

# Battle River Watershed

**wat•er•shed** the area of land that catches precipitation and drains into a larger body of water such as a marsh, stream, river or lake.  
[syn: basin]

Vol 1, Issue 4, June 2005: Licensing, Compliance & Managing Supply & Demand



## Events

### July 7th (Thur)

#### Soil Quality Field Day, Daysland

Battle River Research Group Long Term Rotational Plots.  
Contact: Rick Taillieu (780) 679-5174

### July 12th (Tues)

#### Iron Creek Riparian Health Assessment & BBQ

Meet at 1:30pm at Flagstaff County Office, Sedgewick for site visits. BBQ wind-up at Sedgewick Lake Campground. This is the final session in a 6 week long Pasture School Series that Battle River Research Group and the Counties of Flagstaff and Paintearth have co-hosted.

To register contact: Kristin Cuss, County of Flagstaff (780) 384-4100 or Jenifer Heyden/Starr Damron, Battle River Research Group 1-866-828-6774

### July 13th (Wed)

#### BRWAG Forum V: Water for Agriculture & Habitat Enhancement

9:30am-12:30pm  
Battle L. Park, Wetaskiwin

### July-September

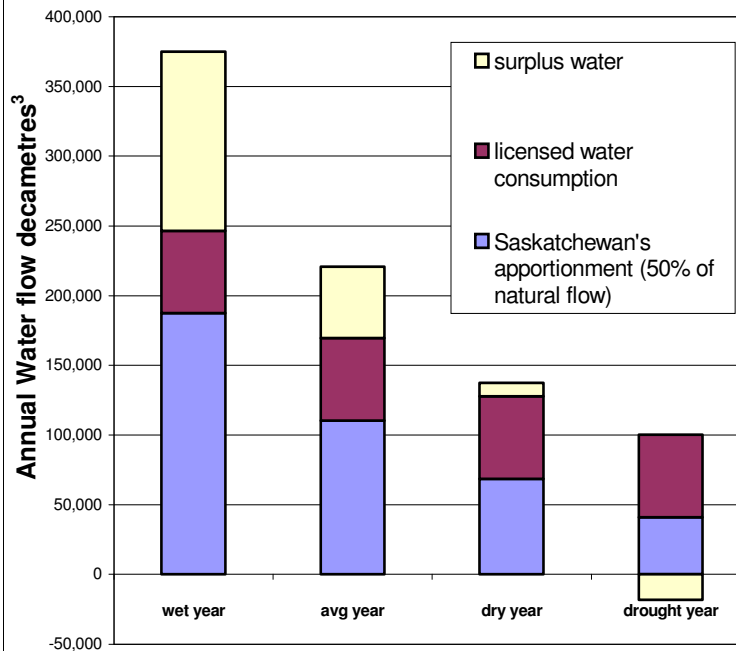
#### Water Quality Sampling on the Battle River

An open invitation to see water quality sampling in action on the Battle River.

Contact: Chris Teichreb Alberta Environment (403) 341-8613

## WATER MODELLING

### CAN WE MEET EVERYONE'S NEEDS ALL THE TIME?



Yearly, about 60,000 decametres<sup>3</sup> of water from the Battle River is allocated to water licence holders for their consumption.

But before meeting licencees' water demands, legally Alberta *must* ensure that 50% of the water in the Battle River reaches Saskatchewan.

Natural water flows in the

Battle River can vary widely year to year. Preliminary results from computer water modelling show that based on 90 years of flow records, there would have been 20 dry years when there was insufficient water to meet *all* existing licence allocations after passing 50% of the Battle River's natural flow to Sas-

katchewan. The average water deficit during these years is quite small, ranging between 600 and 7800 decametres<sup>3</sup> (1 to 13% of licensed water volumes).

A water license allows the license-holder access to water *when* it is available; it does not *guarantee* access to water. In times of water shortage, water rights are prioritized using the *First in Time, First in Right* principle. This means that those holding the oldest water licences have seniority or priority access to water. Junior licence-holders may be asked to stop withdrawing water.

There are some options for improving water availability to licensees. We could more actively operate our dams to increase the reliability of water supply during dry periods. Also, if every licence holder had two years worth of water stored off-stream, there would be enough water for everyone 98% of the time.

## WATER QUALITY DAY A SUCCESS IN CAMROSE

The City of Camrose held a Water Quality Awareness Day on Saturday, June 11. Approximately 250 people came out for the barbeque, and to learn more about our valuable water resource. It was a fun time, with good food, prizes, information, and many activities.

Participants had an opportunity to learn about water quality, and view displays on water conservation, backflow prevention, and the Camrose water treatment process. Ducks Unlimited representative, Bodie Markowski was on hand to show participants the many in-

vertebrates that can be found in our local water.

The City of Camrose water conservation mascot, Wayne Drop, also appeared in the park. Wayne is a superhero that fights water wasters and encourages people to learn all they can about water issues.

*Did You Know... that in Alberta, all water is owned by the Crown, and a licence is almost always needed to use it, even water from streams and ponds on private property?*

**Water Forums**

The Battle River Watershed Advisory Group (BRWAG) is attending seven water management forums held monthly until Sep 2005.

The presentations given at the water management forums will be posted on our website (under construction) and summarized in our monthly newsletters.

Although the Forum Series was designed for BRWAG members. There may be space for additional observers.

**Contact Rhonda King at: (403) 340-7195 or [rhonda.king@gov.ab.ca](mailto:rhonda.king@gov.ab.ca)**

**Forum Schedule**

- Watershed Function & Climate Variability (Mar 19, Killam)
- Aquatic Environment: River Health and Fisheries (Apr 13, Ponoka)
- Municipalities, Public Health & Industry: Water Needs & Impacts (May 11, Castor)
- Water Licensing; Water Supply & Demand (Jun 8, Hardisty)
- Agriculture: Water Needs and Impacts (Jul 13, Wetaskiwin)
- Economics & Alternative Water Supply Options (Aug 10, Wainwright)
- Dams, Weirs, Recreation & Biodiversity (Sep 14, TBA)

**HOBBEMA FOUR NATIONS COLLECT INFO**

**First Nations will be gathering information** for the Battle River Water Management Planning process.

Alberta Environment has partnered with the Four Nations Administration Office, headed by CEO



(Left to right – Rhonda King, Alberta Environment, Terrence Kozmech, Water Engineer, Joy Potts, Four Nations Administration and Cathy Bull, CEO Four Nations Administration.)

Cathy Bull, to gather information about past and future water use for the five First Nations communities in the Hobbema area.

Four Nations is using a grant from Alberta Environment to hire a water engineer (Terrence Kozmech) and summer workers from each of the four First Nations. They will be collecting data about First Nations' water use over the past 80 years and consulting with the communities about future water use needs.

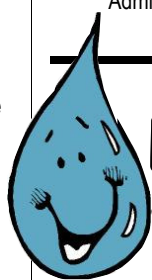
The five communities involved in the project are Samson Cree Na-

tion, Ermineskin Cree Nation, Montana Cree Nation, Louis Bull Cree Nation and Pigeon Lake Indian Reserve.

**JUNE WATER FORUM**

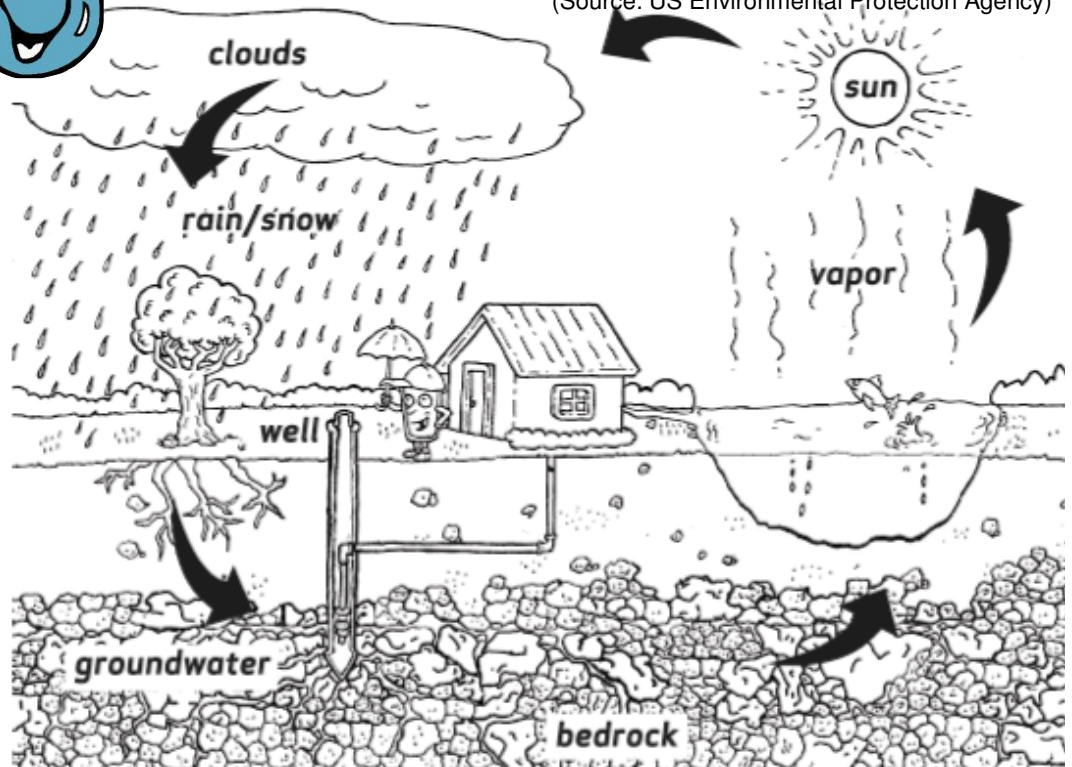
**Water licensing, compliance and water management** were the topics of the Battle River Watershed Advisory Group's (BRWAG) fourth water management forum. The forum was held on June 8th, at Hardisty's Elks Club.

The speakers' presentations are summarized in the notes opposite.



**KIDS' STUFF: The Water Cycle**

(Source: US Environmental Protection Agency)



Play with an animated water cycle on: [www.epa.gov/safewater/kids/flash/flash\\_watercycle.html](http://www.epa.gov/safewater/kids/flash/flash_watercycle.html)  
 Find more fun kids activities on: [www.epa.gov/safewater/kids](http://www.epa.gov/safewater/kids)

## FORUM IV: JUNE 2005

## BATTLE RIVER WATER MANAGEMENT PLANNING

## Forum Notes: Licencing, Compliance &amp; Managing Supply &amp; Demand

**Balancing Water Supply & Demand**

- Water management is about balancing supply and demand for water. There are two types of water demand: the water needed for a healthy ecosystem, and the water needed for our domestic, agricultural and industrial use. Water supply is the water nature provides.
- Every watershed has a limit to the amount of water available for consumptive use. In addition, water supply from the Battle River is highly variable, because the river's natural flows are highly variable. The Battle River's flows vary widely throughout the year, and also year to year.
- Water taken out of the river impacts the aquatic environment, and the ecosystem services provided by the river (i.e. filtering and cleaning water, regulating flow, offsetting droughts and floods, providing habitat for fish and wildlife). Approximately 85% of the natural flow is needed to ensure *best possible* protection of the river's ecological health. However when natural flows are low, up to 100% of that flow may be needed to ensure ecosystem protection.
- Because water supply is limited and variable, there is always a risk that there will not be enough water for all human uses *and* for a healthy ecosystem.
- Each water user must determine the risk of having a limited water supply that is tolerable before their operation is compromised, i.e. how long can the operation go without water?
- We must also consider how long the ecosystem can tolerate poor water quality or alteration of its natural flows before it is significantly harmed.
- Balancing supply and demand is about balancing the 'risks' of not having water, and balancing the values of the ecosystem, human use and the economy. It is about making a decision on when enough is enough, in terms of withdrawing water or impacting water quality. We need to decide what the right balance is for the Battle River watershed.

**Legislation, Licensing & Approvals**

- The purpose of the Water Act is to support and promote the conservation and management of water in Alberta, including the wise allocation and use of water.
- The purpose of the Environmental Protection

and Enhancement Act (EPEA) is to ensure that activities that may adversely affect the environment take place in accordance with regulatory standards. With respect to water, EPEA primarily regulates industrial and municipal water treatment standards and discharge quality.

- Water is a Crown resource that is not owned by individuals. Under the Water Act, any use that affects surface or ground water requires an approval and/or a license (some exemptions).
- A *license* is required before using or diverting water. The license identifies the source of water supply, the location of the diversion site, the volume of water to be diverted and used from that source, the timing of water withdrawal, the priority of the water right established by the license, and the conditions under which the diversion and use must take place.
- An *approval* under either the Water Act or EPEA is required for any activity that potentially affects water quantity or quality. An *approval* includes "conditions" under which an activity must take place. Examples of activities that may require an approval include: pesticide use, soil disturbance potentially causing siltation of water body, excavating or placing materials along or near rivers; draining or filling wetlands, constructing bridges or culverts, dumping garbage, and stockwater dams.
- Applications for water licences are made to Alberta Environment, who consider a number of Matters and Factors before approving the licence, including the *need* for the water requested (timing and volume), water availability, and impacts on other users and the aquatic environment. The *type* of water use is not considered. The public is notified of the application. Appeals can be filed by directly affected parties only.
- Certain water uses do not require a water license. A license is not needed to use up to 1250 m<sup>3</sup>/year for household use, as long as the water is on or under your land. Other license exemptions include: water from a hand pump, riparian rights (watering livestock from water bodies), use of water from certain dugouts, fire fighting, and water used for pesticide application.
- A water license allows the license-holder access to water *when* it is available; it does not *guarantee* access to water. Water rights are prioritized using the *First in Time, First in Right* principle.

This means that those holding the oldest water licences have seniority or priority access to water, regardless of the type of water use. The older the licence, the less risk of being denied water. Temporary diversion licenses (which have maximum one year duration) have no priority.

- Water Mastering can be used during times of water shortage. It involves withdrawing the right of some licence-holders to take water. The most junior licence is shut-off first, then shut-offs progress to more senior licences until sufficient water is available to satisfy the remaining (more senior) licences. Some licence-holders have avoided water mastering by temporarily sharing water between licence holders during shortages.

**Compliance & Enforcement**

- Alberta Environment uses a combination of education, prevention and enforcement to ensure compliance with legislation.
- Water related compliance activities include inspection and audits of regulated facilities (plants, factories); addressing public complaints; monitoring and mitigating spills, blow outs, etc. that might contaminate water bodies; ensuring dams, weirs, drainage ditches etc. comply with legislation; ensuring license and approval holders comply with their license or approval conditions.
- There are a limited number of compliance staff in the province. Alberta Environment relies on the public to report incidents and possible violations. A 24 hour Environmental Complaints/Emergency Hotline is available: 1 800 222-6514 License holders are responsible for ensuring that they comply with the conditions of their licences.

**Apportionment**

- The Master Agreement on Apportionment is a Contract between Alberta, Saskatchewan, Manitoba. Under the Agreement, Alberta must pass 50% of the Battle River's natural flow to Saskatchewan. It also requires that this water meet certain water quality objectives.

**Additional Resources**

Water Act, Licences & Approvals: [www3.gov.ab.ca/env/water/Legislation/FactSheets/Index.cfm](http://www3.gov.ab.ca/env/water/Legislation/FactSheets/Index.cfm)  
 Compliance & Enforcement: [www.gov.ab.ca/env/protenf](http://www.gov.ab.ca/env/protenf)  
 Apportionment: [www.pnr-rpn.ec.gc.ca/water/fa01/index.en.html](http://www.pnr-rpn.ec.gc.ca/water/fa01/index.en.html)



**Your Local Agriculture & Watershed Specialists**

**Beaver County**

Aimee Cook  
Municipal Conservation Technician  
(780) 663-3730, (780) 895-2585  
aesa@beaver.ab.ca

**Camrose & Stettler Counties**

David Trautman  
Asst Ag Fieldman, Farm Prog Spec  
(780) 672-4765  
Dtrautman@county.camrose.ab.ca

**Flagstaff & Paintearth Counties**

Kristin Cuss  
Rural Conservation Technician  
(780) 384-4100, (403) 882-3211  
kcuss@flagstaff.ab.ca

**Lacombe County**

Dion Burlocke  
Asst. Agricultural Fieldman  
(403) 782-6601  
dburlock@lacombecounty.com

**Ponoka County**

Robert Zimmer  
Agricultural Fieldman  
(403) 783-3333  
rpzimmer@telusplanet.net

**Provost, M.D. of**

Burt Forbes  
Agricultural Fieldman  
(780) 753-2434  
burtmd52@telusplanet.net

**Vermillion R. & Minburn Counties**

Mona Lee Kirkland  
Municipal Conservation Specialist  
Ph: (780) 853-8104  
monalee.kirkland@gov.ab.ca

**Wainwright, M.D. of**

Somerlee Bennett  
Asst. Agricultural Fieldman  
(780) 842-4454.  
asb@mdwainwright.ab.ca

**Wetaskiwin & Leduc Counties**

Steve Majek  
Agricultural Fieldman  
(780) 352-3321  
smajek@county.wetaskiwin.ab.ca

**Battle River Research Group**

Jenifer Heyden  
Forage/Livestock Agronomist  
(780) 582-7308  
brg.fl@telus.net

**Parkland Conservation Farm**

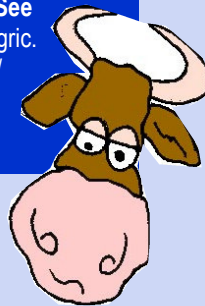
Kelly Montgomery  
Farm Extension Coordinator  
(780) 632-2244,  
paripcf@parklandconservationfarm.com



Thinking about water conservation at home? Check out some tips on:

[www3.gov.ab.ca/env/water/conservation/residential.cfm](http://www3.gov.ab.ca/env/water/conservation/residential.cfm)

Interested in sustainable soil & water management on the farm? See how on: [www.agric.gov.ab.ca/app21/rtw/selcat.jsp](http://www.agric.gov.ab.ca/app21/rtw/selcat.jsp)



**Take Action!**

Ready to help the Battle Watershed? Want to find out how? Contact these groups:

**Local Agriculture & Watershed Extension Specialists**

Sustainable farming, land management & water use  
*See contacts opposite*

**Iron Creek Watershed Improvement Society**

Promoting sustainable land and water use in the Iron Creek Watershed  
(780) 384-4118

**Alberta Fish & Game Association's Parkland Stewardship Program & Farm Waterwatch**

Farm conservation planning & surface water quality monitoring  
(780) 437-2342

**Cows and Fish**

Partnering with communities on riparian management  
(403) 340-7607

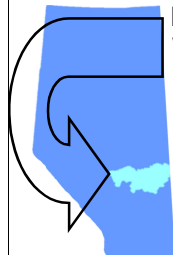
**Ducks Unlimited Canada**

Restoring & managing wetlands for habitat & wildlife  
(780) 672-6786, ext 5

**Alberta Conservation Association**

Conserving & enhancing wildlife, fisheries, & habitat  
1-877-969-9091

**BATTLE RIVER WATER MANAGEMENT PLAN**



**Battle River Watershed**

The Battle River is a modest prairie-fed river, and an important water supply for communities, agriculture and industry throughout the river's watershed.

With increasing pressure on the Battle River's water supply, demand for water will soon exceed the river's natural supply, creating social, ecological and economic issues.

**The Battle River Watershed Management Planning Process**

In an effort to resolve water supply and demand issues, Alberta Environment has recently started

working with local stakeholders on a water management plan for the Battle River.

These stakeholders include members from local rural and urban municipalities, agriculture, industry, academia, recreation and conservation.

They have formed the Battle River Watershed Advisory Group (BRWAG).

**Learn more, have your say**

In Fall 2005, watershed residents will be invited to comment on draft water management options for the Battle River.

In the meantime, read our newsletters or go to our website (coming soon!) to learn more.

**Want more information?**

**Contact:**  
**Rhonda King,**  
**Senior Planner**  
**Alberta Environment**  
**Central Region**  
**(403) 340-7195**

**Environmental Hotline**  
**1-800-222-6514**

24 hour Emergency/Complaint Line

