



Friends of the Oxbows was formed and first met in the fall of 2008 with the goal “for the oxbows to be returned to a more natural state...”. Since that first meeting, we have formed a Steering Committee currently consisting of Chair and Biologist Ray Halladay, Secretary Bob Anderson, Biologist Rick McKelvey, Historian Randy Manuel, and Naturalist Glenda Ross. We meet regularly to discuss strategies and progress in our quest.

We have had some success with removal of debris from the Brandon Ave. Oxbow and the consultation on the development of the Warren Avenue Oxbow.

We have published an Oxbow Management Plan and other information about our group which you can see on our website at:

<http://pentictonoxbows.ca/>

## Warren Avenue Oxbow update

As you might have seen in passing there have been significant changes taking place adjacent to the oxbow at Warren Avenue. The land bordering this oxbow has been leased out by the locatee owner and is in the process of being developed for housing. Forty-six units are planned, in clusters around the property, with significant leave strips bordering the oxbow, and a large piece of common green space to the north being preserved as part of the agreement. To date most of the land that will be built on has been cleared, the riparian leave-strip has been identified and protected, an old earth cross dike that created two separate compartments in the oxbow has been removed (see photo), and riparian vegetation has been replanted adjacent to where the cross dike was located.

# *Friends of the Oxbows*

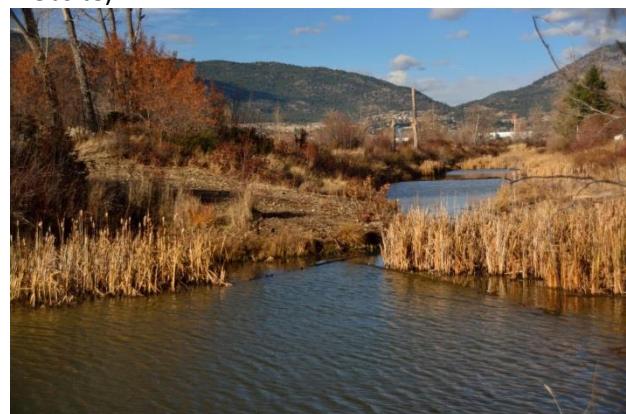
## NEWSLETTER

**Issue No. 16      Winter 2018**



**Warren Avenue Oxbow Prior to Dredging**

Friends of the Oxbows have been in consultation with the developer pretty much from the outset of project planning. We believe that the project as envisioned is about as habitat friendly as it can be. We look forward to continuing to work with the developer to ensure the oxbow is rejuvenated as much as possible, consistent with our group's goals and objectives (see our Management Plan on our website).



**Warren Avenue Oxbow After Dredging**

# Data collection update

Friends of the Oxbows have been collecting data on water quality on all the oxbows south of and including the Ellis Creek impoundment, on the east side of the Okanagan River channel since 2014.

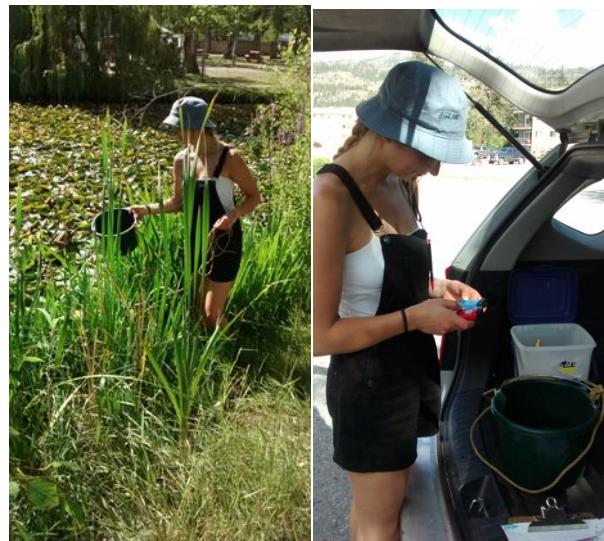
With the cooperation of the South Okanagan Naturalists' Club we have collected three years of data on bird numbers using the same oxbows. Finally, in cooperation with an instructor from Okanagan College Kelowna campus we have facilitated the collection of two years of data on relative abundance of benthic invertebrates on the Brandon Avenue oxbow.

Water quality data were summarized and reported on last year, the results being posted to our website. Data collected this past year did not reveal anything surprising, in spite of the rather unusual spring runoff and subsequent warm summer we experienced. We anticipate posting in tabular form the results of this year's data collection to our website shortly. We also plan to continue to collect water quality data on a monthly basis in the coming years.

Bird use data indicated a slightly larger range of species were seen this year on the oxbows, but the total numbers of birds seen was slightly lower. While the total number of turtles seen was higher this year than last (continuing a trend over the past three years) we believe these higher numbers were more likely a result of increased visibility on some oxbows, rather than an actual population increase. The results of the first two years of the bird surveys have been posted to our website, and the summary of this year's effort will be posted there as well shortly.

Benthic invertebrate surveys on the Brandon Avenue oxbow have indicated that the water in the oxbow is of an intermediate quality, i.e. not pristine, but not polluted either. This finding is at least consistent with our water quality data collection program, which has found neutral quality water at most times in the year on that oxbow. Benthic invertebrate sampling is a time consuming process and requires a considerable skill in being able to identify the organisms collected. We are hoping that we can continue to have our collaborator collect these data on the

Brandon Ave. oxbow, with the long term aim of demonstrating a positive or negative impact on the benthos from the clean-out that the City undertook in September of 2016. Our long-term aim is to have similar data available on all the Penticton oxbows, but human resources remain short. If you are able to help, and have the necessary expertise, please let us know!



**Volunteer Hydrology Technician Tessa Bokla collecting and testing water samples**

## Penticton's Ghost Creeks

What is that burbling noise you hear at night in your basement? It could be one of four different creeks that have been sent to their graves but will not stay still.

Penticton, at one time, had ten creeks flowing in from the east side of the valley. From north to south they are: Strutt Creek (a.k.a Four Mile), Johnson (a.k.a. Three Mile), Randolph, Penticton, Shatford, Ellis North Branch, Troy, Athens, Ellis South Branch and Gillis (a.k.a. Naboth) which enters Skaha at the city's South boundary. Shatford, Troy and Ellis South no longer are visible. Athens runs on occasion. The earliest map of Penticton, February 21st 1887, shows five creeks between Okanagan and Dog Lake (a.k.a. Skaha). The map does not go past what would become Naramata Benches where the three northern creeks mentioned are located.

Penticton Creek flows out of the mountains some 36 km eastward wrapping itself around the east and southern "bump" of Campbell Mountain. It then goes northwest to enter the lake at the foot of Ellis Street by the Art Gallery. Near the top end of Nelson Ave., and just a bit north of the McNicol Park soccer field, was this creek's south branch called Shatford Creek. It flowed west crossing Main Street about 50 m north of Edmonton Ave., then angling southwestward down Preston Ave., (that's why the street is not straight) crossing Fairview Road at Windsor Ave., and feeding the homestead ranch of Tom Ellis. It continued westward and crossed Hastings Ave., (now Duncan Ave, W.) and entered the original Okanagan River just about 30m south of the old CPR highway overpass. Shatford Creek last ran in 1948 flooding homes on Fairview Rd. An old photograph, in the archives, shows a boy on a raft on the old creek.

Going south, Ellis Creek, as we know it today, was seasonal, and does not show up on maps until a 1930 publication. It starts in the hills near the 1500m elevation. Flowing westward it left the confines of the canyon with its' main branch running at the foot of the Munson Flats escarpment, (Wiltse as we know it today). It then crossed Main Street South between Kinney Ave., and Secrest. Just after it crossed Skaha Lake Road it split again with a seasonal flow going west along Kinney Ave., and reaching the river just south along the boundary of sub block 115 on City maps. The other branch went through Skaha Lake Rd. at Brandon Ave., (going through Tim Hortons for a coffee break!) and entering the river about 20m or so south of the extreme west end of Brandon Ave.

Troy Creek was most likely a sub stream of the Ellis north branch, the one we recognize today that flows beside Industrial Ave. The massive boulder field that Penticton and Ellis creeks produced created the alluvial fan that is Penticton. This boulder field is like a big seep. When high water levels are present, in Ellis Creek for instance, water can leak through old subterranean channels and reactivate Troy and Athens creeks. Both have been active this year, 2017, making their presence known by flooding basements on Roy Ave. and Warren Ave. Troy Creek enters the Warren Ave. Oxbow off the Chatham Place public access path. Athens Creek starts at Atkinson Ave., between the

residential towers creating a riparian environment as it winds its way westward behind the Athens Creek Retirement Lodge, then it is buried under the Lions' Baseball Park, emerging on the north side of Warren Ave., and passing between the lone house on Warren and those off of Troy Court and, like Troy, enters the Warren Oxbow. This oxbow currently flows north and enters the river channel just south of the Ellis Creek catchment basin.



**A male Wood Duck, a common resident of the Penticton Oxbows.**  
**Photo courtesy of Alex Bodden**

Over the past one hundred years the city has manipulated these streams to control flooding and in the case of Ellis and Penticton Creeks, built dams in the hills to provide water for irrigation and household use.

Penticton Creek flooded the downtown region over a period of 30 years, the last major event being 1948. In attempts to control these inundations the city first proposed diverting Penticton Creek via Edgewood Drive, down what is today Duncan Ave., and cut across Carmi School grounds and into Ellis Creek, thus eliminating Penticton Creek from downtown forever. This was too expensive and difficult to do given development in that area by that late date, so digging a deeper channel and creating a concrete trough was the eventual outcome. While this controlled the creek it damaged the stream for spawning salmon, kokanee and trout.

At some point in the 1930's Ellis Creek was rebuilt and confined to the channel we see today. It was further confined in 1948 and 1953 when the new Okanagan River Channel was built. That portion of the creek that emptied into the old river became a sand catchment pond.

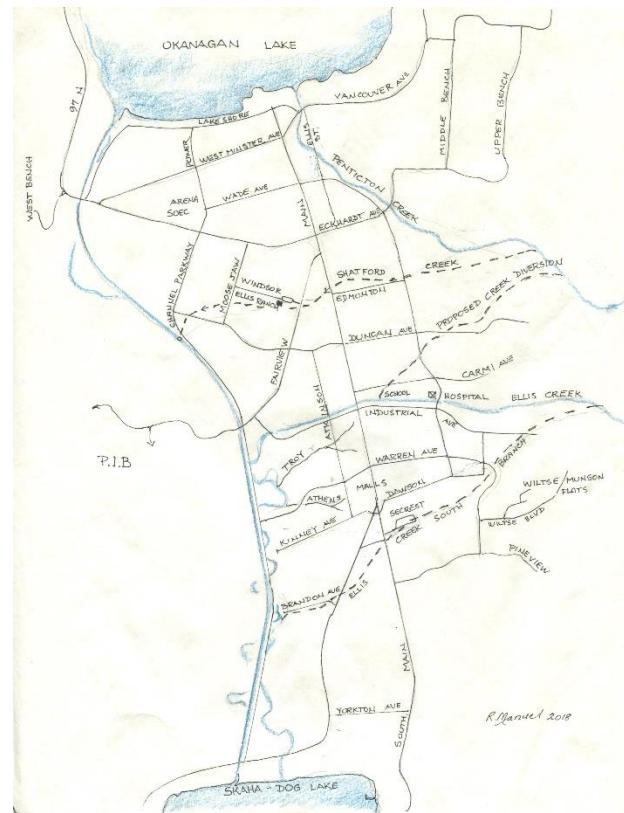
The confinement also eliminated a fine riparian area of black cottonwoods and the ability of the creek to support its once vibrant salmon fishery. At one point Indian Reserve No. 2A and No. 2 straddled most of Ellis Creek as the stream was recognized as an important source of a food fishery for the Syilx people. This reserve was bounded on the north by Carmi Ave., extending across Main Street to approximately Atkinson Ave. The west boundary was Atkinson Ave., the south boundary was in line with the McDougal Ave. entry into the Real Canadian Super Store, and the east lot line was some 3km east of Main Street (boundaries mentioned are approximate). Ellis Creek's native name was Nanisheen.

In 1953 Okanagan River was confined into a channel to control flooding and to further manage Okanagan Lake for irrigation and flood control. The dams on Skaha and Okanagan lakes had fish ladders but were not activated at the time of construction. No consideration was given to the salmon fishery and thus Ellis and Penticton creeks and their sub branches, once important salmon streams, were completely destroyed.

In recent years there has been massive work by various groups to rejuvenate the salmon fishery in the Okanagan system. This has included a fish hatchery on Shingle Creek (PIB lands,) activating fish ladders on Skaha Lake at Okanagan Falls, and improvements on all structures on the Okanagan River as far south as the junction with the Columbia River at Brewster Washington. Returns are now starting to occur. Kokanee are now spawning in Ellis creek between Industrial and Atkinson avenues. Salmon too have been seen this fall returning to Ellis Creek. There is hope, with work on reclaiming the oxbows and improvements to riparian areas, we may yet see a glimpse of what our Ghost Creeks might have been.



South Okanagan Naturalists' Club members collecting bird numbers. Photo courtesy Rick McKelvey



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