

2024 YEAR IN REVIEW – DRINKING WATER AND WATERSHED PROTECTION PROGRAM

RECOMMENDATION

That the Board receive the 2024 Year in Review – Drinking Water and Watershed Protection Program report for information

BACKGROUND

The Regional District of Nanaimo's (RDN) Drinking Water and Watershed Protection (DWWP) program action areas are organized into four related themes: Water Awareness and Stewardship; Water Information and Science; Water-Centric Planning and Policy Support; and Water Collaboration. A set of progress indicators outlined in the 2020-2030 DWWP Action Plan provides the basis for summarizing performance each year. For the full list of indicators please reference the 2020-2030 DWWP Action Plan Section 7.1.

Below is a synopsis of details related to DWWP program performance based on the indicators for each theme in 2024. A more fulsome summary of highlighted accomplishments in 2024 under each theme is presented in Attachment 1. Also included in this staff report is a summary of key 2025 DWWP work plan items.

2024 Progress Indicators

Water Awareness and Stewardship

- Metered water use
 - Over 30% reduction in per capita water demand in the City of Nanaimo over the past 14 years
 - Continued overall reduction in use across the 9 RDN Water Service Areas (variable from year to year)
- Number of watercourse enhancement or restoration projects completed
 - ✓ In 2024, the RDN supported 8 projects thorough RDN DWWP Stewardship Seed Funding, the highest number to date since program initiation; 39 have been supported to date.
- Trends in groundwater and surface water
 - ✓ Groundwater trends were reported in Regional Groundwater Level Analysis Pre-Summer 2024 with 13 / 22 aquifers reporting increasing or stable 10-year groundwater level trends and 9 / 22 aquifers reporting variable or decreasing 10-year groundwater level trend
 - ✓ Surface water quality trends were reported in 2023 with an additional 3 added in 2024 due to reaching a six-year threshold for trend analysis. Parameters reported out on include turbidity, temperature, oxygen, specific conductivity (with pH added this year to the monitoring program).

Author: Erica Forssman, DWWP Program Coordinator

Water Information and Science

- Number of monitoring sites with > 3 years of datasets in open platforms
 - √ 95 water monitoring sites (84 surface water quality; 11 groundwater level)
- Water budgets completed
 - ✓ Initiated the Cedar-Yellowpoint-Cassidy Phase 3 Water Budget
- Participation of community volunteers
 - ✓ 14 returning stewardship groups representing approx. 60 volunteers
 - ✓ 31 volunteer well owners participating in ongoing groundwater level monitoring
- Publications
 - ✓ Published 4+ updated water-related public education materials including graphs, posters, and maps
 - ✓ Initiated an update of the publication State of Our Aquifers (to be released in early 2025)
 - ✓ Initiated Climate-Informed Water Supply Planning Communications material (to be released in early 2025)

Water-centric Planning and Policy Support

- Planning processes informed by DWWP
 - ✓ Supported ongoing Official Community Plan Review for Electoral Area F, including support for draft Development Permit Area (DPA) guidelines
 - ✓ Supported Parks Department with development of Biodiversity Plan
 - ✓ Supported Long Range Planning on Municipal Natural Asset Initiative
 - ✓ Supported Energy and Climate with the development of the RDN Climate Action Plan 2025-2029
- Watershed performance targets / implementation of rainwater management practices
 - ✓ Ongoing progress on implementation of rainwater performance targets in French Creek Water Region with updates to draft DPA guidelines and a rainwater management plan checklist
 - ✓ Rainwater management targets developed for the French Creek water region was used in the construction and calibration of a simulation for drainage improvements in Errington-Coombs for current and future climate-change-affected scenarios
- Advocacy with outside agencies
 - ✓ Communicated the results of the French Creek Water Budget to the Ministry of Water Land and Resource Stewardship to advocate for Provincial leadership in water planning for the areas included in the scope of the report

2025 Highlighted Workplan Items

In 2025, the RDN DWWP program will continue to deliver key collaborative region-wide initiatives related to water stewardship, monitoring, and planning — as detailed in the DWWP Action Plan, RDN Financial Plan, and RDN Operational Plan. Progress updates will be provided four times a year via the DWWP Technical Advisory Committee as well as periodic report(s) to the Board. Highlighted work plan items in 2025 include the following:

- Cedar-Yellowpoint-Cassidy Water Budget Phase 3
- Community Watershed Monitoring Network Strategic Planning
 - Supported through Riparian Spatial Analysis map updates and engagement with stewardship groups and monitoring partners
- Climate Monitoring Snowpack monitoring support
- Ecological Accounting Process Partnership with MABRRI 3 year agreement, Year 3
- Water Attitudes Benchmark Five-Year Progress Survey

- Supporting Rainwater Management / Watershed Protection Demonstration Sites, including signage and outreach materials
- Providing Stewardship Seed Funding to support watercourse enhancement projects
- School Freshwater Stewardship Education Delivery Contract (NALT) & Watershed Field Trips
- Ongoing water monitoring network operation, (including groundwater, surface water quality, hydrometric, lakes, wetlands) and reporting
- Ongoing rebate program delivery Rainwater harvesting, Wellhead upgrades, Well Water Testing, Irrigation & Soil Improvements

FINANCIAL IMPLICATIONS

The work summarized here is all accounted for in DWWP Operating Budgets.

STRATEGIC PLAN ALIGNMENT

Water Security - Collaborate with regional partners including First Nations, land trusts, federal, provincial, and local governments, to ensure water resources are managed and shared equitably and responsibly.

Water Security - Understand our water resources and their risks, to manage our water resources effectively and sustainably.

Managing Impacts of Climate Change - Advance priority actions that are identified within RDN Board-approved plans and initiatives.

REVIEWED BY:

- M. Walters, A/General Manager, Regional and Community Utilities
- D. Holmes, Chief Administrative Officer

ATTACHMENT

DWWP Program Accomplishments 2024 – Detailed Summary by Theme