

North Saskatchewan River Basin Council



Current Events in the North Saskatchewan Watershed

- Works underway developing a scientific report on the potential impacts of nuclear development on the watershed.
- Expanding resource capacity underway.



“There is no life without water”

-Albert Szent-Gyorgyi

Source Water Protection Funding Floods the Province!

In April, the Saskatchewan Watershed Authority announced increases to their funding for source water protection by \$500 000, for a total of \$820 000. This money is dedicated to help watershed protection groups implement their respective source water protection plans. The North Saskatchewan River Basin Council will receive over \$100 000 to help with capacity building and implementation. Priority initiatives for the NSRBC include school presentations and

community outreach on the benefits of wetlands, the value of riparian areas and the benefits of adopting beneficial management practices. It will be a busy year. The NSRBC hopes to increase its human resources with this expanded budget. This should allow for more activities to be accomplished and different programs to be delivered in the North Saskatchewan River Watershed.

Environmental Farm Planning

Who said change had to be difficult? The Farm Stewardship Program has moved from Agri-Environment Services Branch, the department formally known as PFRA, over to the hands of PCAB. Along with this change, a number of beneficial management practices (BMPs) have been added to the list, while others have received increases in coverage. A few notable amendments include

- **seeding buffer strips:** 75% coverage, \$20,000 cap

- **fencing for off -site watering:** 50% coverage, \$30,000 cap
- **well decommissioning:** 75% coverage, \$6,000 cap

Another significant development in the world of PCAB is the watershed awareness initiative. Agriculture Environmental Group Plans (AEGP) are actively being created to simplify individual participation, helping to make an impact across the basin. For more information on the AEGP or BMPs please visit PCAB's website at www.saskpcab.com.



Water Conservation – Water is Money!

Water is Money! All the water that comes to your house is treated to be of drinking quality. The City of Regina treats 70 million liters of water per day, 1% of which is actually consumed for drinking! The annual cost of water treatment for 2008 was \$6 026 180. That is a lot of money down the drain. The more you can conserve your water use the more of the natural resource and city finances you can conserve.

Here are three ways you can save water in your home this summer.

- 1. Keep water in the fridge** – Running the tap to get cold water can waste 4L or more for every glass of water!
- 2. Water the lawn in the morning or evening** - Avoid watering in the heat of the day. More than 50% of the water is lost to evaporation. Remember a conventional lawn only needs to be watered 1.5 inches per week, which is the depth of a Frisbee.
- 3. Wash the car with a bucket and sponge** - This can save 300L of water! It takes more effort but the benefits are significant.

Xeriscaping- Save Water with Nature

Xeriscaping is a form of landscaping designed for areas that are susceptible to drought. It is also a means to conserve water! Xeros in Greek means “dry” and the term xeriscape literally means “dry landscape.”

Water use in the summer months increases dramatically. Xeriscaping is one way to conserve water effectively around the home. By choosing to use plants that require little to no water you are able to cut back on the water demand, reducing the stress on the water treatment system.

Here are three drought tolerant species, durable enough for Saskatchewan. Each time you make an effort to include native species in your landscaping you reduce the square footage that requires watering.



Purple Fountain Grass



Blue Stonecrop



Hens and Chicks

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***“All the water that
there will ever be, is
right now”***

Water Quality Testing – Rural Water Quality Advisory Program

Water quality can vary significantly within the watershed. Towns and cities have treatment facilities that treat raw water to provincial standards before distributing it. But if you live in rural Saskatchewan and have a well or dug out as your water source you may not always be certain of the water quality. The Saskatchewan Watershed Authority (SWA) has a program called the Rural Water Quality Advisory Program which subsidizes water testing fees for private land owners. For \$100, less than half the cost of the fee, a SWA representative will come and sample your well or dugout. The test will provide health and aesthetic information including nutrients and chemical concentrations. For more information on the please visit SWA's website at www.swa.ca

What is a Watershed?

If the first thing you thought of was a shed where water is stored you are actually not too far off.

Our definition is a geographic area that drains into a specific water body, such as the North Saskatchewan River.

However, I recently learned that a water shed goes back to the days of the railroad when goods were stored in a shed beneath the water tower. Water would drip from the tower onto the roof and the evaporation would cool the shelter.

The Low Down on Riparian Areas

So what is a Riparian Area?

It is the vegetative area that separates aquatic and terrestrial ecozones. Usually the area is very lush and filled with a variety of vegetative species such as trees, shrubs, sedges and grasses.

Five things you should know about a Riparian Area are:

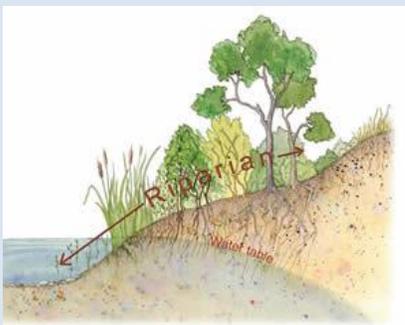
Filter Runoff - The vegetation in the riparian area acts as a filter for sediment erosion from upland. The vegetation can trap the sediment that may have different pollutants attached to it, such as pesticides, fertilizers or different bacteria.

Roots anchor the soil - This protects against erosion from wind and water. This keeps the soil and out of the adjacent water body and on the slope where it should be.

Flood Mitigation - The root systems also create pores for water to go into. This helps to manage flooding by reducing the velocity and quantity of free water. Water needs a place to go and the riparian area helps provide storage for extra water.

Wildlife Habitat – The vegetation around riparian areas is unique and many species need this lush protection for their homes. The healthier the riparian area the more diverse are the species within it. It is a unique ecosystem all to its own.

Groundwater Recharge - The pores in the soil made by the roots help water to re enter the ground. This replenishes the water table and can keep water supplies in an area recharged.



The Riparian Area

The Value of Wetlands

Wetlands – What's the big deal?

So often you hear encouragement for the retention of wetlands, particularly in agriculture. Why is that? Is there anything more to wetlands than reduced production and difficult maneuvering for machinery? What is so great about wetlands?

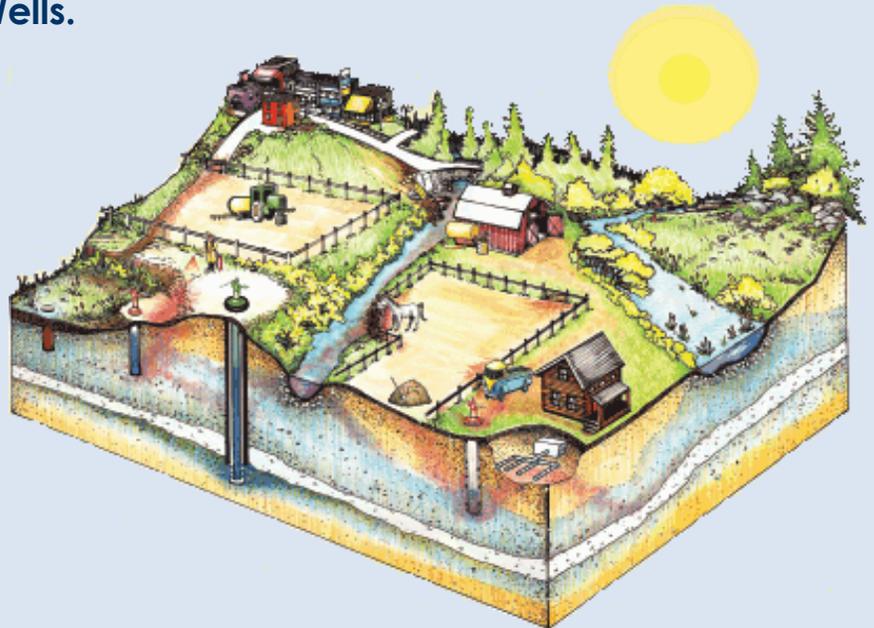
Not only are wetlands important to supporting wildlife such as water fowl, but they are magnificent water filtration systems. The vegetation in wetlands is able to remove many nutrients and chemicals that find their way in the water system. As water enters the wetland and eventually evaporates or enters the ground water system any contaminants in the water are caught by the vegetation. Having healthy wetlands is like having mini water treatment facilities spread across the land. Wetlands are so effective in their water filtration that engineers are even mimicking this design for sewer management. More and more manufactured wetland lagoons are being developed. This system uses the efficiency of plants and other organisms to help breakdown pathogens such as harmful bacteria, as well as to uptake nutrients and chemicals. Communities pay big bucks to get these wetland lagoons engineered and constructed. Consider this next time you're maneuvering around the muskeg. This is one of nature's most powerful water filters. They are valuable especially when you consider they are filtering the water that enters the ground your well is tapped into. Healthy wetlands mean healthy water.

Ground Water and Abandoned Wells.

To give some perspective to the value of groundwater let's consider its rarity. Only 3% of earth's water is drinkable. 66% of that 3% potable water is found in the ground. Groundwater is a key source of water for many communities and individuals.

The other important factor about groundwater is that you can't just take it out and clean it when it becomes contaminated. Contaminated groundwater has to run its natural circulation cycle which could vary between one month to one million years, depending on the depth and rate of recharge.

Major threats to groundwater quality are abandoned wells. Almost every community or farm yard has one of these, if not more. Depending on the condition and location it can be easy for manure, mice or other things like motor oil to get into these wells. The well allows for the contamination to go straight into the groundwater and not filter through all the sand and soil that protects each aquifer.



Then NSRBC and SWA intend to develop a database to catalogue all abandoned wells in the watershed. This will allow for sites to be decommissioned as funding becomes available. If you know of an abandoned well or are interested in getting one decommissioned please contact Katherine Finn with the NSRBC.

In the meantime, the best thing to do is try to secure the opening of the well as best as possible to ensure rodents and other contaminants with runoff are unable to get into the well.