REGIONAL DISTRICT OF NANAIMO

DRINKING WATER & WATERSHED PROTECTION

February 26, 2025 | Technical Advisory Committee Meeting

REGIONAL DISTRICT OF NANAIMO

AGENDA

APPROVAL OF THE AGENDA

ADOPTION OF MINUTES

ROUNDTABLE UPDATES

INVITED PRESENTATIONS

STAFF PRESENTATIONS

NEW BUSINESS

ADJOURNMENT

REGIONAL DISTRICT OF NANAIMO

ROUNDTABLE UPDATES

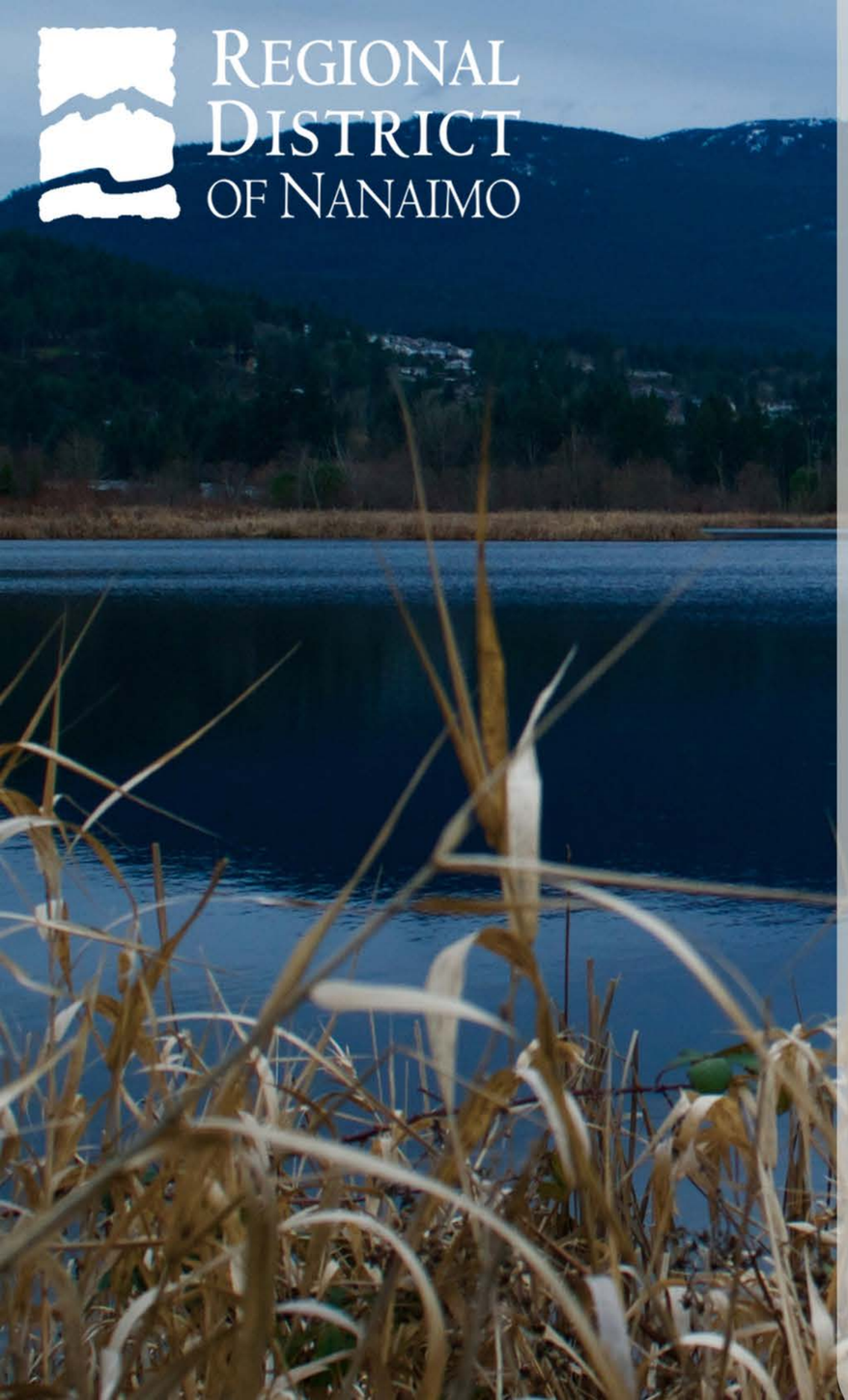
ALL COMMITTEE MEMBERS

REGIONAL DISTRICT OF NANAIMO

INVITED PRESENTATION

French Creek Ecological Accounting Process Report

Kristen Hogg & Ariel Verhoeks
Mt Arrowsmith Biosphere Reserve Research Institute, Vancouver Island University



REGIONAL DISTRICT OF NANAIMO

STAFF PRESENTATIONS

- CEDAR-YELLOWPOINT CASSIDY PHASE 3 WATER BUDGET
- COMMUNITY WATERSHED MONITORING NETWORK STRATEGIC PLANNING
- GROUNDWATER CONNECTIONS (STATE OF OUR AQUIFERS) – PUBLICATON & WEBPAGE
- WATER TO EARTH MONTH

NEW BUSINESS

- DWWP TAC – COMMUNITY REPRESENTATIVE POSTING
- DWWP TAC TERMS OF REFERENCE REVEW

CEDAR-YELLOWPOINT WATER BUDGET - UPDATE

The Water Budget project aims to assist land and water managers in balancing competing water needs and land practices with finite water supplies, both surface water and groundwater.

The project will:

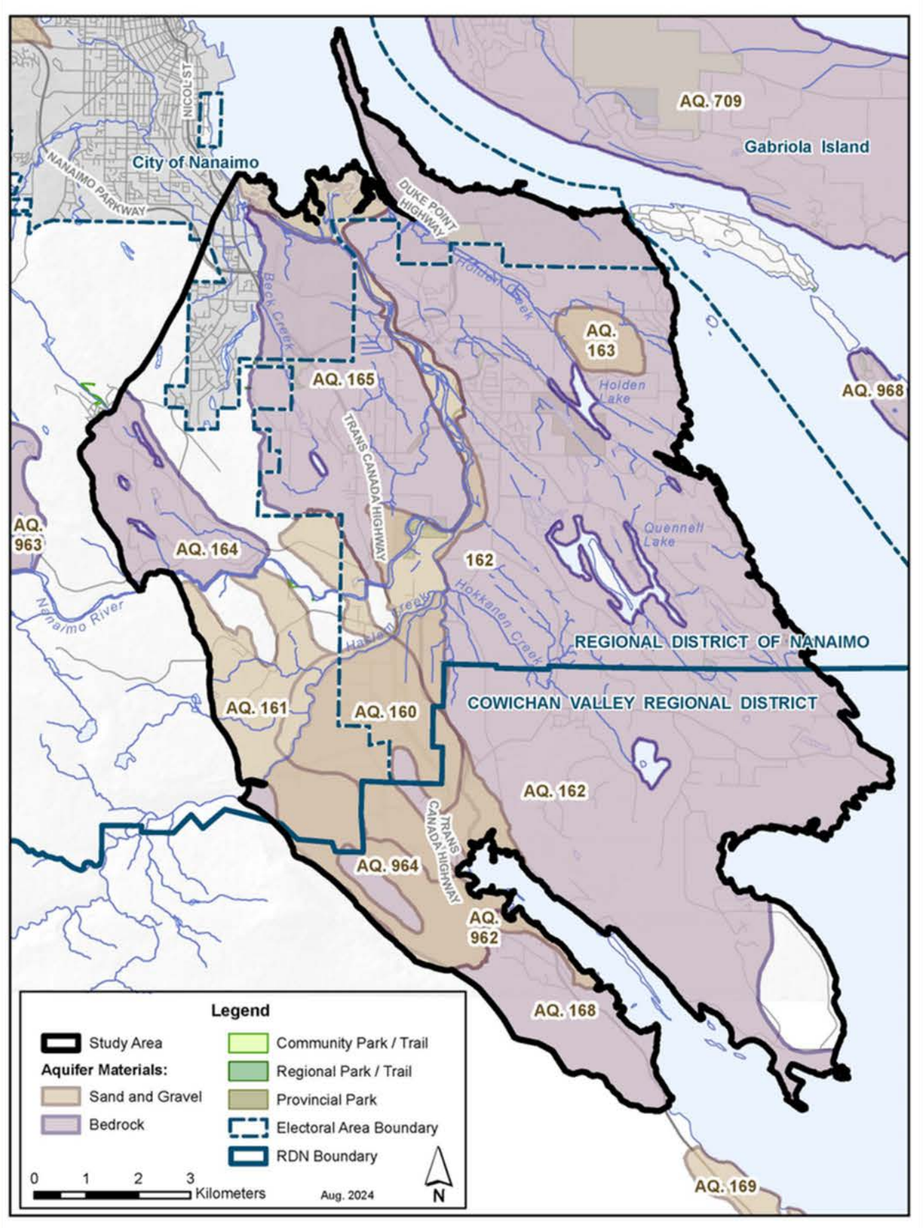
- Focus on water quantity (both surface water and groundwater)
- Provide an understanding of boundary and availability conditions
- Develop a tool to support sustainable land and water use decisions

photo credit: Holden Lake by Steve Hay

CEDAR-YELLOWPOINT WATER BUDGET - UPDATE

PROJECT OBJECTIVES

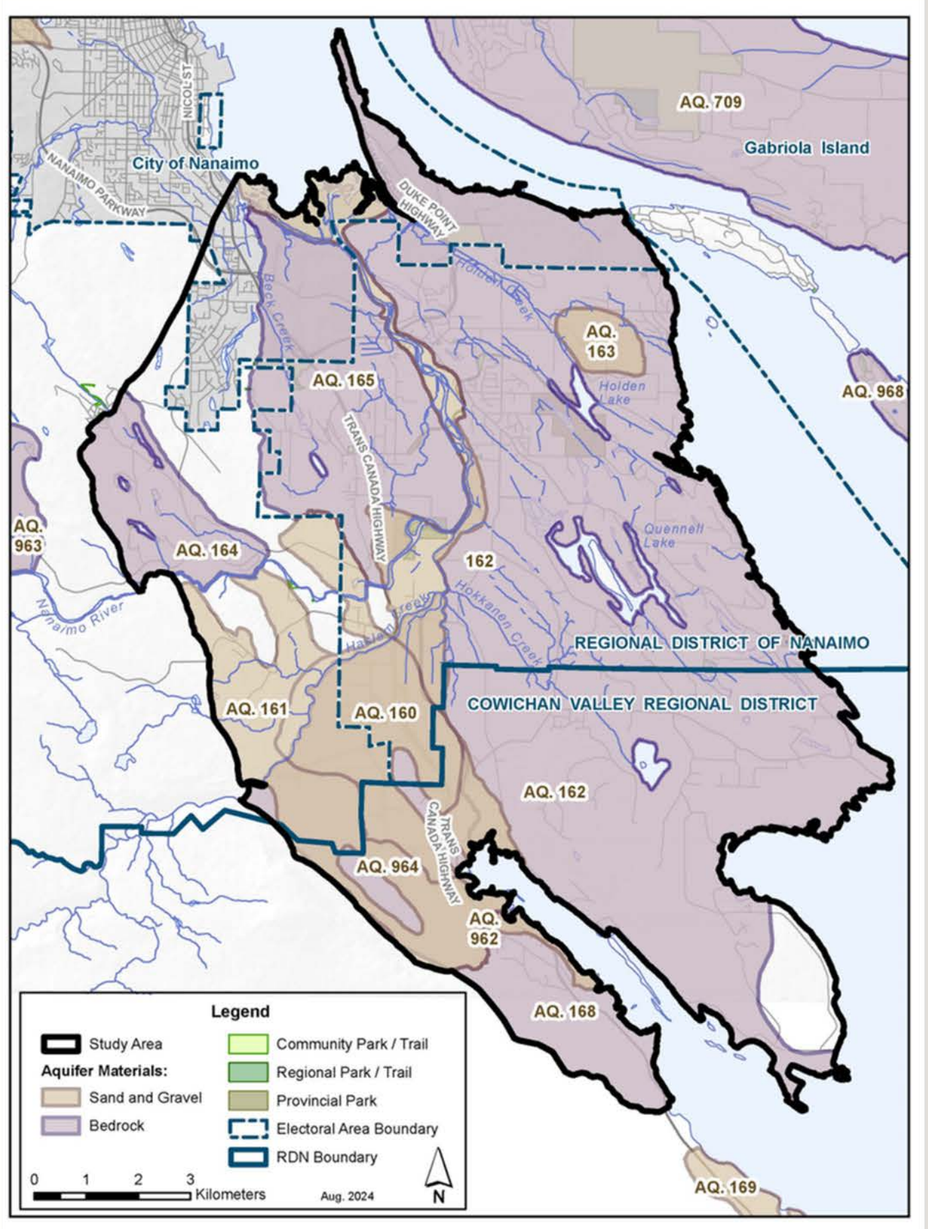
- Build on work completed in the Phase 1 (Waterline, 2013) and Phase 2 (Piteau, 2017, monitoring sites establishment and ongoing data collection)
- Develop and calibrate a coupled groundwater-surface water numerical model for the project area
- Numerical model will be used to conduct refined water budgets for the watersheds and aquifers in the defined project area and identify areas of relatively higher water stress (*four scenarios)*
- The results will provide a technical basis to support strategic decision making for sustainable management of water resources
- Opportunity to develop common understanding with other governments including First Nations, City of Nanaimo, and Cowichan Valley Regional District as well as a number of water users and providers



CEDAR-YELLOWPOINT WATER BUDGET - UPDATE

PROGRESS

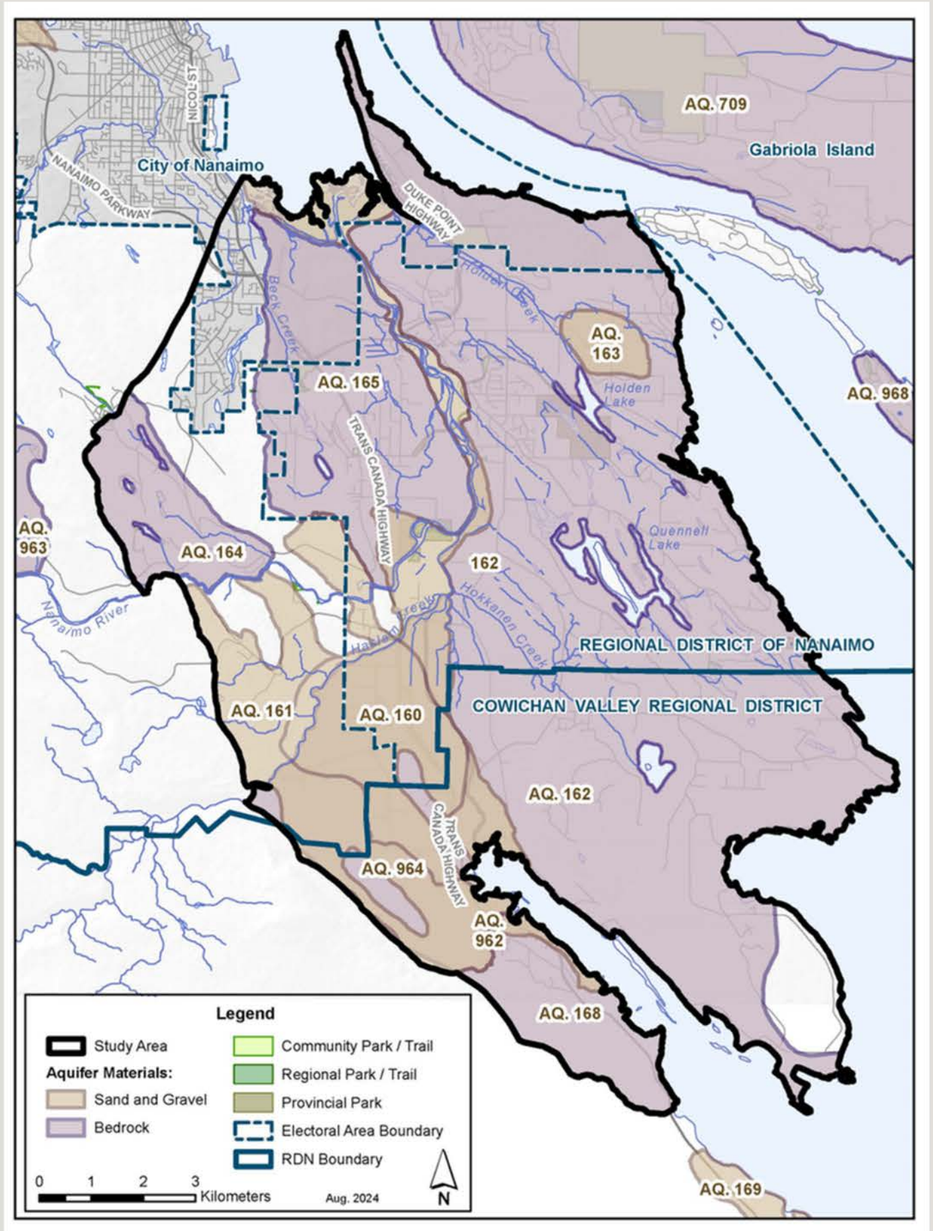
- Contract award to WSP
- Project kick-off / initiation
- Beginning project scope sharing with identified Project Working Group participants
  - clarity about the data and the assumptions it outlines
  - sharing the approach
  - “bringing people along” / trust in the process/product
- Beginning data compilation - requests going to project partners for reports and data sets to inform the project



CEDAR-YELLOWPOINT WATER BUDGET - UPDATE

NEXT STEPS

- Project Partner Engagement Meeting - *late March/early April*
- Data compilation and analysis, model selection
- Numerical model development and calibration
  - Groundwater model development / calibration
  - Hydrologic model development / calibration
- Water budget analysis and stress assessments
  - evaluation of groundwater-surface water interaction
  - Water budget model analysis with scenarios (anticipated climate, landcover, water use changes)
  - aquifer stress assessments
- Reporting, recommendations, and presentation to the DWWP TAC (late 2025)



COMMUNITY WATERSHED MONITORING NETWORK
STRATEGIC PLANNING

Purpose:

To review the RDN Community Watershed Monitoring Network and refresh its strategic direction for the next 5 years, based on past learnings, current momentum, and related priorities.

As stated within the DWWP Action Plan, the vision for the network is not to be limited to surface water quality only, but to extend the concept to all water monitoring in the region's watersheds that involves the RDN and community partners.

COMMUNITY WATERSHED MONITORING NETWORK

REGIONAL DISTRICT OF NANAIMO

ACTION

STEWARDSHIP, OUTREACH, POLICY

- Stream / riparian enhancement & restoration
- Green infrastructure
- Licensing / permitting
- Education & Outreach
- Development review
- Best management practices

REPORTING

ENGAGEMENT

- Stream keepers
- First Nations
- RDN
- Province
- consultants
- volunteers

healthy aquatic habitats
effective stormwater management
climate resilient water supplies

DATA COLLECTION

WATER CHEMISTRY

Surface water quality

PHYSICAL ASSESSMENTS

Surveys
Mapping

STREAMFLOW / HYDROMETRIC

Lake levels
stream discharge
Groundwater
Rain gauge

BIOLOGICAL

Smolt counts
Benthic invertebrates

INFOGRAPHIC: thefuselight.com

COMMUNITY WATERSHED MONITORING NETWORK
STRATEGIC PLAN – WHAT WILL IT INCLUDE?

- What is being done: An inventory of what monitoring / stewardship is being done (or has been done) per group in which systems
- What has been found so far:
  - Summary of what monitoring findings point towards, what issues need to be addressed, determine what is outside of the scope of the network
  - Recommendations on what should continue / where to focus next
- What are possible next steps: Detailed and implementable next steps
  - A roadmap of how implementation occurs
  - General timelines
  - Identification of leadership, resources, partners, etc.
- Map out a framework for implementation
  - produce clear direction for CWMN Strategy for DWWP staff work planning and an approach for the next 5+ year horizon

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COMMUNITY WATERSHED MONITORING NETWORK
STRATEGIC PLANNING – ENGAGEMENT PLANNING

- **Monitoring 2025 Planning - meetings with stewardship partners**
  - Through March / April
  - Discussion of monitoring options for this year
  - Increased SSF funding to support initiatives
- **Participatory Mapping**
  - online mapping tool embedded in the Get Involved Watershed Stewardship hub
  - Webinar, tutorial video, or step-by-step guide to support participation
  - Exploratory / sharing tool to connect the broader community with knowledge about watershed health and work to prioritize future projects
- **Survey**
  - Questions that will help articulate what is “going well” with contributions and participation in the CWMN
  - Problem Definition Worksheet to help clarify and frame the gaps or issues within the program
- **Streamside Dialogues**
  - Open forums for discussing community concerns, sharing local knowledge, and exploring opportunities for collaborative monitoring efforts. Participants have the opportunity to voice observations and ideas for watershed protection.

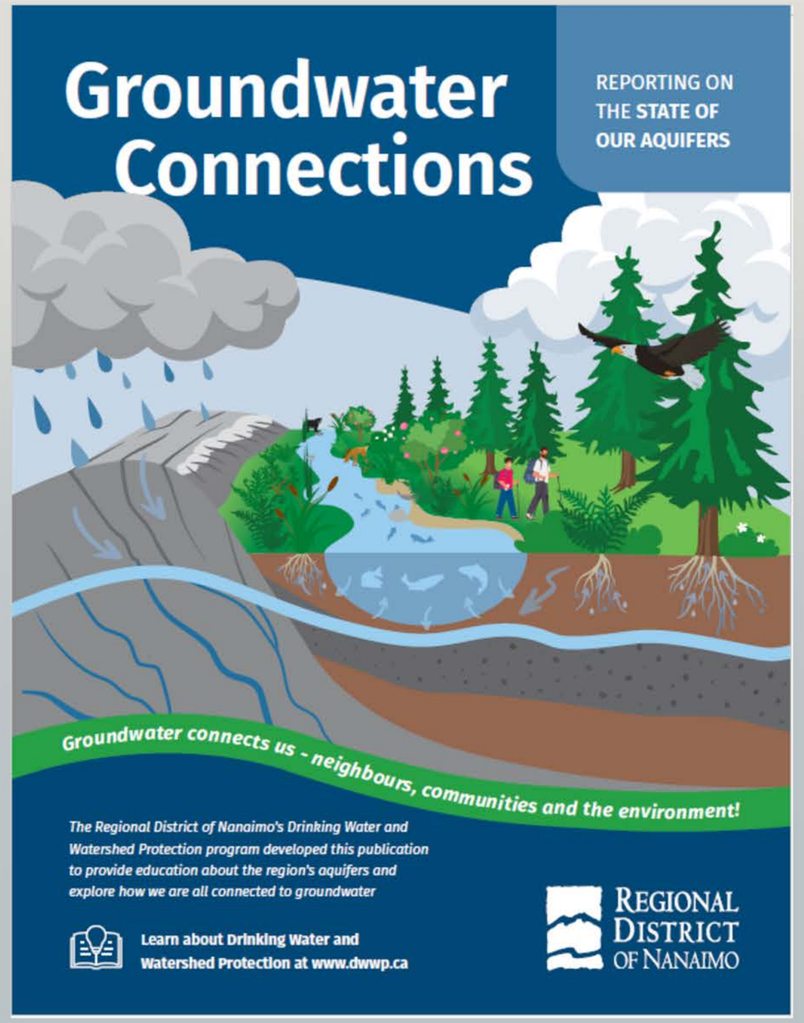
COMMUNITY WATERSHED MONITORING NETWORK
STRATEGIC PLANNING – ONGOING COMMUNICATION

TOOL	DETAILS
RDN Get Involved Web Platform	Maintaining connections with participants through the RDN Watershed Stewardship Get Involved page, which will include the survey platform, participatory mapping tool, posts about upcoming events, and reporting back on findings
Social Media Posts	Sharing information about the progress, engagement events and dates, and to recruit participants on platforms included in the RDN social media tools such as Facebook and Instagram.
Newsletter / Blog Posts	Distributed online through the RDN Watershed Stewardship Get Involved page, this will inform participants of the details of the planning process and provide forum for sharing more detailed updates on the process.
Ongoing participation in local roundtables & stewardship forums	Provide updates and share information about upcoming events and status of planning process through forums such at the Nanaimo River Watershed Roundtable and the Mid Island Stewardship Caucus

COMMUNITY WATERSHED MONITORING NETWORK
STRATEGIC PLANNING - NEXT STEPS

- Complete development of monitoring inventory
- Meet with stewards - monitoring / restoration 2025
- Additional engagement (online and in-person through the year)
- Drafting the strategic plan components
- Review and iteration with partners
- Implementation with adaptive approach

GROUNDWATER CONNECTIONS PUBLICATION



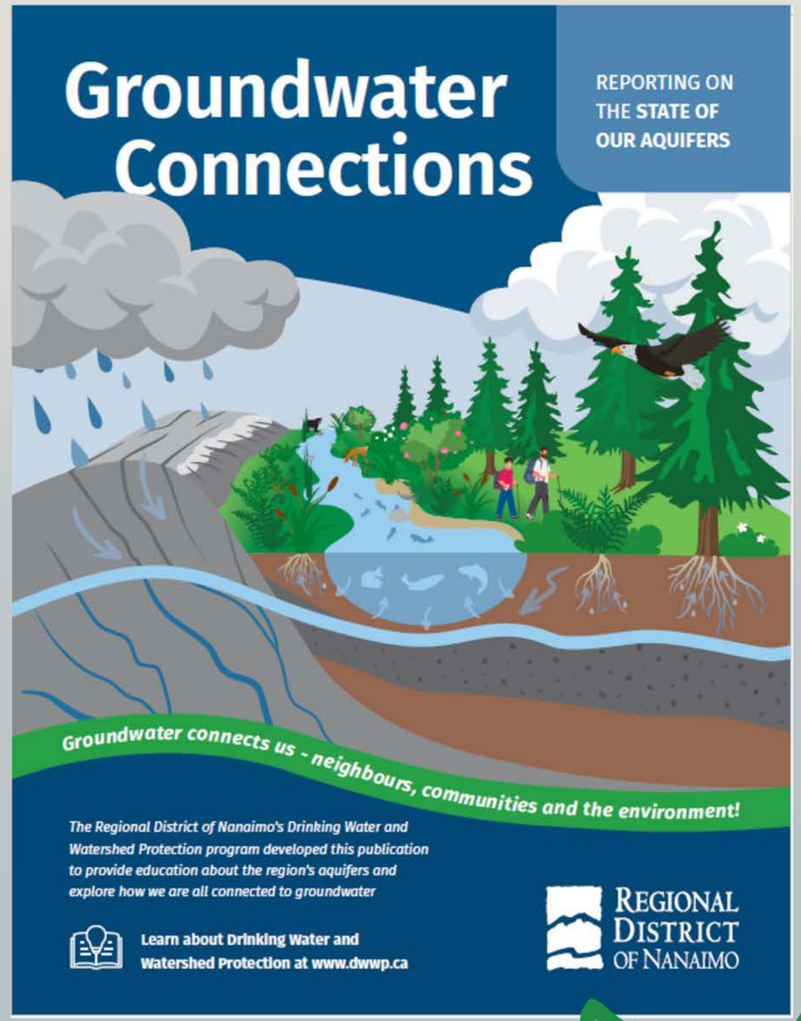
- Intent is to provide an accessible format publication that increases understanding of local groundwater resources to RDN residents
  - *groundwater is dynamic*
  - *groundwater is affected by our actions*
  - *groundwater connects us*

- Distribution to residents on groundwater across the RDN (approx. 36,000 households) with additional print-outs for sharing at events with Team WaterSmart

- Mail-out ahead of Water to Earth Month in March

- 90% complete; some minor edits in images and text
  - **TAC members are invited to provide minor comments / edits by Friday, February 28th**

GROUNDWATER CONNECTIONS PUBLICATION



- Introduces terminology and groundwater characteristics, highlights where groundwater is connected to various activities and processes (human and natural)
- Snapshot of groundwater level trends across the region and description of groundwater monitoring program
- Selection of 4 demonstrations of local examples that illustrate groundwater connections:
  - groundwater / surface water connectivity
  - salt water intrusion in a coastal aquifer
  - groundwater levels in a changing climate
  - water use and aquifer recovery
- A “call to action” with an array of recommendations for water smart activities that can protect the shared resource

GROUNDWATER CONNECTIONS PUBLICATION

Our Regional Aquifers

The Regional District of Nanaimo (RDN) is located on the central east coast of Vancouver Island and is located within the traditional territories of the Snuneymuxw, Snaw-naw-as and Qualicum First Nations. Communities within the region include the municipalities of Nanaimo, Lantzville, Parksville and Qualicum Beach, as well as seven unincorporated Electoral Areas. The RDN is home to over 170,000 people. About half of the residents in our region rely on groundwater for their water supply. Municipalities, regional district water services, improvement districts, small water system operators, and private well owners use groundwater wells to access water from regional aquifers.

An aquifer is an underground layer of permeable rock, sand or gravel that stores and transports groundwater. Aquifers can be defined as Bedrock Aquifers or Sand and Gravel Aquifers.

Sand and Gravel Aquifers consist of loosely packed sand, gravel and sediments, where spaces between particles store and transmit water.

Bedrock Aquifers store water within solid rock formations, where fractures, joints and faults store and transmit water.

Monitoring Groundwater Trends in the Region

Monitoring and measuring groundwater is essential to understand the condition of this precious resource. **Observation wells** provide a means of monitoring groundwater level, connectivity and trends.

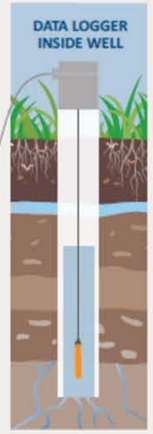
Within the RDN, 35 observation wells are operated by the Government of British Columbia through the **Provincial Groundwater Observation Well Network (PGOWN)**. In addition, the RDN's Drinking Water and Watershed Protection Program's **Volunteer Observation Well (VOW)** network operates 31 observation wells in partnership with private well owners who have volunteered their wells to participate in this monitoring program.

Using specialized groundwater level monitoring equipment (pressure transducers often referred to as data loggers), the RDN collects groundwater level data that is recorded every 15 minutes. Some of the data loggers measure electrical conductivity, a measure of mineral content or salinity, to observe potential saltwater intrusion in coastal wells. RDN staff regularly download the recorded data from the loggers and then report findings annually. This helps to track seasonal fluctuations and yearly changes in the water table within aquifers across the region. Groundwater data are best observed over the long term, for a minimum of 10 years, to meaningfully understand trends and connections.

Collecting information and making it accessible to residents, as well as local and provincial decision makers, means we can take care of our shared groundwater sources.

Groundwater is an important drinking water source in our communities and plays a key role in contributing to streamflow that supports aquatic habitat and environmental health. Collecting information and making it accessible to residents and local and provincial decision makers helps to care for collective groundwater sources.

Learn more about the RDN's Volunteer Observation Well Network at **rdn.bc.ca/groundwater-monitoring**



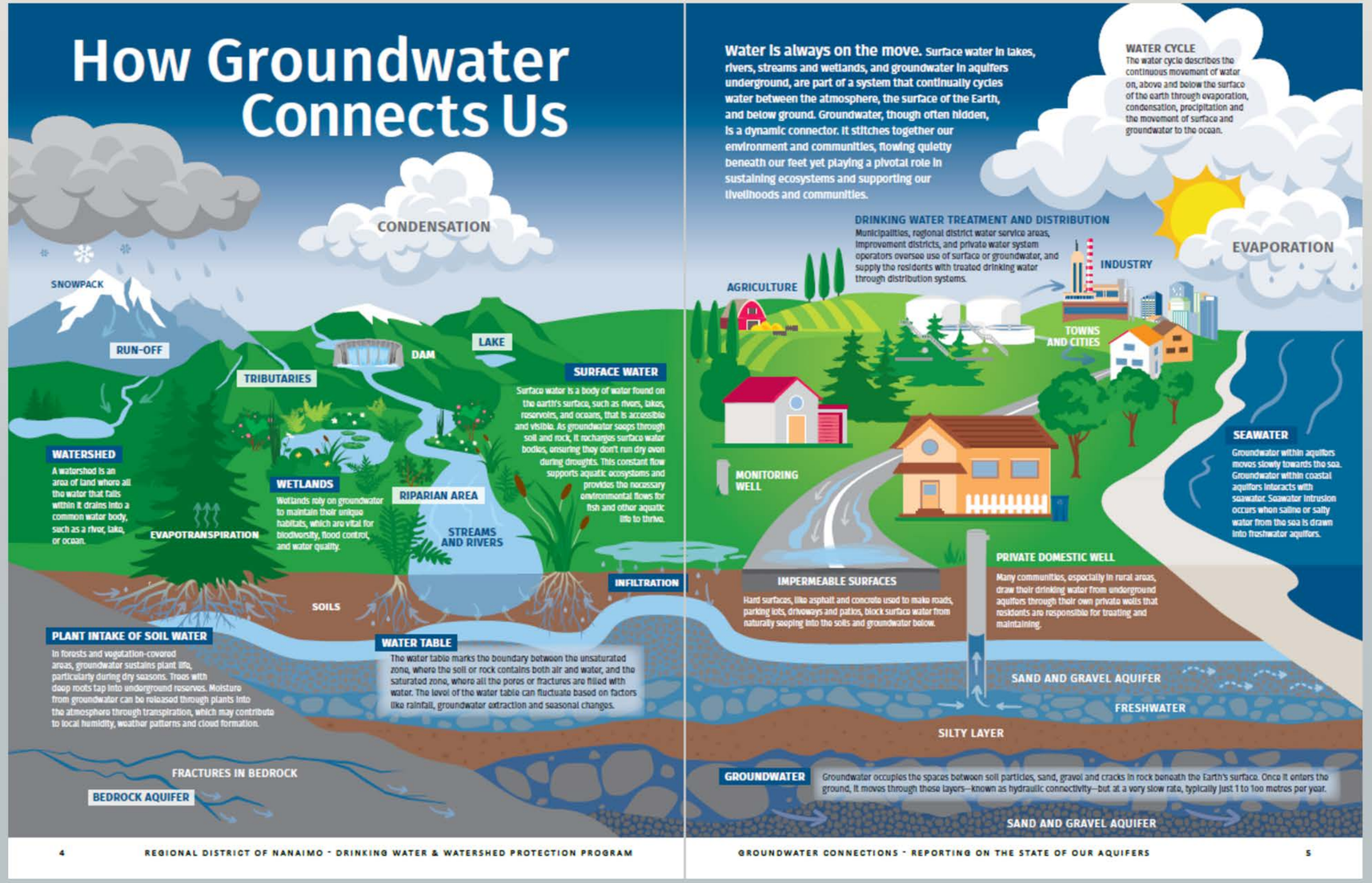
The table below shows water level trends in aquifers across the region. Bedrock aquifers and sand and gravel aquifers behave differently and it is important to monitor both. Bedrock aquifers in our region are generally lower yielding and more vulnerable to drought. In sand and gravel aquifers, productivity and seasonal impacts are variable – some are high yielding with lots of storage; others are more moderate yielding and more susceptible to overpumping and drought. Groundwater levels can vary across an aquifer depending on connectivity or the movement of water between aquifers or to a surface water source.

Of the 22 aquifers mapped and monitored in the region for groundwater levels in 2024, longer term trends indicate that five show **increasing** trends where groundwaters levels are observed to be closer to the surface, four have **stable** water levels where no significant changes are seen, five sites have **declining** trends where water levels are moving deeper, and eight of the aquifers have variable results where long-term trends are inconsistent across the monitoring sites of an aquifer.

Aquifer Location	Aquifer #	# of Observation Wells	Water Level Trend (last 5 years)	Water Level Trend (more than 5 years)
Deep Bay, Bowser	416	2	Declining -0.03 to -0.19m per year	Stable
Qualicum Bay, Dashwood	662	2	Declining -0.08 to -0.22 m per year	Variable 0 to +0.04 m per year
Little Qualicum River Valley	664	1	Stable	Stable
Errington, Coombs	220	1	Declining -0.24 m per year	Declining -0.27 m per year
Qualicum Beach, Coombs	217	3	Variable -0.09 to +0.08 m per year	Variable -0.08 to +0.09 m per year
Qualicum, French Creek, Parksville (coastal)	212	1	Declining -0.10 m per year	Declining -0.06 m per year
Parksville, French Creek	216	4	Increasing +0.02 to +0.81 per year	Increasing +0.15 to +0.46 m per year
French Creek (lower)	1250	5	Variable -0.22 to +0.55 m per year	Increasing 0 to +0.32 m per year
Central Nanoose (upper)	219	4	Declining -0.07 m per year	Declining -0.10 m per year
Central Nanoose (mid)	1098	4	Increasing +0.06 to +0.26 m per year	Increasing +0.04 to +0.48 m per year
Nanoose	214	5	Variable -0.34 to +0.36 m per year	Variable -0.19 to +0.30 m per year
Nanoose	218	3	Declining -0.05 to +0.39 m per year	Declining -0.01 to -0.37 m per year
Lantzville	213	3	Increasing +0.07 to +0.35 m per year	Increasing +0.15 to +0.24 m per year
Lantzville	215	3	Variable -0.23 to +0.03 m per year	Variable -0.12 to +0.04 m per year
East Wellington, Westwood Lake	167	1	Stable	Stable
Benson Meadows, Jingle Pot	211	1	Declining -0.14 m per year	Declining -0.58 m per year
Cassidy (lower)	160	2	Stable	Variable -0.06 to +0.01 m per year
Cassidy (upper)	161	2	Variable +0.01 to +0.05 m per year	Variable -0.06 to 0 m per year
Cedar, Yellowpoint	162	7	Variable -0.23 to +0.09 m per year	Variable -0.22 to +0.13 m per year
Cedar	163	1	Stable	Stable
South Wellington	165	2	Increasing +0.17 to +0.34 m per year	Increasing +0.03 to +0.14 m per year
Gabriola Island	709	5	Variable -0.06 to +0.36 m per year	Variable -0.05 to +0.02 m per year

Sand and Gravel | Bedrock

GROUNDWATER CONNECTIONS PUBLICATION



GROUNDWATER CONNECTIONS PUBLICATION

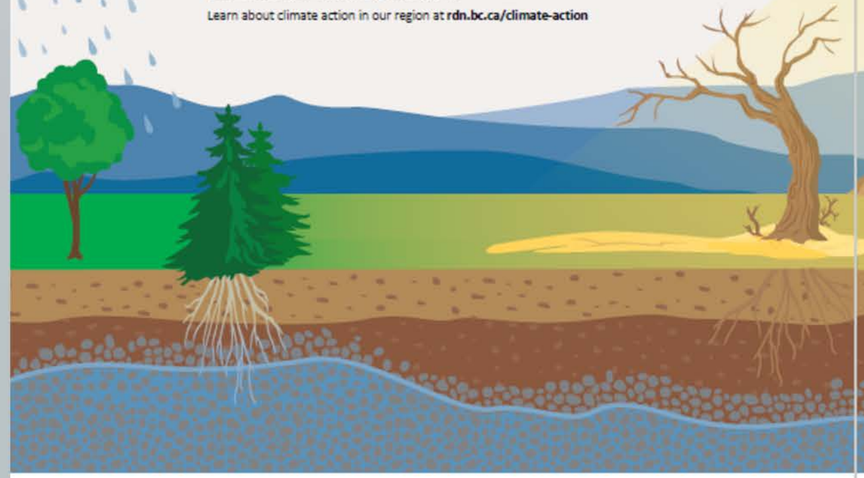
Our activities, at both small and large scales, impact shared community aquifers. As shared in the next few pages, four examples have been selected to illustrate where we are observing impacts of human uses on regional groundwater supplies. These include climate change impacts, groundwater and surface water interaction, the effects of water conservation and seawater intrusion in coastal aquifers. While these are not necessarily representative of the overall state of regional aquifers, they can highlight how careful consideration of our use of this resource is essential to maintaining it over the long term. The data reported comes from well levels from the **Provincial Groundwater Observation Well Network (PGOWN)** and the **RDN Volunteer Observation Well Network (VOW)**, and **local water service provider production wells**.

Challenges exist with field data collection and can result in gaps in a data set, expressed as blank sections in the graphs Data gaps can occur from equipment failures, operating errors and staffing shortages. For more information about the graphs included in this newsletter, please contact **waterprotection@rdn.bc.ca**

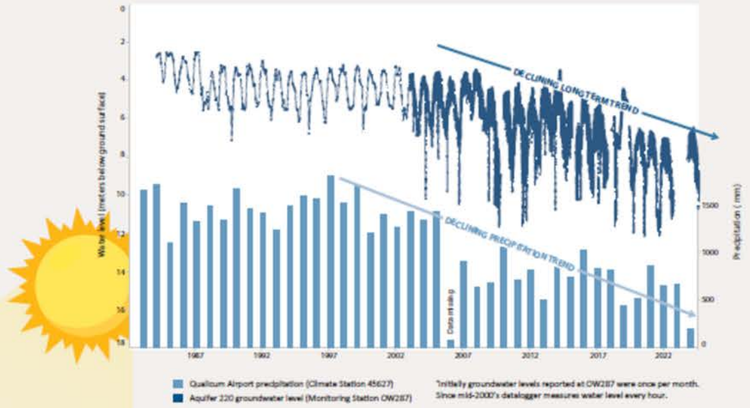
1: Groundwater Level in a Changing Climate

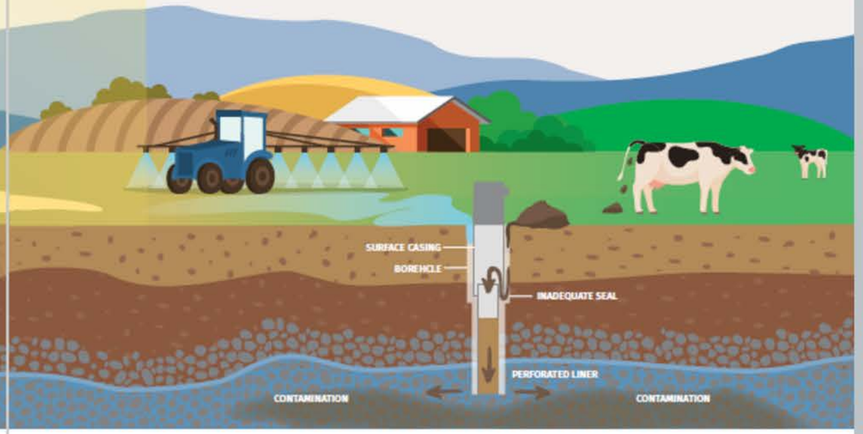
Climate change in our region, particularly through shifts in precipitation patterns and sea level rise, affects groundwater levels and quality. Changes in precipitation can lead to altered recharge rates for aquifers. Reduced rainfall in some areas decreases groundwater replenishment, while more intense rainfall can lead to surface run-off, limiting infiltration into the ground. Sea level rise poses a particular threat to coastal aquifers, as it can cause seawater intrusion. This is where saline water encroaches into freshwater aquifers, degrading water quality. This salinization can reduce availability of potable groundwater and harm ecosystems that depend on freshwater. Additionally, extreme weather events driven by climate change, like storms and flooding, can carry pollutants into groundwater systems, affecting water quality.

Learn about climate action in our region at **rdn.bc.ca/climate-action**



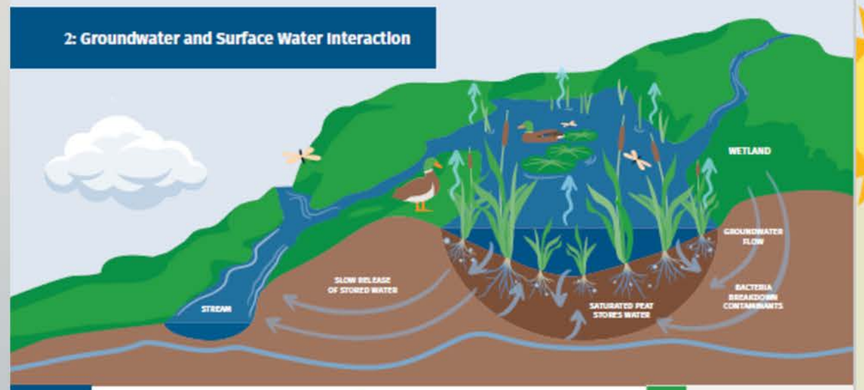
Since 1984, Aquifer 220 (fractured bedrock) has been monitored by OW287. Data from this site shows **declining** groundwater levels. This aquifer, located in the Coombs-Errington area, is affected by increased groundwater use, pumping of adjacent wells and changes in annual **precipitation** (as observed at the Qualicum Beach Airport weather station). Limited aquifer storage is common in fractured bedrock aquifers and may also be having an effect. Groundwater conservation and protecting important recharge areas are key strategies to safeguard groundwater resources from these types of cumulative impacts.

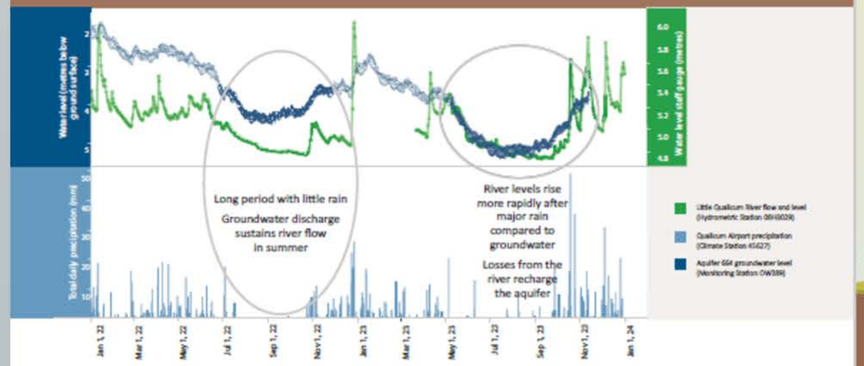




GROUNDWATER CONNECTIONS PUBLICATION

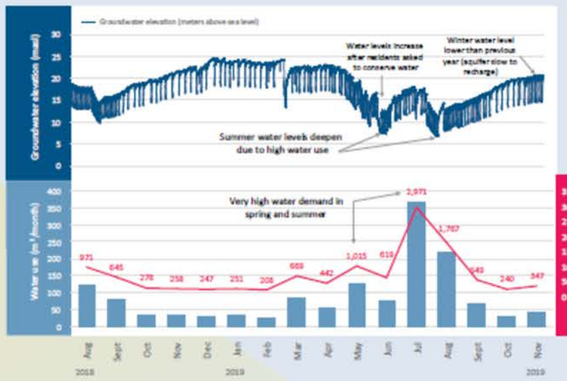
2: Groundwater and Surface Water Interaction





Aquifer 664 and the Little Qualicum River are hydraulically connected. When water levels in the river increase after rain events, the groundwater levels in Aquifer 664 (as observed in OW389) also rise and respond with a similar pattern. Aquifer 664 is an unconfined sand and gravel aquifer located in the lower flood plain of the Little Qualicum River. The river is a source of recharge to the underlying aquifer. During long, dry summers, flow in the river is maintained by the connected groundwater source. Water use and management need to consider the connections between the sources, as groundwater pumping can have an effect on stream flows.

3: Groundwater Level and Water Conservation

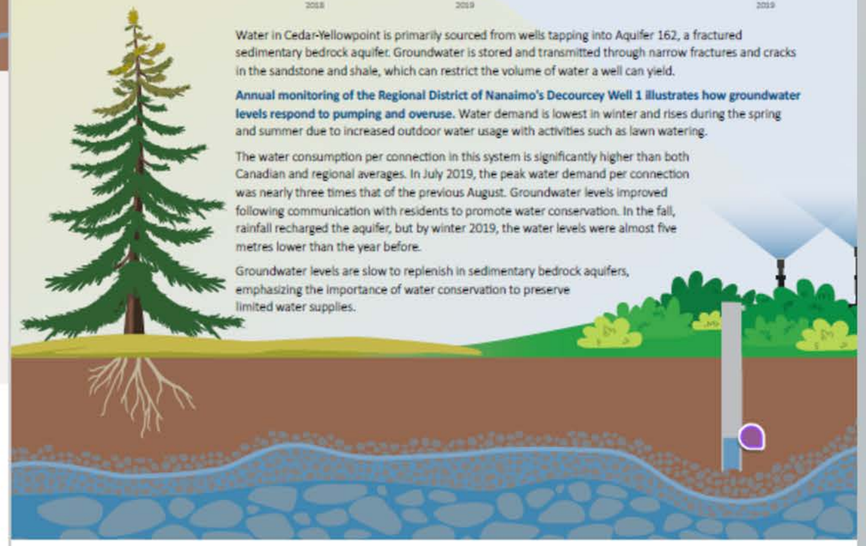


Water in Cedar-Yellowpoint is primarily sourced from wells tapping into Aquifer 162, a fractured sedimentary bedrock aquifer. Groundwater is stored and transmitted through narrow fractures and cracks in the sandstone and shale, which can restrict the volume of water a well can yield.

Annual monitoring of the Regional District of Nanaimo's Decourcey Well 1 illustrates how groundwater levels respond to pumping and overuse. Water demand is lowest in winter and rises during the spring and summer due to increased outdoor water usage with activities such as lawn watering.

The water consumption per connection in this system is significantly higher than both Canadian and regional averages. In July 2019, the peak water demand per connection was nearly three times that of the previous August. Groundwater levels improved following communication with residents to promote water conservation. In the fall, rainfall recharged the aquifer, but by winter 2019, the water levels were almost five metres lower than the year before.

Groundwater levels are slow to replenish in sedimentary bedrock aquifers, emphasizing the importance of water conservation to preserve limited water supplies.



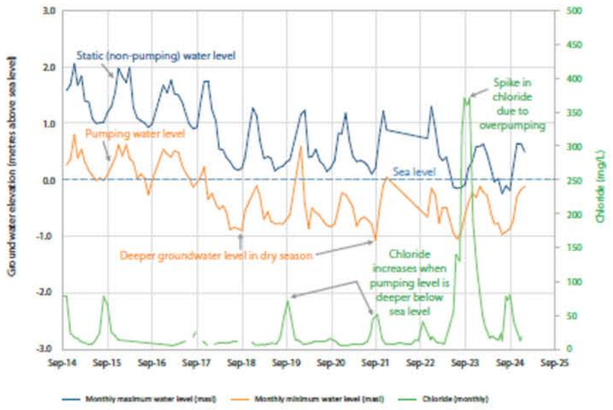
GROUNDWATER CONNECTIONS PUBLICATION

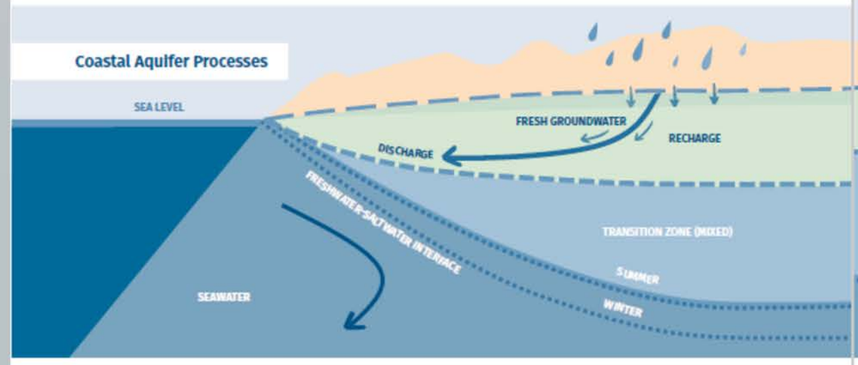
4: Seawater Intrusion

The Surfside Water System gets its groundwater from Aquifer 664, a sand and gravel aquifer located in the river delta where the Little Qualicum River meets the ocean. This groundwater exists as a shallow layer of freshwater above a mixed brackish transition zone and a deeper layer of salty seawater.

Chloride is a component of salt, and its presence in groundwater can indicate the intrusion of seawater. When groundwater levels are pumped below sea level, it can cause seawater from the deeper layers, or the brackish transition zone, to mix with the freshwater. This mixing increases the chloride concentration in the groundwater, making it saltier.

Over time, chloride levels have been rising in the Surfside wells. To protect this freshwater resource and prevent further seawater intrusion, it is crucial to continue monitoring, limit groundwater drawdown and practice water conservation.





In coastal areas, fresh groundwater floats on seawater, forming a freshwater lens. Below this lens, salty water spreads inland, creating a salty zone. The meeting point of fresh and salty water is called the freshwater-saltwater interface. This balance can change seasonally and varies with fluctuation in tides and groundwater levels.

Seawater intrusion is a change in groundwater quality and occurs when seawater mixes with freshwater in an aquifer. Sea water has roughly 35,000 mg/L total dissolved solids, including 19,000 mg/L chloride, so mixing in a very small quantity of sea water can significantly alter water quality in a freshwater aquifer. Just 2% seawater can cause freshwater to taste salty (chloride 250 mg/L), while freshwater mixed with 4% seawater is unusable for many purposes including irrigation or drinking.

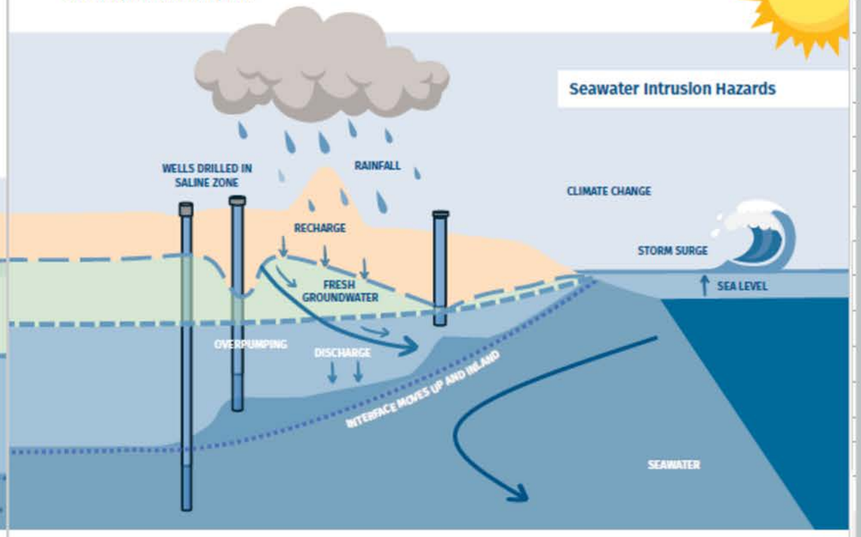
Factors increasing seawater intrusion risk:

- Aquifers in low-lying coastal areas, narrow islands, or peninsulas that have limited up-gradient recharge area.
- Groundwater levels near sea level.
- Coastal areas with a high density of wells or high rates of groundwater pumping.
- Deep wells intersecting salty zones.

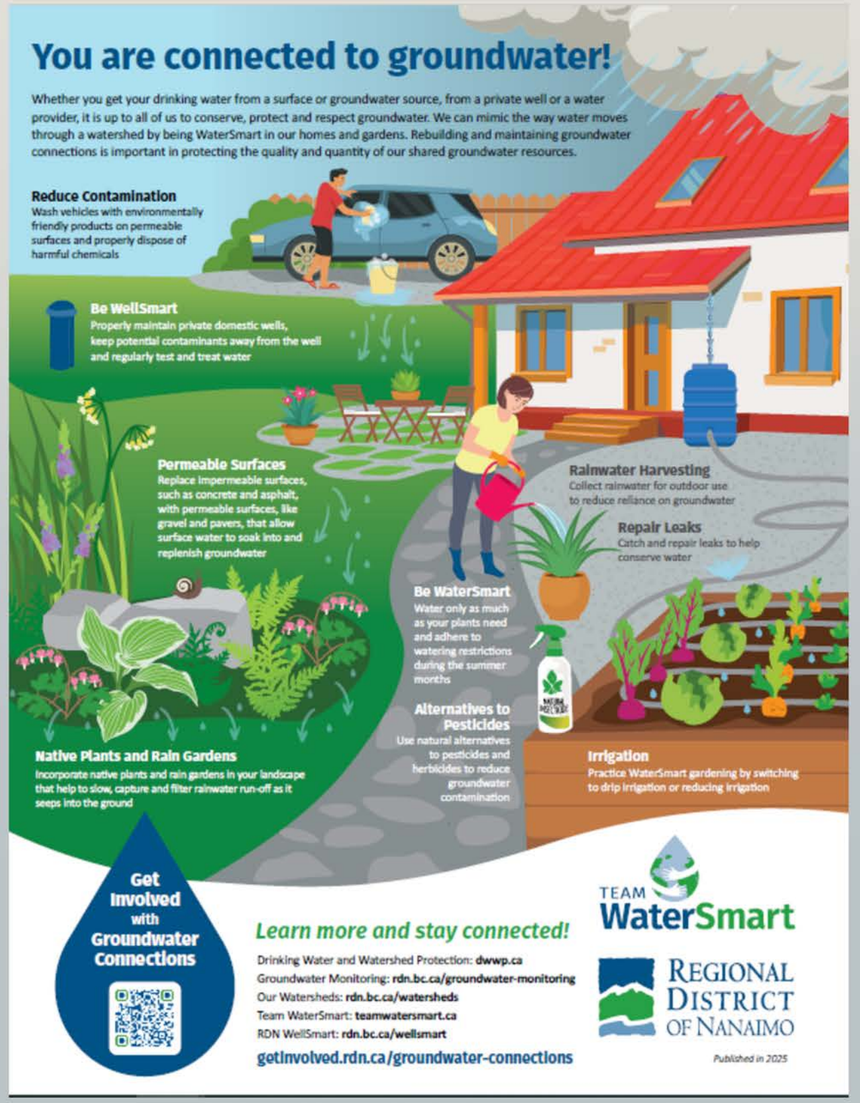
Climate change is expected to influence existing sea water intrusion hazards by:

- Raising sea levels and flooding low areas.
- Increasing storm surges that can over top and flood lower elevation coastal zones.
- Changes in precipitation, higher temperatures and increased rates of evapotranspiration and reduced groundwater recharge will limit the groundwater discharge areas along the coast, enabling sea water to encroach further inland.

Human water use impacts sea water intrusion hazards. High demand and excessive pumping stresses aquifers and can draw salty water upwards and inland. Managing water demand and practicing water conservation during dry months is crucial to protect coastal aquifers.



GROUNDWATER CONNECTIONS PUBLICATION



GROUNDWATER CONNECTIONS GET INVOLVED

An online interactive portal that aims to:

- expand on the concepts presented in the ***Groundwater Connections*** publication
- offer educational resources to residents about regional groundwater and inspire stewardship
- provide a space for residents to share feedback and ask questions
- act as a 'living document' that can be updated regularly moving forward

getinvolved.rdn.ca/groundwater-connections

WATER TO EARTH MONTH 2025

March 22 -World Water Day “Glacier Preservation”

April 22- Earth Day “Our Power, Our Planet”

Additional local themes for 2025- “Rainwater Management” and “Groundwater Stewardship”

- *Align with the release of the “Groundwater Connections” publication and website launch*

- With Community Partners:
  - City of Nanaimo
  - NALT
  - MABRRI
  - Mosaic
  - Brant Festival
  - RDN Sustainability, Parks and Solid Waste, and Wastewater Departments

WATER TO EARTH MONTH

Highlights this year include:

- **Water Day River walk at Nanaimo River**
- **Departure Creek Stream walk with Dave Clough and stream keepers**
- **Earth Day Festival at Bowen Park**
- **Raingarden Self-guided Tour**

More events to be added

Date	Event	Location	Host
8-Mar	GNPCC- Open House and Tour Day	GNPCC	RDN Wastewater
13-Mar	Brant Childrens Festival	Arrowview Elementary	Brant Festival
22-Mar	Water Day River Walk @ Nanaimo River	Nanaimo River Regional Park	RDN DWWP & Parks
4-Apr	Departure Creek Streamwalk with Dave Clough and DC Streamkeepers	Departure Creek, Nanaimo	RDN DWWP
April 4-7	Brant Festival (12+ events)	MABR	MABRRI
11-Apr	Nanaimo Watershed and Treatment Plant Tour	Nanaimo	City of Nanaimo
13-Apr	Earth Day Festival	Bowen park	RDN & Nanaimo plus many more
22-Apr	Invasive Plant Workparty		City of Nanaimo
TBD	Septic Smart Workshop		RDN Wastewater
23-Apr	WellSmart Workshop	Meadowood RDN Area G	RDN DWWP
All month	Raingarden Self-Guided Toour	Region-wide	RDN DWWP
All month	Online Quizzes and Games	Get Involved, Social Media	RDN DWWP
All month	Information Display at MABR House	MABR House, Qualicum Beach	RDN DWWP & MABR

www.getinvolved.rdn.ca/team-watersmart

Raingarden Self-Guided Tour

- Self- guided tour to 3 locations in North and 5 in South
- Get Involved page will also have a list of raingarden locations and the opportunity to enter to win prizes after visiting at least one raingarden location
- This handout will be edited for after W2E month to be included in Team WaterSmart's handouts

Memorial Drive, Qualicum Beach

The Rain Garden cleanses the rainwater run-off from the commercial core through stormwater drains, while providing an aesthetic lift to the main gateway to Qualicum Beach. The Rain Garden reduces flooding and stream erosion, supports summer stream flows, and minimizes water pollution.

Parksville Fire Rescue, 160 Jensen Street, Parksville

The Raingarden was built by MVIHES and the City of Parksville in 2012 and was planted with native vegetation. Over the following eight years it grew into an unsightly, impenetrable jungle and was unrecognizable as a Raingarden. In 2020 and 2021, MVHES volunteers worked hard at cutting back the vegetation to make this raingarden back to it's more 'manicured' state. Volunteers annually maintain this raingarden which helps filter pollution from stormwater before it enters nearby streams

Kwalicum Secondary School , Qualicum Beach

This project was made possible by the Town of Qualicum Beach, the Pacific Salmon Foundation, TD Friends of the Environment, MVIHES, and volunteers from Qualicum Beach Streamkeepers and Kwalikum Secondary students.

The purpose of the rain garden is to absorb rainwater run-off from impervious surfaces (roofs, roadways, sidewalks, and even compacted lawns), minimizing the amount of water entering the sewer or streams directly, in this case Beach Creek. Stormwater instead soaks into the ground, which acts as a filter and reduces the levels of pollutants that reach our streams, while minimizing surface waters that can cause erosion, water pollution, flooding and diminished ground water.

Water to Earth month 2025:

Visit one or more raingardens featured on this handout and enter to win! Visit getinvolved.rdn.ca/team-watersmart

Water to Earth Month 2025

Rain garden Self-guided tour

Parksville Fire Rescue, 160 Jensen Street, Parksville

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REGIONAL DISTRICT OF NANAIMO

I am WaterSmart

Highlighting community partnerships

RDN Admin Building 6300 Hammond Bay Road, Nanaimo

The Regional District of Nanaimo (RDN) is home to a recently updated raingarden. Located on the property of the RDN's Administration Office on Hammond Bay Road in Nanaimo, the RDN's Rain Garden was upgraded in 2024 so that it functions properly to slow, capture, and filter stormwater run-off from the surrounding landscape, parking lots, and roadways. The RDN contracted a local landscaping firm to amend the existing rain garden by removing turf and invasive plants, installing fresh soils and mulches, and planting native plants throughout the site.

The goals of the RDN's Rain Garden project include:

- Amend the existing rain garden so that it properly functions to slow, capture, and infiltrate rainwater run-off,
- Create a rain garden demonstration site to bring public awareness to rain gardens and other green infrastructure

Learn more about the RDN raingarden here →

What is a raingarden?

A rain garden is a specifically designed landscaping feature that helps manage rainwater run-off (sometimes referred to as stormwater) from roofs, driveways, sidewalks, and other impermeable surfaces. During a storm, rainwater is slowed, captured, and slowly filtered into the soils of a rain garden, rather than running directly into a ditch, storm drain, lake, river, creek, or stream. Rain gardens mimic the hydrological cycle in which water is cleansed of pollutants as it seeps into the ground to replenish the water table. Rain gardens are important green infrastructure solutions that can be adopted by local governments, businesses, organizations, communities, and households!

Raingardens at RDN Admin Building, 6300 Hammond Bay Road

A raingarden is a shallow depression in the ground filled with native plants, shrubs and trees, that is positioned strategically to capture rainwater and allow it to slowly infiltrate into the soil

RDN Admin Building 6300 Hammond Bay Road, Nanaimo

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City of N…

There are a variety of …and around the City of Nanaimo. Green infrastructure considerations are part of new projects within the City of Nanaimo, so expect to see more raingardens popping up around town!

Raingardens to visit in the City of Nanaimo:

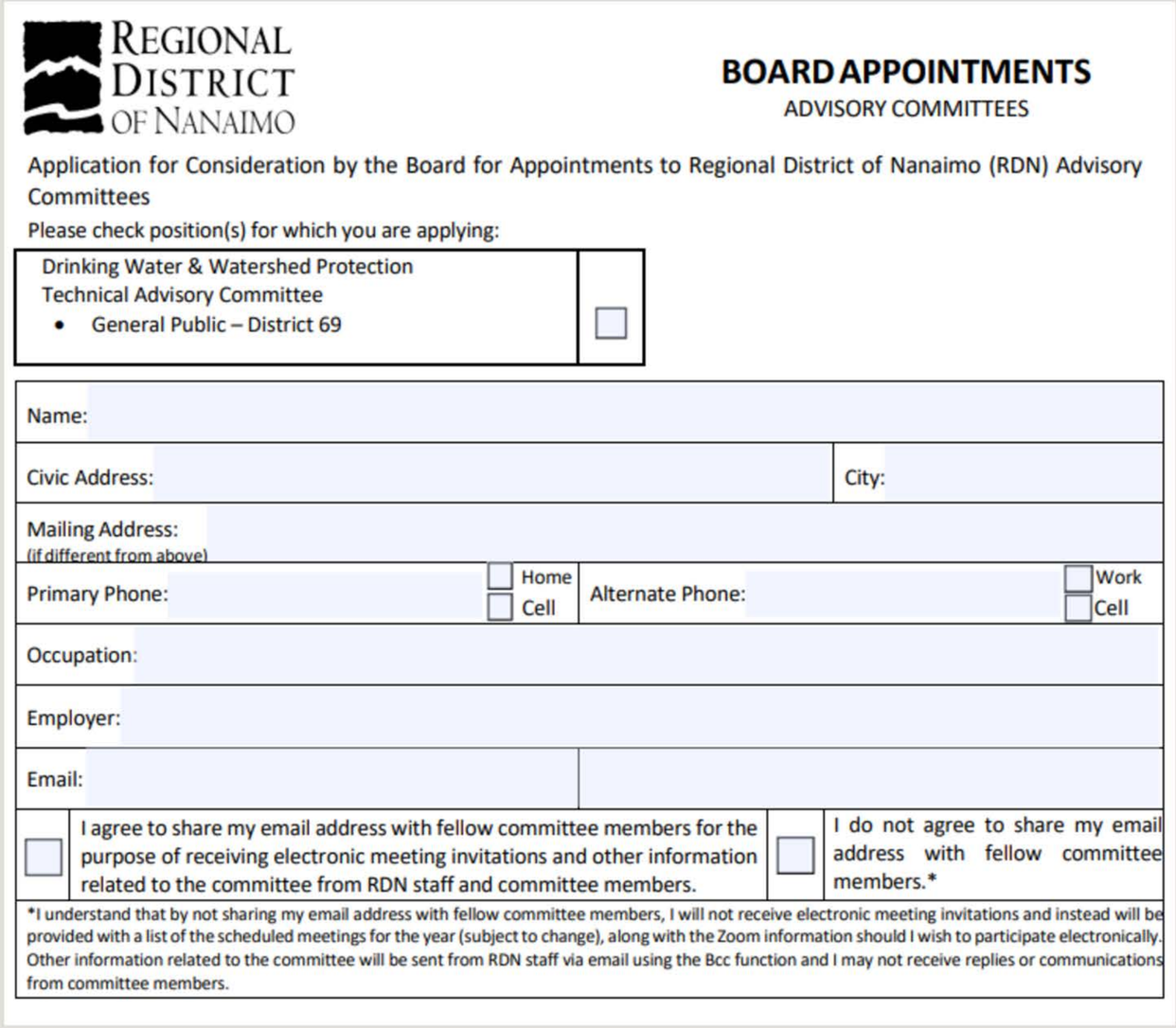
- Quality Foods on Bruce Street in Harewood
- Hawthorne neighbourhood
- Firehall #1 downtown Nanaimo
- Westwood Lake- under construction until May 2025

Green Rock Industrial park Boxwood Road, Nanaimo

Green rock industrial park is located at Boxwood road and Dufferin Crescent in Central Nanaimo. It was completed in 2013 and at the time was the first 'green' subdivision on Vancouver Island and is comprised of 23 acres of land that is unique in its use of bio-swale rainwater management systems and the retention and planting of natural vegetation that will be maintained through automated irrigation only until a root system is established.

NEW BUSINESS: ADVERTISING FOR PUBLIC REPRESENTATIVE

- District 69 Representative (north end of region)
- 2-year term
- apply online: **www.rdn.bc.ca/board-appointments-rdn-advisory-committees**



REGIONAL DISTRICT OF NANAIMO

BOARD APPOINTMENTS
ADVISORY COMMITTEES

Application for Consideration by the Board for Appointments to Regional District of Nanaimo (RDN) Advisory Committees

Please check position(s) for which you are applying:

Drinking Water & Watershed Protection Technical Advisory Committee • General Public – District 69	☐

Name:			
Civic Address:		City:	
Mailing Address: (if different from above)			
Primary Phone:	☐ Home ☐ Cell	Alternate Phone:	☐ Work ☐ Cell
Occupation:			
Employer:			
Email:			

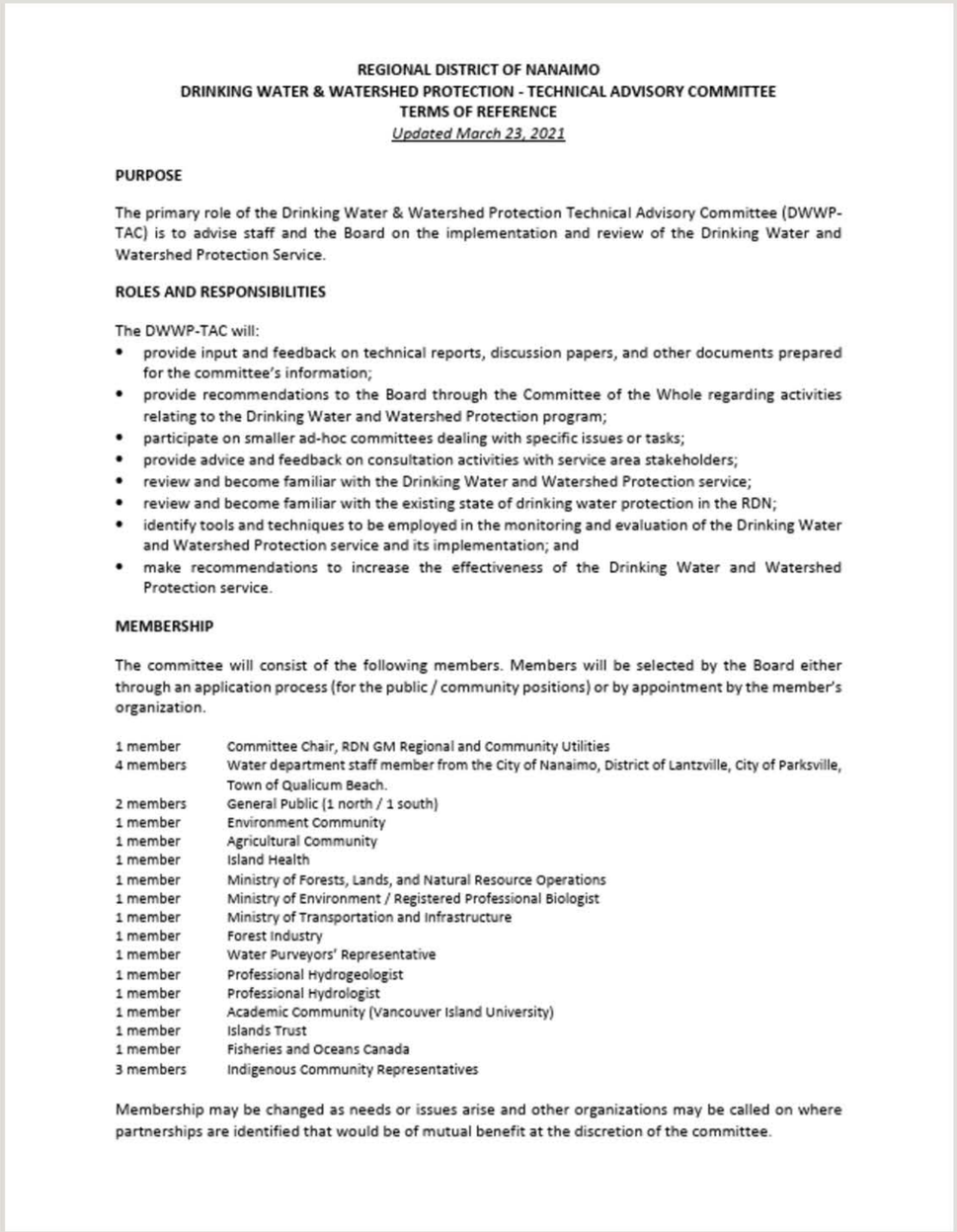
☐	I agree to share my email address with fellow committee members for the purpose of receiving electronic meeting invitations and other information related to the committee from RDN staff and committee members.	☐	I do not agree to share my email address with fellow committee members.*

*I understand that by not sharing my email address with fellow committee members, I will not receive electronic meeting invitations and instead will be provided with a list of the scheduled meetings for the year (subject to change), along with the Zoom information should I wish to participate electronically. Other information related to the committee will be sent from RDN staff via email using the Bcc function and I may not receive replies or communications from committee members.

NEW BUSINESS: DWWP TAC TERMS OF REFERENCE REVIEW

FOR DISCUSSION

- Membership
  - 1 additional City of Nanaimo staff (Planning / Sustainability focus)
  - Municipal representatives – others?
  - Community youth representative
  - Neighbouring Regional Districts? (CowVRD, CoVRD, ACRD)
  - Alternates
- Specify reporting structure? When shall committee report to the RDN Board?
- Number of meetings per year
- Other comments?



REGIONAL DISTRICT OF NANAIMO
DRINKING WATER & WATERSHED PROTECTION - TECHNICAL ADVISORY COMMITTEE
TERMS OF REFERENCE
Updated March 23, 2021

PURPOSE

The primary role of the Drinking Water & Watershed Protection Technical Advisory Committee (DWWP-TAC) is to advise staff and the Board on the implementation and review of the Drinking Water and Watershed Protection Service.

ROLES AND RESPONSIBILITIES

The DWWP-TAC will:

- provide input and feedback on technical reports, discussion papers, and other documents prepared for the committee's information;
- provide recommendations to the Board through the Committee of the Whole regarding activities relating to the Drinking Water and Watershed Protection program;
- participate on smaller ad-hoc committees dealing with specific issues or tasks;
- provide advice and feedback on consultation activities with service area stakeholders;
- review and become familiar with the Drinking Water and Watershed Protection service;
- review and become familiar with the existing state of drinking water protection in the RDN;
- identify tools and techniques to be employed in the monitoring and evaluation of the Drinking Water and Watershed Protection service and its implementation; and
- make recommendations to increase the effectiveness of the Drinking Water and Watershed Protection service.

MEMBERSHIP

The committee will consist of the following members. Members will be selected by the Board either through an application process (for the public / community positions) or by appointment by the member's organization.

1 member	Committee Chair, RDN GM Regional and Community Utilities
4 members	Water department staff member from the City of Nanaimo, District of Lantzville, City of Parksville, Town of Qualicum Beach.
2 members	General Public (1 north / 1 south)
1 member	Environment Community
1 member	Agricultural Community
1 member	Island Health
1 member	Ministry of Forests, Lands, and Natural Resource Operations
1 member	Ministry of Environment / Registered Professional Biologist
1 member	Ministry of Transportation and Infrastructure
1 member	Forest Industry
1 member	Water Purveyors' Representative
1 member	Professional Hydrogeologist
1 member	Professional Hydrologist
1 member	Academic Community (Vancouver Island University)
1 member	Islands Trust
1 member	Fisheries and Oceans Canada
3 members	Indigenous Community Representatives

Membership may be changed as needs or issues arise and other organizations may be called on where partnerships are identified that would be of mutual benefit at the discretion of the committee.

THANK YOU!

Next meeting: May 21, 2025