

---

**TO:** Committee of the Whole                      **MEETING:** November 26, 2019

**FROM:** Julie Pisani  
Drinking Water and Watershed  
Protection Program Coordinator                      **FILE:** 5600-07

**SUBJECT:** Updated 10-Year Action Plan for RDN Drinking Water and Watershed Protection

---

### RECOMMENDATION

1. That the Board endorse, in principle, the updated Drinking Water and Watershed Protection Action Plan.
2. That following public engagement, a final Action Plan, including a refined workplan, be presented to the Board.

### SUMMARY

The RDN Board Strategic Plan for 2019-2022 commits to updating the RDN's 10-year Drinking Water and Watershed Protection (DWWP) Action Plan in 2019, which is the guiding document for the DWWP Program, an important regional service. The DWWP Program advances several of the goals identified in the RDN Board Strategic Plan including: leadership in climate change adaptation; protection and enhancement of the natural environment; and, effective regional land use planning and responsible management of infrastructure and natural assets. Protection of our water resources is also foundational to priorities including tourism, recreation and economic development.

Our region's watersheds face challenges including climate change, land use pressures, and jurisdictional complexity. The RDN first implemented its Drinking Water and Watershed Protection (DWWP) Program in 2009 to proactively address these watershed challenges. Drought conditions and low stream-flows are becoming more common; in some aquifers, declining levels foretell limits to water consumption rates; and water quality concerns indicate a need to work together across jurisdictions. In response, the DWWP Program provides resources and initiatives to assist residents with conserving water; coordinates and improve cross-sector communication and cooperation; supports community watershed stewardship efforts; and collects data to generate crucial information on local water resources to directly inform planning processes, decision-making and policy.

Building upon the accomplishments of the first decade, the RDN set out in 2019 to renew its 10-year DWWP Action Plan (or 'Plan'). Feedback from this process indicated strong support to continue the activities that were most effective from the first 10-years and provided clear direction to scale up from the status quo and take on additional initiatives, driven by the urgency of climate change, existing regulatory commitments, identified areas of stress, and opportunity for collaboration. An updated Action Plan has been developed (Attachment 1) that recommends key

initiatives for the next 10-year period, consistent with the mission of providing regional leadership at the watershed scale to support drinking water sustainability, climate adaptation, healthy ecosystems, and land use planning through coordination of water management, support land-use planning and community outreach in the Electoral Areas and municipalities.

## **BACKGROUND**

No matter where you are in the Regional District of Nanaimo, you're in a watershed. As water flows across the land, and beneath the ground, it connects upstream and downstream communities. The water in our creeks and rivers comes from a combination of rainfall, groundwater and sometimes snowmelt. Yet, stresses such as declining winter snowpack and longer, earlier onset seasonal drought accentuate the importance of balancing community water uses with the needs of critical ecosystems that provide important services and biodiversity.

The RDN first implemented its Drinking Water and Watershed Protection (DWWP) Program in 2009, following the 2008 referendum that provided elector assent to establish a service area to address watershed sustainability, coordination and awareness in the region. This was driven by water challenges facing the region, related to land-use pressures, jurisdictional complexity and climate change. Understanding the status of regional water sources in terms of quality, resilience to changing conditions, and availability are important factors for managing development, growth, community behaviour, and infrastructure. The regional nature of the DWWP Program recognizes that watershed management needs to include municipalities and Electoral Areas working together with partners across the region.

For the first decade of the Program, the RDN's focus was on public education and science - establishing systems to collect data and generate information about the condition and characteristics of local water resources. In Electoral Areas and municipalities, the DWWP Program supports residents with water stewardship through numerous rebate programs; community-based monitoring of groundwater and surface water; stream restoration funding; free workshops; and, scientific analysis and public reporting on water resources. These activities generate further contributions: from senior government for key projects such as the three million dollar Aquifer Characterization Study for the Nanaimo Lowlands (Deep Bay to Nanoose); from the Pacific Salmon Foundation for stream restoration projects on several local creeks; and, from private forestry companies for water quality monitoring lab analysis and land access for public tours. See Attachment 2 for highlights of DWWP initiatives/ accomplishments per Electoral Area and municipality to-date.

A full third-party review of DWWP Program implementation took place in 2018 and was presented to the Board last November. This review examined achievements and highlighted opportunities for the DWWP Program to evolve and improve upon its early successes. Using this review as a springboard, the RDN set out to renew its 10-year DWWP Action Plan in 2019, as committed to in the Board Strategic Plan for 2019-2022. The update process involved structured engagement with various stakeholder committees and the public between March and September of this year to identify what actions are needed between 2020-2030 to continue to effectively pursue regional water protection. For more description of the engagement process, see Attachment 3.

Actions developed through the DWWP Action Plan update engagement process include both existing successful Program initiatives that are retained and enhanced, along with new actions that respond to new challenges. In this updated Plan, the actions are categorized under the themes of: Water Awareness & Stewardship; Water Information & Science; and, Water-Centric

Planning & Policy Support. The overarching theme and common thread that runs through all actions is Water Collaboration, recognizing that the Program's success is highly dependent on the cooperation of many key partners, which was a key success in the first decade. This includes partnerships with senior government, industry, NGOs and other external groups as well as interdepartmental cooperation throughout the organization. Internal partnerships provide important support to land-use and infrastructure planning. Engaging with First Nations on Drinking Water and Watershed Protection actions and strategies will be an ongoing focus in the implementation of this updated Plan, recognizing that the extent and nature of participation from First Nations will be defined by the various Nations' needs and perspectives

The high-level actions proposed in the Drinking Water and Watershed Protection Action Plan are listed below, outlining continuing and new sub-actions. Sub-actions are described in full within the Action Plan document (Attachment 1).

### **Water Information and Science**

- Maintain robust regional water monitoring networks
  - *Continuing:* groundwater and surface water monitoring networks.
  - *New:* exploring biological monitoring; long-term wetland monitoring; and voluntary groundwater use monitoring.
- Analyze and interpret data to better understand region's water
  - *Continuing:* water budget modelling; trend analysis; and watershed / aquifer prioritization.
  - *New:* rainwater management modelling; quantifying watershed natural assets and ecosystem services; and enhanced snowpack modeling.
- Communicate water information to decision makers and the public
  - *Continuing:* water-related publications (such as State of our Streams/Aquifers); enhanced GIS mapping tools; and informing updates to Provincial mapping and characterization.
  - *New:* data visualization through dynamic online graphs.
- Develop targets to maintain watershed function
  - *New:* developing science-based performance targets and standards to mitigate the impacts of land development on watershed function.

### **Water-Centric Planning and Policy Support**

- Support integration of water information to Planning processes
  - *Continuing:* providing water information to support long-term plans and current development services operations.
  - *New:* developing a regional rainwater management strategy; enhancing overall support to the Planning department.
- Advance innovative policies and practices to improve water sustainability
  - *Continuing:* strategic external advocacy with senior government.
  - *New:* research best policies and practices in North America and enhance effort to review and advise on internal policy related to water protection.

## Water Awareness and Stewardship

- Enhance water awareness through community-based outreach.
  - *Continuing:* workshops; tours; curriculum connected school materials; irrigation check-ups; and community events.
  - *New:* multi-media; youth water leadership; interpretive signage and demonstration sites; community-based social marketing outreach-redesign; and public surveys.
- Incentivize sustainable practices (rebates)
  - *Continuing:* rebates for rainwater harvesting, wellhead upgrade, well water testing, irrigation upgrade and soil improvements
  - *New:* expanding the existing rebate dollars available and exploring new rebate options.
- Create campaigns to target strategic sectors
  - *New:* campaigns for the agricultural and industrial, commercial, institutional (ICI) sectors.
- Provide support for stewardship and restoration activities
  - *Continuing:* providing seed-funding to support watershed restoration activities; and, offering a tool lending library for stewardship projects.
  - *New:* increasing seed-funding for watercourse enhancement / restoration projects; and, supporting networking opportunities for water stewardship organizations.
- Coordinate with water service providers
  - *Continuing:* supporting small water systems with educational resources; and, coordinating regional watering restrictions communications.
  - *New:* effort to support regional water conservation plans.
- Participate in advisory committees to enhance regional capacity
  - *Continuing:* coordinating the DWWP Technical Advisory Committee and participating on existing watershed roundtables in the region.

## Priorities for 2020

During the Plan update process, participants emphasized the importance of getting started on the new Plan in 2020 with a sense of immediacy and momentum. There is value in maintaining the high levels of participation and investment so the RDN can, through inter-jurisdictional coordination, continue to collectively improve the management of our region's freshwater. This opportunity is uniquely suited to the leadership of regional government, positioned to address local needs, attract Provincial resources, leverage partnerships, and serve as a hub for collaboration across levels of jurisdiction for the benefit of the region over the long term.

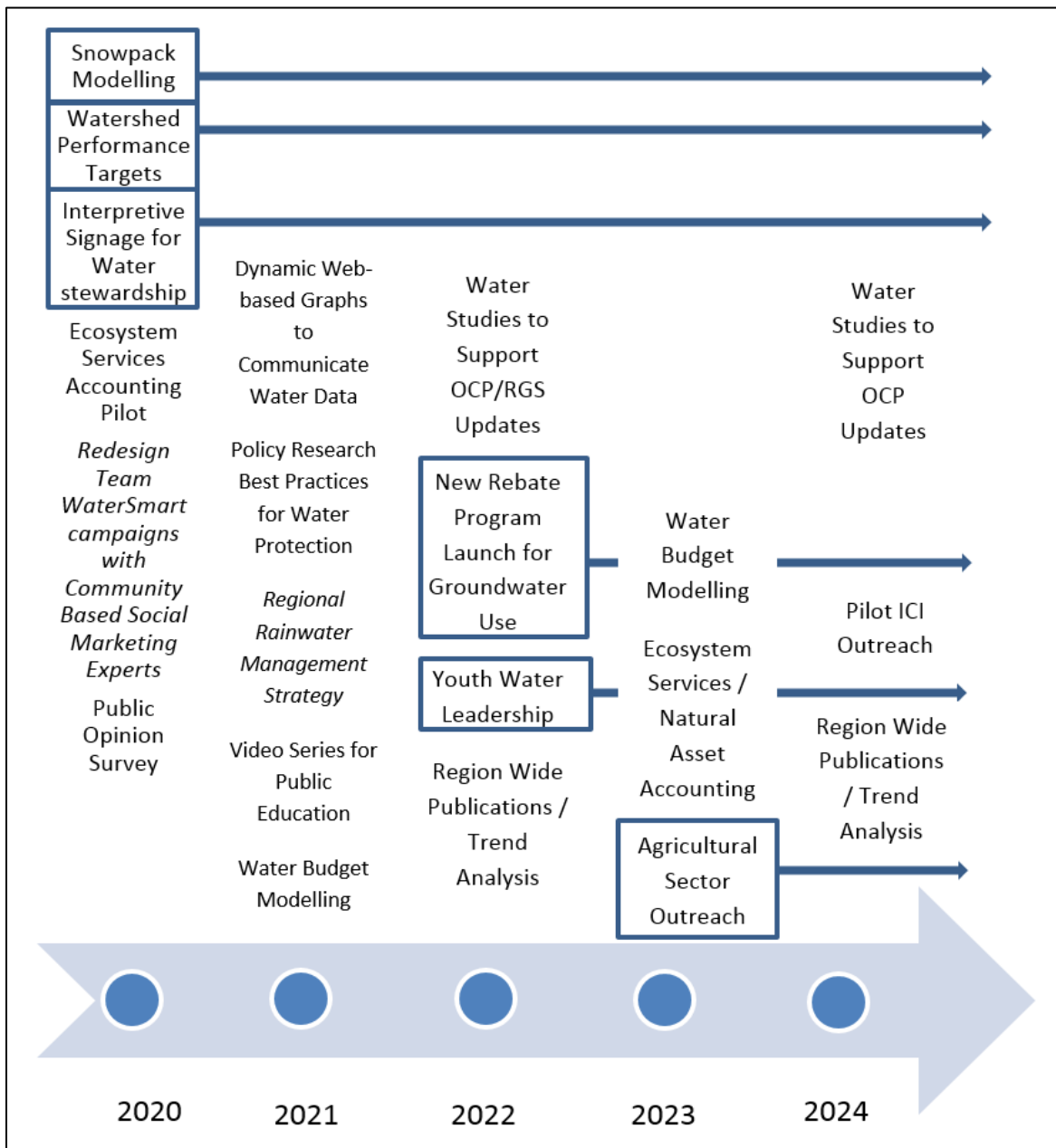
Feedback from this process indicated clear direction to continue the activities that were most effective from the first 10-years and widespread support to scale up effort and take on additional initiatives, driven by the urgency of climate change, existing regulatory commitments, identified areas of stress, and opportunities for collaboration.

The focus in 2020 and beyond is on supporting sustainable land-use decision-making as well as community engagement, with actions such as: integrate water information into key policies and plans to support Strategic and Community Development; continue to collect local water data to build long-term datasets; perform trend analysis to inform land use, water allocation and infrastructure decisions; launch multi-media outreach; review watershed governance structures;

model water availability and rainwater management to inform regional growth and development; and, foster dialogue among youth and the community at-large.

Within the next 5-years, there are new projects that are proposed in addition to the current operations of the DWWP Program. Some of these new initiatives are one-year projects, but many require multi-year implementation and represent an increase in ongoing service level. Figure 1 illustrates the Project Timeline proposed for the next five years of DWWP. The projects that are multi-year and continue forward are show with a box and arrow.

Figure 1 – Proposed DWWP Project Timeline for next five years



New priority actions to initiate in 2020 are summarized in Attachment 4, broken down into individual projects, outcomes and costs. This is consistent with the 2020 budget for the DWWP Service, proposed in the 2020 Budget process. New priority projects proposed for 2020 include:

- Snowpack modelling.
- Develop watershed performance targets (one priority water region in 2020).
- Pilot ecosystem services accounting for watershed natural assets.
- Re-design Team WaterSmart initiatives to optimize effectiveness and efficiency.
- Public opinion survey.
- Partner on demonstration sites for water stewardship best practices.
- Increase support for watercourse restoration projects.
- Enhance water stewardship incentives (rebate program).

Other RDN plans also contain objectives related to watershed protection. This reflects that water is an integral organizational priority. The purpose of the DWWP Program is to implement and advance actions related to regional drinking water and watershed protection, which concurrently also supports not only the Board Strategic Plan goals but also goals in the Regional Growth Strategy, Agriculture Area Plan, Asset Management Policy, Regional Parks and Trails Strategy, and the regulatory commitments related to rainwater and watersheds in the Liquid Waste Management Plan.

As a complement to this updated Plan, the DWWP Technical Advisory Committee terms of reference will also be updated to ensure engagement of essential expertise and collaboration with necessary partners, to guide the implementation of the new priority actions.

## **ALTERNATIVES**

1. That the Board endorse, in principle, the updated Drinking Water and Watershed Protection Action Plan and
2. That following public consultation, a final Action Plan, including a refined workplan, be presented to the Board or
3. That the Board provide alternate direction to staff.

## **FINANCIAL IMPLICATIONS**

To fully implement important organizational obligations related to water and sustainability, an increase in resources is proposed. This is presented separately from this report, in the 2020 Budget Proposal and 5-year Financial Plan, for Board consideration. By endorsing the updated RDN DWWP Action Plan (Attachment 1), the Board acknowledges the thorough participatory process that took place and respects the direction that emerged to guide the substance of this Plan.

The items that emerged as new priorities during the engagement process (described in the Action Plan document (Attachment 1) under Section 6.1, and further summarized in Figure 1 and Attachment 4) amount to an increase in effort of approximately 50% and require a corresponding increase of resources of approximately \$250,000 annually to fully implement. To advance these priority actions starting in 2020, a rise in the regional parcel tax from \$8 to \$12 is proposed for consideration in the 2020 budget process. There are no additional increases proposed in the next 5-year Financial Plan.

It is important historic context that the 2008 referendum to establish the RDN's DWWP service communicated \$25 as the parcel tax requisition amount. The DWWP Program started with a \$12 parcel tax in 2009 in Electoral Areas and lowered to \$8 when the member municipalities joined the service. Before the DWWP Action Plan update process began, the Financial Plan included a parcel tax increase to \$9 in 2020 to maintain the status quo.

An expanded program budget will allow for a greater degree of stewardship, analysis, and integration of information, which is required to deliver the desired service level and evolve the RDN DWWP Program to its next phase of capacity to serve the region. This is driven by the urgency of climate change, regulatory commitments, identified areas of stress, opportunity for collaboration, and feedback from community and stakeholder engagement.

## **STRATEGIC PLAN IMPLICATIONS**

Environmental Stewardship - Update the Drinking Water and Watershed Protection Program Action Plan.

The continuing role of the RDN DWWP Program is to be an information broker, a convener and an advocate – not to take on all the watershed issues alone, but to leverage resources and foster relationships to facilitate and support collective action and ongoing learning, through collaborative water initiatives that benefit the region. The updated DWWP Action Plan (Attachment 1) builds on the accomplishments of the past 10-years and provides the basis for the next decade of this important work, based on a comprehensive participatory process.



---

Julie Pisani

[jpisani@rdn.bc.ca](mailto:jpisani@rdn.bc.ca)

November 20, 2019

Reviewed by:

- M. Walters, Manager, Water Services
- R. Alexander, General Manager, Regional and Community Utilities
- P. Carlyle, Chief Administrative Officer

Attachments:

1. RDN Drinking Water and Watershed Protection Action Plan 2.0 – 2020-2030
2. Table of DWWP Accomplishments per Electoral Area and Municipality to-date
3. Description of Engagement Process in 2019 to Update the DWWP Action Plan
4. Summary of Proposed New DWWP Actions in 2020