

Water Dispatch

water information and commentary

Fall/Winter 2013

WID Irrigation Works Held Strong Through the 2013 Flood



Derek Lovlin, Alberta ESRD - photo

One of the most common questions the Western Irrigation District was asked this year was “Why didn’t you open the gates during the flood?” To people watching the floods and seeing that no water was being diverted into the Western Headworks Canal, it seemed like an obvious solution. General Manager Erwin Braun explained why this was not a viable solution to the Bow River’s high flow, and why it wasn’t an option.

One reason was that while most of the flooding was originating from heavy rainfall in the Bow River basin, Calgary was also experiencing heavy rainfall at the time. The Western Headworks Canal is designed to take

on storm water runoff down the canal from the Bow, and it was running at nearly maximum capacity into the Shepherd Wetland. Adding more water at the Bow River outlet would have overwhelmed the canals further down. “We didn’t know if we were already at the peak of the storm, or if more rain was coming,” Erwin Braun explained. “We had to be prepared to take on more storm water if needed.”

Another reason was that with all the trees, metal, and other debris being carried down the river at high speeds, there was a risk of damage to the headworks of the irrigation canal. If there was no ability to open and close the gates to control flow, this could have greatly impacted the irrigation

season, and consequently the crop production for the year.

“We were very fortunate to have been able to provide water to our users through this event with no disruptions,” Braun stated. “We can’t even estimate what the economic consequences would have been if this hadn’t been the case.” He went on to mention that Harvey Passage, the paddling recreation area downstream from the WID’s weir did sustain damage, and was not reopened for use this past summer.

The WID is involved in an important initiative to help mitigate future overland flooding. See page 2 for that story.

Working to Reduce Overland Flooding Through Stormwater Management

The power of water was evident in June of 2013 in Alberta. The floods had a profound effect on almost every Albertan. If we weren't directly impacted, we knew someone who was. The losses were colossal. Lives were lost, along with homes, businesses, belongings, livestock, and so much more. The WID wants to look ahead and plan for ways to help mitigate damage and problems from overland flooding during major rain storms.

In the Fall 2012 Water Dispatch, the WID introduced a stormwater initiative that is underway between The Western Irrigation District, The City of Calgary, Calgary Regional Partnership, Rockyview County, Wheatland County, Chestermere Utilities Inc, and the Town of Strathmore. WID's General Manager, Erwin Braun explained why this is so important. "We need to work together with municipalities to have a collaborative plan for events like the floods this spring. The Town of Chestermere was spared flooding through the combination



Shepard Wetland in Calgary provides a holding area for storm water during major rainstorms - Ch2M Hill - photo



*Pelicans are among many wildlife species that will utilize man-made wetland areas like Shepard Wetlands, adding another benefit to storm water management
Kristi Cox - photo*

of the WID's management of the canal's flow, and the Shepard Wetland."

The Shepard Wetland is a holding area where storm water from Calgary can be settled and filtered by aquatic plants before being let back out into the Bow River. It is designed to handle a 1 in 100 year storm, and was definitely put to the test this summer.

Braun would like to see more facilities like this established to mitigate flooding in major rain events. "It's heartbreaking knowing that so many people are still deeply affected by the floods," Braun stated. "We are glad to be working with municipalities moving toward creating infrastructure that will improve the ability to handle major storms." The goal is to be proactive about managing overland flooding.

Wheatland County Providing Funding for Water Preservation Measures

Wheatland County has established a program aimed at conserving and improving water quality within its boundaries. The Water Protection Funding Initiative offers funding assistance to land owners completing projects that work toward this mandate. Western Irrigation District water users might be particularly interested in establishing off-site watering systems to keep livestock from directly accessing the canals or spillways, fencing off a water source, or bringing in portable shelters. These measures would discourage excessive nutrient buildup, preventing negative impacts on water quality in canals.

Many projects are eligible, and Wheatland County will fund 50% of the costs up to \$3000 for qualifying projects. This increases to 75% and \$3500 for landowners with an

Environmental Farm Plan, Grazing or Manure Management Plan, Riparian Health Assessment or a complete Green Acreages Guide. The application must be completed before the project is started in order to qualify for funding.

The WID encourages you to look into this program and take steps toward preserving water in your area, whether it is in a canal, stream, wetland, dugout or any other source of water. For more information, please visit the website at

www.wheatlandcounty.ca/index.aspx?NID=284 or contact Sarah Schumacher at 403-934-3321 or SarahSchumacher@wheatlandcounty.ca

A Canal Rehabilitation to be Completed This Winter

The WID is always working towards improved water conservation, and improving the efficiency and cost effectiveness of water delivery. This mandate is evident this winter with canal rehabilitation, pipeline installation and preparations for the Langdon Reservoir under way.

The final 9 km of A canal is undergoing rehabilitation from Hammer Hill, east of Namaka, on to south Cluny, where the pipeline begins. The WID contracted a company to improve most of the canal in the same way as



The Sheep Camp pipeline ties to the pump station installed last winter



MPE Engineering - photo

Plastic canal liners significantly decrease loss of water through seepage

the previous sections, with a liner covered in dirt, and rocks along the sides. This provides erosion and leakage control. The WID is independently working on one section, where they will install a liner with rocks on the bottom and sides.

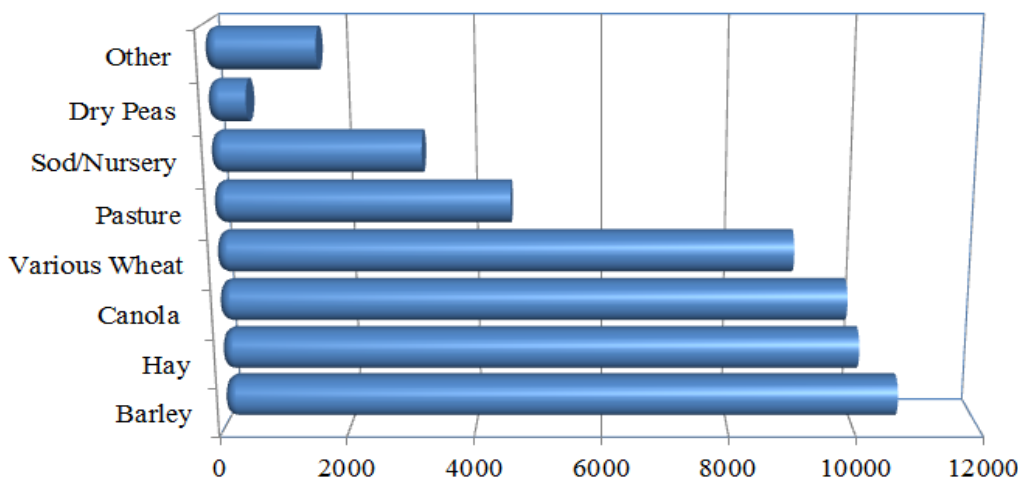
The work along C canal will also continue from where it left off last year. WID crews will lay 13 km of pipeline and tie it to the pump station installed last winter. The Sheep Camp pipeline will service approximately 1800 acres of irrigated land.

The WID is also preparing for the Langdon Reservoir expansion. “We have secured a source of riprap,” Jeremy Hemsing, Manager of Operations and Maintenance said, “and we are starting to stockpile it at the location.” Jeremy went on to explain that the WID will lower the water level and begin work inside the reservoir after the peak irrigation time in 2014. The dikes will be raised by two meters and the water levels increased by a meter. This will result in a 12000 acre-feet increase in capacity.

2013 Water Use at a Glance

Diversion - 92100 Acre-feet
 Approximately 51% Return Flow
 Irrigated Acres - 49789 acres

Irrigated Acres by Crop Type



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WID Gravel Pit Excavated



WID's Gravel Pit near Cluny should provide enough material for about twenty years of construction - MPE Engineering - photo

The WID is always looking for ways to save money on maintenance and construction, and this year a big move was made in that direction. Gravel is a difficult material to source, and so this year the WID purchased a quarter section of land east of Cluny and excavated a gravel pit. Crews have already put up 150,000 tons of material for this fall's work, and future projects. The WID estimates that they have enough material at this site to provide for 20 years of gravel needs.

Advertise Your Irrigation Acres

The WID website is now offering a 'for sale' page on our website. If you have permanent irrigation acres that you would like to sell within the WID, please contact us for more information. www.wid.net/acres_sale.html

All transfers of irrigation acres are subject to approval by The Board of Directors of the Western Irrigation District. The Western Irrigation District is not the seller of acres listed through this service. The WID does not set or influence the market price of irrigation acres.

The Western Irrigation District Welcomes a New Staff Member

Chrissy Richardson is the newest addition to the Western Irrigation District's staff. In mid-September, she started as the WID's Land Administrator. Chrissy grew up in Cape Breton and later moved to Toronto. She moved to Strathmore in 2006. Chrissy worked in Land Administration for an oil and gas broker in downtown Calgary before coming to the WID. Chrissy is very happy to be working closer to home. She is enjoying working with her clients at the WID, and the friendly helpfulness of her colleagues. Welcome, Chrissy!



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