

REPORT TO COUNCIL



Date: February 6, 2012
File: 0710-70
To: City Manager
From: Lorna Gunn - Grants Manager
Subject: Okanagan Basin Water Board Conservation and Quality Improvement Grants

Recommendation:

THAT Council endorses the applications to the Okanagan Basin Water Board (OBWB) Water Conservation and Quality Improvement Grants as attached to the Report of the Grants Manager dated February 6, 2012, for the following:

1. City of Kelowna, Civic Operations - Drought Tolerant Sod Replacement Program
2. City of Kelowna, Parks Services - Reducing Water used for Irrigation by Active Management
3. Okanagan Regional Goose Mgt. Committee - Investigation of the Resident Canada Goose Population
4. Mission Creek Restoration Initiative - Website Development for Education and Outreach
5. Mission Creek Restoration Initiative - Ecological Goods & Services Assessment

Purpose:

To seek Council's support to apply to the Okanagan Basin Water Board for 5 grants, in order of priority, with requests totaling \$90,000.

Background:

The purpose of the Okanagan Basin Water Board's Water Conservation and Quality Improvement Grant Initiative is to assist local government in addressing issues that enhance the valley-wide sustainable use of water. As part of the application process, all applications must be accompanied by a Board or Council resolution from the respective Regional District Board and/or Municipal Council. This includes applications from local governments and all non-profit/community groups or improvement districts.

Submission of the following applications to the OBWB for the February 24th, 2012 deadline is proposed.

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COK - Civic Operations - Drought Tolerant Sod Replacement Program -Request: \$30,000.00

The aim of this project is to replace existing turf grass in select residential and municipal settings with a new, locally grown variety of drought tolerant sod grass, with the goal of reducing historical water use in those areas by a minimum of 30%. During stakeholder consultations for Kelowna's landscape and irrigation Standards for New Construction, groups like UDI and the Home Builder's Association encouraged the City to continue funding projects to help existing homes reduce outdoor water use.

COK - Parks Services - Reducing Water used for Irrigation by Active Management - Request: \$20,000.00

The goal of this project is to build an integrated irrigation management system that unlocks the potential of existing infrastructure including data from weather stations and flow meters. This system will reduce the amount of manual program overrides and staff maintenance time, notify staff of fault events (water leaks, broken heads, etc.), and allow detailed historical reporting and planning on water usage for the entire system. Improved management should reduce water use by at least 10%.

Okanagan Regional Goose Mgt. Committee - Investigation of the Resident Canada Goose Population - Request: \$5,000.00

Our goal is to investigate Canada geese that reside within the Okanagan Valley to determine how geese use valley habitats. We expect to discover a) if the population is closed (e.g population growth occurs from locally nesting birds), b) if the goose population seasonally fluctuates due to migration patterns of non-resident geese, and c) if the resident geese use the entire valley or restrict their movements to specific areas. The answers will be key to implementing management techniques that will benefit our community, specifically water quality which is routinely contaminated by goose fecal matter.

Mission Creek Restoration Initiative - Website Development for Education and Outreach - Request: \$5,000.00

The MCRI has a goal to restore the lower sections of Mission Creek to improve habitat for fish and wildlife, re-connect the floodplain to reduce the flooding potential, improve water quality, improve adjacent agricultural lands and enhancing recreation opportunities for residents and visitors. Mission Creek restoration is arguably among the most important long term initiatives to the Central Okanagan. Public education and outreach are critical to our success over the mid to long term. Our proposal will see existing funding used to match OBWB funds for an education and outreach campaign centered upon a branding initiative including logo design and the launch of a website to the local community, stakeholders and funding sources.

Mission Creek Restoration Initiative - Ecological Goods & Services Assessment - Request: \$30,000.00

With a focus on water quality, the Ecological Goods & Services Assessment (EG&S) will create a better understanding and awareness of the value of ecological services such as water supply & treatment, disturbance regulation, air quality, carbon storage & sequestration, biological control, habitat; refuge, food production and recreation & culture that the natural environment (i.e. Mission Creek) currently provides. The EG&S will then attempt to predict the value of Mission Creek following restoration.

Internal Circulation:

Environment & Land Use Manager
Utility Services Manager
Parks Services Manager
Urban Forestry Supervisor
Parks, Beaches & Sports Fields Supervisor

Existing Policy:

Official Community Plan - Chapter's 5, 6 and 12

Financial/Budgetary Considerations:

Civic Operations have \$30,000 matching funding approved in budget to support their application.
All other applications have funding support from outside City budget.

Considerations not applicable to this report:

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

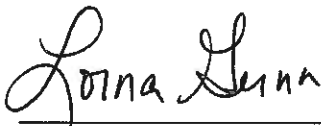
Personnel Implications:

External Agency/Public Comments:

Communications Comments:

Alternate Recommendation

Submitted by:



L. Gunn, Grants Manager - Strategic Initiatives

Approved for inclusion:



Director of Strategic Initiatives

CC: Joe Creron, Director of Civic Operations
Shelley Gambacort, Director of Land Use Management



1450 K.L.O. Road
Kelowna, B.C.
V1W 3Z4
250-469-6270
www.obwb.ca
grants@obwb.ca

Water Conservation and Quality Improvement Grant Program 2012 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, or contact the office and grants administrator at 250-469-6270 or grants@obwb.ca.

A. PROJECT SUMMARY

Name of Organization City of Kelowna

Project Title Drought Tolerant Sod Replacement Program

Regional District RDNO RDCO RDOS

Supporting Local Gov't City of Kelowna

Project Budget \$60,000.00

Grant Requested \$30,000.00

B. PROJECT CONTACT

Name Don Degen

Title Utility Services Manager, Civic Operations

Phone Fax

Email ddegen@kelowna.ca

C. PROJECT GOALS

What is the aim of the project?

During stakeholder consultation for Kelowna's Landscape and Irrigation Standards for New Construction, groups like UDI and the Home Builder's Association encouraged the City to continue funding projects to help existing homes reduce outdoor water use. The aim of this project is to replace existing turf grass in select residential and municipal settings with a new, locally grown variety of drought tolerant sod grass, with the goal of reducing historical water use in those settings by a minimum of 30%.

D. PROJECT DELIVERABLES/MEASURABLE OUTCOMES

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

Existing turf grass will be replaced at one municipal location (likely in front of the H2O Centre on Gordon Drive, next to the Xeriscape demonstration garden) with drought tolerant sod. Water savings will be tracked through water meter readings. Existing turf grass will also be replaced in number of residential settings (the exact number is dependant on the grant), and the water savings will also be tracked through water meter readings. Another outcome is to determine the evapotranspiration rate for the new blend of turf.



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E. PROJECT METHODOLOGY

Briefly describe how your organization will achieve its goal.

The City has experimented with drought tolerant grass before. The Library lawn at the corner of Ellis and Doyle is Eco Lawn. Residential surveys indicate that most homeowners do not have the patience to wait for Eco-Lawn to grow and they are not satisfied with the weeds that must be contended with as the grass becomes established. This new drought tolerant sod is different. It is grown locally and it can be installed like any other turf grass. Weeds are non-existent and the lawn is established instantly. This makes it a more acceptable alternative to existing turf grass, and drought tolerant grass seed.

Our plan is to identify and partner with homeowners who are interested in replacing their existing lawns. Their part is to remove of their existing turf. We will provide, deliver and install the sod in April/May 2012. Then it will be a matter of educating the homeowner on best watering practices and monitoring the results. The turf replacement at a municipal facility will also occur in April/May 2012. Results will be known in Sept/Oct 2012.

F. PROJECT TIMELINE

Project Start Date (dd/mm/yy) 15/02/12

Completion Date (dd/mm/yy) 15/10/12

Activity (describe components of project below)	Category (select)	Date (mm/yy)
Advertise Project/Select Participants	Education/Outreach	03/11
Turf Replacement - Residential	Landscape/Irrigation	04/11
Turf Replacement - Municipal	Landscape/Irrigatio	04/11
Singage at Residential Homes	Education/Outreach	05/11
Signage at Municipal Setting	Education/Outreach	05/11
Monitor Project	Data Collection	09/11



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G. PROJECT PARTNERS

How does this project illustrate collaboration with other agencies? With other jurisdictions?

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.

Turf grass accounts for the highest percentage of residential water use in the Okanagan. While Xeriscaping and rainwater harvesting help reduce water use, the fact is that turf grass continues to be the ground cover of choice for the majority of Okanagan homeowners. If any serious reductions in residential water use are to be achieved, it is going to be by reducing the volume of water used for turf grass. This locally-grown drought tolerant turf could benefit all residents in the valley.

I. PROJECT INNOVATION

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

Drought tolerant grass seed has been tried successfully in the past, but it is unlikely to become a major choice for homeowners because of weed issues. Sod, on the other hand, eliminates those issues. If this project is successful, the new blend of grass could become the preferred choice for neighbourhood parks, municipal facilities, and residential homes.

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 has completed a number of successful projects with the assistance of grants from the OBWB. Most significant are the grants used to develop landscape and irrigation standards for water efficiency that will ensure all new developments will have water efficient landscapes. Last year's grant was used to develop a Parks Irrigation Manual that could provide significant benefits to other jurisdictions.



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K. PROJECT FUNDING

Total Project Funding \$ 30,000.00

Source	Type	Confirmed
City of Kelowna	Direct Funds	Confirmed Funding

L. PROJECT EXPENSES

Total Project Budget \$ 60,000.00

Project Management

Equipment

Supplies/Consumables

Printing/Media

Consultant/Contractor

Travel

Wages

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:

The Okanagan Basin Water Board
re: 2012 WCQI
1450 K.L.O. Road
Kelowna, B.C.
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Applications must be received by **4:00 p.m., February, 24, 2012**. Late or incomplete applications will not be accepted. Please save and print a copy of the application for your records.



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A. PROJECT SUMMARY

Name of Organization
Project Title
Regional District RDNO RDCO RDOS
Supporting Local Gov't
Project Budget \$ Grant Requested \$

B. PROJECT CONTACT

Name
Title
Phone Fax
Email

C. PROJECT GOALS

What is the aim of the project?

The overall goal is to build an integrated irrigation management system that unlocks the potential of existing infrastructure including data from weather stations and flow meters. This system will reduce the amount of manual program overrides and staff maintenance time, notify staff of fault events (water leaks, broken heads, etc.), and allow detailed historical reporting and planning on water usage for the entire system. Improved management should reduce water use by at least 10%.

D. PROJECT DELIVERABLES/MEASURABLE OUTCOMES

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

Key deliverable: Integrated irrigation management system that combines commercial irrigation equipment, weather stations, and flow meters to reduce overall water usage.

Success metrics:

- 1) Flow meter data is collected in real-time allowing for fast resolution of water leaks.
- 2) Reduce manual irrigation program entry by 80% by using weather station data/ET.
- 3) Generate historical water use reports for each area and entire system for planning.
- 4) Reduce overall water usage by 10% by better management, reporting, and planning.



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E. PROJECT METHODOLOGY

Briefly describe how your organization will achieve its goal.

- 1) Integrate existing irrigation data resources with data from two commercial control systems (Toro, Rain bird). These systems currently do not work together.
- 2) Automate flow meter and weather station data collection for processing by the new system. Flow meter data is not currently automatically collected.
- 3) Use the accumulated data to automatically modify irrigation programs and notify operators of issues. This is compared to a currently manual approach for deciding on programs and modifying them throughout the season.
- 4) Build reports for each irrigation site and the entire system detailing information on water used and calculate savings from adjusted programming. Use historical data to generate water reduction targets. These reports are not currently generated and will be made possible by collecting the flow meter data.
- 5) Water savings can be realized and quantified using collected data and will be presented to the community via a public web site.

F. PROJECT TIMELINE

Project Start Date (dd/mm/yy) Completion Date (dd/mm/yy)

Activity (describe components of project below)	Category (select)	Date(mm/yy)
Load irrigation inventory into a database	Data Collection	04/12
Automate weather station and flow meter data collection	Water Monitoring/Me	05/12
Integrate data in two commercial control systems	Landscape/Irrigator	05/12
Improve irrigation programs based on ET/flow data	Planning/Policy Dev	06/12
Monitor system usage and compare to baseline	Landscape/Irrigator	06/12
Generate public reports on water usage/savings	Education/Outreach	10/12
Provide training/support to other Okanagan users	Education/Outreach	11/12



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G. PROJECT PARTNERS

How does this project illustrate collaboration with other agencies? With other jurisdictions?

This project is conducted in partnership with UBC Okanagan who will provide resources and expertise in the development, systems integration, and sensor data collection. Once successful, the project can be replicated for other jurisdictions and organizations as cost-effective management affects all major irrigation users.

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 challenges faced by City of Kelowna Parks Services are encountered by every major irrigation user. Unless all the various irrigation technologies are used in an integrated fashion, water usage is not reduced and maintenance costs are high. This project will produce systems and policies that can be used throughout the Okanagan that are not tied to particular vendor equipment, and provide software, training, and outreach to help each organization reach its water savings goals and reduce maintenance costs.

I. PROJECT INNOVATION

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

This project will produce an innovative end-to-end solution for irrigation management that allows detailed reporting on water consumption and techniques to reduce it. It will demonstrate how an organization can get the most out of all its existing irrigation infrastructure investment to reduce water usage and overall systems costs.

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 as a leader in sustainability has used previous grants to improve water efficiency and increase public awareness. Previous grants have funded successful programs for irrigation standards, water conservation awareness, and an irrigation systems assessment that have reduced water usage significantly. This project will implement key findings of the assessment, specifically improved tracking (using meters) and water savings through weather-based programs. Without these grants, these critical projects would not be tackled resulting in significantly higher water use and maintenance costs.



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K. PROJECT FUNDING

Total Project Funding \$

Source	Type	Confirmed
Okanagan Basin Water Board	Direct Funds	Unconfirmed
UBC Okanagan	Direct Funds	Confirmed Funding

L. PROJECT EXPENSES

Total Project Budget \$

Project Management	<input style="width: 100%;" type="text"/>
Equipment	\$ 5,000.00
Supplies/Consumables	<input style="width: 100%;" type="text"/>
Printing/Media	<input style="width: 100%;" type="text"/>
Consultant/Contractor	\$ 10,000.00
Travel	<input style="width: 100%;" type="text"/>
Wages	\$ 15,000.00
Other <input style="width: 450px;" type="text"/>	<input style="width: 100%;" type="text"/>

SUBMITTING THIS APPLICATION

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The Okanagan Basin Water Board
re: 2012 WCQI
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Past OBWB City of Kelowna Grants

2011

Project Title:

Water Conservation Manual for Municipal Parks & Green Spaces

Organization:

City of Kelowna

Description:

The City of Kelowna will complete assessments and compile the results of the numerous projects undertaken since 2005 to reduce the amount of water used in city parks and green spaces, including research into the use of compost tea as fertilizer and use of drought tolerant grasses.

Staff Notes:

The City of Kelowna has been a leader in water conservation in city parks. The report delivered from this project will benefit all Okanagan municipalities, most of which would not have the capacity to do the research on their own.

2010

City of Kelowna

Irrigation Systems Assessment and Strategy for Parks

City of Kelowna is reviewing irrigation systems for their municipal parks to assess system condition and efficiency. Other aspects of the project include assessing the potential for upgrading weather sensor technologies in parks irrigation systems. Outdoor irrigation is the largest domestic water use and is commonly indicated as a sector that could be more efficient; as City of Kelowna's parks are very visible to the public, efficient irrigation will help set an example for other users and residential customers.

2008

City of Kelowna

Landscape and Irrigation Standards for Water Efficiency

The City of Kelowna has created a draft Landscape and Irrigation Standards bylaw to be implemented after final stakeholder review, development of public education materials and a pilot program to measure impact of the standards on peak demand. This project has been developed in conjunction with the landscape industry and other collaborative efforts. This project can be used as a model for other communities to undertake similar initiatives.



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A. PROJECT SUMMARY

Name of Organization
Project Title
Regional District RDNO RDCO RDOS
Supporting Local Gov't
Project Budget \$ Grant Requested \$

B. PROJECT CONTACT

Name
Title
Phone Fax
Email

C. PROJECT GOALS

What is the aim of the project?

Our goal is to investigate Canada geese that reside within the Okanagan Valley. Our study will determine how geese use valley habitats. We expect to discover a) if the population is closed (e.g. population growth occurs from locally nesting birds), b) if the goose population seasonally fluctuates due to migration patterns of non-resident geese, and c) if the resident geese use the entire valley or restrict their movements to specific areas. The answers will be key to implementing management techniques that will benefit our community, specifically water quality which is routinely contaminated by goose fecal matter.

D. PROJECT DELIVERABLES/MEASURABLE OUTCOMES

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

The main deliverable will be a report describing 1) Study Results-analysis of the population that identifies size, age structure, and immigration/emigration; identification of the extent of migration and habitat use along the Okanagan Valley by resident birds; and identification of population sources and nest success of resident birds; 2) Management Recommendations-, ensure management resources are not being expended on transient/migrating geese that likely do not impact the valley in the same manner as resident geese; evaluate if the current level of management is sufficient, and examine options permitted by Environment Canada.



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E. PROJECT METHODOLOGY

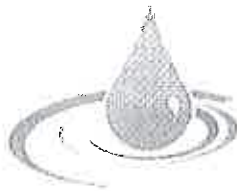
Briefly describe how your organization will achieve its goal.

We propose this as a multi-year study and would like to request funding for Year 1, which is key to the study success. In Year 1 we will identify three locations to round-up and apply colour-coded leg-bands to geese. We will establish monthly surveys to observe geese and the habitats they are using. We will conduct a press release and update our website to alert naturalists, bird enthusiasts, and the general public that they may see banded birds on the landscape. We will provide instructions on how to report this information back to us. Of note, in Years 2&3 we will continue surveys, including nest and gosling surveys to determine nest success. During these surveys, we will be able identify if banded geese have young or, if an unexpectedly high ratio of unbanded geese (e.g. from outside the Valley) contribute to the population. Each year, to estimate population size and the extent of immigration and emigration we will use capture-mark-recapture models. Spatial analysis of habitat use will be provided on GIS maps.

F. PROJECT TIMELINE

Project Start Date (dd/mm/yy) Completion Date (dd/mm/yy)

Activity (describe components of project below)	Category (select)	Date(mm/yy)
Permits, ordering bands, logistics	Data Collection	05/12
Pre-banding Surveys	Data Collection	07/12
Colour banding geese	Data Collection	07/12
Press release	Education/Outreach	07/12
Goose surveys (ongoing)	Data Collection	07/12
Date entry (ongoing)	Data Collection	07/12
Interim Reporting	Planning/Policy Dev	09/12
Statistical Analysis	Other	02/13
GIS Analysis	Other	02/13
Final Reporting	Planning/Policy Dev	03/13



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K. PROJECT FUNDING

Total Project Funding \$

Source	Type	Confirmed
Western Canada Turfgrass	Direct Funds	Unconfirmed
Wise Wildlife Control	In-Kind Support	Confirmed Funding
EBB Environmental Consulting	In-Kind Support	Confirmed Funding
Environment Canada	In-Kind Support	Confirmed Funding

L. PROJECT EXPENSES

Total Project Budget \$

Project Management	<input style="width: 100%; height: 20px;" type="text" value="\$ 0.00"/>
Equipment	<input style="width: 100%; height: 20px;" type="text" value="\$ 2,500.00"/>
Supplies/Consumables	<input style="width: 100%; height: 20px;" type="text" value="\$ 0.00"/>
Printing/Media	<input style="width: 100%; height: 20px;" type="text" value="\$ 0.00"/>
Consultant/Contractor	<input style="width: 100%; height: 20px;" type="text" value="\$ 0.00"/>
Travel	<input style="width: 100%; height: 20px;" type="text" value="\$ 1,500.00"/>
Wages	<input style="width: 100%; height: 20px;" type="text" value="2000.00"/>
Other	<input style="width: 100%; height: 20px;" type="text" value="\$ 2,750.00"/>
Statistical and GIS Support	<input style="width: 100%; height: 20px;" type="text" value="\$ 2,750.00"/>

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:

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G. PROJECT PARTNERS

How does this project illustrate collaboration with other agencies? With other jurisdictions?

The Okanagan Valley Goose Management Program is conducted with guidance and under permit by Environment Canada, and the Ministry of Environment. The following are active members of the Okanagan Regional Goose Management Committee (ORGMC): Vernon, District of Lake Country, District of West Kelowna, Kelowna, Peachland, Summerland, Penticton, RDCO, RDOS, Osoyoos, and Oliver

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.

Impacts to water quality from Canada goose fecal contamination affect the whole valley. The geese appear to move up and down the entire lake system and all communities along the valley suffer when swimming advisories are posted and/or water quality deteriorates. Valley health--it's people, economy, and environment depend on a clean resource that is shared and appreciated by all communities. Improving Canada goose management through a scientifically sound understanding of the goose population stands to improve the valley for all.

I. PROJECT INNOVATION

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

Population studies have not been done on resident Canada geese. Without these, we will not understand the impacts of goose managements and if we are appropriately using resources. Also, Environment Canada (federal regulatory agency responsible for Canada geese) requires scientifically founded evidence prior to allowing new management options.

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.

We were fortunate to receive a grant in 2010. The grant allowed us to create and present public education materials on the goals of our program in the Okanagan, including the link between high goose numbers and water quality throughout the entire region. Consequently, the public have supported our efforts to humanely manage geese by visiting our website, providing feedback, and providing locations of nesting geese during the egg addling season.



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Name of Organization
Project Title
Regional District RDNO RDCO RDOS
Supporting Local Gov't
Project Budget \$ Grant Requested \$

B. PROJECT CONTACT

Name
Title
Phone Fax
Email

C. PROJECT GOALS

What is the aim of the project?

The MCRI has a goal to restore the lower sections of Mission Creek to improve habitat for fish and wildlife, re-connect the floodplain to reduce the flooding potential, improve water quality, improve adjacent agricultural lands and enhancing recreation opportunities for residents and visitors. Mission Creek restoration is arguably among the most important long term initiatives to the central Okanagan. Public education and outreach are critical to our success over the mid to long term. Our proposal will see existing funding used to match OBWB funds for an education and outreach campaign centered upon a branding initiative including logo design and the launch of a website to the local community, stakeholders and funding sources.

D. PROJECT DELIVERABLES/MEASURABLE OUTCOMES

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

A well-designed, easily navigable website is critical to our efforts to gain awareness and solicit funds. Our website will create an emotional connection that not only informs users about the MCRI and the numerous environmental, social, economic and cultural benefits associated with Mission Creek restoration, but also educates them about the history, resource development and importance of water basin-wide. The website will exhibit history, stream restoration science, and notably, project partners/funders such as OBWB. Measurable outcomes include traffic volumes (unique IPs) and funding/donation success.



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www.obwb.ca
grants@obwb.ca

Water Conservation and Quality Improvement Grant Program 2012 Application Form

G. PROJECT PARTNERS

How does this project illustrate collaboration with other agencies? With other jurisdictions?

Yes, the MCRI is a collaboration of several government agencies (i.e. Department of Fisheries and Oceans, Ministry of Forests, Lands, And Natural Resource Operations, Ministry of Agriculture); local governments (i.e Regional District of Central Okanagan, City of Kelowna); First Nations (i.e. Westbank First Nation, and Okanagan Nation Alliance); and NGOs' (Friends of Mission Creek and the Central Okanagan Land Trust).

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 MCRI will benefit the entire Okanagan valley and water, as Mission Creek is the single largest, and most important tributary to Okanagan Lake. Due to the importance of Mission Creek to the Okanagan Basin, any restoration of Mission Creek will improve water quality and fish habitat basin-wide. Improved fish habitat will result in higher fish populations resulting in less money required to be spent restoring fish populations elsewhere. Improved water quality coming out of Mission Creek will improve water quality within Okanagan Lake.

I. PROJECT INNOVATION

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

The MCRI is a collaborative approach to restoring impaired ecosystems to the benefit of all. Typically a project such as this would fall on a local, provincial or federal government. In contrast, the MCRI is an example of multiple bottom line sustainability planning involving multiple jurisdictions and stakeholders, being led by the City of Kelowna.

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 MCRI has been a successful grant recipient previously. To date the OBWB has funded two technical studies: a sediment source study and a channel width assessment, and an outreach and education campaign. The two technical studies made a significant contribution to our understanding of Mission Creek fluvial processes and have provided valuable information in the planning of the restoration of Mission Creek. The outreach and education campaign was very successful. In addition to the development of an information brochure, the campaign resulted in meetings with local landowners adjacent Mission Creek and provincial and federal politicians in an effort to raise awareness of the restoration plans.



Okanagan Basin
WATER BOARD

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K. PROJECT FUNDING

Total Project Funding \$

Source	Type	Confirmed
<input style="width: 95%;" type="text" value="Mission Creek Habitat Compensation"/>	<input style="width: 95%;" type="text" value="Direct Funds"/>	<input style="width: 95%;" type="text" value="Confirmed Funding"/>
<input style="width: 95%;" type="text" value="OBWB"/>	<input style="width: 95%;" type="text" value="Direct Funds"/>	<input style="width: 95%;" type="text" value="Unconfirmed"/>
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>

L. PROJECT EXPENSES

Total Project Budget \$

Project Management	<input style="width: 95%;" type="text"/>
Equipment	<input style="width: 95%;" type="text"/>
Supplies/Consumables	<input style="width: 95%;" type="text"/>
Printing/Media	<input style="width: 95%;" type="text"/>
Consultant/Contractor	<input style="width: 95%;" type="text" value="\$ 10,000.00"/>
Travel	<input style="width: 95%;" type="text"/>
Wages	<input style="width: 95%;" type="text"/>
Other <input style="width: 450px;" type="text"/>	<input style="width: 95%;" type="text"/>

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:

The Okanagan Basin Water Board
re: 2012 WCQI
1450 K.L.O. Road
Kelowna, B.C.
V1W 3Z4

Applications must be received by **4:00 p.m., February, 24, 2012**. Late or incomplete applications will not be accepted. Please save and print a copy of the application for your records.



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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, or contact the office and grants administrator at 250-469-6270 or grants@obwb.ca.

A. PROJECT SUMMARY

Name of Organization
Project Title
Regional District RDNO RDCO RDOS
Supporting Local Gov't
Project Budget \$ Grant Requested \$

B. PROJECT CONTACT

Name
Title
Phone Fax
Email

C. PROJECT GOALS

What is the aim of the project?

This project will assess Mission Creek the value of ecological goods and services (EG&S) provided by Mission Creek in its current state. The EG&S will then attempt to predict the EG&S value of Mission Creek following restoration. With a focus on water quality, this assessment will create better understanding and awareness of the value of ecological services such as water supply & treatment, disturbance regulation, air quality, carbon storage & sequestration, biological control, habitat/refuge, food production and recreation & culture that the natural environment (i.e. Mission Creek) provides.

D. PROJECT DELIVERABLES/MEASURABLE OUTCOMES

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

The deliverable is an "Ecological Goods & Services" Assessment that determines the value of ecological services, such as water purification, sequestering carbon and spiritual/cultural value that Mission Creek provides in economic terms. The assessment could then be applied to the entire Mission Creek watershed, or other basins throughout the Okanagan. This knowledge would emphasize the importance the the natural environment and help to guide land use decisions such as the protection of intact upstream areas from disturbance.



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G. PROJECT PARTNERS

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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 ecological valuation methodology of establishing natural environment "services" provided by Mission Creek will be applicable to similar stream and floodplain areas throughout the Okanagan Basin. Other jurisdictions will be able to apply this methodology to assess streams such as BX Creek, Vernon Creek, Penticton Creek, Trout Creek, and the Okanagan River.

I. PROJECT INNOVATION

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

This an innovative approach for determining the real value of ecological services. The importance of protecting natural environment areas to preserve water quality has been known for a while, but now we have a method to apply a monetary value to these services. This method is gaining acceptance globally and is now guiding land management decisions.

J. GRANT TRACK RECORD

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K. PROJECT FUNDING

Total Project Funding \$

Source	Type	Confirmed
MCRI	In-Kind Support	Unconfirmed
OBWB	Direct Funds	Unconfirmed

L. PROJECT EXPENSES

Total Project Budget \$

Project Management	<input type="text" value="\$ 5,000.00"/>
Equipment	<input type="text"/>
Supplies/Consumables	<input type="text"/>
Printing/Media	<input type="text"/>
Consultant/Contractor	<input type="text" value="\$ 30,000.00"/>
Travel	<input type="text"/>
Wages	<input type="text"/>
Other <input type="text"/>	<input type="text"/>

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