

March 2009

Foothills Edition — Dickson Dam to City of Red Deer

Olds College—Botanic Gardens and Treatment Wetlands

On February 20th, Olds College provided a progress report on Phase III of their water research centre. The 15 gardens of Phase I and II were developed to maintain and conserve cultivated and native species grown on the northern plains and to support academic programs. The College is investing over \$1 million in the botanic garden expansion (Phase III) that includes natural landscapes, specialty gardens, demonstration plots, an arboretum, specialized teaching and event areas and a series of treatment wetlands. The College has received industry assistance and is seeking further industry support to bring the project to completion.

Building treatment wetlands will serve several purposes for the College. The treatment wetlands will be used as a teaching tool that will provide the “living laboratory” for Olds College students. The treatment wetlands will be used in research studies where polishing wetlands will be used in combination with desalination processes to produce high quality recycled water from municipal wastewater, produced water from oil and gas, saline waters and swimming pool wastewater. Research will be completed on the effectiveness of enhancing ecological health with developed wetlands in cold climates and on the impact

these wetlands have on biodiversity. The effectiveness of using treatment wetlands to filter runoff water from livestock and composting operations will be investigated. Olds College of Innovation will test wetland plant species for successful phytoremediation of contaminants and will propagate and produce wetland plant species that prove effective.

The Botanic Gardens and Treatment Wetlands will be used for public presentations at workshops, seminars and industry events to train stewards in treatment wetland development and use.

With Alberta facing a number of pressures on its water resources, due to municipal, agricultural and industrial growth, solutions are needed. Olds College is committed to water solutions through the development of its treatment wetlands technology and the training of individuals who will have the ability to develop and install these systems in residential, light industrial and agricultural developments. The Treatment Wetland program will develop effective and sustainable ways of conserving, managing and protecting water supplies, which will preserve and enhance the environment.

For more information on this project contact Charlotte Adkens-Weiler at 403-507-7716.

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Red Deer River Watershed Alliance presents

The Spirit of Water

First Nation Watershed Management

March 13th, 10:00 am to 3:00 pm

Penhold Memorial Hall, Penhold, Alberta

Topics covered will include: First Nation history, culture, traditional land use, band descriptions, Source Water Protection Planning, First Nation Technical Services Advisory Group introduction, Driftpile's Source Water Protection Plan, and the Aboriginal Inland Habitat Program.

To register please call Andrea at 403-340-7379 or email andrea.simpson@rdrwa.ca by March 10th.



Red Deer River Watershed's State of the Watershed Report:

The report is scheduled for completion by the end of March. Upon report approval by the RDRWA board, the report will be distributed throughout the watershed in the months of April to June. Dates and locations for Report Distribution events have yet to be determined.





Students learn about the Little Red Deer River Biology

“If we had just learned from a book we would have not experienced the way that things actually work in the water ecosystem. And we couldn’t have learned how the river near us works. More interesting!!!”

These are the words of Haley Cedergren, a student of Olds Junior Senior High School. She is describing her experience conducting an in-depth, multidisciplinary field study of the Little Red Deer River. Her sentiments are the reason why Marilyn Wallace, a high school biology teacher in Olds, has organized this experiential, hands-on field study for her students, and has continued with the project for the last fifteen years.

The students are fortunate because Don Curtice, a rancher with a feedlot on his farm adjacent to the Little Red, generously gives his time and support to the project year after year. His family farm, the Little Red Feeders, was recently recognized as a heritage farm, even though the family definitely has a vision for the future. Several years ago Don worked with the University of Calgary to improve the water treatment process of the feedlot runoff, slowing down the water flow with a series of natural and constructed wetlands.

The students start with the first runoff pond, conducting a chemical analysis of the smelly, brown water that shows high concentrations of ammonia and phosphates and low oxygen content. Students also record details like pH, presence of wildlife, and vegetation types in the water and at the shore. The second pond is also tested, and the lower ammonia and phosphate concentration and higher dissolved oxygen illustrates the importance of the cattails that line the shore.

The field trip concludes at the Little Red Deer River, where students repeat the chemical tests and also do a benthic inverte-

brate survey.

Using a field chart, students identify the invertebrates, noting the proportion of those that require high oxygen concentrations with those who can

survive in more anaerobic environments. Students learn that biological testing is a good indicator of water quality, as it reflects the health of the river over a long period of time. Chemical tests, on the other hand, provide data that is simply a snapshot of the conditions at that moment. Data from the river always shows the incredible importance of the wetlands, the ammonia and phosphates present in the original water sample have been absorbed and are generally not present in the river samples at all.

Periodically, summer students from Olds College join the group, bringing with them more precise equipment. Their presence serves a double purpose, not only do the high school kids get the opportunity to participate in a college-level experience, they also get a chance to explore the reasons why someone chooses to continue their science study at a post-secondary level.

As the students board the bus for the return trip to Olds, the objective of the field trip has been realized. It is Mrs. Wallace’s hope that the students will not forget their day on the river, and will truly understand why wetlands are indeed, nature’s kidneys.



RDRWA Committees in Motion

Stewardship/BMP Committee—Chair: Doug Sawyer

A Stewardship Group sharing session was held on January 29th where stewards from across the watershed gathered together to share their successes and to plan collaborative activities for the coming months. The newly formed RDRWA Stewardship Committee plans to provide a forum for information exchange among Stewardship Groups, provide groups with the tools and resources they need to be successful and ensure stewardship groups are aware of Beneficial Management Practices appropriate to their sub-basin. The Committee will help the groups encourage BMP adoption throughout their sub-basins.

Communication/education committee-Chair: Dale

Christian On February 19th the committee sponsored a *Learning for Sustainability: From Information to Action* workshop. Partici-

pants discovered new ideas and techniques for promoting stewardship and sharing watershed messages with target audiences. In the coming months, the Committee is planning a wetland tour, a canoe trip, launching of the RDRWA poster package, a wastewater treatment plant tour, distribution of the RDRWA resource kit, and continuation of our classroom program.

Job Posting: RDRWA is now hiring for the position of Stewardship Summer Student. The application deadline is March 27th, 2009. For more information on the position visit www.rdrwa.ca/careers.php



Alberta Water Council Update

By Terry Sly

The Alberta Water Council met on December 2, 2008. The board confirmed Jay White as the new NGO Vice President and Rob Pritchard as the new Government Vice President for terms ending in November 2010.

The board also approved a process for bringing new issues to the Council. In addition to identifying new work through its regular strategic planning activities, the Council will now be able to receive and consider statements of opportunity from stakeholders for potential topics to examine. Criteria for considering such work were also approved as part of this decision. The board approved the report *Recommendations for a Watershed Management Planning Framework for Alberta*. The report recommends several improvements to the current approach. These include clarify some aspects of the shared governance approach and how it applies to watershed management planning, improving accountability, and ensuring adequate resources are available to undertake these important tasks. A couple of key recommendations from the report will require the Council and WPACs to work together to further enhance the shared governance model.

In the coming weeks, the Council will formally release its two approved documents on the shared governance approach and watershed

management planning:

● *Strengthening partnerships: A Shared Governance Framework for Water for Life Collaborative Partnerships (available now on the Council's website) Recommendations for a Watershed Management Planning Framework for Alberta*

The board also approved the working definition of "healthy aquatic ecosystems" as proposed by the Healthy Aquatic Ecosystems Project Team, knowing that more work will be needed to refine and revise the definition as it is used and tested and as efforts are made to measure the components. The team will be presenting its final report to the board at the March 19, 2009 Council meeting, which will see recommendations for work in areas that would most effectively advance the healthy aquatic ecosystem goal of the WFL strategy. On December 16, 2008 the Council released its report - *Recommendations for Water Conservation, Efficiency and Productivity Sector Planning*. The report outlines 21 recommendations for water conservation, efficiency and productivity sector planning to guide seven Alberta sectors in setting and meeting water conservation, efficiency and productivity goals. The sectors include: Chemical and petrochemical, Forestry,

Irrigation, Mining, Municipalities, Oil and gas, Power generation. All of the sectors are active members of the Alberta Water Council, and have voluntarily committed to developing Water

Conservation, Efficiency and Productivity (WCEP) plans by December 2010 through their various sector associations. The plans will take a sectoral approach to meeting specific conservation, efficiency and productivity targets, with implementation at the regional level, on a company by company, or community by community basis. All of the plans will be made available to the public, and accountability for implementation will come through an annual reporting process through the Alberta Water Council.

Our **Water Allocation Transfer System Upgrade Project Team (WATSUP)** continues to work toward developing recommendations to improve Alberta's water allocation transfer system. As part of their work, they held a symposium during March 4th and 5th, 2009 in Calgary to enable stakeholders and international experts to share information on this topic. More information about the symposium is available on the Council's website.

Web: www.awchome.ca



RDRWA Photo Contest Finalists

Winner will be announced at the RDRWA AGM June 19





Stewardship Funds

- The **Medicine River Watershed Society (MRWS)**, in partnership with the **Eckville Co-op Association**, have set up a three year riparian fencing initiative for producers in the Medicine River Watershed. Producers wishing to begin a riparian fencing project will qualify for a 10% reduction on the retail price of posts, wire and staples purchased through Eckville Co-op. Each year the MRWS will draw from the completed projects and one producer will receive a \$1000 donation towards the purchase of an off-creek watering system. The **Gilby Agricultural Society** and the MRWS also annually reward the Wallace and Carolyn Kreil Stewardship Award of \$2000 to a person, group or business who implement sound environmental stewardship practices within the Medicine River Watershed. Details on these MRWS programs are available from board members Garth Yeomans—403-746-5990, Keith Pregoda—403-746-2796 or Warren Miller—403-728-3543.
- **Red Deer County Off the Creek Program** is a new cost-shared program announced by Red Deer County to protect riparian health, and water quality in local streams, rivers, ponds and lakes in Red Deer County. The kind of projects eligible for funding include fencing for livestock management, creating permanent cover buffer zones, developing off-stream watering systems, building bridges or other crossings. Landowners may receive up to \$2500 towards the costs incurred in the project. For more information contact Ken Lewis, Conservation Coordinator, Red Deer County at 403-342-8653.
- **CONTEST: Businesses Taking Action on Waste**
The One Simple Act program wants Alberta based businesses to share their success stories and celebrate their waste reduction initiatives. In doing so you will:
 - Receive a One Simple Act placard to document and showcase your business' actions.
 - Inspire other businesses to adopt waste reduction practices.
 - Have the chance to win one of six \$500 prizes to support community environmental projects. Winners will be selected in both urban and rural locations based in northern, central and southern Alberta.
 Selected winners will be featured on the One Simple Act website.
 Businesses can find out more information about One Simple Act by visiting www.onesimpleact.alberta.ca
 Deadline for submission is March 31, 2009. Contest winners will be announced on Earth Day, April 22, 2009.

Upcoming Events

March 13—The Spirit of Water—First Nations Watershed Management, RDRWA spring GM, Penhold Memorial Hall, Penhold, Alberta. Call (403)340-7379 to register.

April 8—Cows and Creeks. The Best for Both. Rocky Riparian Group's 10th annual tradeshow at the Kurt Browning Complex in Caroline. 11:30am to 8:00pm. For more information call Gary at 403-845-4444.

June 5—Sylvan Lake Environmental Expo 2:00 pm to 7:00pm at the main park at Sylvan Lake.

June 19th—Red Deer River Watershed Alliance's Annual General Meeting 10:00 am to 3:00pm, Westerner Grounds, Red Deer, Alberta. Agenda yet to be finalized. Check www.rdrwa.ca for developing details.

Mid June—RDRWA wetland tour. This tour may be held in conjunction with the Ducks Unlimited and Nature Conservancy of Canada's Conservation BBQ near Pine Lake. For date and more information as it unfolds visit www.rdrwa.ca-news&events.

July 8-11— 4th National Stewardship & Conservation Conference Strengthening Stewardship...Investing at every step. MacEwan Conference & Events Centre, University of Calgary, Calgary, Alberta. This conference will bring together a diversity of individuals, groups, industry, business, government and non-government organizations committed to stewardship. For more information, visit www.stewardship2009.ca.

July (date TBD) - RDRWA Canoe Trip—The Alliance is planning a one-day canoe trip along the Red Deer River in the west part of the watershed. Watch the RDRWA website for finalized details.