

The River Current

Winter 2017

Wetlands: Part of the Carbon Solution Greenhouse Gas Storage and More



Our Mission: Promoting watershed sustainability through awareness, linkages and stewardship.

In the current round of discussion, both federally and provincially, regarding carbon taxes, caps and credits, carbon storage, greenhouse gas (GHG) emissions and GHG storage or sinks, there has been little to no mention of the role that wetlands play in the fight against climate change. Research is ongoing with respect to carbon sequestration and storage in prairie wetlands, but there is agreement that wetland drainage results in the loss of significant amounts of carbon that has been accumulating in wetlands for centuries, if not millennia. Preserving existing wetlands keeps up to 89 tonnes per hectare of carbon out of the atmosphere. The unmitigated loss of 4,000 hectares of wetlands each year is not sustainable.



In addition to carbon storage, wetlands provide several other environmental advantages such as flood mitigation and regulation of water flows. Wetlands also have a cooling and humidifying effect on regional climate and therefore help moderate the impact of climate change. They are equally important in ensuring that non-point source pollution does not end up downstream. Wetlands offer habitat for species of wildlife, including many rare and endangered animals. Livestock producers can benefit as well from the water resources wetlands supply. Lastly, wetlands provide numerous recreational opportunities for outdoor enthusiasts.

Wetlands are critical to the future health and sustainability of our country's environment and economy. When you consider all the advantages of wetlands, including the recreational and aesthetic values to the public, you have a very impressive list of reasons why the retention and restoration of wetlands makes sense.

Michael Champion, PAg
Head of Industry and Government Relations, SK
Ducks Unlimited Canada



With documented sightings since the early 1900's, Lake Manitoba's monster, Manipogo, resembles other "lake monsters". The most famous lake monster is, of course, Nessie, the Loch Ness Monster. North American lake monsters include Ogopogo in British Columbia's



Okanagan Lake and Champ in Lake Champlain in the Quebec-New York-Vermont area. As with other lake monsters, lacking conclusive evidence, the legend of the Manipogo monster prevails. Manipogo Provincial Park contains a campground, boat launch, and beach, as well as places to witness garter snake migrations. And maybe lake monsters!

Moopher's Amazing Facts

Every River has a Story...What is Yours?

The PFSRB conference was held October 16 to 19, 2016. The conference this year was a joint PFSRB and the 8th Canadian River Heritage Conference. Our partners for this conference were Saskatchewan Parks, Culture and Sport and the Canadian Heritage River System.

The conference was held at the Delta Bessborough Hotel in Saskatoon. The first day of the conference, October 16, included the Prairie Steamship Heritage Association Symposium held on the Prairie Lily, Saskatoon's own riverboat. Participants spent 5 hours aboard the riverboat, where they had the opportunity to hear from a panel of speakers including Jennie Christensen, Ted Barris, Gordon E. Tolton, Jeff O'Brien and Bill Waiser. While all of the speakers were enthralling, Jennie Christensen's presentation on her analysis of the Franklin expedition was fascinating. Unfortunately, we will all have to wait until her research is actually published to determine what actually killed the 3 sailors found buried on Beechy Island. Publication should be later this fall.

After the riverboat cruise, participants had the opportunity to join us at a reception at the Delta Bessborough Hotel. Refreshments were served and everyone had the opportunity to listen to the music of Jen Lane, a local musician.

The conference itself covered 3 full days, the longest conference PFSRB has undertaken. We had a number of high level keynote speakers throughout the conference. Featured keynotes were Trevor Herriot, a local prairie naturalist and writer; Maude Barlow, a renowned author on water related issues, the national chairperson of the Council of Canadians and a holder of 12 honorary doctorates; and Danika Littlechild, a lawyer with expertise in governance, indigenous legal systems and environmental and international law from the Ermineskin Cree Nation in Treaty 6 Territory in Alberta.

Andrea Menard, a well renowned Métis jazz artist with prairie roots, was the keynote for the banquet held on October 18. The mixture of song and stories was uplifting and entertaining and the evening was over too quickly.

Tours for the conference participants included a bus trip to Wanuskewin Heritage Park and the Northeast Swale, a downtown walking tour and because of the closeness to Halloween, a Ghost Walking Tour. There was also a bus tour that took participants to Batoche National Historic Park.

PFSRB is already planning the 2017 conference which will be held in Alberta. A suggested topic for the upcoming conference is water quality and the conference will most likely be held in early October. More details will follow as plans are solidified. Keep checking our website and/or Facebook page for more information.

The Sundance Kid and the Bar U Ranch in Alberta

In 1891, a 25-year-old Harry Longabaugh was a horse breaker at the Bar U Ranch in southern Alberta. At 160,000 acres it was one of the largest commercial ranches of the time. Longabaugh is better known today as 'The Sundance Kid' and known for the company he kept: he became a member of Butch Cassidy's Wild Bunch.

In the early 1900's the Bar U Ranch was the largest purebred Percheron horse breeding operation in the world. A number of colourful characters are linked to it. Edward Prince of Wales and Wallace Simpson visited and liked it so much that the Prince purchased a neighbouring ranch which he called EP.

Parks Canada acquired 148.43 hectares (367 acres) of the ranch in 1991, at which time the ranch became a National Historic Site, with a vision to commemorate the evolution of the Canadian ranching industry and the contribution of the industry to the development of Canada. Today it's a 'working ranch' with more than 30 heritage buildings, historical interpreters and visitor services. Visitors can tour the Bar U Ranch National Historic Site on foot on a self-guided tour, or on a wagon tour. For more information, please go to: <http://www.pc.gc.ca/eng/lhn-nhs/ab/baru/visit/visit1.aspx>.



Photo courtesy Parks Canada

Fog Harvesting Around the World

Today nearly two people in ten have no source of safe drinking water according to the U.N. Millions of people, most of them children; die from diseases associated with inadequate water supply, sanitation, and hygiene each year. But in some desert areas, where there is very little rain, fog and dew are abundant sources of humidity that are being harvested to produce fresh water.

Fog collection is a relatively cheap and environmentally friendly source of water in many remote arid regions. The collected water is often of good quality, so it can provide drinking water where it's otherwise unavailable. Fog collecting projects have been implemented all over the world, in countries such as Chile, Peru, Guatemala, Namibia, Eritrea, Oman, and Nepal. Many of these projects have been implemented by a Canadian non-profit called FogQuest, an organization dedicated to providing drinking water and water for irrigation for rural communities in developing countries. The use of fog nets has been used since 1987, and studies have repeatedly shown the viability and effectiveness of using fog collectors to produce clean water for people in developing countries worldwide. Fog or dew collection is an ancient practice. Archaeologists have found evidence in Israel of low circular walls that were built around plants and vines to collect moisture from condensation. In South America's Atacama Desert and in Egypt, piles of stones were arranged so that condensation could trickle down the inside walls where it was collected and then stored.

Fog is made of tiny droplets of water—each cubic meter of fog contains .05 to .5 grams (half the weight of a paper clip) of water. Fog collectors look like tall volleyball nets hung between two poles, but they are made of a polypropylene or polyethylene mesh that is especially efficient at capturing water droplets. When the fog rolls in, the tiny droplets of water cling to the mesh and as more and more cluster together, the water drips into a gutter below that channels the water to a water tank. Fog collectors, which can also harvest rain and drizzle, are best suited to high-elevation arid and rural areas; they would not work in cities because of the space constraints and water needs of an urban environment.

The region of Morocco known as Anti Atlas, from the name of the nearby mountain range, launched their fog collection project on World Water Day 2015. This region has become increasingly depopulated in the last decades as inhabitants were forced to migrate due to lack of water. The populations that stayed are among the poorest in the region and residents are mostly women, children and the elderly.

The nets, which are set at an altitude of 1,225 meters (4,000 feet), collect an average of 6,000 liters of water a day, which is first filtered for impurities before traveling through eight kilometers of piping to reach homes in the villages. Before the nets were installed, the residents had to walk three hours a day to visit distant, depleted wells. If the wells were dry, the only way to get water was to have it delivered by trucks, at great cost to the residents. The pilot project now provides clean drinking water to 500 people in five villages, in a region that has been severely hit by climate change-induced droughts. Over the next two years, the project will expand to eight new villages, adding over 500 new beneficiaries.

Whirling Disease in Alberta

Whirling disease is a disease of salmonoid fishes and has recently been found in Alberta. This disease can cause high levels of mortality in some fish, but it is not known how it will impact Alberta fish populations. Salmonoid fish include trout, salmon and whitefish.

The disease requires two hosts – a Tubiflex worm and a fish. The disease is caused by a parasite which can affect nerves and cause cartilage damage. This may cause the fish to abnormally whirl around in a tail-chasing behavior and/or display a characteristic blackened tail.

Whirling disease can be spread naturally by birds and other animals and it can also be spread by anglers, boaters and recreational water users. The movement of fish, mud, sediments and water can spread this disease, transmitted through equipment used for swimming, paddling, boating, water pumping and fishing or through infected fish and fish parts.

For more information on Whirling disease and how to prevent it, please go to: <http://aep.alberta.ca/>.

Agrium Inc. understands that taking care of the world requires more than simply talking about it. It calls for stewardship and a lighter footprint. As a result, Agrium has partnered with Partners FOR the Saskatchewan River Basin to put on an environmental program called, "Caring for our Watersheds".

Caring for our Watersheds is an international program, with branches in Alberta, Manitoba, Ontario and Saskatchewan, as well as the United States, Argentina, and Australia. It is dedicated to encouraging students to care about the health of their local watershed and brainstorm ideas on what they can do to ensure that health. Open to all grade 7 to 12 students who live in areas where Agrium has operations, individuals or groups of up to 4 students are asked to research their local watershed, identify an environmental issue, and offer a realistic solution to the question of, "What can we do to improve our watershed?"

Contest deadlines are listed below:

Central Alberta: Contest entry deadline is April 6, 2017; Final competition is May 13, 2017
Southern Alberta: Contest entry deadline is March 17, 2017; Final competition is April 29, 2017
Manitoba: Contest entry deadline is March 10, 2017; Final competition is April 29, 2017
Saskatchewan: Contest entry deadline is March 17, 2017; Final competition is May 6, 2017

For more information please go to the website: www.caringforourwatersheds.com.

Event Listings

Transboundary Grasslands Workshop

January 11 - 13, 2017

<http://www.albertapcf.org/grassland-events/transboundary>

Swift Current, Saskatchewan

34th Annual Red River Basin Land & Water International Summit Conference

January 17 - 19, 2017

<http://www.redriverbasincommission.org/Conference/conference.html>

Fargo, North Dakota, USA

Manitoba Waste Water Association Annual Conference & Trade Show

January 29 - February 1, 2017

<http://www.mwwa.net/events.php>

Portage la Prairie, Manitoba

Native Prairie Restoration & Reclamation Workshop

February 8 - 9, 2017

<http://www.pcap-sk.org/upcoming-events-workshops/2017-nprrw>

Regina, Saskatchewan

CWRA 2017 Conference

June 5 - 7, 2017

<http://www.conference.cwra.org/>

Lethbridge, Alberta

*If you have an event you would like to include under our listings, please email us at
partners@saskriverbasin.ca.*

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