



Request for Proposals (RFP)  
Water Resources Technical Assistance Program

Pine Street CSO Abatement  
*Phase I: Alternatives Evaluation and Preliminary Engineering*

SUMMARY

The City of Burlington (City) is issuing this Request for Proposals (RFP) for assistance from qualified Water Resource Technical Assistance Program (WRTAP) consultants to assist in examining alternatives and completing preliminary engineering for reduction of stormwater runoff to the combined sewer area above the Pine Street CSO. We anticipate 3 likely phases: Phase I (Alternatives Analysis and Preliminary Engineering), Phase II (Final Design) and Phase III (Construction Oversight).

This RFP details the Phase I Alternatives Analysis and Preliminary Engineering work to be assigned under a WRTAP Work Assignment Agreement. The proposals will also be evaluated on the basis of whether or not the consultant may be able to provide assistance in additional phases (Phase II and Phase III).

PROPOSED PROJECT SCHEDULE

Friday, August 21, 2015	RFP released to qualified WRTAP consultants
Friday, August 28 <sup>th</sup> , by noon	<i>Deadline for submission of questions</i>
Monday August 31 <sup>st</sup> , by 4 pm	Response to questions emailed
Wednesday, September 16 <sup>th</sup> , by 2 pm	RFP submission deadline
Late September 2015	Project kick off
December 15, 2015	Tentative project completion deadline

All questions pertaining to the RFP should be submitted to Megan Moir, Stormwater Program Manager, by email ([mmoir@burlingtonvt.gov](mailto:mmoir@burlingtonvt.gov)) by noon on Friday, August 28th. All addendums and answers to any questions received by the above time and date, will be emailed to the qualified WRTAP consultants who received the RFP by Monday, August 31st at 4 pm.

BACKGROUND

In 2013, Water Resources staff identified a previously unknown Combined Sewer Overflow (CSO) point in the form of an overflow pipe in a combined sewer manhole that was connected to an adjacent separate stormwater pipe that discharges at the BED outfall (see map) which discharges to the Pine Barge Canal and eventually to Lake Champlain. In an effort to eliminate the CSO to surface waters (and because we thought that it was not active), the pipe connection was blocked.

Subsequent to blocking the pipe, surcharge of the manhole in front of Feldman's Bagel at 660 Pine Street was observed on numerous occasions causing an undesirable condition with the possibility of human contact with combined sewage, primarily through splash from vehicle traffic. In order to minimize the risk to human health, we have returned the overflow pipe to its previous condition but have installed real time monitoring/notification to make sure that we are aware of when the overflows are occurring. Additionally, we contracted with a pipe cleaning company to clean a section of downstream pipe to maximize capacity in the pipe network.

Both due to our own desire to abate/eliminate this CSO point as well as in response to a requirement by the State to provide a plan (within 60 days – by 9/11/2015) for doing so, we are seeking assistance with identifying and evaluating alternatives for abatement/elimination of this CSO point. We will refer to this effort in our plan that we submit to the State. The effort described in this RFP is not intended to be completed by that time, clearly. Given that the State is currently revising the State CSO Policy and also given the fact that this CSO point does ultimately discharge to the Lake, it is critical that the frequency of the CSO be reduced to the maximum extent practicable using some combination of optimization of capacity/storage within the existing pipe network and retention/detention of stormwater sources in the sewershed. We are also open to examining opportunities for some sewer separation, however please note that any separation, particularly to Englesby Brook will need to include treatment and flow control and also could have implications for the phosphorus control plans that will come from the Lake Champlain TMDL. Because we are also interested in reducing the overall impact of stormwater on our wet weather systems at Main Plant, our preferred options are removal of stormwater input followed by retention/detention of stormwater sources within the combined sewer network. There may also be significant groundwater sources throughout the sewershed.

Previous work:

- Update and calibration of our H/H model by Stantec Consulting Engineers; our PCSWMM model was calibrated using RTK methodology. It is currently still in draft status but is available for use during this project. (See model report at the project FTP site to review the calibration data, including the storm sizes that were used ).
- This section of the Main Plant sewershed already has a storage facility - see project FTP site - with a vortex outlet. We have already adjusted the Vortex outlet once and are exploring restricting the outlet more to further attenuate smaller storm events.
- We have evaluated the option of installing a cross-over pipe between the surcharging 15" combined sewer pipe and the adjacent 18" Combined sewer pipe. At this point, our models indicate that surcharge would occur elsewhere in our system and so we have not pursued this option.
- We have recently cleaned a 3000' section of pipe downstream from the CSO point in an effort to improve downstream capacity in the system. Approximately 4 cu yds of material was removed from this pipe segment at the end of July. Unfortunately, overflows have continued to occur during moderate rain events.

Information related to this project can be found at our FTP site : <ftp://ftp.burlingtonvt.gov/> in the folder Pine Street CSO.

Login: [REDACTED]

Password: [REDACTED]

Information to be provided at the FTP site includes:

- GIS of Sewer System
- PCSWMM file of the Main WWTP collection system
- Draft Report related to H/H model development and calibration
- Information on the CSO storage system
- Extreme precipitation estimate table

We will respond to other requests for information submitted as part of the question period of this RFP and/or during the data compilation phase early on in the project.

#### PROPOSED SCOPE OF WORK

##### *Phase I: Alternatives Evaluation and Preliminary Engineering*

Consultant shall pursue a scope of work that meets the Phase I Goal: Identify and evaluate alternatives for minimizing (to the maximum extent practicable) the frequency of overflows at the Pine Street CSO and provide preliminary engineering and cost estimates.

Specifically, we request the following tasks to be addressed as part of the consultant's final scope of work:

1. Using our calibrated PCSWMM model and the extreme precipitation estimates provided on the FTP site, provide best estimates regarding the target volume of combined sewer flow that must be reduced (during the PEAK) to prevent a CSO from occurring. Assume that we would want to prevent CSOs from occurring at this site up to the 5 year depth/durations.
2. Identify opportunities for reducing non-sanitary sewer volume and/or detaining flow throughout the sewershed to meet the target volume identified in item 1.
3. Using criteria developed mutually with City Staff evaluate and prioritize the alternatives identified above.
4. Provide preliminary engineering and cost estimates for the highest ranking alternatives such that the target volume reduction is met + a Margin of Safety (to be suggested by the consultant).
5. Predict the effectiveness of the CSO reduction plan once implemented using the model.

Other considerations:

It is possible that final engineering and implementation of any mitigation proposed as the result of work completed as part of this project would be pursued using CWSRF funds. As such, we request

that consultants keep the requirements/reporting needs of CWSRF in mind as they pursue this project, such as the format of the PER required as part of the CWSRF process.

PROPOSAL REQUIREMENTS:

All questions pertaining to the RFP must be submitted to Megan Moir by email ([mmoir@burlingtonvt.gov](mailto:mmoir@burlingtonvt.gov)) by noon on Friday, August 28<sup>th</sup>. All addendums and answers to any questions received by the above time and date, will be emailed to the qualified WRTAP consultants who received the RFP by Monday, August 31<sup>st</sup> at 4 pm.

Consultants shall prepare a proposal containing their proposed approach and budget and send it via email to Megan Moir ([mmoir@burlingtonvt.gov](mailto:mmoir@burlingtonvt.gov)) by 2 pm on Wednesday, September 16<sup>th</sup>. Consultants may submit their hardcopy proposal via U.S. Mail at the address below, but must also provide an electronic PDF copy at the same time. If a hardcopy proposal is submitted, they must be double sided with NO acetate or plastic covers.

Megan Moir  
Water Resources Office  
Burlington Water Treatment Plant  
Burlington Department of Public Works  
234 Penny Lane  
Burlington, VT 05401

Required Proposal Elements:

1. Scope of Work - A scope of work for the project detailing the consultant's proposed approach to the work tasks described in the RFP, and any recommended adjustments to the scope or individual tasks.
2. Identification of Key Staff – provide a brief description of their roles in the project and a brief description of their work on related projects. Resumes for staff that were identified in the WRTAP SOQ do not need to be submitted.
  - Clearly identify any sub-consultant firms. Consultants may propose staff or sub-consultants that were not originally identified as part of their WRTAP proposal if it enhances the consultants effort in accomplishing the scope. However, the original consultants should be substantially involved in the project.
  - Resumes for staff or sub-consultants that were not originally part of the WRTAP SOQ must be provided and identified as SUPPLEMENTAL STAFF or SUPPLEMENTAL SUB-CONSULTANTS.
    - *It is anticipated that the Consultants may have to add a sub-consultant to address the modeling/familiarity with models calibrated using RTK requirements of this proposal. If no sub-consultants are to be added, the Consultant must provide information regarding their experience working with PCSWMM models calibrated using the RTK method.*

3. Proposed Schedule – The schedule should include completion of work tasks and deliverables as well as any key meetings.
4. Cost Proposal – the consultant shall provide a level of effort table and proposed Phase I budget.
5. Additional Related Experience (Optional) – the consultant may provide up to 3 examples of additional related experience that may not have been included in the original WRTAP SOQ. Alternatively, the consultant may simply reference examples that were presented in the WRTAP SOQ.

#### CONSULTANT SELECTION PROCEDURES

All proposals will be evaluated using the criteria listed below by a selection committee. The committee will consist of a minimum of 2 WRD staff members, and possibly representatives from other City Departments for a minimum of 3 selection committee members. The successful consultant/consultant team will have the following experience:

- Experience with H/H models in PCSWMM calibrated with the RTK method
- Experience with wet weather management/CSO abatement, including wet weather optimization and stormwater retrofits
- Experience with green stormwater infrastructure
- Experience with CWSRF projects (preferred)

Proposals will be ranked based on the following criteria:

- ▶ Demonstration of overall project understanding and project deliverables (35 pts)
- ▶ Qualifications of the firm and the personnel to be assigned to the project, related experience (35 pts)
- ▶ Clarity/Quality of the proposal and creativity/thoughtfulness in addressing the scope of work (25 pts)
- ▶ Experience of the personnel working together as a team to complete similar projects (5 pts)

The selection committee may elect to interview consultants prior to final selection.

Once the technical proposal is discussed and ranked, the cost proposal will be reviewed for consistency with, and in light of, the evaluation of the technical proposal. The City of Burlington reserves the right to seek clarification of any proposal submitted and to select the proposal considered to best promote the public interest. The City furthermore reserves the right to negotiate the scope and project costs with the highest ranked proposal before selecting a proposal with a lower technical ranking and lower cost and to re-release the RFP to a larger consultant pool if the quality and/or number of proposals received does not benefit the goals of the City in this effort.

All proposals become the property of the City of Burlington upon submission. The cost of preparing, submitting and presenting a proposal is the sole expense of the consultant. The City of Burlington reserves the right to reject any and all proposals received as a result of this solicitation, to negotiate with any qualified source, to waive any formality and any technicalities or to cancel the RFP in part or in its entirety if it is in the best interest of the City of Burlington. This solicitation of proposals in no way obligates the City of Burlington to award a contract.

#### CONTRACTUAL REQUIREMENTS

Any work awarded as part of this RFP will be awarded as a Work Assignment Agreement (WAA) under the terms of the consultant's executed WRTAP On-Call Master Agreement. The WAA will only be issued for Phase I work and costs. The City reserves the right to issue additional WAAs to the same consultant for some or all of the future phases of the Pine Street CSO Abatement Project OR to release additional RFPs for future phases to WRTAP consultants or non-WRTAP consultants and award future phase work as benefits the City.

At this point, the City does not anticipate requiring the \$3,000,000 Annual Aggregate Professional Liability Insurance standard identified in the WRTAP On-Call Master Agreement for this Phase I WAA and believes that the \$2,000,000 carried by most consultants will suffice. All other insurance requirements listed in the WRTAP On-Call Master Agreement will be required.