

FASCIEUX CREEK

WDCAG 2024

Field Trip Guide

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Kelowna, BC

Barb Ramovs
bramovs@okanagan.bc.ca



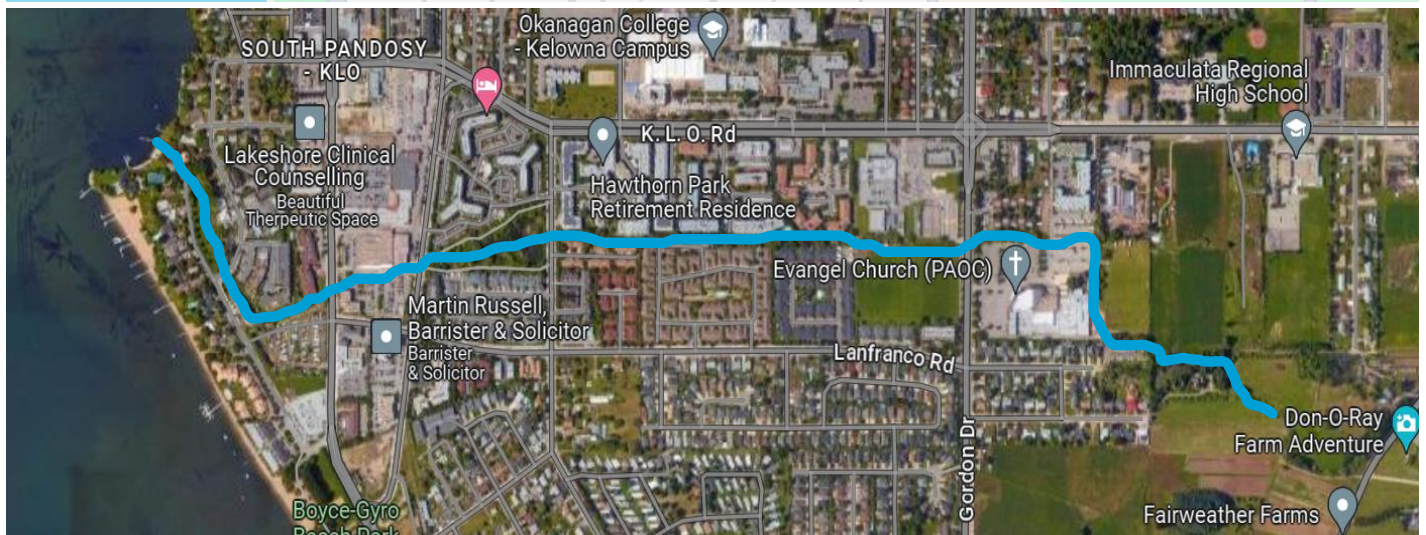
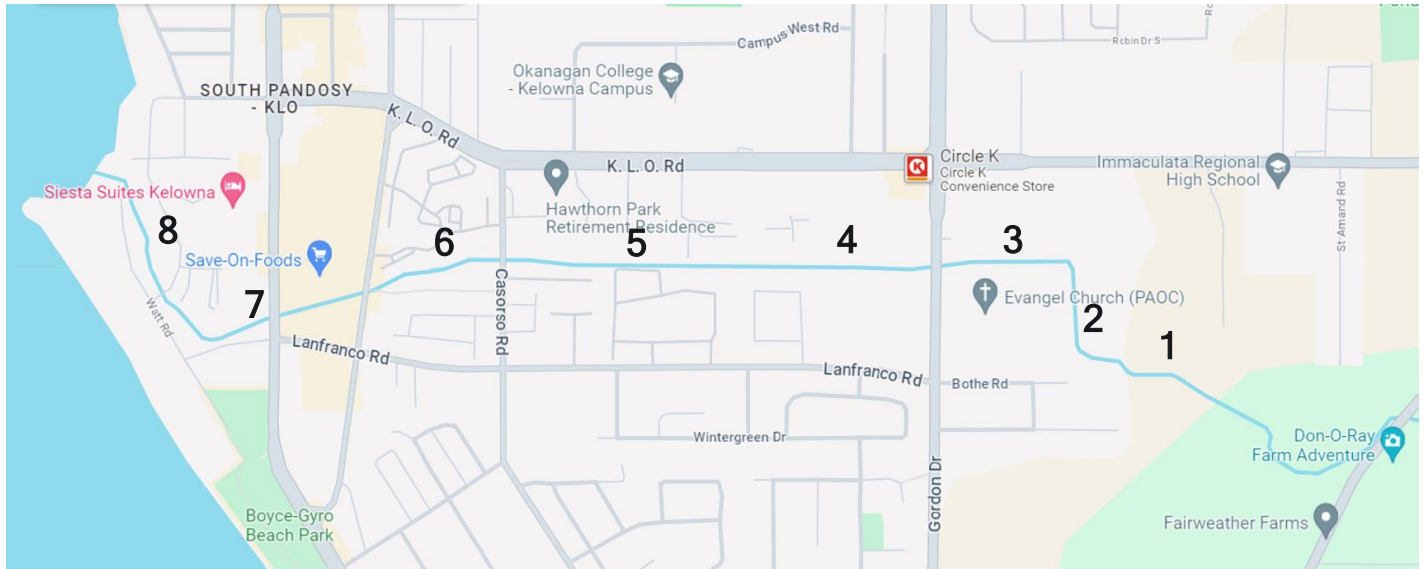
Fascieux Creek, Kelowna

South Fascieux Creek, a stream within walking distance from Okanagan College, spans ~3 km in length and originates from groundwater entering ditches. The creek has been modified over its entire length, with channelization and ditching covering about 60% of the creek, 11% confined by culvert, and non-channelized, modified sections covering 29% (Ecoscape, 2007). These non-channelized sections contain wetlands and disturbed riparian vegetation associated with urban and rural land use. Fine sediment and organic matter are common on the channel bed, and many sections have ingrown with marsh vegetation. The instream habitat is poor to moderate quality for small resident fish but provide moderate habitat values for benthic invertebrates and potentially amphibian and reptilian species, including western painted turtles. Clean gravel substrates for kokanee and rainbow spawning are very limited and occur only sparsely just upstream of the outlet to Okanagan Lake (Ecoscape, 2007). The City of Kelowna, in partnership with many community stakeholders collaborated to 'daylight' and restore natural stream flows, remove invasive species, plant native ones, and improve the condition of the creek. This field trip will highlight some sections of the creek that are semi-natural, extremely degraded, and successfully restored.



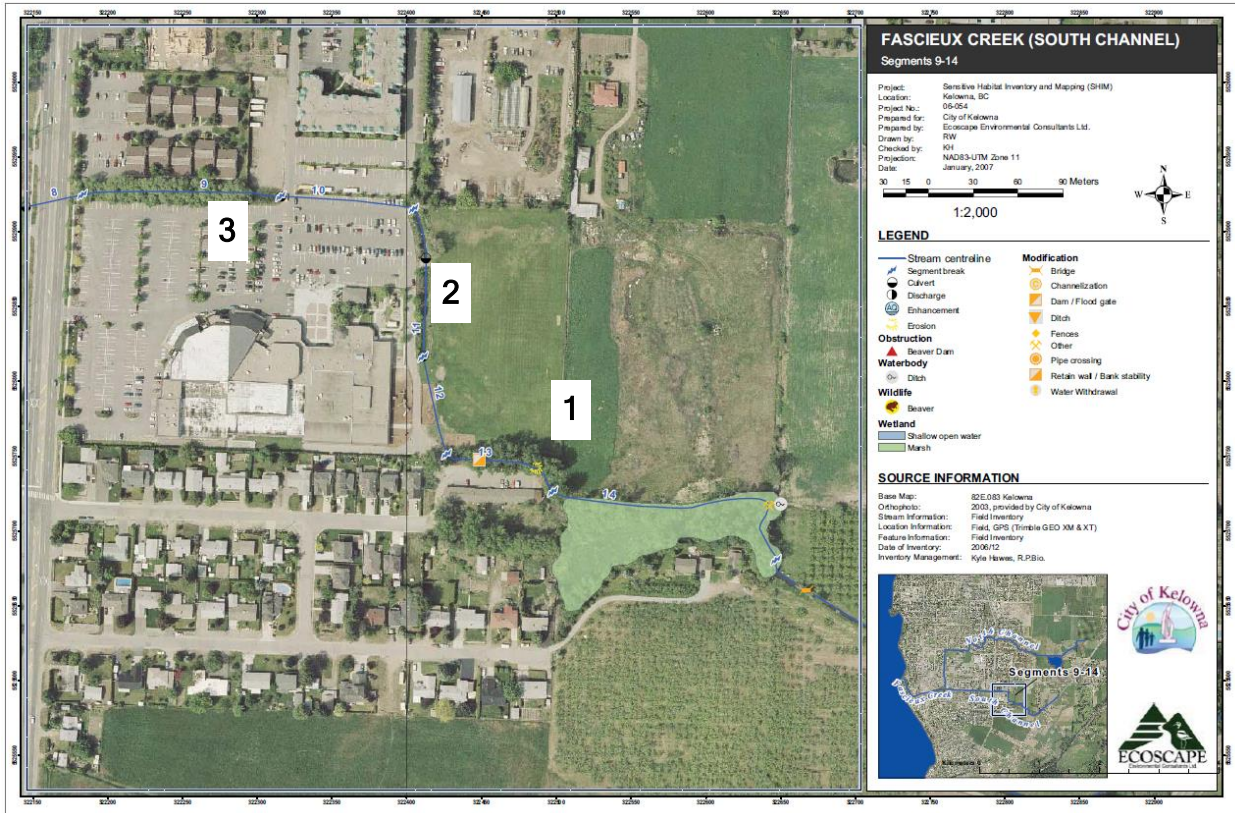
In 1963 Fascieux Creek flowed through an abandoned meandering channel of Mission Creek (indicated by arrow). Note, Okanagan College is located at top, center of photo.

MAPS OF FASCIEUX CREEK AND POINTS OF INTEREST



(google maps 2024)

The tour will begin at Okanagan college and then proceed from Segment 1 through to finish the tour at Segment 8 before returning to campus.

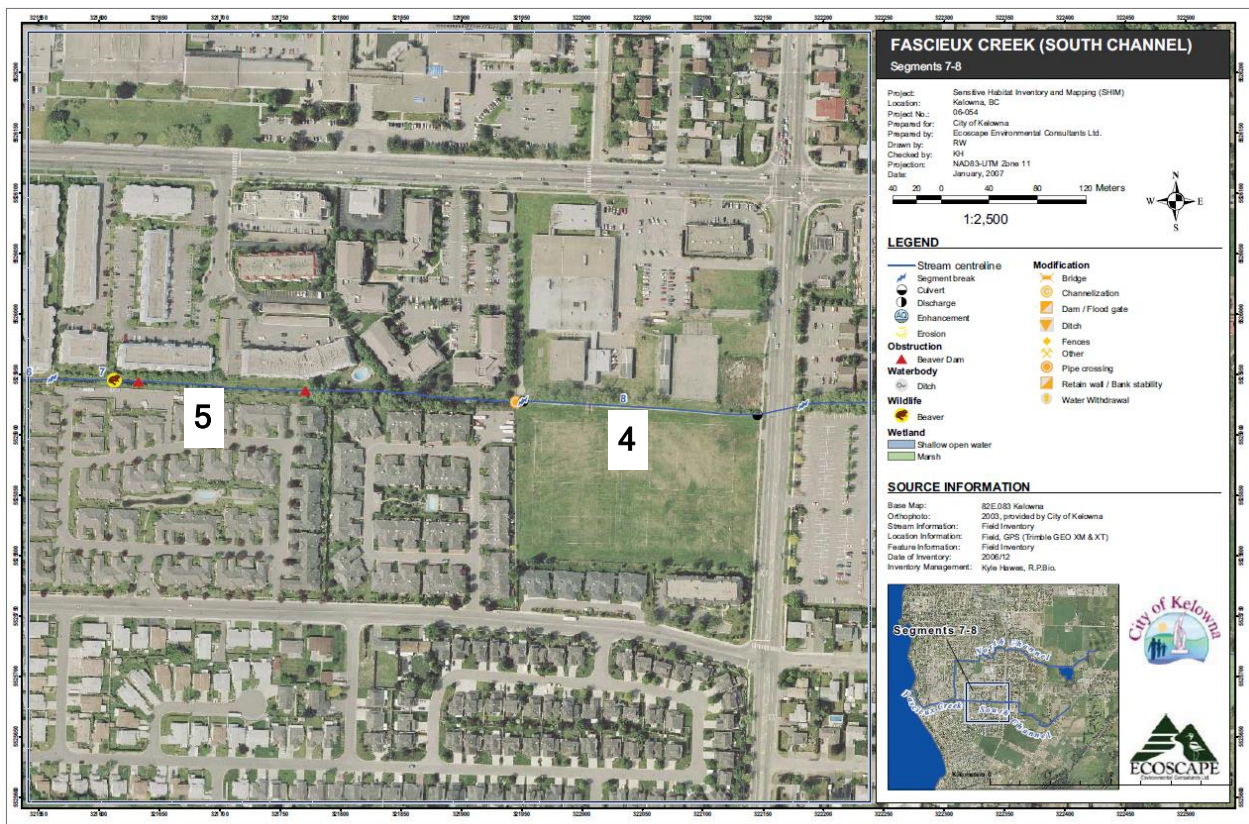


A: SEMI-NATURAL WETLAND, CULVERTS AND CHANNELIZATION



The beginning of Segment 1 of stream is semi-natural with some mature riparian vegetation, and adjacent marsh land. This segment was likely disturbed close to the channel bank during decades of agricultural use.

However, recent decades of regrowth have allowed some natural function of the vegetation to return, as evidenced by abundant bird life. As we travel downstream, a segment beside the Evangel church property has experienced erosion and channel degradation. The stream was ditched and partly flows underground through a culvert. Mature willows and cottonwoods provide some habitat and structural value on the east (Segment 2) and north (Segment 3) side of the property, but this area is a good candidate for future restoration.



B: KLO MIDDLE SCHOOL COMMUNITY RESTORATION



The channel in Segment 4 was restored in 2014. In the 1970's, Fascieux Creek was confined in a culvert and capped by paving stones through KLO Middle school playground.

In 2010, students at KLO Middle school noticed western painted turtles nesting in a long jump pit area of the school ground. This was the impetus to initiate a project to daylight and naturalize this section of the creek, improve water quality, restore wildlife habitat and engage, and educate students and the community in the value of functioning aquatic ecosystems.



Removal of culvert concrete tops



Diversion works



Over 300 fish were removed, including this prickly sculpin (CONC, 2014)

Once funding was secured, daylighting of the stream began with subsequent channel and habitat restoration (CONC, 2014).

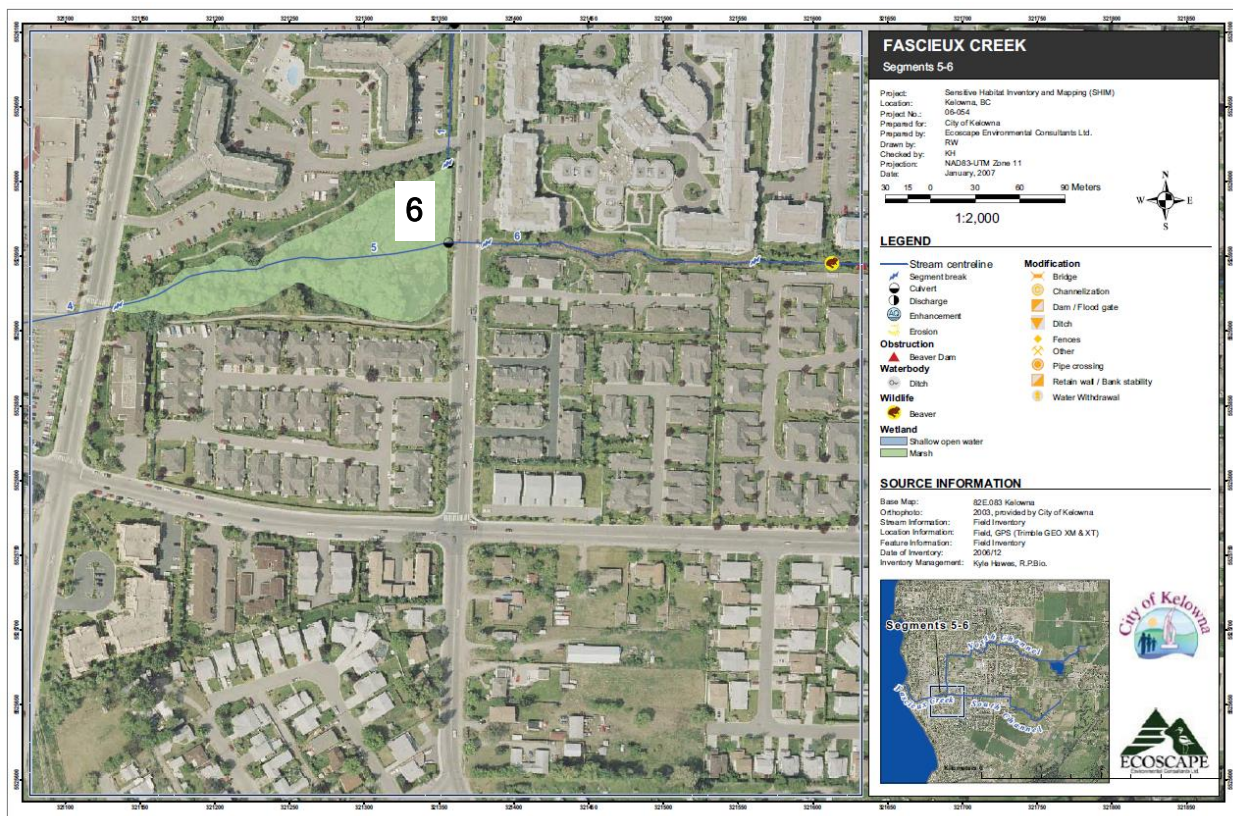


(photos from Arsenault Environmental Consulting, n.d.)

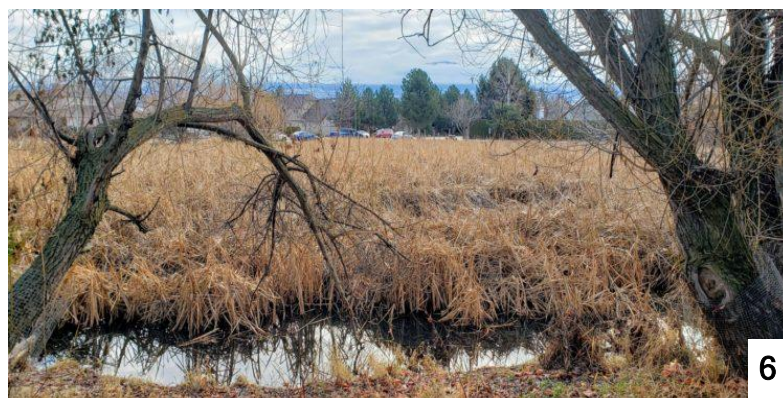
Native vegetation was planted, woody debris was placed as habitat and a pond for settling sediment was constructed. This project may serve as a model for successful restoration driven by community stakeholders.



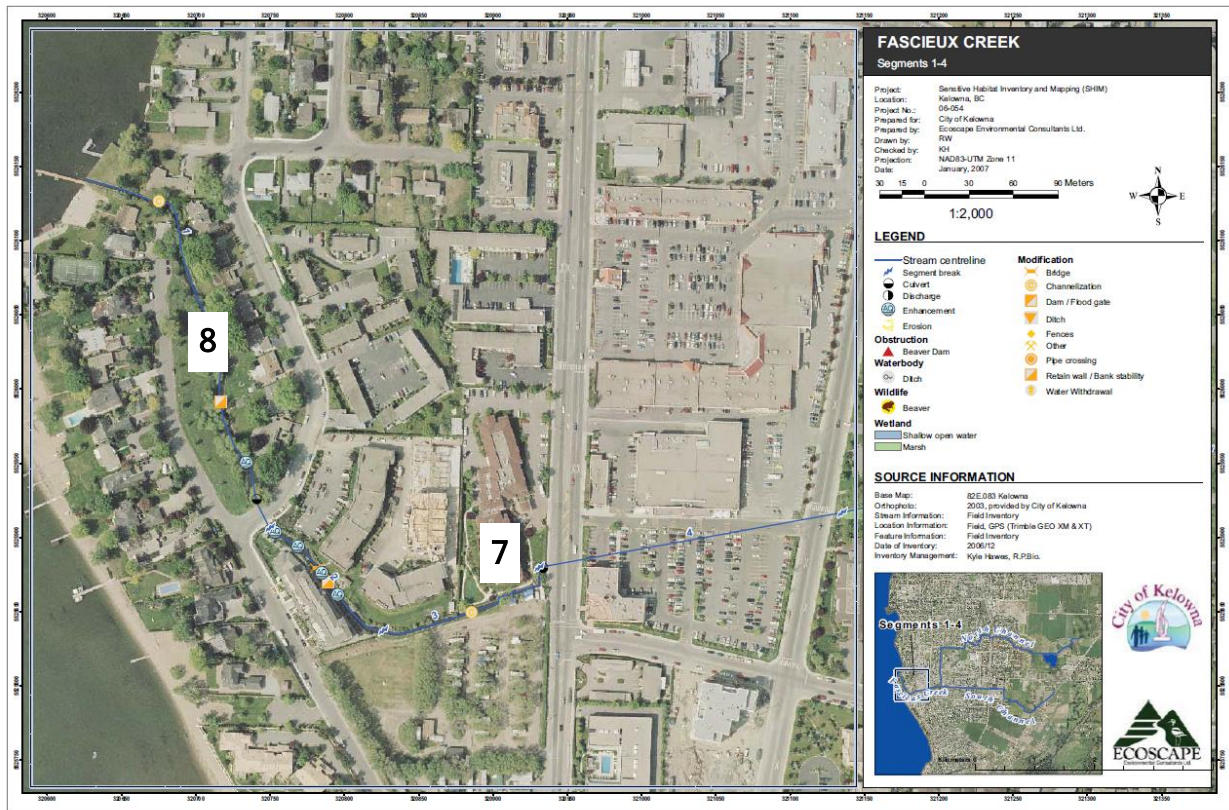
Segment 5 is located just downstream of Segment 4 and has moderate amount of riparian vegetation that provides stream cover but could benefit from additional plantings to increase riparian function.



C: FASCIEUX CREEK WETLAND



Segment 6 is a wetland that was restored in the early 1990's as part of a project to construct a local condominium development. The wetland provides natural functions, including moderating the flow of water and creating aquatic habitat. The area is also a valued recreation space.



D: CULVERTS, CONCRETE FLUMES, FUTURE RESTORATION



Segment 7 is highly channelized. Note the crack in the retaining wall and subsequent horizontal braces to prevent complete collapse. A new development project was recently approved with the condition that this ~200 m of stream be restored.



Segment 8 flows along Watt Park (located on the left bank). The channel is not confined and there is opportunity to create a functioning floodplain on the left bank. Note property lines on the right bank occur right to the stream bank.



At the southern limit of Watt Park, the creek enters a highly channelized section with retaining walls and buildings located right up to the stream bank on both sides. Unless these properties are purchased for the purpose of stream and riparian restoration, this last section before entering Okanagan Lake has no possibility of improvement.

REFERENCES

Arsenault Environmental Consulting, n.d. Fascieux Creek Restoration at KLO Middle School, Kelowna, B.C. <http://arsenaultenv.ca/envprojects/fascieux-creek-restoration-at-k-l-o-middle-school/>

Central Okanagan Naturalist Club (CONC), 2014. Central Okanagan Naturalist Club Monthly Meeting, November, 2014. www.okanagannature.org

Ecoscape Environmental Consulting, 2007. Sensitive Habitat Inventory and Mapping. Inventory Summary Report Volume 2. File No. 06-054.