

Hydrometric Monitoring Stations Memorandum of Agreement

MEMORANDUM OF AGREEMENT made effective as of _____, 2018.

BETWEEN:

THE GOVERNMENT OF CANADA, AS REPRESENTED BY
FISHERIES AND OCEANS CANADA ("DFO")

- and -

THE PROVINCE OF BRITISH COLUMBIA, AS REPRESENTED BY
THE MINISTRY OF FORESTS, LANDS, NATURAL RESOURCE OPERATIONS AND RURAL
DEVELOPMENT ("FLNR")

- and -

REGIONAL DISTRICT OF NANAIMO
(Drinking Water and Watershed Protection Program)
("RDN")

PREAMBLE

The RDN, DFO and FLNR will cooperate to install and operate hydrometric stations to monitor streamflow, water level, water temperature and other parameters as available on a selection of surface water sources within the RDN. This memo describes the responsibilities of each agency during the life cycle of each station. Once signed by all parties, the Memorandum of Agreement will be considered enacted. The Memorandum will be reviewed every 5 years by all parties.

Local stakeholders, including the partners listed above have identified the need for hydrometric monitoring in certain under-represented surface water systems in the region. The stations will collect valuable data to enhance our collective understanding of surface water dynamics. The stations will serve as representative sites for lower elevation watersheds in the Nanaimo region that do not have upland storage. This data will be useful in concert with groundwater level data as collected by the Province in nearby BC Observation Wells, and by the RDN in local volunteer observation wells, to track trends in water availability and climate change impacts.

INCLUDED STATIONS

The stations included under this agreement are listed in Appendix I.

RESPONSIBILITIES

This agreement has been crafted to apply to all stations operated in partnership by the included agencies. The contributions included in this partnership agreement are outlined below. The assignment of these responsibilities to each agency in this agreement is listed in Appendix I.

Station Installation and Maintenance

- Provide the physical infrastructure to monitor a set of hydrometric parameters which may include, but is not limited to: water level, water temperature, barometric air pressure, air temperature and rainfall, utilizing telemetry.
- Provide servicing and critical and/or emergency repairs as necessary to maintain station operation.

Data Processing

- Install a staff gauge or other elevation reference for calibration of water level measurements.
- Take discharge and water level measurements and develop a rating curve for the site.
- Provide data correction and processing for various parameters including the calculation of continuous discharge using the developed rating curves.

Data Publication

- Provide data archiving for the site and update and report publicly on the data online via the PacFish (DFO) or BC Real-Time Water Data (FLNR) websites.

Operational Costs

- The RDN will provide annual supportive funding to a maximum of \$750 per station annually to cover air time costs for the real-time data service and visits to the station on DFO operated sites.

STATION ACCESS PROCEDURE

Contact information for accessing sites which require permission is listed in Appendix II.

ACCESS TO DATA

All partners listed will have unrestricted access to real-time data via:

- The website maintained by DFO: <http://www.pacfish.ca/wcviweather/>
- The Real-Time Water Data site operated by FLNR: <http://aqrt.nrs.gov.bc.ca/>.
- Email request to the operating partner.

ADDITION OF NEW STATIONS

The addition of new stations may be made by amendment of Appendix I and II of this document. The amendment will require the agreement of all parties by the completion and signing of Appendix III by

their representatives. The agreement to amend (Appendix III) will be appended to this document along with the revised tables in Appendix I and II to reflect the addition.

TERMINATION CLAUSE

DFO, RDN or FLNRO may terminate their contributions in this Agreement upon giving sixty days written notice to the other parties.

CONTACTS

Notices to be sent pursuant to this Agreement shall be sent to:

Ministry of Forests, Lands, Natural Resource Operations and Rural Development
2080 Labieux Road, Nanaimo BC, V9T 6J9

Attention
Neil Goeller
Regional Hydrologist – West Coast Region
Water Protection, FLNR
Email: neil.goeller@gov.bc.ca
Tel: 250-751-7118

Department of Fisheries and Oceans
3225 Stephenson Point Road, Nanaimo BC, V9T 1K3

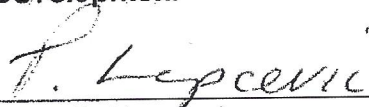
Attention
Carmen McConnell
Senior Technician – Stock Assessment
Department of Fisheries and Oceans Canada
Email: Carmen.McConnell@dfo-mpo.gc.ca
Tel: 250-756-7272

Regional District of Nanaimo
6300 Hammond Bay Road, Nanaimo BC, V9T 6N2

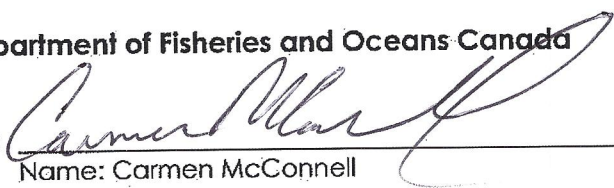
Attention
Julie Pisani
Program Coordinator, Drinking Water & Watershed Protection
Regional District of Nanaimo
Email: jpisani@rdn.bc.ca
Tel: 250-390-6586

IN WITNESS WHEREOF the parties hereto have executed this Memorandum of Agreement as of the day and year first above written.

Ministry of Forests Lands Natural Resource Operations and Rural Development

Per: 
Name: Pat Lapcevic
Title: Section Head, Water Protection

Department of Fisheries and Oceans Canada

Per: 
Name: Carmen McConnell
Title: Senior Technician

Regional District of Nanaimo

Per: _____
Name: Phyllis Carlyle
Title: Chief Administrative Officer

Appendix I: List of Stations and Responsible Parties

Source Name	Station Location	Station Installation and Maintenance	Data Processing	Data Publication	Operational Cost
Haslam Creek	Behind the Kingdom Hall of Jehovah's Witnesses at 1724 VOWELS, Ladysmith, BC V9G 1J8	DFO	FLNR	DFO/FLNR	RDN
Nanoose Creek	Approximately 100 m downstream of the Nanoose Creek Bridge on Highway 19	FLNR	FLNR	FLNR	FLNR
French Creek	Approximately 30 m Downstream of the footbridge at Barclay Crescent in Parksville BC	DFO	FLNR	DFO/FLNR	RDN

Appendix II: Stations Contacts

Haslam Creek Station Contact

All parties will provide appropriate notice to the staff at the Kingdom Hall of Jehovah's Witnesses at 1724 Vowels Rd in order to access the station.

The point of contact at the time of drafting this agreement is:

Clint Babcock majorreclaim@gmail.com or assemblyhall@shaw.ca

Nanoose Creek Station Contact

There is no direct site contact for the Nanoose Creek station, however; the land on either side of Nanoose Creek below highway 19 is privately owned. Access is recommended via the stream channel starting at the highway bridge (on the Ministry of Transportation right of way) to avoid trespassing on private land.

French Creek Station Contact

The French Creek station is located on RDN parks land and is accessed through crown land along the stream bank. Contact with the adjacent landowners is recommended prior to accessing the station or staff gauge. The following contacts are relevant to this site.

Joan Michel, Parks and Trails Coordinator, Recreation and Parks Services, RDN, Regional District of Nanaimo,
T: (250) 248-4744, x3658 jmichel@rdn.bc.ca

Appendix III: Addition of New Station to the Network

IN WITNESS WHEREOF the parties hereto have agreed to revise the existing agreement to include the new station as detailed below on this day ____ of 20__.

STATION DETAILS

Source Name:	
Station Location:	

RESPONSIBILITIES

Station Installation and Maintenance:	
Data Processing:	
Data Publication:	
Operational Cost:	

Ministry of Forests Lands Natural Resource Operations and Rural Development

Per: _____
Name: Pat Lapcevic
Title: Section Head, Water Protection

Department of Fisheries and Oceans Canada

Per: _____
Name: Carmen McConnell
Title: Senior Technician

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