FOR IMMEDIATE RELEASE **October 22st , 2015**

Dike design aims to restore Mission Creek's natural function

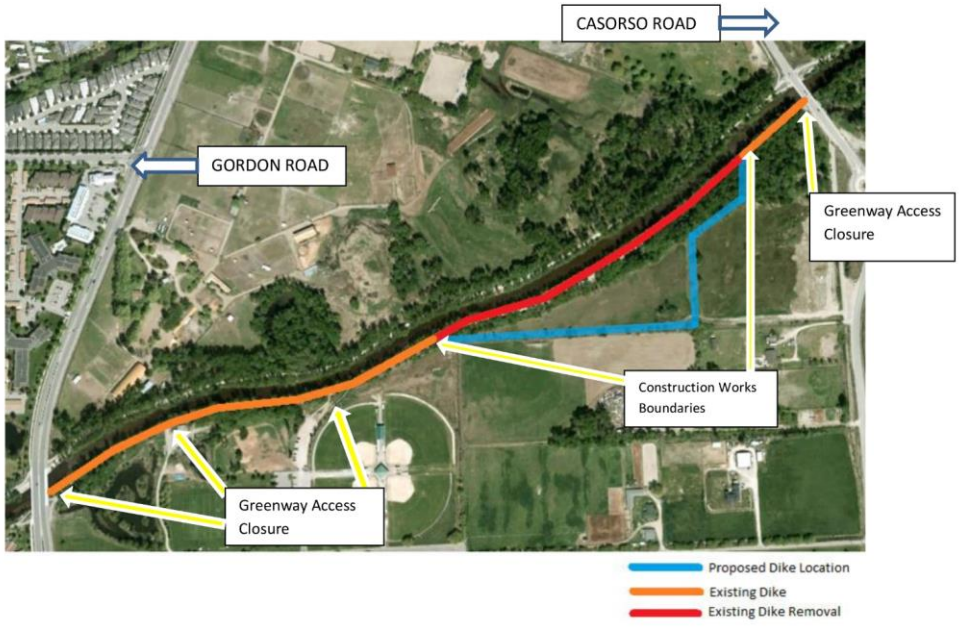
Phase-1 construction activities for the Mission Creek Restoration Initiative (MCRI) are focused on two major integrated tasks. The first is to renaturalize floodplain function by realigning a 475-metre section of dike on the south side of the creek between Casorso Road and Gordon Drive. The second is to increase fish and wildlife stocks by enhancing their habitats within the expanded floodplain made possible by the dike setback.

As well as restoring fish habitat over time, the dike realignment and resulting floodplain expansion is expected to provide other benefits such as reduced erosion and flood risks, enhanced wildlife migration corridors, improved water quality, recharged groundwater supplies, expanded recreational opportunities, and increased economic impacts.

DIKE REALIGNMENT

Preparation for dike realignment began a few years ago with technical studies that determined the creek's geotechnical make-up, hydraulic capacity, sedimentation, erosion, and flooding histories. This data, along with recent survey findings and tree assessments, was used to develop the detailed design specifications that will guide all construction and restoration activities.

Mission Creek Restoration Initiative Set Back Dike Project



The resulting design report was compiled by third-year engineering students Jacob Paul, Jordan Beach, and Dylan de Sousa through UBCO's Capstone Project, with input and oversight from water engineer Don Dobson and fisheries biologist Marc Gaboury. It outlines how an existing section of dike that runs through MCRI-owned land will be set back about 150 metres, allowing expansion of freshet flows from Mission Creek into the newly created floodplain. In addition, an existing natural side channel that was separated from Mission Creek when the original dike was constructed, will be reconnected to provide seasonal flow and fish access. This work is scheduled between Oct 2015 and March 2016.

To ensure the dike design meets government regulations, MCRI project coordinator Steve Matthews has received federal approvals through the *Fisheries Act*, and provincial approvals through the *Water Act*, *Dike Maintenance Act*, and *Species at Risk Act*. Letters of support have come from the Westbank First Nation and Okanagan Nation Alliance, and work permits have been issued by the Regional District of Central Okanagan and the City of Kelowna.

FISHERIES ENHANCEMENT

Fish habitat restoration in Mission Creek channel is another important component of this project. It involves creation of meanders and pools along the south bank, and will utilize trees removed during dike setback to provide overhead cover and bank stability. This work is planned for summer 2016 so that impacts to fish during construction can be minimized.

The benefits from the dike setback and fish habitat restoration projects are far reaching. Floodplain expansion will improve spawning habitat by reducing fine sediment depostion and improving gravel stability. Creation of meanders and pools with overhead cover, in addition to side channel re-connection, will provide important holding, feeding, and refuge areas for many fish species.

The increase in riparian wetland habitat within the expanded floodplain will benefit a wide range of wildife species, including several species at risk. Also, the anticipated natural changes within the floodplain over time from annual flooding events will further enhance habitat quantity and quality for these aquatic and terrestrial species.

"A similar restoration project undertaken on Okanagan River near Oliver is already showing many of these benefits," says Matthews.

BACKGROUND

MCRI was formally launched in 2008 to address declining fish stocks by restoring natural hydrological and biological functions to the lower 12 km of Mission Creek from the East Kelowna bridge to Okanagan Lake.

Since the 1950s, sections of Mission Creek have been channelized and diked to prevent flooding. Changes to Mission Creek also caused the loss of more than 60 percent of the creek's length, 80 percent of its spawning and rearing habitat, and 75 percent of its wetland and riparian areas. The resulting historical, ecological, and recreational impacts are becoming increasingly significant.

To help mitigate these impacts, restoration activities include:

- Setting back the dikes to widen the creek
- Re-establishing the floodplain
- Reconnecting remnant oxbows
- Restoring creek banks and planting riparian vegetation
- Creating wetlands and habitat for species at risk
- Maintaining the Mission Creek Greenway and public access to the greenway
- Improving drainage for agricultural land.

For more information visit www.missioncreek.ca or contact Joanne de Vries at 250-766-1777 or jo@freshoutlookfoundation.org.