



June 11, 2019

Corby Purdy  
Supervisor, Infrastructure Design and Construction  
City of Kawartha Lakes  
12 Peel Street  
Lindsay, Ontario K9V 5R8

**Re: Proposal No: Z1235P19023-00 – Bobcaygeon Elevated Tank Recoating and Rehabilitation (Rev. 1)**

Dear Mr. Purdy:

The Ontario Clean Water Agency (OCWA) is pleased to submit a revised proposal to undertake the Bobcaygeon Elevated Tank Recoating and Rehabilitation project in the City of Kawartha Lakes (City). The previous proposal, dated April 4, 2019, included work on the Fenelon Falls Standpipe and Woodville Standpipe as well. This revised proposal is for the Bobcaygeon Elevated Tank only.

## 1 Background

### 1.1 Previous Inspection Report and Budget

In July 2018, Landmark Municipal Services (Landmark) was retained to inspect the Bobcaygeon Elevated Tank and to identify the rehabilitation and safety upgrade works required. Overall, Landmark estimated that the construction cost was \$401,000. It should be noted that this is a budgetary estimate for construction only and based on OCWA's experience in managing many tower/standpipe rehabilitation projects, the actual tendered cost to complete the work will most likely be higher. It is recommended that a contingency amount (15%) be added to the Landmark estimate for budgeting purposes.

The Landmark inspection report identified various rehabilitation and safety upgrade works required on the tank such as installing a kickplate on roof handrail, coating of the roof handrail, installing a cable system, installing a new fall arrest system according to the new standard, removing the existing interior coating system and installing a new coating system, etc. Refer to the Landmark Inspection Report dated August 23, 2018 for more details.

### 1.2 OCWA Experience

OCWA can provide turn-key engineering services to enable the implementation of the required works identified above. OCWA has completed similar work (coatings application, safety upgrades and other repair works) for many municipalities over the last 15 years. The most recent examples being the Lambton County – Forest Standpipe (2018), Essex County – Essex Water Tower (2018), and Wasaga Beach Water Tower (2017).



**Figure 1: Photo of the recoated and rehabilitated Essex Water Tower and Wasaga Beach Water Tower.**

The following is a list of some other recent rehabilitation and recoating projects OCWA has completed:

- Township of Leeds and the Thousand Islands – Lansdowne Standpipe – 2019 (construction underway)
- Union Water Supply System – Leamington Water Tower – 2016
- City of Stratford – Forman Water Tower – 2015
- Municipality of Callander – Callander Standpipe – 2014
- Municipality of Greenstone – 2 Water Towers – 2014
- Town of Hearst – Hearst Water Tower – 2013
- Municipality of South Bruce - Wiarton Standpipe – 2013
- City of Stratford – Dufferin Standpipe – 2012
- Haldimand County - Hagersville Standpipe – 2011
- Union Water Supply System – Harrow Water Tower – 2011

## **2 Scope of Work and Methodology**

### **2.1 Phase 1: Specifications and Tender Preparation**

OCWA proposes to develop technical specifications and complete tender documents for the surface preparation, interior coating repairs and safety upgrade works. As-built drawings of the Bobcaygeon tank will be required for inclusion in the tender and the City should provide these to OCWA upon commencement of the project.

OCWA will review the specific items to be included in the tender scope for the Bobcaygeon tank with the City prior to completing the tender documents. Some items may be specified as “Provisional” in the tender documents. Provisional items can then be added/removed from the scope of the contract, to allow the City the flexibility to adjust the project to meet the City’s budget.

As the service provider for operation of the tank, OCWA will lead, manage and coordinate on scheduling of the works and the removal of the tank from service. Coating materials will be specified to provide minimum drying times to ensure that the tank can be put back into service as quickly as possible.

We propose to provide the following services to assist the City in the implementation of the required works:

- Review the Landmark inspection report to finalize the scope of work required.
- Review the lead concentration findings (if any) and include appropriate wording in the specifications for lead abatement procedures.
- Issue the Request for Tender on Jaggaer (formerly BravoSolution), an online public procurement website.
- Develop the engineering specifications for the coating removal and application, safety upgrades and other works. This involves preparing detail specifications for the identified works and including the materials and methods that should be utilized. This will also include environmental control specifications, as well as, methods for sampling, measuring and testing the materials applied. OCWA has extensive experience in the selection of suitable lining/coating systems to meet the regulatory compliance requirements. We specify systems that are intended to provide corrosion protection for upwards of 15 years while ensuring that there are no unpleasant taste or odour issues in the water supply.
- Using OCWA's standard construction template, prepare a construction contract for inclusion in the tender package.
- Prepare a draft and final tender package using OCWA standard documentation.
- Undertake tender administration. This involves issuing the tender package, arranging and conducting a mandatory pre-tender site visit for prospective tenderers, recording and answering tenderers' questions, preparing and issuing addenda if necessary, and receiving the tenders at OCWA's office.
- Evaluate the tenders received and make recommendation to the City for the award of contract.
- Prepare and issue a contract award letter and contract agreement. OCWA will sign the contract agreement with the selected contractor and will pay the contractor and then invoice the City.

## 2.2 Phase 2: Contract Administration

The following describes our proposed project deliverables during the contract administration phase.

Immediately following the contract execution OCWA will arrange a pre-construction meeting with the Contractor. This activity will commence the contract administration part of our project management services. This service includes the provision of specialist coating inspection services during the work to ensure that the coating is done to the required standards. For the coating inspection services, we propose to retain PW Makar Coatings Inspection Ltd. (this firm is a licensed coatings inspection company with NACE Level 3 inspectors). OCWA has worked successfully with PW Makar on many similar tank rehabilitation projects over the past 15 years. Pricing for four coating inspection visits by the coating inspector is included in our proposal. Additional visits, if required, will be charged at the rate provided in the Time Task Matrix.

Since the installation of fall arrest systems and other safety upgrades to the Bobcaygeon tank involves welding work, we propose to retain a welding inspector (Team Industrial Services) for welding inspection services. We have included two welding inspections in our proposal. Additional visits, if required, will be charged at the rate provided in the Time Task Matrix.

Provisional item – we propose to set aside a budget of \$4,000 for the provision of structural engineering review of the safety upgrades to the tank. The service of a structural engineer's review would only be used if necessary. If required, OCWA will contract a structural engineer for the review through our Engineer Vendor of Record (VOR) service. We will then invoice the City for this service.

Contract Administration will also include the following tasks:

- Monitoring the performance of the contractor;
- Supervising the coatings inspector and welding inspector;
- Providing monthly (or when requested) status updates to the City;
- Verifying invoices and preparing payment certificates;
- Keeping project records;
- Review of shop drawings;
- Review and acceptance of submittals;
- Recommending and issuing Contract Change Orders;
- Project completion documentation;
- Arrange for an end of warranty ROV inspection of the Bobcaygeon Tank interior coating; and
- Monitoring of rectification of deficiencies and warranty issues.

### 3 Project Team

OCWA has assigned the following staff on this project.

#### **Raj Roopchand, MSc., P.Eng., NACE Member – Senior Technical Advisor**

Raj is a registered Professional Engineer in the Province of Ontario and has close to 25 years of experience in design, management of construction, operation and maintenance of water and wastewater systems. Raj has developed over his many years of experience thorough knowledge of pertinent standards and regulations that apply to water and wastewater systems. He holds a Master of Science degree in Engineering Hydrology and has good knowledge and technical skills in water/wastewater systems and network hydraulics. Raj has successfully completed numerous water tower/standpipe rehabilitation projects that are similar to this project. In fact, Raj was involved on all water tower/standpipe rehabilitation projects completed by this department in the last 15 years including the ones listed under Section 1.2. **Raj will provide technical advice and senior review for this assignment.**

#### **James Su, P.Eng., LEED Green Associate – Project Manager/Engineer**

James has been with OCWA for approximately 10 years. He has completed various engineering work from water/wastewater plant studies to major construction projects. He has conducted various energy efficiency works and holds the designation of *Leadership in Energy and Environmental Design (LEED) Green Associate*. James has administered and managed many tenders and construction contracts throughout his career, and this experience will be very beneficial for the completion of this project. James was involved with the Essex water tower rehabilitation along with Raj and currently managing the Lansdowne Standpipe rehabilitation. **James will be the project manager/engineer for this assignment.**

Other OCWA staff will be involved on an as needed basis.

## 4 Schedule

We understand that time is of the essence in order to commence and complete this work during the summer/fall months. OCWA is ready to start the project immediately upon approval. The full project is expected to take approximately 5 months to substantial completion according to the following timetable, and assuming the project is approved by June 25, 2019.

TASK NO.	TASK	COMPLETION BY
1	Draft Tender Package	July 16, 2019
2	Final Tender Package Issued	July 23, 2019
3	Tender Closed	August 13, 2019
4	Contract Awarded	August 30, 2019
5	Start of Construction	September 16, 2019
6	End of Construction	November 15, 2019

This is a tentative schedule and it may change depending on the final scope of work, timing of City decisions, contractor availability and weather conditions.

As tendering is likely to occur in July 2019 and construction work to start in September, there is a possibility of higher than expected prices as most contractors would likely already have work committed for the year. We would suggest putting a line item in the tender to identify any credits to the City should the work be deferred to start in the Spring of 2020. The City would still have the option of choosing when to start work.

## 5 Overall Project Budget

In reviewing the above scope of work, OCWA proposes a project management budget of **\$79,600** (exclusive of HST) for OCWA's professional fees, disbursements and OCWA's travel expenses. Please refer to the Time Task Matrix in Appendix A for a break-down of the budget. OCWA proposes to invoice monthly on a time and material basis. If additional services are required outside of the scope of this proposal, this cost would be in accordance with our Engineering Schedule of Rate attached in Appendix B.

Please note OCWA's budget includes OCWA's operational efforts in taking the Bobcaygeon tank offline and bringing it back online with disinfection, additional efforts with monitoring the WTP and overall operational coordination with the contractor throughout the project.

An overall project budget estimate is provided in Table 1 assuming all the recommended items in Landmark's inspection reports are included.

**Table 1: Estimated Project Budget**

	BUDGET AMOUNT (WITHOUT HST)
Construction - Bobcaygeon Elevated Tank	\$401,000
Construction – Contingency (15% of \$401,000)	\$60,150
Sub-total Construction	<b>\$461,150</b>
OCWA Engineering and Project Management	\$47,470
OCWA Operational Support (taking Bobcaygeon tank offline/online, overall operational coordination)	\$8,000
Specialist Inspections and Review (Coating Inspections, welding inspections, structural review, warranty ROV inspection)	\$24,130
Sub-total Non-Construction	<b>\$79,600</b>
<b>Total Overall Project Budget Estimate</b>	<b>\$540,750</b>

Please note the construction cost of \$461,150 is an estimate only based on previous quotes from Landmark and may change depending on the bid prices received. Regardless of the construction costs, OCWA's project management fee of \$79,600 will remain the same.

We understand the City may have a limited budget. At the time of tender preparation, we will confirm the items to be included in the tender and the items to be specified as "Provisional". The City can then decide on which "Provisional" items to exclude from the contract after the bids are received.

OCWA's proposal constitutes a firm and binding offer to the City of Kawartha Lakes and shall remain irrevocable until July 5, 2019. Thank you for considering OCWA's services.

We are ready to start the project upon receipt of approval notice. Should you have any questions on the above, please feel free to contact the undersigned.

Sincerely,



James Su, P.Eng., LEED Green Associate

Project Manager/Engineer  
Tel: 905-491-3043  
Email: jsu@ocwa.com



Lisa Babel, P.Eng.

Director of Project Planning and Delivery Group  
Tel: 905-491-3059  
Email: lbabel@ocwa.com

cc: Geoff Redden, General Manager, OCWA  
Brent Martin, Senior Operations Manager, OCWA

**COUNTERSIGNATURE:**

By signing below, I accept the scope of work described in the above proposal and provide permission on behalf of the City to proceed.

\_\_\_\_\_  
**(Signature)**

\_\_\_\_\_  
**Date**

# **APPENDIX A**

## **Time Task Matrix**





# **APPENDIX B**

## **Rate Schedule**

## Engineering Schedule of Rates – 2019

CATEGORY	DESCRIPTION	HOURLY RATE
PME11	Director	\$170.00
PBE 09	Senior Specialist/Project Manager	\$165.00
PBE 08	Senior Engineer/Project Manager	\$148.00
PBE 07	Engineer/Project Manager	\$132.00
PBE 06	Intermediate Engineer/Project Manager	\$120.00
PBE 04/05	Junior Engineer/Project Manager	\$100.00
TECH2	Engineering Technologist	\$100.00
	Student Engineer	\$50.00
OAD08	Administrative Assistant	\$60.00
OAD10	Financial Analyst	\$85.00

**Currency:** Canadian Dollars, excluding HST

**Expenses and Disbursements:**

General office expenses including long distance, cellular/data charges, printing, office supplies and courier charges will be charged at 6% of Professional Fees.

Special expenses such as travel and living expenses, third party consultants, capital equipment, contractors fees, permitting fees and any other items not otherwise listed will be charged at cost plus 5% administration fee.

**Invoicing:**

Professional fees and expenses will be invoiced monthly unless otherwise stated and are payable within 30 days. Taxes will be added as applicable.

**Technology and Operations Expertise:**

Technology and Operations experts will be charged at specific individual rates to be provided as needed.

**Overtime**

Overtime will be charged at 1.5 times the rates stated above, but only if pre-approved by client.

**Terms and Conditions:**

OCWA standard terms and conditions will apply.

**Revision:**

This Schedule of Rates is valid until December 2019.