

Thousands of Albertans make a splash monitoring Alberta's waterways!

The second Alberta Water Quality Awareness (AWQA) Day was a huge success! Over 2700 Albertans got their feet wet exploring the water quality of local ponds, rivers and wetlands from June 1st to 30th, 2006. Together, individuals and groups of all ages sampled nearly 1000 sites for four basic water quality parameters: temperature, dissolved oxygen, pH and turbidity. The findings, collected from across the province, were pooled to create a snapshot of water quality. The greatest accomplishment, however, was the collective effort of thousands of Albertans to monitor the state of their local waterways and to discover more about the importance of water quality and healthy watersheds.



S. Scott

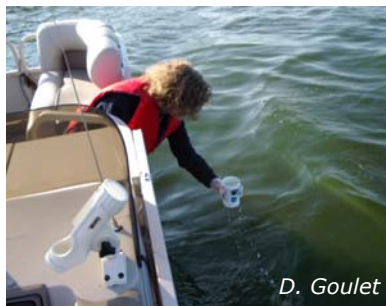
The goal of AWQA Day, June 5th, is to increase awareness and understanding of our water resources, while also promoting stewardship and personal involvement in the protection of our waterways.

Who took part?

- A total of 2,768 people took part in AWQA Day 2006. This is nearly 1000 more people than last year!
- Participants included school groups, individuals, families, watershed groups, youth groups, community groups, government and non-government organizations
- Together volunteer AWQA Day samplers collected water quality results from 966 sites



T. Innes



D. Goulet



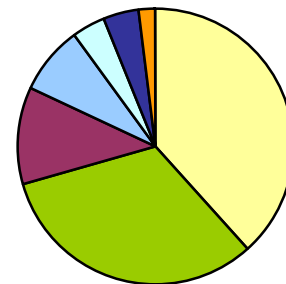
E. Van Gaalen

AWQA Day Success Story: Water Quality Sampling at Wizard Lake

"We had a blast with Alberta Water Quality Awareness Day. We got in a boat and took samples from all over the lake. It got us talking about our lake, who's using it and how. We know this lake is popular and we'd really like it to stay as beautiful as it is."

*- John Reichert
Resident, Wizard Lake*

A wide variety of groups participated in AWQA Day



- Individual or Family
- School
- Youth/Community Group
- Government Agency
- Non-government Organization
- Watershed/Lake group
- Industry

2006 AWQA Day Water Quality Sample Sites

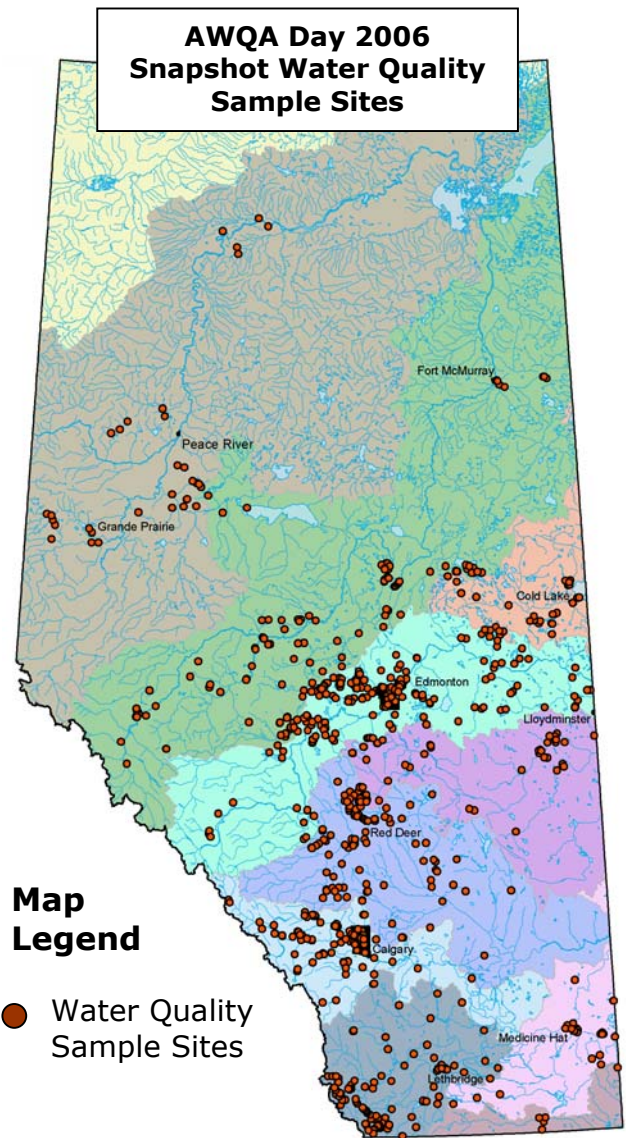
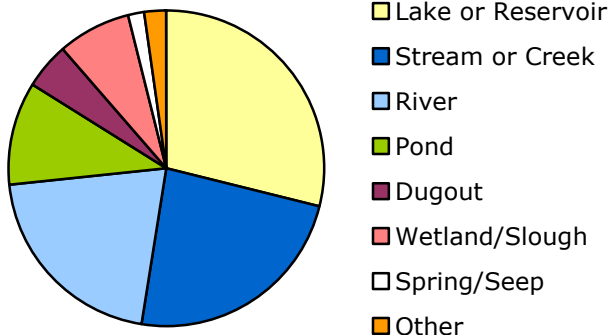
Many different surface waterbodies, from ponds and dugouts to rivers and wetlands, were sampled for four basic measures of water quality:

- Turbidity
- Dissolved Oxygen
- pH
- Water Temperature

These water quality characteristics are easily measured in the field and are important components of healthy aquatic ecosystems.

Water samples were collected and tested in each of the nine major river basins in Alberta. The provincial map shows where the 966 water quality sample sites were located.

The majority of waterbodies sampled during AWQA Day were lakes, streams and rivers.



Major River Basin	Number of Participants	Number of Sample Sites
Athabasca River Basin	295	131
Beaver River Basin	98	32
Bow River Basin	614	171
Milk River Basin	22	7
North Saskatchewan River Basin	905	280
Oldman River Basin	229	127
Peace/Slave River Basin	158	44
Red Deer River Basin	338	135
South Saskatchewan River Basin	109	39
Total	2768	966

Individuals and groups took water quality samples from nine of Alberta's major river basins.

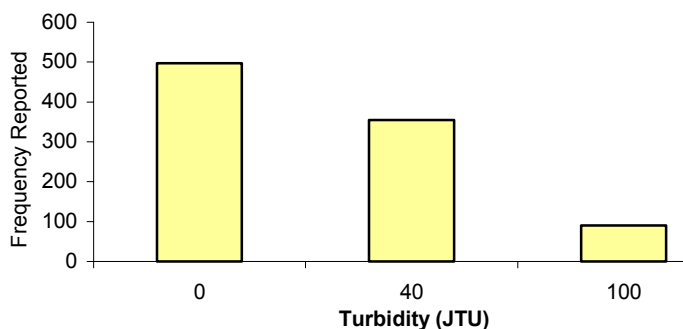
Additional AWQA Day maps can be found at www.awqa.ca

- Interactive watershed map with 2006 & 2005 results
- Downloadable maps with water quality findings from each of the major watersheds

2006 AWQA Day Water Quality Results

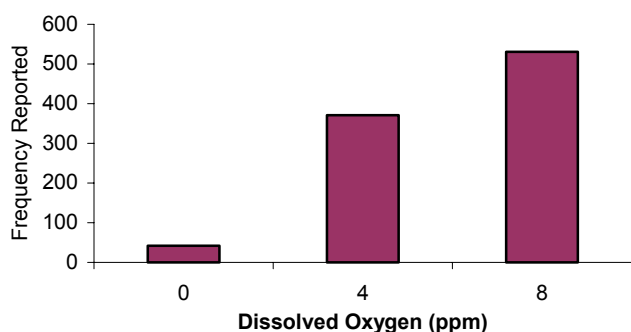
Turbidity: *Turbidity is a measure of water clarity and is a function of the amount of sediment in the water.*

Natural (or background) turbidity levels in waterways vary from less than 1 Jackson Turbidity Unit (JTU) in clear lakes and streams to hundreds of JTU during rainfall and flood events or in naturally turbid waters. The majority of the waters sampled for AWQA Day had low turbidity: 0 JTU (very clear) to moderate turbidity: 40 JTU.



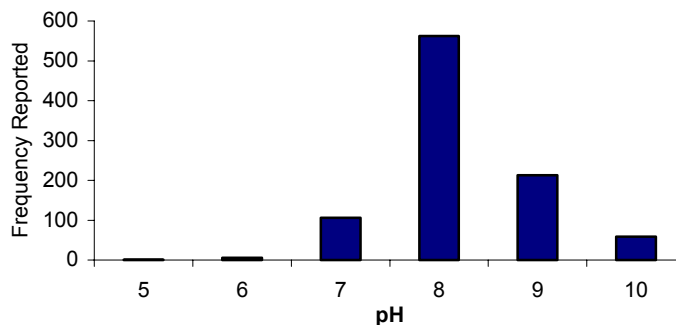
Dissolved Oxygen (DO): *DO is a measure of the amount of molecular oxygen dissolved in water.*

Dissolved oxygen is needed by aquatic organisms, like fish and macroinvertebrates (bugs), to survive. DO values greater than 5-6 ppm are generally required to support diverse and healthy aquatic life. AWQA Day results were mostly in the 4 and 8 ppm range, meaning moderate to healthy DO concentrations were observed at the time of sampling.



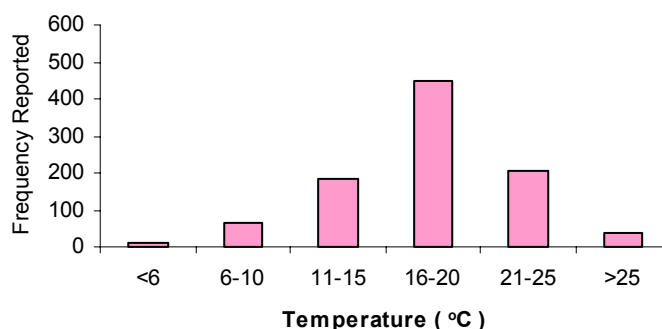
pH: *pH is a measure of the relative acidity of water.*

A pH level between 6.5 and 8.5 is considered ideal for sustaining a wide diversity of aquatic plants and animals. Conditions below or above this pH range are considered more stressful for most organisms. Water in Alberta is naturally hard, with a pH range between 7 and 10. The majority of the AWQA Day findings were also within this range.



Water temperature: *Temperature is a measure of how hot or cold the water is.*

Water temperature affects food supply, photosynthesis, metabolism and the solubility of gases and minerals. Colder water can hold more oxygen, which is needed by many aquatic organisms. Warmer temperatures may occur during summer months, in shallow ponds and lakes and in slow-moving creeks and rivers. The temperature of a waterbody can affect what lives in it and extreme variations in temperature can have negative effects on aquatic organisms.



While the data collected for AWQA Day creates a snapshot of water quality, it is not intended to provide rigorous scientific information. The true value of AWQA Day comes from the educational opportunities that arise during sampling and by bringing people together across Alberta's watersheds to demonstrate the impact that collective action can have.

Thank you to everyone who participated in the second Alberta Water Quality Awareness Day!

If you would like to continue your involvement in your watershed and water quality activities, please think about:

- Joining a local watershed stewardship group, visit www.ab.stewardshipcanada.ca for more information
- Volunteering with lake or stream sampling through the Alberta Lake Management Society (www.alms.ca) or another non-profit group
- Checking out www.awqa.ca to learn more about what we can all do to protect water quality

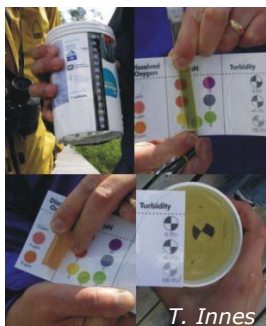
What did Albertans have to say about their AWQA Day experience?

"This is the second year I've made Alberta Water Quality Awareness Day part of the wetland studies program we do with Grade 5 students. I'm in the field of environmental education and hands-on activities like this are a good way to get children involved in a deeper discussion of their environment and environmental stewardship."

- Dixie Colter
Environmental Educator



J. Depoe



T. Innes

AWQA Day water quality test kits are provided free of charge.

Save your test kit. Supplies from past years can be reused. Each kit can test up to 50 samples.



D. Charlton

"My daughter and I tested water near our home in north-west Calgary. It was a really good introduction to science and the tests were simple enough that she could figure out the 'right answers' on her own. The web site was really helpful, too."

- Dana Charlton, Mother



L. Mathews

"We invited our employees and their kids to sample water with us as part of our Environment Week activities. I was really impressed with the kits we got and we definitely plan to do this again."

- Ainslie Campbell,
Environment Specialist



W. Koning

Are you interested in Alberta Water Quality Awareness Day 2007?

It's fun and easy to take part!

Online registration will begin in early 2007, at www.awqa.ca.

There are four key steps:

1. Register by April 30th for a free water quality test kit
2. Choose your sample location(s)
3. Collect and test your water samples between June 1st and 30th
4. Share your results, at www.awqa.ca, by July 15th to contribute to the province-wide snapshot of water quality!



Check out www.awqa.ca for more information!