## Attachment 2: Assessing Impacts of Waterfowl Population on Water Quality



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# Water Conservation and Quality Improvement Grant Program Application Form

Please carefully complete and review this form before submitting. If you are unclear on any of the sections, please consult the guide to the application on our website, or contact the Office and Project Manager at 250-469-6270 or grants@obwb.ca.

**Enter Grant Application Year: 2016** 

# A. PROJECT SUMMARY

Organization: Okanagan Regional Goose Management Committee – City of Kelowna

Project Title: Assessing Impacts of Waterfowl Population on Water Quality

Regional District: RDNO 🖸

RDCO 🗁

RDOS (4)

**Supporting Local Government**: City of Kelowna **Project Budget**: \$12,500 Grant Requested: \$10,000

**Project Category: Water Quality Project** 

## **B. PROJECT CONTACT**

Name: Blair Stewart

Title: Urban Forestry Supervisor

Phone: 250-469-8843

Email: bstewart@kelowna.ca

#### C. PROJECT GOALS

### What is the aim of the project?

To address the concern coming from potential contamination of lake water due to wildlife (avian fecal pellets) throughout the Okanagan basin. Water quality within the Okanagan basin fluctuates throughout the year and this project aims to quantify how avian populations affect water quality. The final report will define recommendations for each municipality to implement in order to minimize contamination from waterfowl.





# D. PROJECT DELIVERABLES/MEASURABLE OUTCOMES

# What are the expected deliverables of the project? How will the project's success be measured?

The project will take place throughout the 2016/17 year with seasonal surveys beginning in March 2016 for up to a year. The site specific survey's will monitor all waterfowl activity and provide species breakdown and provide habitat use and behavior. Furthermore, the surveys will include establishing scat plots at the survey sites to determine estimates of how much fecal pellets is influencing water quality. The assumption is that there is a quantitative correlation between increased populations of waterfowl in the Okanagan Basin and increased fecal coliform/ecoli levels in the lake (drinking) water. Long term success will be measured by how each municipality is able to implement recommendations from the report.

## E. PROJECT METHODS

## Briefly describe how your organization will meet its goal.

We will initiate the process of meeting our goal of addressing the concerns regarding increased water contamination due to increased waterfowl population by increasing our knowledge with the abovementioned technical report. The report will be derived from waterfowl and water quality data collected in specific survey locations.

#### F. PROJECT TIMELINE

Project Start Date: 01/03/2016 Completion Date: 31/03/2017

Please list all anticipated phases/activities with dates of completion in the space below: The project will be broken down into two phases. The first phase will involve the field data collection of four seasonal surveys completed throughout the year. The second phase will include statistically analyzing the data and providing a summary and recommendations within a technical report.

#### G. PROJECT PARTNERS

How does this project illustrate collaboration with other agencies? With other jurisdictions? Okanagan Regional Goose Management Committee (ORGMC) is comprised of municipalities and Regional Districts from Osoyoos to Vernon in the Okanagan Valley. The City of Kelowna staff Chair the abovementioned committee. The ORGMC group also has a long standing relationship with the Canadian Wildlife Service and the Ministry of Environment.





# H. PROJECT VALLEY-WIDE BENEFIT

Recognizing that the Okanagan is one valley with one water, how does this project benefit the valley as a whole? Describe how the outcomes of the project can benefit others in the Okanagan.

The Okanagan Regional Goose Management Committee has been working for 15+ years to manage Canada Geese (Branta Canadensis) populations throughout the Okanagan Valley. One of the key management pieces for the committee and each municipality is to conducte scare programs and/or egg addling in their communities. In order to assist with these action the committee established a management plan. In 2006, the committee drafted the Okanagan Regional Goose Management Strategy and Action Plan for the region. <a href="http://okanagangooseplan.com">http://okanagangooseplan.com</a> This document has been critical in providing direction and continunity for the involved levels of government to reach their goals.

If the City of Kelowna was able to receive these funds the resulting technical report could help direct the committee in future efforts to look at drafting a further management plan for all waterfowl that affect beaches, parks and most importantly water quality. The technical report will help to describe where and when our waterfowl species conjugate and if these spikes in population affectively influence water quality through fecal coliform ppm.

### I. PROJECT INNOVATION

What is innovative about this project? Will this project present a new and/or innovative approach or address a previously identified issue?

We currently do not have any data to define what waterfowl species (besides Canada Geese) and/or populations are possibly influencuing the water quality throughout the valley. The proposed technical report will provide details of both species and population numbers to local municipalities and provide recommendations going forward. Fecal pelts from waterfowl is a growing concern which may lead to water quality concerns for beaches and beach users.

#### J. GRANT TRACK RECORD

If your organization has received OBWB grants for previous projects, please comment on the success of the projects and the significance of the grants to your organization.

The City of Kelowna in partnership with the Okanagan Regional Goose Management Committee (ORGMC) received a grant in 2010 to support the education and awareness component of the aforementioned goose management plan at the regional level. Through the grant, ORGMC and the participating municipalities were able to send leaflets and mailouts to residents to assist in educating the public about Canada geese in our region. The project has seen a huge increase in reported nests and an overall reduction in the number of geese that have entered the population due to a successful egg addling program.





# K. PROJECT FUNDING

**Total Project Funding: opportunity** 

Please list below all sources of funding and indicate whether each is direct or in-kind, confirmed or unconfirmed.

The Okanagan Regional Goose Management Committee (ORGMC) awards a contract annually to a qualified consulting firm to conduct nesting surveys, egg addling and population surveys to aid in the management of the regional Canada Goose populations. This qualified and experienced contractor may have the capacity to conduct some of the survey work related to the proposed project while also completing a portion of the ORGMC project. This may ensure that there are no redundencies in the process and possibly some cost savings in completing the field survey phase.

Technicians with the City of Kelowna's Water Quality Department will be processing the water samples. This will reduce the cost of sending samples a private lab to be tested.

#### L. PROJECT EXPENSES

Total Project Budget: \$12,500.00 Project Management: \$1,500.00 Equipment: \$Click here to enter text.

**Supplies/Consumables:** \$Click here to enter text.

Printing/Media: \$Click here to enter text.

Consultant/Contractor: \$10,000.00 Travel: \$Click here to enter text.

Wages: \$1000.00

Other: \$





# SUBMITTING THIS APPLICATION

Please ensure you have reviewed the terms of reference and the guide to the application. Once your application is complete, please submit a copy along with the required supporting resolution from local government and any other supporting documents to:

Okanagan Basin Water Board WCQI Grant Program 1450 KLO Rd Kelowna, B.C. V1W 3Z4

Or electronically to:

grants@obwb.ca

Applications must be received by 4:00 p.m. on the deadline date. Late or incomplete applications will not be accepted. Please save and print a copy of the application for your records.