

# PROPOSAL to the Town of Kingsville for the Engineering, Procurement and Construction of the CWWF Funded Projects

#### SUBMITTED BY

Ontario Clean Water Agency Sheridan Centre 2225 Erin Mills Parkway, Suite 1200 Mississauga, ON L5K 1T9

August 15, 2017

Proposal No: 17-038-3 Rev: 1



2225 Erin Mills Parkway, Suite 1200, Mississauga, ON FAX: 416-314-8300 L5R 1T9

TEL: 1-800-667-6292 www.ocwa.com

August 15, 2017

Mr. Andrew Plancke Town of Kingsville 2021 Division Road North Kingsville, Ontario N9Y 2Y9

#### Re: Proposal for the Engineering, Procurement and Construction of the CWWF Funded Projects for the Town of Kingsville

#### Dear Mr. Plancke,

On behalf of the Ontario Clean Water Agency (OCWA), we are pleased to submit our proposal to the Town of Kingsville. As a provincial crown Agency, OCWA provides a comprehensive range of reliable, cost-effective, and environmentally responsible water and wastewater operations, maintenance and engineering services to a large number of municipalities, First Nations, and industrial, commercial and institutional organizations in the Province of Ontario.

OCWA has the expertise, experience and the necessary resources to competently manage this important project in the best interests and to the full benefit of the Town of Kingsville. OCWA and its predecessor, the Ministry of the Environment and Climate Change and the Ontario Water Resources Commission, have been assisting municipalities throughout Ontario for over 60 years. OCWA strives to maximize the benefits of our clients' water and wastewater projects by ensuring we respond to the municipal needs, conduct tasks in a timely manner, adhere to budgetary constraints and commission in a fully integrated manner.

We have assembled a Professional Project Management team that is tailored specifically to the unique requirements of this project and the Town of Kingsville.

We trust that our proposal is fully complete and adequately describes our proposed service offering. Should you have any questions or concerns, we would welcome the opportunity to clarify either by phone, writing or in person at your request. We are confident that our proposal will prove the best choice for the Town.

Should you have any questions or concerns, we would welcome the opportunity to clarify either by phone, writing or in person at your request. OCWA's contact for this proposal is:

**Rick Albert** Senior Construction Manager Email: ralbert@ocwa.com Mobile: 416-571-5926

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OCWA's proposal constitutes a firm and binding offer to the Town of Kingsville and shall remain irrevocable until September 15, 2017. If the Town of Kingsville wishes to proceed with this work, we request that you countersign this proposal and return to OCWA. OCWA will then prepare and forward a formal contract agreement outlining the details of the project.

Thank you for considering OCWA's services. We look forward to further discussing a partnership that meets your needs.

Sincerely,

**Rick Albert** Director, Capital Delivery

Lisa Babel

Lisa Babel. P.Eng Director, Project Planning and Delivery

cc: Dave Jubenville

COUNTERSIGNATURE:

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

Town of Kingsville(Signature) Andrew Plancke

Date



# **STATEMENT OF CONFIDENTIALITY**

# OCWA's Proposal to The Town of Kingsville for the Engineering, Procurement and Construction Management of the CWWF Funded Projects

Information has been provided for the express review of the Town of Kingsville and is not to be copied or submitted in any way or form to any person(s) or organization(s) without the written authorization of the President and CEO of the Ontario Clean Water Agency. All copyright and intellectual rights to the material provided remain in the ownership of the Ontario Clean Water Agency.





# **Our Values**

OCWA's values are focused on building trust with clients and other stakeholders.

#### Transparent

Open and honest communication of our business activities.

#### Safe

Deliver clean water services to protect our employees, the communities we service, and the environment

#### Respectful

Build sound relationships with our staff, clients and other stakeholders by embracing diversity, acting responsibly and doing what is right.

#### Teamwork

Work together, share our collective expertise and be innovative in delivering exceptional results and achieving our mission

#### Understanding

Confidence in the knowledge and ability of our people to meet the challenges of the water and wastewater industry. Continuously learn current trends and innovative technologies and/or processes in our industry.





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# 1 Introduction

## 1.1 Introduction

The Ontario Clean Water Agency (OCWA) is capable, ready and willing to assist the Town of Kingsville (Town) with our proven Professional Project Management Services. OCWA is well known throughout the province as a water and wastewater operation and maintenance (O&M) service provider. OCWA also boasts a Project Planning and Delivery (PPD) group which provides Project Management Services exclusively to water and wastewater projects across Ontario with a history of excellent results extending back 60 years.

Through the application of appropriate management techniques, the Project Manager will direct and coordinate the efforts of the Consultant and the Contractor to achieve the objectives of the project and to meet the Town's requirements. OCWA's objective for this proposal is to supply the best qualified project management team, which will be responsible for the management of all aspects of the project, including maintaining the time line, ensuring design and construction quality, safety and cost control.

As Project Manager, OCWA is able to maintain an arms-length approach from any contractor and/or design engineer. This position offers the Town the benefit of a completely objective approach to Project Management Services for this project.

OCWA is a Crown Agency of the Province of Ontario and has close to 60 years of experience in the operation and maintenance of water and wastewater treatment plants, remote reservoirs, pumping stations, water distribution systems, wastewater collection systems, and lagoons. OCWA's wide range of services includes asset management, remote monitoring, process optimization, capital delivery, project management and engineering. We operate more than 800 water and wastewater facilities across Ontario.

## 1.2 Project Understanding

The Town has applied for and received the Clean Water and Wastewater Funding (CWWF) for a total net eligible cost of \$1,261,023. These funded projects include equipment and system replacement and upgrades for:

- Lakeshore West Water Pollution Control Plant;
- Main Pumping Station of Kingsville Wastewater Treatment Lagoon; and
- Main Pumping Station of Cottam Wastewater Treatment Lagoon.

The equipment slated for replacement and upgrade include:

- Bar Screen,
- Grit Pumps and Blowers,
- Effluent UV System,
- Motor Control Centre (MCC) Panels and Transfer Switch,
- Pumps and Pump Stations;



In addition, roof replacement at the Lakeshore West Water Pollution Control Plant is also included in the funded projects.

The details are provided in Section 2.1 – Project Scope.

# 2 Scope and Methodology

OCWA is pleased to provide this proposal to the Town of Kingsville for providing a Professional Project Management service for the CWWF funded projects. The project management includes engineering, procurement and construction management of all the CWWF funded projects.

## 2.1 Project Scope

The projects scope involves one wastewater treatment facility (Lakeshore West Water Pollution Control Plant) and two pumping stations (Kingsville Lagoon and Cottam Lagoon), and comprises a total of seven (7) sub-projects. A summary of the sub-projects are provided in Table 1 below.

Facility	Scope	Description
	Replacement of Effluent UV system	Replace existing UV System with a new high efficient system.
Lakeshore	Replacement of the transfer switch of the main MCC panel	Life cycle replacement
West Water Pollution Control Plant	Replacement of raw inlet grit pumps, grit blowers and primary sludge pumps	Life cycle replacement
	Raw inlet bar screen upgrade	Install a new bar screen system that is more reliable and efficient.
	Plant facility roof replacement	Life cycle replacement
Kingsville Lagoon Main Pumping Station	Sewage pumps replacement	Replace old pumps with new high efficient pumps with Variable Frequency Drives.
Cottam Lagoon	Sewage pumps replacement Flow meter and associated piping upgrade	Life cycle replacement for pumps Upgrade flow meter and associated pipe from 4" diameter to 6" diameter in order to better handle the wet weather peak flow.

#### **Table 1: Project Summary**

## 2.2 Project Tasks

The following describes the tasks to be completed for the project management service of this project.

## Task A – Project Initiation

This task will include collecting and reviewing of background information and conducting site visits for the Lakeshore West Water Pollution Control Plant, Kingsville Lagoon Main Pumping Station and Cottam Lagoon Main Pumping Station. In addition, the regulatory requirements (i.e. Class EA applicability and Environmental Compliance Approvals (ECA) amendment will be evaluated and identified within this task.

OCWA will develop a schedule for the portfolio of projects to determine which projects may require an extension request to be made.

### Task B – Engineering Design and Specificaitons

This task will include two sub-tasks: Task B1- Engineering Design by OCWA Engineers and Task B2 - Engineering Design by Consulting Engineers.

OCWA's in-house engineering team has the experience and capability to complete the engineering design and specifications for some of the projects. For other projects that required specialized engineering design (e.g. electrical, mechanical, structural, etc.), OCWA will retain a highly qualified Consulting Engineer firm to conduct the design and develop the drawings and specifications.

### Task B1 – Engineering by OCWA Engineers

OCWA will complete engineering design and specifications for like-for-like replacement projects, including but not limited to pumps and motor replacement. If any of the replacement will trigger an amendment to regulatory instruments, OCWA will also complete the amendment applications. The requirements for as-built drawings will be assessed for each sub-project on a case by case basis and discussed with the Town.

#### Task B2 – Engineering by Consulting Engineers

Some of the projects will require specialized engineering design, for example, Bar Screen upgrade, MCC panel upgrade, and UV system replacement. For those projects, OCWA will provide project management services for retaining a Consulting Engineer to complete the assignment.

#### OCWA will:

- Prepare and issue a Request for Proposal (RFP) for selecting a qualified Consulting Engineer;
- Hold a pre-bid site meeting; review, evaluate and award the proposal;
- Conduct a kick-off meeting and regular progress meetings with Consulting Engineer;
- Perform design and specifications reviews (30%, 60% and 95%);
- Carry out review of ECA amendment application, if applicable; and
- Conduct a final engineering handover meeting.

#### Task C – Tender Preparation and Tendering for General Contractors

Subsequent to the engineering design phase of the project, OCWA will select a qualified General Contractor for the construction phase of the project. The process will include Request for Tender

(RFT) preparation and issuance, tendering administration, evaluation and recommendation and contract award. The RFT and contract can be prepared by using either OCWA's standard tender document (tailored specifically for water and wastewater construction projects) or the Town's standard tender documents. This will be decided in collaboration with the Town.

### Task D – Site Inspection and Contract Administration

This phase will start with the pre-construction meeting, where the construction schedule and other necessary documentation will be obtained. OCWA will review all the shop drawings for final approval. We will update the project budget on a monthly basis and will present to the Town. We will review and certify all monthly payment certificates and issue contract change orders. We will resolve consultant/contractor disputes as required. We anticipate a minimum 9-month construction window with monthly construction meetings.

A critical aspect of the project is having a successful commissioning and start-up. We have an experienced team who will monitor and perform necessary checks during the start-up and commissioning. We will utilize our standard commissioning check lists to ensure a comprehensive commissioning plan is executed. A detailed deficiency list will be prepared and will be followed through to the warranty period. Upon successful commissioning, substantial performance will be carried out according to the Construction Lien Act and statutory holdbacks will be released.

### Task E - Post Construction and Warranty

After the substantial performance milestone is pasted, the one year maintenance period will start. OCWA will monitor and document deficiencies during this period. Maintenance holdback will be released after the one year maintenance period, subject to satisfactory rectification of deficiencies. We have budgeted for two (2) meetings during the one year maintenance period.

During the course of all phases, we will be involved with the Town's staff in meetings and reporting to funding agencies. We will provide quarterly and monthly reports with budgetary forecasts.

## 3 Project Team

OCWA will provide the necessary staff, resources, and expertise required to prepare the terms of reference documentation.

An organization chart is provided in Figure 1 to illustrate the proposed project team.



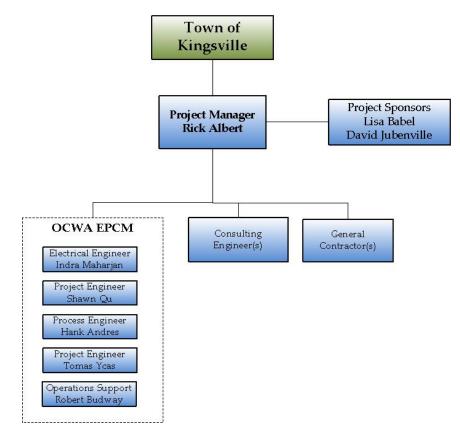


Figure 1: Proposed Project Team

Brief descriptions of each team member are provided below and detailed resumes for the project team members are available upon request.

## Lisa Babel, P.Eng., Project Sponsor, QA/QC

With over 20 years as a Professional Engineer, Lisa Babel has held many high profile roles in the water and wastewater sector. As Director of OCWA's Project Planning and Delivery, Lisa manages a multi-disciplinary team that provides engineering and technical services to municipalities and other client groups in the areas of capital projects and execution, energy optimization, feasibility studies, asset management, distribution system evaluations and technical studies and reviews. Lisa Babel will provide QA/QC to the project management component of the York Feasibility Study.

#### Rick Albert, GSC, CET, Senior Construction Manager

Rick Albert has 25 years of experience in all facets of the construction industry from civil, commercial, institution and residential, as a project manager and construction manager with proven ability to manage and direct multi-million dollar projects through team building and leadership. He is thoroughly versed in contract negotiations, planning / budgets / forecasting, critical path management, site health & safety, site management, site inspections and systems commissioning. Rick is able to lead multiple teams, and multiple projects of all kinds. His experience as a manager included the delivery, commissioning and completion of Incineration treatment, digestion treatments, primary and secondary treatments, biosolids treatments.



#### Tomas Ycas. P.Eng. CEM, Project Engineer

Tomas Ycas has been an engineer for OCWA since January 2011. Since joining OCWA, Tomas has been involved in a variety of projects throughout Ontario. This work has included project managing numerous projects varying in size and involving many stakeholders, including upgrades to water and wastewater treatment plants, aeration systems, pumping systems, chemical feed systems as well as SCADA work. Tomas has also conducted energy audits, engineering studies and technical reports for municipalities such as the Region of York, the City of Waterloo, the Municipality of Huron East and the Town of Mississippi Mills. Tomas has been involved in evaluating water and wastewater treatment facilities to identify process optimization opportunities, improve asset management practices, and recommend potential changes in facility operation or equipment. He has also prepared a number of Capital, Asset Management and Financial Plans.

#### Shawn Qu, P.Eng., Project Engineer

Shawn Qu is a Water and Wastewater Engineer with OCWA and is currently managing several engineering projects within OCWA. Shawn has seven (7) years' experience in civil and environmental engineering field, with a focus on water and wastewater engineering. He has a Master's Degree in Environmental Engineering and published six peer-reviewed journal articles on wastewater treatment during his master's study. Prior to joining OCWA, Shawn worked as a project engineer in a consulting firm for five years, where he completed a number of field assessment and design work, and gained experience in water supply and distribution, wastewater collection and treatment, regional and local storm water management, contract package preparation, construction inspection, and contract administration. Shawn is also very familiar with provincial and federal water and wastewater regulations, standard and guidelines.

#### Hank Andres, P.Eng., Senior Process Engineer

Hank Andres is a Senior Project Manager and Process Engineer with OCWA. He has more than 14 years of experience in the water and wastewater engineering field, including serval turbo blower installation projects. He has successfully managed and executed numerous process optimizations, energy management, and capacity assessment projects at water and wastewater treatment facilities throughout Canada and the United States. He has executed numerous projects to reduce wastewater plant energy usage and maximize energy recovery utilizing anaerobic digestion methane gas co-generation systems and evaluated the potential for biosolids nutrient recovery (i.e. nitrogen and phosphorus). He also has an in-depth understanding of various tertiary filtration treatment processes and technologies and has completed several process-based studies to determine the optimal upgrade alternative to achieve the required effluent criteria and plant performance.

#### Indra Maharjan, P.Eng., Senior Electrical Engineer

Indra Maharjan is a Senior Engineer with an extensive history of energy projects and energy management roles. He currently leads OCWA's energy services initiative across Ontario and is the Program Manager for this group. He has 15 years of experience in the energy efficiency and electrical engineering field. Indra combines his history in electrical engineering and process understanding to manage and deliver on key efficiency projects. His understanding of the energy market in Ontario and how to access funding programs makes him an expert in the sector. He will provide significant expertise in identifying and implementing energy efficiency solutions.

Indra has been actively pursuing M&T projects and implementing them for OCWA municipal clients after having completed the conceptual and feasibility stage.

## 4 Schedule

Recognizing the Town of Kingsville's need to meet the CWWF reporting requirements, which have not been identified fully, at this stage, OCWA is not able to provide a firm schedule of the project. However, an up-to-date project schedule will be provided once the information is available. It is our current understanding that CWWF processes require 60% of the funding amount to be spent and invoiced prior to March 2018. An extension for the remaining 40% can be requested from the government.

# 5 Budget

OCWA suggests that the Township of Kingsville allocate a budget of approximately \$ 196,000 (excluding HST) for engineering, procurement and contract administration. This estimate includes all professional fees, disbursements (billed as 6% of fees) and travel expenses. A breakdown of the estimated budget by task is provided below. OCWA proposes to invoice the Township of Kingsville based on time and materials incurred on the project on a monthly basis.

It should be noted that the estimate for third party consulting engineer services is based on OCWA's experience only and third party engineers have not yet been asked to provide proposals. Once the projects have been further defined and the extent of engineering understood, OCWA may further refine this estimate to reflect the work anticipated.

This proposal is valid for the Town's acceptance for 30 days from the date of this proposal, after which time, a review of the offered terms and conditions may be required

TASK	Estimated Budget
Overall Project Management	\$13,000
Task A – Project Initiation	\$6,500
Task B – Engineering Design and Specifications	\$34,000
Task C – Tender Preparation and Tendering for General Contractors	\$7,500
Task D – Site Inspection and Contract Administration	\$28,000
Task E - Post Construction and Warranty	\$4,000
Third Party Consulting Engineer Services	\$103,000
Total Cost (excluding HST)	\$196,000

## **Table 2: Budget Summary**