewers. Final draft will be submitted by consultants during the week of Feb. 21st.

Rainwater Working Group will convene early March to discuss final strategy.

Staff report will be prepared to present the final strategy to the RDN Board March 22nd for endorsement, along with the 'What We Heard' public engagement summary.

Implementation with partners will follow, both in short and long term.

Regional Strategy for Rainwater Management



FRENCH CREEK WATER REGION

- WATER BUDGET PHASE 3

Project Objective: to build a 3D numerical groundwater flow model to be used as a tool to assess stress on aquifers and watersheds by comparing water availability with water use and setting boundary conditions for sustainable water extraction in various scenarios. The findings of this technical analysis will guide recommendations for water supply planning, land use decisions, and water objectives.

Progress Update:

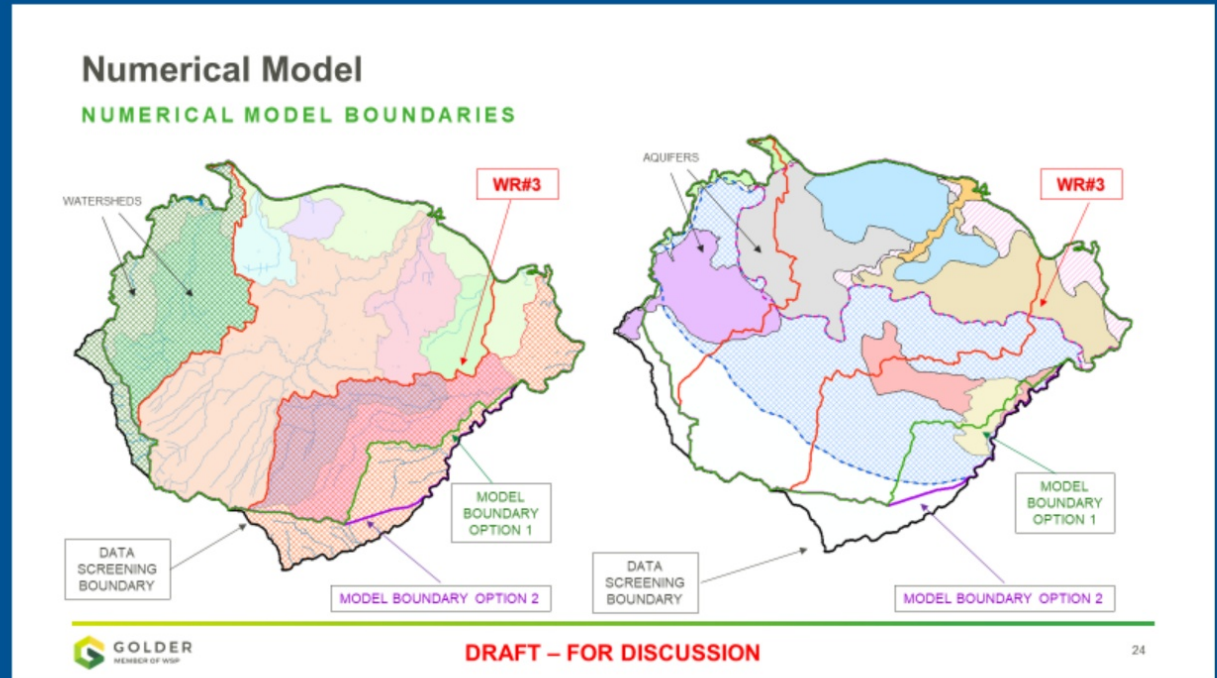
- Data compilation mostly complete.
- Conceptual model refinement mostly complete, includes:
 - geology, hydrostratigraphy
 - recharge areas, groundwater flow direction & hydraulic gradients
 - monitoring wells and water levels, surface water discharge and baseflow
 - surface water / groundwater connectivity
 - water use -served and unserved areas



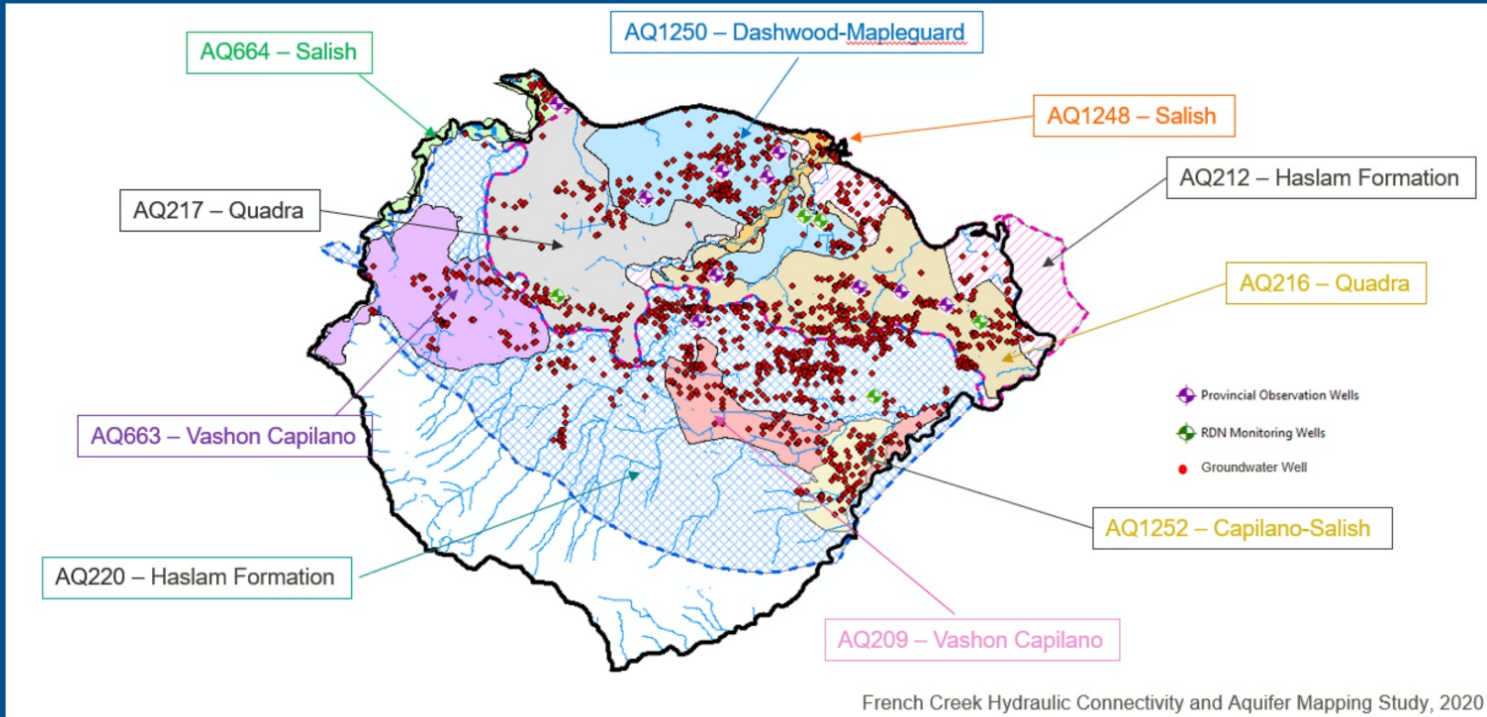
FRENCH CREEK WATER REGION - WATER BUDGET PHASE 3

Next, will construct numerical model (FEFLOW), perform calibration, sensitivity analysis.

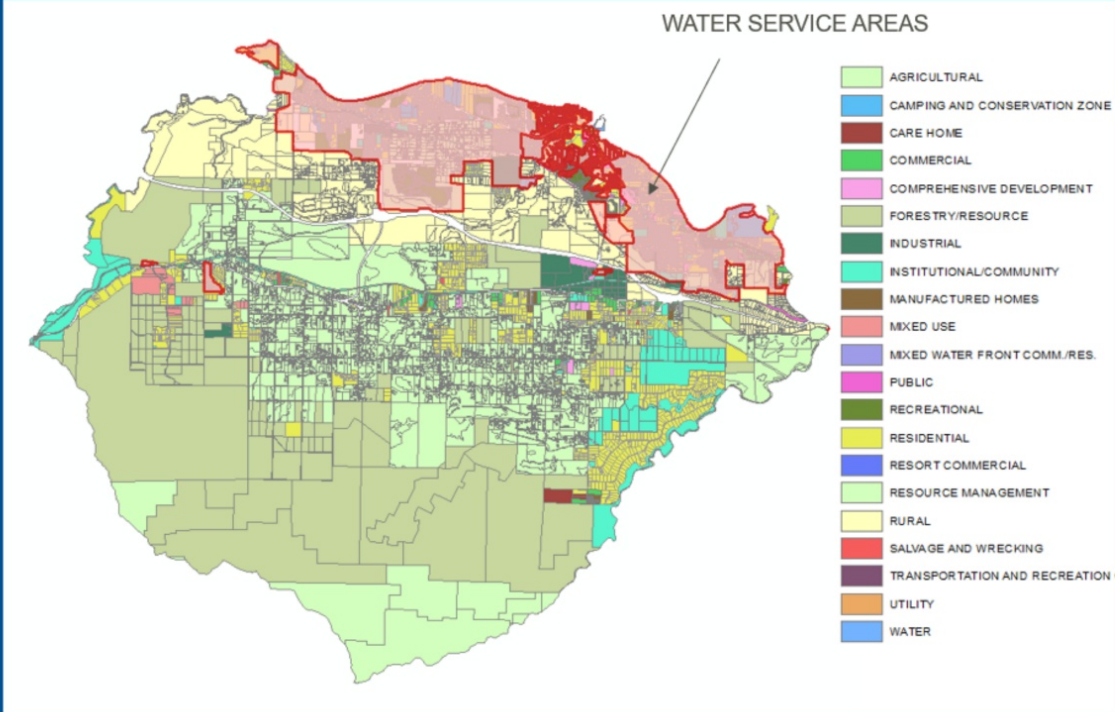
Progress meeting at start of April, before scenario development.



FRENCH CREEK WATER REGION - WATER BUDGET PHASE 3



FRENCH CREEK WATER REGION - WATER BUDGET PHASE 3



Watershed Security Strategy & Fund

- Outcome One: Support and enable watershed governance.
- Outcome Two: Enhance our understanding of watersheds and the risks they face.
- Outcome Three: Progress reconciliation with Indigenous peoples using new and improved mechanisms for collaboration on provincial water priorities.
- Outcome Four: Achieve healthy water for everyone Integrate water more efficiently and effectively into Land Use Planning.
- Outcome Five: Integrate water more efficiently and effectively into Land Use Planning.
- Outcome Six: Reset the water supply and demand relationship.
- Outcome Seven: Improve habitats for aquatic ecosystems.
- Outcome Eight: Respect the integrity of Indigenous Knowledge systems.
- Outcome Nine: Strengthen education and outreach about managing water in B.C.
- Outcome Ten: Create a Watershed Security Fund.



Watershed Security Strategy & Fund

- RDN providing a written submission; going to Board for endorsement on March 8th 2022
- What do TAC members want to emphasize in the response?

MOUs for collaborative watershed management

Natural Asset protection for climate resilience

Require watercourse restoration as part of RAPR and resource permitting

Provincial support staff / liaison positions for community-based monitoring support, data analysis, data reporting, participation on local tables

Direct funding to Indigenous led / co-led efforts

Improved data transparency

Financial incentives for agricultural sector to improve water efficiency & security

Industrial water efficiency requirements as part of licensing

Community Aquifer designation & updated Community Watershed designation

Local oversight

The image features a dark, high-contrast background of water splashing, with numerous small droplets and bubbles catching the light. Overlaid on the left side is a semi-transparent blue circle. Inside this circle, the words "NEW BUSINESS" are written in a clean, white, sans-serif font. The text is centered within the circle. There are also several small, semi-transparent squares in shades of blue and green scattered around the text, adding a modern, digital feel to the design.

**NEW
BUSINESS**