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FOR IMMEDIATE RELEASE

FUNDS FLOW TO OKANAGAN PROJECTS THAT WILL PROTECT VALLEY WATER

Kelowna, B.C. – The Okanagan Basin Water Board (OBWB) has approved \$300,000 in funding to 18 projects that will help conserve and improve the quality of water in the valley. Directors approved the Water Conservation and Quality Improvement (WCQI) Grants at their regular board meeting on Tuesday, March 3. In all, there were 34 applications with a total ask of \$643,138.

“Once again, we had great interest in the program from throughout the valley and excellent applications,” noted James Littley, OBWB’s Office and Projects Manager, providing highlights from each region.

In the North Okanagan, projects include a flood mapping project on Swan Lake and irrigation improvements at Okanagan College’s Kalamalka demonstration garden. Also, Greater Vernon Water was awarded funds to help conduct a land use and water quality assessment of Swan Lake. “For the last 40 years, the OBWB has been helping Okanagan communities move from sewer to septic and seen dramatic improvements to the water quality in our lakes,” added Littley. “Swan Lake presents an opportunity to look at how an area with no sewer system and a range of land uses – residential, agriculture, industry, and roads – can affect water and inform better land use planning decisions, in Vernon and beyond.”

There are several innovative projects funded in the Central Okanagan, including a study on biosolids by the Regional District of Central Okanagan, and virus testing in groundwater by South East Kelowna Irrigation District. But the board was also pleased to see young people getting involved in stewardship. Ecole KLO Middle School received funds in 2013 towards its Fascieux Creek Daylighting project and received funds again this year for Phase 2. Also, Shannon Lake Elementary received funds for a water conservation education project.

“This is a really neat project,” Littley said. “The school grounds are experiencing increased erosion while at the same time having to build new classrooms. By putting in some innovative gardens they’ll address erosion while teaching kids about WaterWise gardening, conservation through landscaping. They’re also looking to create a more healthy ecosystem for pollinators and decrease runoff which will help protect fish in nearby streams.”

Funding in the South Okanagan will support a number of projects including the Okanagan Nation Alliance with water quality assurance during construction of a fish spawning bed, and the creation of low-water demonstration gardens at Summerland Ornamental Gardens. Also, the Regional District of Okanagan-Similkameen will begin phase 2 of a Regional Water Use Regulation and Conservation Bylaw.

“With climate change and more people moving to our valley, bylaws will be introduced to help residents become more WaterWise,” explained Littley. “These regulations are what will allow for continued and sustainable economic development in our region.”

Since the program began awarding funds in 2006, the OBWB has awarded \$3.2 million to 197 projects throughout the Okanagan. Projects must meet a number of criteria, including the ability to demonstrate water savings or improvements to water quality, show collaboration, and provide valley-wide benefit.

For a full listing of funded projects please see the attached.

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WATER CONSERVATION AND QUALITY IMPROVEMENT GRANT AWARDS – 2015

Organization	Project Title	OBWB Funding
Regional District North Okanagan		
Society for the Protection of Kalamalka Lake	Coldstream Creek Land Use and Water Quality Assessment	\$20,000
RDNO	Swan Lake Flood Mapping Project	\$15,000
Okanagan College	Kalamalka Garden and Patchwork Farms Water Conservation Irrigation	\$10,980
RDNO	Land Use and Water Quality Assessment of Swan Lake	\$10,870
Total		\$56,850
Regional District Central Okanagan		
Ecole KLO Middle School	Fascieux Creek Daylighting and Naturalization – Phase 2	\$28,000
Southeast Kelowna Irrigation District	Virus Testing in Groundwater Supply Sources using Genetic testing - A New Innovative Approach	\$28,000
RDCO	Advanced Biosolid Digestion to Control Nutrient and Micropollutants Discharged from the Westside Regional Wastewater Treatment Plant	\$25,310
Mission Creek Restoration Initiative	Baseline Bio-Inventory and Hydraulic Engineering for Dike Setback Design	\$25,000
City of Kelowna	Mill Creek Tree Management Plan	\$20,000
Okanagan Xeriscape Association	Fostering Collaboration to Create Commercial Conditions that Meet Xeriscape Demand	\$20,000
Central Okanagan Land Trust	Munson Pond Park Naturalization	\$15,000
RDCO	Joe Rich Creek Restoration Monitoring Program	\$10,000
Shannon Lake Elementary	Water Conservation/Outdoor Gardening Education	\$8,000
Total		\$179,310
Regional District of Okanagan Similkameen		
RDOS	RDOS Drought and Flood Risk Management and Mitigation Plan	\$18,840
Friends of Summerland Ornamental Gardens	Demonstrating Water and Climate-Wise Landscaping Practices in Canada's Driest Region	\$18,000
Okanagan Nation Alliance	Water Quality Assurance during Okanagan River Restoration – Penticton Channel Spawning Bed #3 Construction	\$10,000
RDOS	Regional Water Use Regulation and Conservation Bylaw – Phase 2	\$10,000
Town of Osoyoos	Water Metering Strategy	\$7,000
Total		\$63,840

Regional District North Okanagan

Available funds: \$56,850

Total Requested: \$164,753

Recommended Funding: \$56,850

Project Title: Coldstream Creek Land Use and Water Quality Assessment
Organization: Society for the Protection of Kalamalka Lake
Project Goals: The purpose of the study is to understand how land use along the creek in the valley bottom is impacting the creek's water quality and ultimately the quality of the community's drinking water. The objectives of the project are to provide regulators with a land use decision making tool, educate the public on land use impacts, collaborate with other regulatory bodies, share data and provide work experience for volunteers.
Staff Notes: Innovative, collaborative, basin-wide benefit as a pilot, good leveraging of funds.
Project Budget: \$106,825 **Recommended Funding:** \$20,000

Project Title: Swan Lake Flood Mapping Project
Organization: Regional District of North Okanagan
Project Goals: The proposed project involves floodplain mapping to provide an improved understanding of flood flows, facilitating better planning and flood management for public safety. This study would also assist with the operations with the Swan Lake weir. The water level of Swan Lake is set to support conservation of valued wildlife habitat, provide flows to BX and Vernon Creek during low flows and provide flood mitigation during high flow times (i.e. freshet). This work would have the added benefit of supporting habitat conservation as the weir helps to support one of the largest urban Great Blue Heron rookeries in western Canada.
Staff Notes: Innovative, focussed on action, stormwater improvements, complements current OBWB activities.
Project Budget: \$20,000 **Recommended Funding:** \$15,000

Project Title: Kalamalka Garden and Patchwork Farms Water Conservation Irrigation
Organization: Okanagan College
Project Goals: In 2015, Okanagan College's Demonstration Garden/Patchwork Farms initiative (where the two acre site has been assembled to showcase best practices in water stewardship and conservation, small scale agriculture and intensive horticulture), will be focussing on sustainability, including infrastructure, governance and educational opportunities, for the Garden and Farm. This Project Application is one part of the 2015 activities and the goals of this Project Application include: To improve the water usage/conservation of the demonstration Garden/Farm at Okanagan College – Vernon Campus. To eliminate over-watering and wasted water through efficient irrigation and moisture measurement tools. To document the irrigation/water conservation measures in order to improve usage rates year over year. To provide public education on water conservation and the Xeriscape gardens through labelling, cataloging, signage and workshops.
Staff Notes: Leveraging of funds, collaboration, promotion of best practices, track record/capacity.
Project Budget: \$75,245 **Recommended Funding:** \$10,980

Project Title: Land Use and Water Quality Assessment of Swan Lake
Organization: Regional District of North Okanagan
Project Goals: The objective of this project is to design and undertake a program to measure the influence of surrounding land uses on water quality in Swan Lake. There is a mix of land use types around the lake with no sewage system serving the lands. Existing sewerage disposal systems include individual septic systems and holding tanks. Various historical developments exist near the lake and there is concern regarding the impact of land use activities on water quality. Phase II of the project will involve the field investigation, based on the program designed in Phase I and data analysis and reporting.
Staff Notes: Complements current OBWB activities, track record/capacity, promotion of best practices, innovative.
Project Budget: \$33,758 **Recommended Funding:** \$10,870

Regional District Central Okanagan

Available funds: \$179,310

Total Requested: \$315,935

Recommended funding: \$179,310

Project Title: **Fascieux Creek Daylighting and Naturalization**

Organization: **Ecole KLO Middle School**

Project Goals: In 2010, students discovered Western Painted Turtles, a BC protected species, nesting next to the creek in the school's long-jump pit as a result of having to move due to their wetland being destroyed when the creek was culverted and covered in concrete pads in the 1980's. Our goal is to daylight, restore and naturalize approximately 250 meters of Fascieux Creek, thereby improving water quality, restoring wildlife habitat and engaging and educating students and the community about creek and wetland restoration. Phase 1 began in November, 2014 and will be complete in spring, 2015. This project will complete phase 2 by March, 2016

Staff Notes: Basin-Wide benefit, restoration, education, collaboration, track record/capacity, focus on action.

Project Budget: \$234,000

Recommended Funding: \$28,000

Project Title: **Virus Testing in Groundwater Supply Sources using Genetic Testing – A New Innovative Approach**

Organization: **Southeast Kelowna Irrigation District**

Project Goals: Groundwater is an important water supply for the Okanagan Valley, and several communities have wells in urban or semi-urban areas. Understanding their water quality is very important. This project will do one of two things:

1) Provide evidence that viruses are present in local aquifers, which would then make a stronger case for paying for improved water treatment easier; or

2) Provide a template for other communities to follow. The template method would enable communities to prove their wells are at low risk from pathogens, which would enable them to avoid chlorination and/or make decisions that would protect the land around the source to keep groundwater quality high.

Staff Notes: Basin-wide benefit, promotion of best practices, track record/capacity, innovative.

Project Budget: \$38,700

Recommended Funding: \$28,000

Project Title: **Advanced Biosolid Digestion to Control Nutrient and Micropollutant Discharge**

Organization: **Regional District of Central Okanagan**

Project Goals: The aim of this project is to identify how biosolids digestion can be used to reduce nutrients and micropollutants in treated effluent discharged to Okanagan Lake from the Westside Regional Wastewater treatment plant. The project also aims to understand the transport and fate of micropollutants in land applied biosolids to ensure that these compounds do not enter Okanagan lake if biosolids are land applied in the region. Transporting biosolids to other regions is facing ever increasing opposition and is not a viable, long-term solution. Land application of biosolids within the Okanagan is inevitable, therefore it is imperative that any potential impacts on water as well as soil are fully explored and understood before this takes place.

Staff Notes: Basin-wide benefit, innovative, track record/capacity, complements current OBWB activities.

Project Budget: \$50,000

Recommended Funding: \$25,310

Project Title: **Baseline Bio-Inventory and Hydraulic Engineering for Dike Setback Design**

Organization: **Mission Creek Restoration Initiative**

Project Goals: Mission Creek Restoration Initiative (MCRI) is a multi-disciplinary, multi-stakeholder partnership formed in 2008 to restore the natural function of the lower reach of Mission Creek in Kelowna, from East Kelowna Road Bridge to Okanagan Lake. The primary goal is to restore the fish and wildlife stocks and habitat. Complimentary objectives are to conserve and expand biodiversity and species at risk, to improve flood protection, to educate the public, and to inspire and support community stewardship. For the 2015-2016, the aim is to continue work on the baseline bio inventory inventory (BBI) and the dike setback design for the future construction of a demonstration site. For the BBI, additional data collection is needed to cover species information gaps (fish inventory, nesting sites, detection surveys) in the BBI work started in 2014 and to assess the proposed dike setback design location in

consideration of the BBI results. For the dike setback design, the conceptual dike setback design will be completed by the UBCO School of Engineering's Capstone project team in Spring 2015. A technical review of the conceptual and detailed engineered dike setback design is required by a hydraulic engineer/in-stream specialist to provide expert advice to the MCRI Working Group.

Staff Notes: Basin-Wide benefit, restoration, education, collaboration, track record/capacity, promotion of best practices.

Project Budget: \$70,000 Recommended Funding: \$25,000

Project Title: **Mill Creek Tree Management Plan**

Organization: **City of Kelowna**

Project Goals: Storm water runoff into our creeks can be minimized by ensuring healthy and continuous riparian management areas with abundant tree cover. Riparian areas should consist of trees and associated vegetation with permeable surfaces to capture and store rainwater. Tree roots and leaf litter can create soil conditions that promote the infiltration of rainwater into the soil. Trees help to slow down and temporarily store runoff which decreases flooding and erosion and minimize the amount of pollutants that will eventually enter the creeks and flow to Okanagan Lake. Trees also help to moderate the micro-climate of streams by providing the shade necessary to maintain cool water temperatures that are essential to the life cycle of Kokanee, rainbow trout, and other aquatic organisms. Our project goals for the funding are the following:

- To develop a long-term action plan that will help retain, maintain and increase tree cover that is critical along the riparian areas of Mill Creek.
- To improve the water quality of Okanagan Lake through creek restoration efforts by improving riparian health.
- To form partnerships and empower volunteers to assist in increasing tree cover, understory vegetation and tree health along Mill Creek.
- To provide knowledge and eco-educational materials to landowners and the public regarding the importance of managing trees along Mill Creek for water quality purposes.

Staff Notes: Focus on action, promotion of best practices, track record/capacity, restoration.

Project Budget: \$93,550 Recommended Funding: \$20,000

Project Title: **Fostering Collaboration to Create Commercial Conditions that Meet Xeriscape Demand**

Organization: **Okanagan Xeriscape Association**

Project Goals: Xeriscape as a landscaping method of choice for water conservation in the Okanagan has grown in popularity in recent years. Residents are increasingly becoming aware of what xeriscape is (and isn't) and are ready to embrace the principles. As the preparedness to adopt emerges, it is imperative to ensure the commercial market is aligned with the public's intent to adopt to keep the momentum rolling. OXA's focus in 2015 will be three-fold: first, to continue building partnerships with Okanagan nurseries so that a versatile and broad selection of xeriscape plants are easily identified and readily available to consumers. Second, to continue building presence in the landscape community (landscapers, designers, irrigators and municipal/regional planners) to facilitate xeriscape knowledge transfer and thereby foster a commercial and government milieu that embodies water conservation principles. Third, to expand upon OXA's educational and outreach tools aimed at Okanagan residents, that build awareness and encourage implementation of xeriscape principles.

Staff Notes: Basin wide benefit, focus on action, collaboration, track record/capacity, innovation.

Project Budget: \$56,085 Recommended Funding: \$20,000

Project Title: **Munson Pond Park Naturalization**

Organization: **Central Okanagan Land Trust**

Project Goals: This restoration and naturalization project will expand the riparian area using a significant number (10,000) of indigenous plants of local genetics propagated specifically for this site. Beyond the riparian area, upland forest will be reestablished to create a fully functioning ecosystem supporting a variety of wildlife species including reptiles, amphibians and small mammals. The pond is also popular with local birders as a destination to view waterfowl. In order to expand on this, part of this project will be to construct wildlife viewing platforms but

boxes, bird houses, and to provide interpretive and educational signage. Noxious weed eradication and planting of indigenous nursery stock will be performed by volunteers. The Munson Pond Park Naturalization Project is a new initiative for the Central Okanagan Land Trust, and it is one that builds on many years of successful collaborative work with local government in general and the City of Kelowna and other partners in particular.

Staff Notes: Restoration, collaboration, focus on action, complements current OBWB activities.
Project Budget: \$184,225 Recommended Funding: \$15,000

Project Title: **Joe Rich Creek Restoration Monitoring Program**

Organization: **Regional District of Central Okanagan**

Project Goals: The funding request is directed towards the development of a monitoring program for Joe Rich Creek restoration works. The main aim of developing a stream monitoring program is to report the present stream health and to tracking changes over time. Developing a monitoring plan for Joe Rich Creek is intended to: detect whether stream health is improving; if management actions are as effective as planned; and if land use impacts (erosion / siltation, pollutants) are being reduced. Joe Rich Creek restoration works have been undertaken by a collaboration of stakeholders since 2006. The aim of the restoration works was to improve water quality, recover fish and wildlife habitat and reduce property loss. Monitoring of these works was conducted in 2007 and 2008 but has not addressed the effectiveness of the works completed. In 2014 Okanagan College Water Engineering Technology (WET) students developed, as a capstone project, a monitoring program for Joe Rich Creek. This funding application is intended to refine this work and undertake year 1 of the proposed monitoring.

Staff Notes: Basin wide benefit as pilot, collaboration, restoration, promotion of best practices.
Project Budget: \$26,000 Recommended Funding: \$10,000

Project Title: **Water Conservation/Outdoor Gardening Education**

Organization: **Shannon Lake Elementary**

Project Goals: The aim of our project is to create three garden areas that will become outdoor classrooms. Here the students in Kindergarten to Grade 6 can study nature, learn about bees, birds and butterflies, work with indigenous plants, and participate in garden activities. The students will develop a permaculture style garden, improve and add on to the box style garden, and create an educational, interpretive trail. Not only will these activities get students outdoors, but it will also naturalize parts of the school property. This will have a broad impact on the local ecosystem by attracting pollinators, creating a habitat for local birds and butterflies, improving the current erosion issue, and limiting the amount of water or runoff going into the drain systems. By helping make sure the water stays where it needs to be, not only will our water use be lowered, but there will also be a decrease in the amount of runoff going into the streams and sewer systems, which will also lower the amount of fertilizer/nutrients going into streams. In turn this will help the Kokanee fish, which my Grade 2 class is currently raising. In addition, the project will provide a significant ecological education opportunity for the suburban school children as they participate in gardening activities, learn about water conservation and understand the effects of eutrophication. As the project continues, vegetables will be harvested, promoting the importance of healthy eating, and greater interactions with nature will occur through other activities like composting, water collection, insect studies, and companion gardening. Using their research findings and a variety of technology, the students will also be able to educate others about indigenous plants, ecosystems, erosion and water conservation.

Staff Notes: Education, focus on action, innovation, collaboration, financial need.
Project Budget: \$12,000 Recommended Funding: \$8,000

Regional District of Okanagan Similkameen

Available funds: \$63,840 Total Requested: \$162,450 Recommended funding: \$63,840

Project Title: **RDOS Drought and Flood Risk Management and Mitigation Plan**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: Droughts and floods are two natural climatic hazards that the Regional District of Okanagan Similkameen (RDOS) has been and will likely be faced with in the future. Due to global shifts

in the frequency and severity of disasters, the RDOS needs to be prepared by increasing our drought and flood resilience and impacts. This will ensure the safety of our residents, the protection of our agricultural productivity, water supplies, native species and to save us from any potential economic losses. Fortunately, many measures that reduce drought and flood risks also contribute to community health in other ways, so implementing a plan can support other efforts to reduce greenhouse gases and water usage, and implement a healthier, more sustainable food and agriculture system. The Okanagan-Similkameen Drought and Flood Risk Management and Mitigation Plan will enhance the Regional District's ability to protect against water shortages and flooding events. With proper planning the RDOS can enjoy the benefits of the weather each year and not be unprepared in overly dry or wet years.

Staff Notes: Basin wide benefit, collaboration, complement current OBWB activities, track record/capacity, drought planning.

Project Budget: \$40,000 Recommended Funding: \$18,840

Project Title: **Demonstrating Water and Climate-Wise Landscaping Practices in Canada's Driest Region**

Organization: **Friends of Summerland Research Station Gardens Society**

Project Goals: Our project will plant three Water Wise demonstration sites using plant collections that will test and illustrate three groupings of plants with different water needs symbolized by labelling each plant grouping by: Garden 1 – One water drop, Garden 2 – Two water drops and Garden 3, Three water drops. These labels relate to minimal (0-3"), Low (4-7") and moderate (8-11") annual water requirements for each grouping of plants. The plants contained in each water-wise plant collection and their accompanying nursery-labelling program are being developed by our partners: the Okanagan Basin Water Board's Make Water Work, Okanagan Xeriscape Association and Bylands Nursery. The overarching project goal is to educate local gardeners to source and use water-wise plants and to group plants with the same water needs together. Our contribution will be the demonstration of these three plant groups in situ and measuring and monitoring the water usage in these sites with metering.

Staff Notes: Basin wide benefit, focus on action, collaboration, leveraging of funds.

Project Budget: \$100,240 Recommended Funding: \$18,000

Project Title: **Water Quality Assurance during Okanagan River Restoration Penticton Channel Spawn Bed #3 construction**

Organization: **Okanagan Nation Alliance**

Project Goals: The overall Okanagan River Restoration Initiative (ORRI) goal is to regain some of the Okanagan River habitat quality and quantity that has been lost, returning channelized river portions back to more natural conditions. ORRI works involve relocating dikes, river channel lengthening, re-establishing meanders, creating pool/riffle sequences, reconnecting floodplains, and restoring riparian vegetation. The long-term purpose of ORRI is to: improve water quality; create self sustainable, complex, and diverse habitat for fish and wildlife; and to enhance human relations with the river ecosystem. The restoration work's construction activities are aimed at limiting the risks for potential immediate negative impacts on water quality and surrounding environment. The goal during construction is to assure the preservation of water quality in the Okanagan River and Skaha Lake during all works. The OBWB WCQI grant funding will provide capacity for monitoring and assuring water quality experiences minimal impacts during the associated restoration construction activities.

Staff Notes: Restoration, focus on action, collaboration, promotion of best practices.

Project Budget: \$620,290 Recommended Funding: \$10,000

Project Title: **Regional Water Use Regulation and Conservation Bylaw – Phase 2**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: The creation of a Regional Water Use Regulation and Conservation Bylaw is intended to unify water use standards within the Regional District operated water systems. This bylaw will help ensure a sufficient quantity of clean and good quality water available now and in the future for all user sectors and environmental needs within the Regional District to support healthy communities and a robust economy. It is intended to protect and enhance the quality of life for our residents through water conservation/efficiency and sustainable water management, integration of drought management recommendations, inclusion of Cross Connection Control (CCC) requirements and consistent interpretation of the regulations. Phase 1, the draft bylaw, of the Regional Water Use Regulation and

Conservation Bylaw is currently underway thanks to the 2014/2015 Water Conservation and Quality Improvement Grant from the Okanagan Basin Water Board. Phase 2 will complete the work to develop and bring into implementation the final bylaw.

Staff Notes: Basin wide benefit, collaboration, drought planning, promotion of best practices.

Project Budget: \$40,000 Recommended Funding: \$10,000

Project Title: **Water Metering Strategy**

Organization: **Town of Osoyoos**

Project Goals: The aim of the project is develop a strategic plan that will identify all challenges of proceeding with a universal water metering program in the Town of Osoyoos and Irrigation Districts 8 and 9 and prepare an implementation plan that would address all identified challenges.

Staff Notes: Metering, promotion of best practices, track record/capacity, complements current OBWB activity.

Project Budget: \$30,000 Recommended Funding: \$7,000