



# City of Colwood

Request for Proposals: RFP 2014-05

Rainwater Management Plan

(Phase 1 of the  
Urban Ecology Management Plan)

**Emmet McCusker, Deputy City Engineer**

**Closing Date:** Wednesday, November 05, 2014

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# 1. TERMS OF REFERENCE

## 2. Project Overview

This request for proposal seeks the services of a qualified consultant to provide a detailed Rainwater Management Plan for the City of Colwood. The development and implementation of this plan is seen as a key function under the Local Government Act for municipalities to be responsible for the provisions of drainage within their boundaries by managing runoff volume and quality to prevent downstream impacts.

In addition to the requirements of the Local Government Act, the City of Colwood will use this Rainwater Management Plan to address current drainage issues, assist in the revision of the Subdivision and Development of Land Bylaw, and address the City's Climate Action Plan and the environmental health of the aquatic ecosystems and groundwater in the City of Colwood. The City is undertaking or has recently completed several other planning exercises concurrent to this one, including an Economic Development Plan (completed), a Transportation Master Plan (underway), a Coastline Erosion Study (pending), Subdivision Servicing Standards (underway), Urban Forest Strategy (pending), a Decentralized Sewage Treatment Plan (underway), and a new Land Use Bylaw (pending). Various consulting teams and city staff are or will be involved in these planning exercises. The successful proposal will demonstrate how these other studies and plans that are underway or pending will be provided with the information they will need and how the information from all of the above plans will be used so that linkages will be integrated within the Rainwater Management Plan. We anticipate that this will be an iterative process requiring close cooperation between the consultants for the various plans and the City. Although all of the studies and plans are interrelated, particular attention is to be paid to preparing the linkages to the upcoming Urban Forest Strategy which is due to be undertaken in 2015.

Proposals, rather than tenders, have been requested in order to allow consultants a more flexible opportunity to employ their expertise and innovation, and thereby satisfy Colwood's requirements in a more cost effective manner.

Based on an evaluation of the proposals received, the preferred Proponent may be invited to enter into a Client - Consultant Agreement for the services to be provided and the fees to be charged.

The City intends to select a preferred Proponent based on its assessment of its best interests, and the City may select none of the proposals submitted.

**NOTE TO ALL PROPONENTS:** This is a request for proposals, and not a call for tenders or request for binding offers. The City does not intend to enter into contractual relations as part of this RFP process and no contractual obligations whatsoever will arise between the City and any Proponent who submits a proposal in response to this RFP until, and unless, the City and a Proponent enter into a formal, written contract for the Proponent to provide the services contemplated under this RFP.

## 3. Definitions

Henceforth within this document, the following definitions shall be used:

- a) “City” refers to the City of Colwood.
- b) “Consultant” means the successful Proponent to this request for proposals who enters into a Contract with the City.
- c) “Contract” means the written agreement resulting from this request for proposals executed by the City and the Consultant.
- d) “DCC” refers to Development Cost Charges, monies that municipalities collect from land developers to offset that portion of the costs related to services that are incurred as a direct result of new development.
- e) “FOIPP Act” refers to the Freedom of Information and Protection of Privacy Act.
- f) “LEED™” refers to Leadership in Energy and Environmental Design, the green building rating system originally developed by the US Green Building Council (USGBC) to provide a recognized standard for the construction industry to assess the environmental sustainability of building designs.
- g) “Natural Capital” refers to the stock of natural ecosystems that yields a flow of valuable ecosystem goods or services into the future.
- h) “Proponent” means an individual or a company that submits, or intends to submit, a proposal in response to this request for proposals.
- i) “Proposal” means a submission in response to this request for proposals.
- j) “RFP” refers to request for proposals.

#### 4. Scope

The scope of the project shall encompass the tasks that are required to accomplish the following objectives and provide the following deliverables:

- a) How the City of Colwood handles rainwater has a significant effect on aquatic ecosystems and human health. The preparation of a Rainwater Management Plan is a proactive process that if used correctly, will help to protect property, groundwater, and aquatic habitat while accommodating urban growth. Any approved engineered systems created should mimic the existing natural system’s hydrological flow patterns.
- b) A changing climate is a factor in the development of the rainwater management plan. The potential for more frequent and intense precipitation, as well as more prolonged droughts, must be a consideration when preparing the plan.
- c) Both public and private lands need to be included in any analysis and recommendation process. This process will be included in the preparation of the City of Colwood Subdivision and Development Servicing Standards that will be revised at a later date.
- d) The Rainwater Management Planning approach is intended to meet multiple goals including neighbourhood flood mitigation, enhancement of the aesthetic appearance and functional condition of streets, acceleration of the adoption of responsible stewardship of ecosystem services and Natural Capital, and local, Provincial, and Federal regulations.
- e) The Rainwater Management Planning approach will utilize soil and plants to significantly reduce runoff through enhancing infiltration into natural subsurface hydrologic systems, reduce pollutants through soil infiltration and microbial activity, and protect and regenerate surface

aquatic environment functional condition – enabling nature to restore and conduct those processes it requires to promote a healthy watershed and human community.

- f) The Rainwater Management Planning approach must also be a more cost effective way to treat and manage runoff than pipe and convey approaches.

## **4.1 Project Objectives**

The selection and sizing of rainwater treatment and management systems is based upon three decisions: 1) how much water to treat/manage; 2) which pollutants to remove, and, 3) the desired system performance. In terms of ‘system design’ the City of Colwood places the highest value on passive treatment.

The successful proponent is to provide a report and accompanying figures and documents that will include the following:

### **4.2. How much water to treat/manage**

- a) Identify and analyze existing catchment areas, creek systems and infiltration areas, including existing groundwater features and functions, in the City of Colwood, and provide a report with accompanying figures including soil types and conditions, stream type classification, hazards, flood plain elevations, maps, topography, depth to bedrock, depth to seasonally high water tables, baseflow characteristics and other factors that may be pertinent. Review and recommend other processes, attributes, and characteristics that should be included in this overview of aquatic and groundwater features of the City of Colwood’s watersheds.
- b) Analyze the size and condition of existing storm drain systems (culverts, storm drain mains, bioswales, etc.).
- c) Identify and quantify the impervious areas (widths and surfaces) and pervious areas in existing road rights of way.
- d) In addition to the analysis of catchments described above, there is urgency for the detailed analysis of the area located to the north of Cairndale Road, East of Veterans Memorial Parkway and south of Sooke Road which is subject to flooding due to drainage from the north side of Triangle Mountain, and also the area of Colwood Creek Park.

### **4.3. Which pollutants to remove**

- a) Provide a review of the treatment levels related to water body type based upon discrimination by pollutant type.
- b) Since the nature of runoff and treatment levels and system performance can be highly variable, provide an overview of what might be reasonable expectations of system performance goals in the receiving surface or ground water.

### **4.4. The desired system performance**

- a) Determine what design criteria shall be used to prepare site specific rainwater management plans (material, flow calculations, capacity, Rational Method, etc.); provide a practical and useful critique of the rational method’s limitations and provide alternatives including, but not limited to, the partial area or variable source model.

- b) Include recommended practices for rainwater management (rainwater simulation model, water balance model etc., water quality and quantity) ready for use in the City's standards.
- c) Evaluate the effect of rainwater runoff from existing development and planned future development; provide a useful assessment of the extent to which the four ways in which precipitation reaching the landscape is dispersed under current landscape use and development (i.e., interception, infiltration, depressional storage, and overland flow).
- d) Determine the effectiveness of the existing systems for absorbing or conveying rainwater including natural systems and built systems and including potential impacts of a changing climate on the works.
- e) Develop options for improvement to the storm drainage and rainwater management systems to permit future development and to improve currently unacceptable situations; identify and characterize relevant existing unacceptable conditions and situations.
- f) Identify meteorological data (rainfall intensity curves) for the City of Colwood and include allowance for a changing climate; identify any deficiencies in the existing meteorological data in Colwood's watersheds and recommend options for providing an adequate future data base of requirements to effect the Rainwater Management Planning approach; provide an estimate of three levels of data base monitoring – minimal, medium, and optimal.
- g) Identify opportunities or improvements to existing rainwater management works that may improve the level of treatment and quantity of runoff within the different catchment areas (e.g. permeable pavement, rain gardens, rainwater harvesting, bio-retention ponds, riparian area plantings and constructed wetlands).
- h) Identify where storm water infiltration and end of pipe controls such as detention are recommended (including discharges from commercial and industrial sites).
- i) Identify urgent issues that could prevent/delay development projects.
- j) Determine park use with regard to rainwater management.
- k) Determine rainwater management design features that should be included in the proposed Subdivision Servicing Standards (including low impact development features such as bioswales and seepage pits; forested areas, lot grading, pipes, manholes, catch basins, cleanouts, service connections, inlet structures, outfall structures and treatment options).
- l) Develop design standards and sample designs for recommended design features, such as rain gardens, bioswales, seepage pits and constructed wetlands, and provide a rationale for calculating the required size of the feature and other variable design features such as permeability of engineered soils, based on the anticipated input flows requiring treatment, the recommended detention and output flows and the receiving environment.
- m) Provide a list of local, native plants that will be useful and attractive for rainwater management features. Include information regarding the tolerance of each plant to extreme water situations (from constant wetness to drought).
- n) Provide operations and maintenance requirements for proposed rainwater management works including monitoring of stream systems.
- o) Provide a review and assessment of the historical hydrological flow monitoring data for all lotic ecosystems in Colwood, essential to affect the Rainwater Management Planning approach and verification that aquatic functional condition is protected or regenerated.

- p) Provide an implementation plan for recommended rainwater management works including recommendations for DCC projects and DCC charges.
- q) Provide recommendations to monitor and improve the health of these systems.
- r) Review the possibility of rebates and incentives to developers, home builders and home owners; provide a review and recommendation for implementing a Rainwater Management levy and a list of those towns and cities that have either implemented such a levy or are actively considering doing so.
- s) Provide a comprehensive, current literature review of design standards being used to implement a Rainwater Management Planning approach.
- t) Create a practical manual of Rainwater Management Planning guidelines, referencing those being used in a cost-effective and verifiable manner on the west coast of North America; include site characteristics defining their optimal use.
- u) Propose a field trip to review, on-site, examples of relevant, innovative rainwater management systems within the Pacific Northwest, and to meet, or speak with, those responsible for their design, implementation, capital expenditures and operations and maintenance.
- v) Identify the requirements, and costs, of a training and education program for both the general public and professional designers and developers to enhance the adoption of the Rainwater Management Plan.
- w) Design and planning practices should be cross-referenced with Green Building Rating Systems, such as LEED™ or the Living Building Challenge, as well as Green Design Rating systems that encompass entire sites or neighbourhoods rather than buildings alone.

#### **4.5. Erosion and Sediment (E & S) Control**

- a) Provide details for temporary construction sediment and erosion control plans to be included in the Subdivision Servicing standards. The development of an Erosion & Sediment Control Management Planning process should be designed as a pre-requisite requirement for all Development Permit and Building Permit stages of development, and it should meet, or exceed, the USGBC and CaGBC LEED™ standard, and must include a process for performance compliance monitoring that can be easily, and cost effectively, verified by City of Colwood regulatory staff.
- b) Provide a rationale for creating Erosion and Sediment Control Plans (E&SCP) based upon the limits of earth disturbance associated with the construction project in order to determine the level of review and approval required.

### **5. Deliverables**

- a) Prepare and host at least two public consultation events, which may be coordinated with consultation events for the other planning processes, such as the Land Use Bylaw and Subdivision Servicing Standards, and a Colwood-based decentralized sewage treatment plan. These events must include related field trips to successful rainwater management sites within the CRD.
- b) Provide a report including accompanying figures for the information required in the Project Objectives.

- c) Provide a specific review of the issues in Colwood Creek and the north Triangle Mountain drainage which presently flows into old gravel pits. Review the interaction of these two problems and provide at least four possible solutions that will permit the development of these gravel pits. The alternative solutions must include at least one option that includes the Colwood Creek drainage; consideration of an option that would envisage the drainage being incorporated into the Royal Bay development is desirable.
- d) Provide a specific review of these issues in Latoria Creek, Royal Bay and the other smaller creek systems and watersheds within the City including private lands that will affect the proper functioning conditions of these landscape features.
- e) Discuss cost implications of the above recommendations and recommendations for procuring the revenue through DCCs, and other sources, and for phasing the improvements to match the revenue.
- f) Provide an operations and maintenance manual for all of the above recommendations.
- g) Prepare and submit AutoCAD Civil 3D drawings (.dwg and .pdf format) for all of the above, including, but not limited to, the rainwater management design features and the design standards / sample designs for rain gardens, bioswales, seepage pits and constructed wetlands and the recommended engineering structures for inclusion in the City of Colwood Subdivisions Servicing Standards.
- h) Alternative solutions, additional specifications, analysis/recommendations not defined in Project Objectives.
- i) Submit the results of any computer simulation models. The models shall be the property of the City of Colwood; shared ownership of the results may be negotiated.

## 6. Project Schedule

Following are proposed milestone dates for the project:

- |   |                               |
|---|-------------------------------|
| a) Request for Proposals issued         | Wednesday, September 17, 2014 |
| a) Submission of Proposals              | Wednesday, November 05, 2014  |
| b) Colwood – Consultant Agreement       | Wednesday, November 26, 2014  |
| c) Progress Report at Halfway Point     | Wednesday, April 15, 2015     |
| d) Submission of Project Summary Report | Wednesday, August 19, 2015    |

## 7. Project Management

The Consultant will provide the overall project management for the Rainwater Management Plan under direction of the Deputy Director of Engineering of the City of Colwood.



## **8. Project Team and Experience**

The proponent shall provide resumes and experience of team members, sub-consultants, and any specialists required to perform the necessary tasks to complete the Project Objectives and Deliverables. Substitutions for team members will not be permitted unless a request is submitted in writing and is approved by the City.

## **9. Methodology**

The proponent shall provide a task list that shows a clear understanding of the Project Objectives. A Time Schedule for developing the project can include a rationale for addressing the time necessary to produce innovative practices.

## **10. Background Information**

Data and other background information can be collected from the following:

- a) City of Colwood maps and records, including drainage studies.
- b) Colwood's Subdivision and Development of Land Bylaw.
- c) Colwood's Building Bylaw.
- d) ICIS Mapping.
- e) Capital Regional District Mapping.
- f) Provincial policies, plans and guidelines.
- g) [www.waterbucket.ca](http://www.waterbucket.ca) - Use ADAPT Guiding Principles of Integrated Rainwater Management.
- h) POLIS Water Sustainability Project at the University of Victoria.
- i) Capital Regional District stormwater quality reports.
- j) Private sector data.
- k) University of Victoria, Royal Roads University, other Universities, and regional Colleges.
- l) Historical records from the Canadian Military and other former land owners (e.g., railroad companies).
- m) Environment Canada and Parks Canada.

The City of Colwood takes no responsibility for the accuracy or completeness of the information described above.

## **11. Evaluation of Proposals**

### **11.1. General**

Proposals received will be evaluated by a committee of members of City staff. The committee may include employees and contractors of the City of Colwood, and may include elected officials of the City.

## 11.2. Technical Evaluation Criteria

The technical merits of proposals will be evaluated in accordance with the following criteria:

- a) The Firm(s) including:
  - i. Experience with similar projects and reviews of the outcomes;
  - ii. General related experience; and,
  - iii. Local office resources, experience and operations.
  
- b) Personnel, Project Manager and Team Members including:
  - i. Successful Experience on similar projects;
  - ii. Successful Experience on related projects;
  - iii. Qualifications; and,
  - iv. Local knowledge.
  
- c) Methodology including:
  - i. General approach;
  - ii. Team organization;
  - iii. Proposed activities;
  - iv. Project control and reporting;
  - v. Understanding of project objectives;
  - vi. Quality and presentation of the proposal;
  - vii. Proposed level of effort; and,
  - viii. Attention to sustainability and a changing climate.
  
- d) Innovation
  - i. Approach taken is unique and trend-setting.
  - ii. Design and planning elements beyond traditional standards of practice.
  - iii. The practices developed will set the standard for other communities to follow.
  - iv. The innovative practices demonstrate the use of best available science and an integrated approach to yield functional systems.
  - v. The practices align with the City of Colwood's self-sustaining principles and provide metrics to demonstrate resilience to a broad range of defined stressors.
  
- e) Perceived overall value of services proposed.

Any sub-consultants will be evaluated using the same criteria. References will be checked and these will be used in the selection.

## **12. Fees**

### **12.1. Basis of Fees**

Fees for the project will be charged on an hourly rate basis. Include all taxes applicable to this project. A schedule of rates for each project personnel will be included with the proposal.

Expenses that will be charged will be described. The rate for expenses, such as mileage, copying, faxing, per diem and other, will be described. Mark up on invoiced supported expenses, including sub consultants, will be described.

The hourly rates and upset amounts requested below for various aspects of the project will be considered in the evaluation. The lowest proposed fee rates or amounts will not necessarily be the principal factor in the award of the project.

### **12.2. Upset and Estimated Fees**

An estimate of the time required for each task, the fee for the labour component and the expenses for each task of the Scope of Work, and others if suggested by the Proponent, shall be included in the proposal.

The estimated fee for each task shall be regarded as an upset amount and shall not be exceeded without prior written approval of the City and such approval will only be considered for changes in the scope of the work required due to factors that could not have been anticipated with the information available at the time of submitting the proposal.

## **13. Confirmation of Insurance**

The Proponent will provide with the proposal confirmation and a description of the coverage of the professional liability insurance carried by each team member.

Upon acceptance of their proposal, the Consultant shall submit to the City a Certificate of Insurance containing the following:

- a) Provision naming the City as an additional insured to the Comprehensive General Liability Policy.
- b) Confirmation that the Comprehensive General Liability Policy contains a cross liability clause,
- c) Comprehensive General Liability Policy in an amount not less than \$2,000,000.
- d) Liability insurance in an amount not less than \$2,000,000 with the Insurance Corporation of British Columbia on any licensed motor vehicles of any kind.

A minimum of 30 days written notice of cancellation of the mandatory Comprehensive General Liability Policy is required.

## **14. References**

Prepare a list, in chronological order of three (3) similar projects successfully completed by your firm in the last five (5) years. Provide the name and telephone number of a contact person from previous projects. Project examples should include documentation of originality and innovation in the development and implementation of project elements is expected.

## **15. Confidentiality**

Each proposal and all information, materials, and products included in a proposal submitted for this project shall be the sole property of the City of Colwood. Proponents should be aware that the City is subject to the provisions of the Freedom of Information and Protection of Privacy Act (FOIPPA). A Proponent may stipulate in their proposal that portions of the proposal contain confidential information and are supplied to the City in confidence. However, under FOIPPA the City may be obligated to disclose all or part of a proposal in response to a request made under that Act, even if the Proponent has stipulated that part of the Proposal is supplied in confidence. Proponents should review section 21 and other provisions of FOIPPA in order to gain a better understanding of the City's disclosure responsibilities under FOIPPA.

## **16. No Contractual Obligations or Claims for Compensation**

By issuing this Request for Proposals, the City is not seeking binding offers and no contractual obligations whatsoever shall arise between the City and any Proponent, including as a result of the issuance of this RFP or the submission of a proposal, unless the City and a Proponent execute and deliver a written contract for the provision of the services contemplated under this RFP. Without in any way limiting the foregoing, no Proponent shall have any claim for any compensation of any kind whatsoever, as a result of participating in the Request for Proposal, and by submitting a proposal, each proponent shall be deemed to have agreed that it has no claim.

## **17. Questions and Clarification**

Questions or requests for clarification regarding this Request for Proposals shall be directed to:

Emmet McCusker, Deputy Director of Engineering  
City of Colwood  
3300 Wishart Road  
Colwood, BC V9C 1R1  
Phone (250) 478-5999  
Fax (250) 478-7516  
e-mail: emccusker@colwood.ca

## **18. Colwood – Consultant Agreement**

The successful Proponent will be invited to enter into a Consultant agreement with the City of Colwood for the provision of consulting services. The agreement will be based on this RFP, the proposal submitted including the tasks to be carried out, the personnel committed, the fees to be charged and any negotiated changes to any of the foregoing.

## **19. Authorization**

The proposal will be signed by a representative of the Proponent.

## **20. Submission Date, Time and Place**

One signed original, and one copy in PDF format, of the proposal will be delivered, mailed or e-mailed to the City of Colwood at the address given below:

### **City of Colwood**

3300 Wishart Road

Colwood, BC V9C 1R1

Phone 250-478-5999

e-mail: [emccusker@colwood.ca](mailto:emccusker@colwood.ca)

Proposals not being sent by e-mail shall be enclosed in a sealed envelope containing the proposal and will be clearly marked "PROPOSAL: RFP 2014-05 COLWOOD RAINWATER MANAGEMENT PLAN, ATTN: Emmet McCusker"

Proposals will be received at Colwood City Hall before 3:00 PM local time on Wednesday, November 05, 2014. It is the exclusive responsibility of the bidders to ensure that their proposal is received by the City of Colwood before this time and date.