



## REQUEST FOR STATEMENTS OF QUALIFICATIONS No. 20-063

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**DATE:** October 26, 2020

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**Project Title:** Watershed Performance Targets for Rainwater Management – French Creek Water Region

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The Regional District of Nanaimo invites qualified and experienced firms to submit Statements of Qualifications to develop watershed performance targets for rainwater management in the French Creek Water Region. This includes developing science-based targets and design-criteria as well as providing detailed recommendations on tools for implementation.

### **A. Intent**

This Request for Statements of Qualifications (RFSQ) is issued to determine the most qualified and experienced service provider that can meet the Regional District of Nanaimo's requirements, expectations, and timeline.

The Regional District of Nanaimo will review submissions received in response to this RFSQ and enter into discussions with the top-ranked Respondent to negotiate the terms, scope, timeline and cost based on the actual scope of work required (the Work). Should these negotiations fail to result in a contract for the Work, the Regional District of Nanaimo may then elect to negotiate with the next highest ranked service provider.

In any event, the Regional District of Nanaimo shall not be bound to enter into a contract with any Respondent to this RFSQ and, at its sole discretion, may elect to collapse this process.

### **B. Background**

In 2014, the RDN's Liquid Waste Management Plan (LWMP) amendment was approved by the Province. The RDN's LWMP now includes a section related to "Rainwater Management / Drinking Water and Watershed Protection" with a suite of related objectives, targets and actions. One such action that is committed to in the LWMP is "establish watershed performance targets and standards to mitigate the impacts of land development" which is listed under the target: "Develop a regional strategy on rainwater management in coordination with member municipalities [and MOTI]".

In 2020, the RDN Board endorsed an updated 10-year Action Plan for the Drinking Water and Watershed Protection service. This made the linkage back to the related LWMP regulatory commitments for Rainwater Management / Drinking Water and Watershed Protection – and provides an implementation mechanism, work plan and budget to move ahead on those items.

Prior to embarking on developing the regional strategy for Rainwater Management, it is envisioned that development of watershed performance targets can be piloted in one priority area of the region to test the concept and approach. This is what we are seeking to initiate with this project. The development of watershed performance targets can be scaled up and further implemented across the region as appropriate via the regional strategy once that is developed in 2021 and beyond.

The RDN has struck a Rainwater Working Group to guide and advise on the implementation of rainwater management related commitments in both the LWMP and DWWP Action Plan 2.0. This working group contains staff representatives from RDN departments, municipalities, Ministry of Transportation and Infrastructure (MOTI) and Mosaic Forest Management.

### Opportunity/Objectives

To develop science-based watershed performance targets related to the maintenance of functioning hydrology to: mitigate flooding, slow rainwater run-off, protect water quality & stream health, and promote groundwater recharge (including for stream baseflows) at the watershed, community and site level.

To integrate watershed performance targets from upper watershed (Mosaic), middle watershed (RDN/MOTI), lower watershed (Municipalities), for a whole watershed approach.

To provide a technical reference that can:

- Support review of development applications and stormwater management plans, in managing for cumulative effects of land development at the watershed scale;
- Support updates to land development policies and bylaws in a changing climate;
- Support interjurisdictional collaboration related to rainwater management.

The key drivers behind this project are: stream health, flood mitigation, groundwater recharge, water quality protection, collaboration, and using a watershed-lens for planning and policy.

The primary application will be:

1. in the rural areas of the region where the RDN permits land development and administers zoning and where MOTI is in charge of rural road and highway drainage, and,
2. at the interface between Electoral Area boundaries and downstream municipalities.

## **C. Contemplated Scope of Work and Timeline**

### Scope

The **pilot area** selected is French Creek Water Region (see map in Fig. 1 below). It is considered an at-risk catchment given the rapid development taking place, the multiple jurisdictions at play, and documented stream health / flooding concerns.

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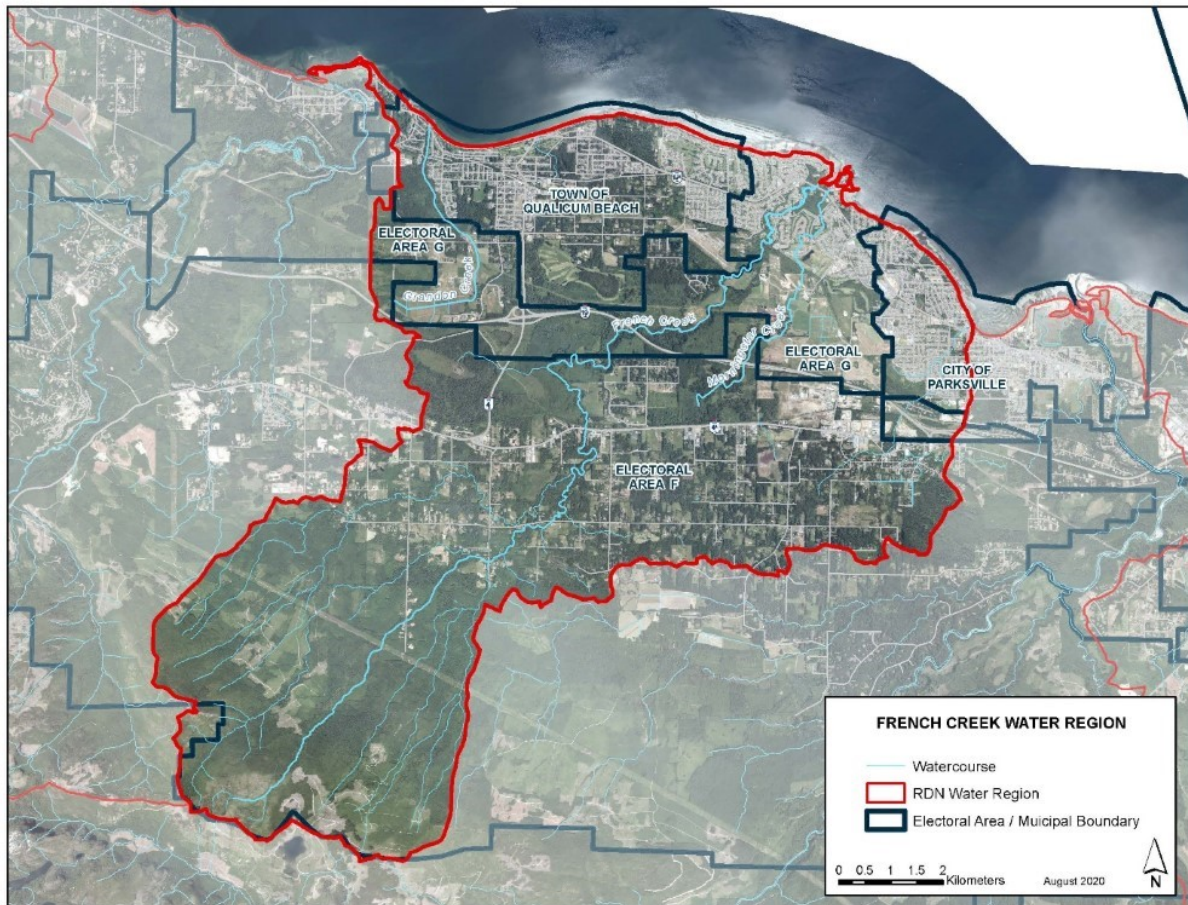


Figure 1: Map of French Creek Water Region – proposed pilot area for watershed performance targets project. Includes Electoral Areas F & G, City of Parkville, Town of Qualicum Beach.

Our initial interest is in **watershed performance targets** that consider the following, in the context of a changing climate:

- Run-off peak (volume) and flow duration (rate)
- Infiltration area, retention volume, interflow release rates
- Run-off water quality
- Impervious / pervious cover
- Soil depths
- Vegetation retention
- Others as advised

The intention is to consider the watershed as whole when developing targets. Both urban lands (served by municipal stormwater systems) and peri-urban / rural lands (where there are no municipal stormwater systems and road drainage is managed by MOTI ditches and on-site stormwater management) should be considered. Mosaic Forest resource land is outside the scope of detailed target-setting, but any data provided by Mosaic should be considered when developing targets for rural areas downstream of forest lands.

Targets should be presented in three tiers: the watershed (water region) as a whole, the community/ neighbourhood level, and the site scale where possible.

In developing the targets, the proponent should be familiar and experienced with using the *Water Balance Methodology* and modelling how rainfall scenarios and land cover / land-use changes manifest in changes to streamflows, overland flooding, erosion, and infiltration. Proximity to drinking water sources (i.e. community well fields, surface water intakes) should be considered when developing targets for run-off / infiltration etc.

Note that some rainwater management targets have already been set in municipal contexts; these will be provided and should be considered / included when developing targets for the water region as a whole.

**Recommendations on implementation** – i.e. how each responsible jurisdiction can operationalize these targets into design criteria contained in bylaws, policies, standards etc. – should be provided as part of the project scope. This will include identifying the tool, the authority / jurisdiction, the steps required to implement, and what resources are needed to enforce it. A process for adaptive management should be included, as a means to evaluate and refine the performance targets and tools over time.

It is important that the proponent be familiar with the administrative / jurisdictional landscape as well as the technical methodologies.

#### Deliverables

- Report outlining technical targets and recommendations on implementation.
- Presentation to Rainwater Working Group.
- Refined GIS Datasets and Model outputs used in developing the targets.

#### Timeline

Initiate November 2020.

Complete by end of June 2021.

#### **D. Statement of Qualifications and Evaluation**

The statement of qualifications should be no longer than seven (7) pages in length (not including cover page, cover letter and appendices), and should be submitted electronically in pdf format to: [jpisani@rdn.bc.ca](mailto:jpisani@rdn.bc.ca). Please include the following:

- Qualifications and areas expertise of the Firm and nominated Project Manager. Please include CV/Resume of the Project Manager and explain how this individual will provide value for the RDN. Describe your Firm's approach to work.
  - Experience of Firm and nominated Project Manager in previous relevant work. Provide short descriptions of similar projects and assignments completed by both the Firm and nominated
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Project Manager. Include the project value in the description, along with the contact information for a project reference.

- A statement of your firm's ability to complete the work within the timeframe described.

Statements of Qualifications (the "SOQ") will be evaluated by the Regional District of Nanaimo. Any or all SOQs will not necessarily be accepted. Evaluation criteria:

- Qualifications of Firm and Project Manager including areas of expertise;
- Experience of Firm and Project Manager in similar assignments;
- Ability to meet the Regional District of Nanaimo's timeline.

**E. Submission Date & Time**

Statements of Qualifications should be received by 3:00:00 p.m. local time on the 13<sup>th</sup> day of November, 2020. The RDN reserves the right to accept late submissions.

**F. Questions and Submissions**

Questions and submissions shall be directed to:

Julie Pisani  
Program Coordinator, Drinking Water and Watershed Protection  
Regional District of Nanaimo  
[jpisani@rdn.bc.ca](mailto:jpisani@rdn.bc.ca)  
250-390-6586

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## G. Reference Documents

The following are background materials that provide necessary context for this project. Firms must demonstrate familiarity and expertise in how they will use these resources to inform their approach to this project.

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| Ministry of Environment & Climate Change Strategy | <p><i>Stormwater Planning Guidebook for BC:</i><br/><a href="https://www2.gov.bc.ca/gov/content/environment/waste-management/sewage/liquid-waste-management-plans">https://www2.gov.bc.ca/gov/content/environment/waste-management/sewage/liquid-waste-management-plans</a></p> <ul style="list-style-type: none"><li>Chapter 4: <u>Policy Tools for Implementing Integrated Stormwater Management Solutions</u> (see RDN case study circa 2001; section 4.3)</li><li>Chapter 6: <u>Setting Performance Targets and Design Guidelines</u></li></ul>   |
| Ministry of Municipal Affairs & Housing           | <p><i>Local Government Stormwater Infrastructure:</i><br/><a href="https://www2.gov.bc.ca/gov/content/governments/local-governments/infrastructure/water-systems/stormwater-infrastructure">https://www2.gov.bc.ca/gov/content/governments/local-governments/infrastructure/water-systems/stormwater-infrastructure</a></p>   |
| Partnership for Water Sustainability BC           | <p><i>Rainwater Management: An Introduction to the Guidebook for British Columbia:</i><br/><a href="https://www.waterbucket.ca/gi/sites/wbcgi/documents/media/197.pdf">https://www.waterbucket.ca/gi/sites/wbcgi/documents/media/197.pdf</a></p> <p><i>Establish Watershed-Specific Runoff Capture Performance Targets: Primer on Water Balance Methodology:</i><br/><a href="https://waterbucket.ca/rm/files/2009/03/Beyond-the-Guidebook_Establish-Watershed-Specific-Performance-Targets_Feb-2008.pdf">https://waterbucket.ca/rm/files/2009/03/Beyond-the-Guidebook_Establish-Watershed-Specific-Performance-Targets_Feb-2008.pdf</a></p> <p><i>Primer on Water Balance Methodology for Protecting Watershed Health:</i><br/><a href="https://waterbucket.ca/cfa/2014/02/22/guidance-document-primer-water-balance-methodology-protecting-watershed-health/">https://waterbucket.ca/cfa/2014/02/22/guidance-document-primer-water-balance-methodology-protecting-watershed-health/</a></p> |
| Regional District of Nanaimo                      | <p><i>Drinking Water and Watershed Protection Action Plan 2020-2030:</i><br/><a href="https://rdn.bc.ca/sites/default/files/inline-files/DIGITAL%20SINGLE%20PAGES_RDN-action-plan31.pdf">https://rdn.bc.ca/sites/default/files/inline-files/DIGITAL%20SINGLE%20PAGES_RDN-action-plan31.pdf</a></p> <ul style="list-style-type: none"><li>Website: <a href="https://rdn.bc.ca/drinking-water-and-watershed-protection">https://rdn.bc.ca/drinking-water-and-watershed-protection</a></li></ul> <p><i>Liquid Waste Management Plan – Program 5 Rainwater Management:</i> <a href="https://rdn.bc.ca/dms/documents/wastewater-services/liquid-waste-management-plan/liquid-waste-management-plan-amendment/lwmp_amendment.pdf">https://rdn.bc.ca/dms/documents/wastewater-services/liquid-waste-management-plan/liquid-waste-management-plan-amendment/lwmp_amendment.pdf</a></p>  |