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Many watershed residents need to know about the quality of the water they are using for uses such as watering livestock, crop spraying, irrigation of crops, vegetables or fruit and domestic use. To help them understand the quality of this water, they have purchased hand held meters that test for Conductivity, Total Dissolved Solids and Salinity in the water. These meters provide a good early warning about degrading water quality, but do not give a reading of which minerals and salts are in the water and how much of each are present. To determine the minerals and chemicals that are in your water, samples should be submitted to a laboratory for testing. The Saskatchewan Ministry of

Agriculture web-site has more information about water quality for these different uses and where to send your water samples for testing.

Most of the water is from dug-outs or a creek and collecting accurate water samples from these areas may be difficult. Samples taken from the very edge of a dug-out may not give an accurate reading of water quality throughout the dug-out. Steep banks and fast flowing water can make it difficult to get good samples from a creek. The Swift Current Creek Watershed Stewards (SCCWS) have encountered these issues when collecting water samples for some of our projects including the Herbert Water Use Project and the Saskatchewan River Basin Phosphorus Sampling Project. While planning for these projects the SCCWS looked at a number of objects that would assist us to safely collect accurate samples, but they were hard to find and those that we did find were expensive. After our research, the SCCWS decided to modify a piece of equipment that can be found anywhere in Canada, a hockey stick!

Sample bottle attached to blade of hockey stick with cable tie.

The SCCWS uses an inexpensive wooden stick, although a stick that you do not want to use anymore that still has most of the blade intact will work. A longer stick is best as it can reach farther into the creek or dug-out to get better samples. The SCCWS drilled a hole in the blade near its end and the sample bottle is attached to the blade by running a cable tie through the hole around the handle of the bottle and the stick blade. The bottle is then submerged in the water to collect the sample. The stick, blade and sample bottle are arranged so that the bottle stays under the water to fill it properly. Emptying the bottle is easy allowing the sample bottle to be rinsed and to fill other sample bottles. This inexpensive and effective sampling stick allows the SCCWS to take water

samples out of the Swift Current Creek during high water flows in spring for the Saskatchewan River Basin Phosphorus Sampling Project. The high level of rapidly flowing water in the creek during run-off makes it difficult for people taking samples to get into the creek to get accurate samples. Using the sampling stick enabled the sample collector to safely get samples from closer to the middle of the creek providing a more representative sample than those taken at the edge of the creek.

The SCCWS is working with three other Saskatchewan Watershed Stewardship Groups in the Saskatchewan River Basin to investigate the possible sources of phosphorus in the water of this basin. The water from the Swift Current Creek flows to the South Saskatchewan River which then joins the North Saskatchewan River and from there flows into the Lake Winnipeg Basin. Lake Winnipeg and other lakes at the end of this basin have long had problems with excessive algae blooms including blue green algae. These blooms have been attributed to increased phosphorus levels in the water. This study will help to determine if water from the Saskatchewan River and their tributaries, of which the Swift Current Creek is the largest, contribute phosphorous to Lake Winnipeg and if so how much. The SCCWS will also use the results of this project to determine which areas of the watershed may be contributing higher levels of phosphorous to the creek.

The SCCWS collected samples from 5 sites along the creek once a week for four weeks from the middle of April to the middle of May and will continue to collect samples monthly from June to October. The SCCWS will look at the results of its sampling and the results from other groups to determine how the Swift Current Creek Watershed contributes to phosphorus in the Saskatchewan River Basin and ultimately the Lake Winnipeg Basin.

Funding for this project is provided by the Lake Winnipeg Basin Program of

Environment and Climate Change Canada.The SCCWS is participating in this project with the Carrot River Valley Watershed Association, the North Saskatchewan River Basin Council and the South Saskatchewan River Watershed Stewards. The SCCWS thanks the Saskatchewan Ministry of Agriculture for in kind support of this project through their assistance with the shipping of samples and providing funding of testing for General Water Quality in conjunction with this project to provide more context to the phosphorus data collected.

For more information on the Saskatchewan River Basin Phosphorus Sampling Project or the work of the Swift Current Creek Watershed Stewards please call 306-770-4607 or e-mail kevin.sccws@gmail.com or visit our web-site www.sccws.com.

Collecting water samples. Notice that sample is being taken from area outside of algea and other things that may contaminate the sample.

Thank you to our Sponsors

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