

[Subscribe](#)

[Past Issues](#)

[Transl](#)

[View this email in your browser](#)



Volume 12- Issue 2

Know Your Watershed

December 2018



Members of fish sampling crew gather catch to be counted and weighed

## 2017 Swift Current Creek Water Monitoring Project

During the summer of 2017 the Swift Current Creek Watershed Stewards (SCCWS) conducted a creek long monitoring project to learn more about the water quality in

the Swift Current Creek (SCC) and the health of its watershed (SCCW). SCCWS last completed a project of this magnitude in 2007, so 2017 was a good time for SCCWS to investigate water quality in the SCC and the health of the SCCW as many changes have taken place in the watershed since 2007. SCCWS compared the results of the 2007 project to results from 2017 to determine if water quality and watershed health has changed in the last ten years.

SCCWS collaborated with the City of Swift Current to collect water samples within the city to investigate if the operations of the Water Treatment Plant (WTP), Wastewater Treatment Plant (WWTP) and Landfill impact water quality within the city and downstream of the city. The project also looked at the impact of the city on water quality and watershed health downstream of the city.

The results showed lower water quality in 2017 compared to 2007 due to increased levels of Total Dissolved Solids (TDS). TDS levels were elevated in 2017 due to the hot and dry weather experienced in 2017, which lowered creek flows and water levels in the creek increasing the concentrations of salts and minerals in the water. The results indicate that the water in the SCC is suitable for all uses in our watershed but water quality and watershed health are not perfect. Watershed residents have been working hard to ensure that the SCC is a safe and sustainable supply of water, but that work needs to continue.

SCCWS investigated the health of White Suckers and Fathead Minnows to assess the health of the SCC for aquatic life. Healthy White Suckers were caught in large numbers at all five sites sampled indicating that the creek is a good habitat for this species. Fathead minnows were only found at two sites in 2017 similar to 2007 where they were found at 3 sites. Similar to White Suckers the population was deemed to be in good health. During the course of fish sampling SCCWS also

observed Walleye, Northern Pike, River Shiners, and Shorthead Red Horse. In total there were 12 species of fish caught showing the creek is maintaining habitat for a wide variety of fish species.

SCCWS caught a fish north of Swift Current that could not be identified immediately, subsequently it was identified by the Saskatchewan Ministry of Environment (MOE) to be a Prussian Carp (*Carassius gibelio*). This is an invasive fish species that can move into a waterbody, multiply rapidly and dramatically change the ecosystem of the waterbody. MOE suggested that the fish probably swam upstream from the South Saskatchewan River to where it was caught. So far this is the only instance of Prussian Carp being found in the SCC; however it illustrates the need to be diligent to keep invasive species out of the SCC. If you happen to catch one of these invasive species, please do not release it but destroy it humanely.



Prussian carp-photo courtesy of istockphoto.com

The results of macroinvertebrate (Bugs) sampling classified many sites as stressed due to the presence of large numbers of bug species that thrive in polluted and turbid (muddy) water, especially immediately downstream of Duncairn Dam. The water released from the dam changes the sediments in the creek downstream, changing the habitat which influences the species present. The only sampling site upstream of Duncairn Dam was classified as healthy. While Duncairn Dam has a negative impact on the population of bugs, Duncairn Dam has many positive impacts including ensuring a sustainable supply of water for Swift Current and irrigation projects, providing downstream flood control and creating consistent habitat for migrating birds. These bug species provide a source of food for other aquatic life including fish, improving the food web within the creek.

Sampling results from within and downstream of the City of Swift Current show that the operations of city facilities did not negatively impact water quality and watershed health of the SCC. The results show that downstream of the WWTP is a better habitat for fish and bugs than upstream of the city. The operators of these facilities must be commended for ensuring that city residents have a safe and abundant supply of potable water and their stewardship of the watershed.

The results of the 2017 SCCWMP showed that the SCC and its watershed are healthy but problems do exist. SCCWS is continuing to monitor the health of the creek and is looking to complete projects in areas of the creek to determine stressors in these areas and to find ways to improve water quality.

This project would not have been possible without the efforts of Dallas Peters our AgriEnvironmental/Watershed Technician who coordinated water, fish and bug sampling and spent many hours reviewing data and writing reports.



SCCWS would like to thank the City of Swift Current for partnering with us on this project and also for their in kind donation of staff to assist with sampling and paying for water samples to be tested. This assistance allowed this project to be truly creek long in scope and focus. Thank you to Agriculture and Agri-Food Canada Water Infrastructure Division for supplying personnel and equipment for this project. Thank you to the following Rural Municipalities for their sponsorship of this project, Bone Creek, Carmichael, Excelsior, Lac Pelletier, Webb and Swift Current. Thank you also to Whitecap Resources for their sponsorship of this project.



SCCWS Watershed Technician Dallas Peters recording water quality data

## Events Calender

SCCWS will be hosting Forage Workshops in partnership with Pionner Co-op in Janaury, more information will be available in the new Year. Please check [sccws.com](http://sccws.com) for more information

Controlling Invasive weeds using Targeted Grazing Workshop

February 1<sup>st</sup> and 2<sup>nd</sup>  
Swift Current  
For more information go to [sodcap.ca](http://sodcap.ca)

Invasive Weed Identification, Management and Mapping for Logging Producers  
February 1<sup>st</sup>,  
Swift Current  
For more information go to [sodcap.ca](http://sodcap.ca) or [sccws.com](http://sccws.com)

## Summer with the Stewards

Written by Jocelyn Biro -Summer Intern Canadian Wildlife Service Swift Current  
Creek Watershed Stewards

I began my work term in May, hired on for the summer through a partnership between the Canadian Wildlife Service (CWS) and the Swift Current Creek Watershed Stewards (SCCWS). It was the first time such a position existed, and nobody knew what to expect. Coming from a small town in northern Alberta I was unsure of what to expect from the position, and from Saskatchewan itself.

Throughout the summer, the focus was to build a presence for CWS and SCCWS, and collect data about the Duncairn Reservoir Migratory Bird Sanctuary. Increased development on the shorelines of Duncairn has amplified the need to communicate the regulations, limitations and protection of our watershed. The Watershed Stewards were a vital component of my efforts, helping me develop literature about Duncairn, and undertake water quality testing. Moreover, the Watershed Stewards taught me about southwest Saskatchewan, and the concerns that surround the watersheds. I gained an incredible amount of applicable skills and knowledge, due in part to their efforts.

Residents surrounding Duncairn greeted me with hospitality. I had numerous conversations with residents and I left every one with a broader knowledge of the area, and the values and concerns of the people living within it. During my last visit to the Reservoir, a gentleman mentioned it was nice to see an increase in presence at the Reservoir. I myself appreciated the willingness of people to have a conversation, and recognized a genuine interest in caring for the land on which they live.

That being said, there is a need to convert this concern to action. The current dry conditions of southwest Saskatchewan have amplified the need of citizens to become involved in protecting their watersheds through conserving water, maintaining vegetation along shorelines, and taking precautions to prevent the spread of invasive species.

It has been a pleasure to be part of the current conservation efforts of the Swift

Current Creek Watershed Stewards. The Duncairn Reservoir Migratory Bird Sanctuary truly holds value worthy of preservation. I wish the Watershed Stewards and the residents of the Swift Current Creek Watershed all the best as they move forward with their conservation efforts.

*The Staff and Board of Directors of the Swift Current Creek Watershed Stewards wish you a*



## Thank you to our sponsors



*Copyright © 2018 Swift Current Creek Watershed Stewards, All rights reserved.*

Want to change how you receive these emails  
You can [update your preferences](#) or [unsubscribe from this list](#).

