
TO: Committee of the Whole **MEETING:** January 8, 2019

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

SUBJECT: Hydrometric Monitoring Station Operational Agreement

RECOMMENDATION

That the Board endorse and execute the Hydrometric Monitoring Station Operational Agreement with Fisheries and Oceans Canada (DFO) and BC Ministry of Forests Lands Natural Resource Operations and Rural Development (FLNR) in support of the operational partnership for multiple streamflow monitoring stations in the RDN.

SUMMARY

The Regional District of Nanaimo (RDN) Drinking Water and Watershed Protection (DWWP) program has identified the need for hydrometric monitoring (stream level monitoring) in certain under-represented surface water systems in the region. This need has also been identified by other agencies including the BC Ministry of Forests Lands Natural Resource Operations and Rural Development (FLNR) and Fisheries and Oceans Canada (DFO). These partners have come together to install and operate stations that will collect valuable data to enhance our collective understanding of surface water dynamics in the region. The stations collect data on stream level, temperature and rainfall. This data is critical for water supply planning and management, regional flood management, drought analysis, climate change adaptation, assessment of aquatic ecosystems and more. The hydrometric data further enhances the utility of groundwater level data currently collected by the RDN and the Province to track trends in water availability and climate change impacts, for communities and ecosystems in the region.

The responsibility for these stations will be shared between DFO, FLNR and RDN. The main responsibility for RDN, through the DWWP program, is for annual operational costs, while DFO and FLNR are responsible for station capital costs, installation and maintenance and data publication. Data processing is the responsibility of FLNR hydrologists. This operational agreement – Attachment 1: *Hydrometric Monitoring Stations Memorandum of Agreement* – represents an excellent example of partnership and cooperation among three levels of government to achieve water monitoring goals to inform decision-making and water resource understanding in the region. The agreement has been excuted by DFO and FLNR signatories. The agreement will be reviewed every 5 years by all parties.

BACKGROUND

Through studies commissioned by the RDN's DWWP program, data gaps were identified revealing a lack of monitoring data on streamflow and stream level, since many Water Survey of Canada hydrometric stations were discontinued in the 1980's and 1990's. The RDN Phase 1 Water Budget Assessment (Waterline, 2013), the RDN Regional Hydrometric and Climate Monitoring Scoping Study (Kerr Wood Leidal, 2015) and the Area E Water Monitoring Plan (Golder, 2016) all presented priority locations for monitoring to fill the gaps in hydrometric (streamflow) data. This data is critical for water supply planning and management, regional flood and drought frequency analysis, climate change assessment and adaptation, assessment of aquatic ecosystems and more. Without local regional stations, we are left with proxy stations from other regions that do not tell us exactly about local conditions and are therefore not as reliable or useful.

Once these priority locations were identified, the RDN DWWP program explored partnership opportunities with other agencies to pursue effective implementation options. Both DFO and FLNR emerged as keen cooperators and provided the expertise and capital costs needed to launch the stations. These agencies offered a more cost-effective option than the Water Survey of Canada could offer, and than what the RDN could achieve without partnerships. The RDN contribution is for annual operating costs for telemetry to send the data for public display on the web in near real-time. DFO and FLNR are in charge of station maintenance and data handling. With each agency having a stake in the success of this operational arrangement, a memorandum of agreement was developed by FLNR to ensure commitment and understanding of shared responsibilities. The agreement is already signed by DFO and FLNR signatories and awaits the RDN signature. Once signed by all parties the agreement will be formally enacted and reviewed every 5 years by all parties.

Stations included in this agreement currently are: Haslam Creek, Nanoose Creek and French Creek hydrometric monitoring stations. These stations collect data on water level, temperature and rainfall and display the data publically on DFO and FLNR web portals. Additional stations can be added to the roster over time by amendment of the agreement through Appendix III.

ALTERNATIVES

1. That the Board endorse and co-sign the Hydrometric Monitoring Station Operational Agreement with DFO and FLNR in support of the operational partnership for multiple streamflow monitoring stations in our region.
2. That the Board provide alternative direction to staff.

FINANCIAL IMPLICATIONS

Through this agreement, the RDN commits to providing annual supportive funding to a maximum of \$750 per station annually, to contribute to the costs for the real-time data service and yearly site visits, currently for two existing stations. In order to accommodate this cost, \$1,500 is budgeted for under the Drinking Water and Watershed Protection annual operating budget and financial plan. The attached agreement contemplates operation of additional stations during the term of the agreement and this would be considered within the DWWP annual operating budget and financial plan.

STRATEGIC PLAN IMPLICATIONS

Focus On Relationships- We Look For Opportunities To Partner With Other Branches Of Government/Community Groups To Advance Our Region

Focus On The Environment- We Will Prepare For And Mitigate The Impact Of Environmental Events

Focus On Economic Health- We Recognize The Importance Of Water In Supporting Our Economic And Environmental Health

By leveraging partnerships, the RDN can achieve its strategic goals that focus on relationships, environment and economic health. The Hydrometric Monitoring Station Operational Agreement is a great example where these elements have come together to the advantage of the RDN.



Julie Pisani
jpisani@rdn.bc.ca
December 13, 2018

Reviewed by:

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

Attachments

1. Hydrometric Monitoring Stations Memorandum of Agreement – *signed by DFO and FLNR*