

# Wizard Lake Watershed Lake Stewardship Association

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#### Message from the Chair:

What a great, action-packed morning we had on June 21 at our open house/AGM! More than 85 people attended to do some "myth busting" and get an update on what the Wizard

Lake Watershed and Lake Stewardship Association has been doing. The comments and evaluations we received were overwhelmingly positive—over 90% thought the day was very informative. And the chicken burger lunch that Arja Patrick organized was delicious.

The 4 guest speakers had a lot of information and were very interesting, but in my biased opinion the best part of the morning were the presentations given by each of the WLWLSA's 5 working groups: Water Quality (LeVerne Ellsworth), Shoreline & Watershed (Greg Illchuk), Enjoyment & Safety (Carole Ellsworth), Fundraising & Membership (Chris Daniel) and Education & Communication (Arja Patrick). The accomplishments of each group are amazing—these people are volunteers and get this all done in their spare time, because they care so much about Wizard Lake. Each group also did a display to showcase what they've done and these are well worth looking over. We will have them displayed again at the Wizard Lake Awareness Day on Saturday, August 16 at the Jubilee Park overflow area. This is a fun family day so write it on your calendar and make sure you bring your family.

In addition to those hardworking working group leaders I'd also like to thank Cathy Daniel, Albert Faulkner, Lila and Al Frickey, Ruth and Walter Kolodychuk, April Larkin, Matt Leach, Ken Litzenberger, Laura and John Reichert, and Linda and Howie White who all worked so hard to ensure a successful meeting. You are the people keeping community spirit alive around Wizard Lake.

We also are fortunate to welcome 2 new board members elected at the AGM: Kathy MacPherson and Linda Hutchinson. We value new opinions and look forward to having them join us. It is because new people are willing to help out with a little of their time that the WLWLSA stays a vital, fun organization, continuing to make amazing strides. This puts our board at 14 but we can have up to 20 members so if you find you want to help out, just give me a call.

I am looking forward to seeing an even larger crowd at the Wizard Lake Awareness Day—see you there!

Laverne Faulkner, Chair



<u>LeVerne Ellsworth</u> naming his crew: Al Frickey, Howie White, Matt Leach, & April Larkin.



Greg Illchuk speaking to Shoreline & Watershed issues.



<u>Carole Ellsworth</u>, Albert Faulkner, John Reichert, & Garry Barhurst addressing Safety and Enjoyment of the lake



<u>Chris Daniel</u>, Cathy Daniel, Laura Reichert, Ruth Kolodychuk, Linda White, & Lila Frickey sharing past and future socials



Arja Patrick bragging about the Education Committee



Bryce Sonnenberg from Imperial Oil talking about the decommissioning of pipelines on Wizard Lake Lines are under the lake, one is 150' below the lake, still using the line today. They have discontinued some lines over the past few years. There are 9 lines in all – 3 are still operational – and 2 others belong to another company (Pembina). There is a 16" line under the lake. How to decommission a pipeline:

Phase I – Develop plans and procedures
Phase II – Decommission pipeline

Phase III – Determine future use or abandon lines
Phase IV – Site remediation; assessment; reclaim site



<u>Craig Emmerton</u>, Limnologist/Water Quality Specialist, Alberta Environment. **A synopsis of his comments**:

Wizard Lake is a small, eutrophic lake with a relatively large watershed and short flushing time of 10-20 years. Recently there has been renewed interest in Wizard Lake water quality due to considerable algae blooms at nearby Pigeon Lake in 2006 and 2007. Algae blooms can negatively impact lake aesthetics, ecosystem function and human health. Results from historical and recent monitoring of Wizard Lake show that the system continues to be nutrient rich and some inflowing streams are showing impacts within the watershed. For example, three of the six streams monitored in 2007 showed levels of phosphorus and nitrogen frequently above water quality guidelines and high levels of fecal bacteria. Though Wizard Lake flushing rates likely play a role in protecting the lake from algae blooms similar to Pigeon Lake, other lakes in Alberta and North America have shown that water quality can change abruptly under continuing nutrient additions. Watershed stewardship efforts should focus on reducing nutrient inputs into Wizard Lake from the watershed and lake users.

We had an excellent turnout, a full house!



Angela Ball, Senior Environmental Specialist with TransAlta:

Wizard Lake has been included in a program jointly sponsored by TransAlta and EPCOR to monitor chemicals of potential concern to determine any potential long term effects of increased power generation on selected ecological receptors in the Wabamum-Genesee region.

She explained what the environmental monitoring program was all about, noting that they would be checking for

change over time, studying four indicators of the lake, including benthics (small animals that live on the bottom of the lake), sediments, fish, and surface water.

"Chemicals of potential concern are key constituents monitored in air, water and selected ecological receptors as part of all of the environmental programs," she said. "The aquatic chemicals of potential concern in these indicators include arsenic, barium, cadmium, lead, mercury, manganese and selenium. They are compared to relevant guidelines that are designed to protect aquatic life and human health or safety." In her report to over 80 area residents and cottage owners who attended the open house, she included information on the four indicators. Benthics were studied in 2004 and baseline population levels were established for future comparisons. In sediment samples from 2004 and 2006, there were similar results found in both surveys, and the chemical concentrations were better than the Canadian guidelines, with one exception, that of arsenic levels slightly exceeding the guidelines. "The arsenic result is similar to other lakes in the area, and is associated with natural sources," Ball explained.

Ball also addressed mercury levels in fish, which she explained were within the consumption guideline. Surface water samples showed concentrations better than Alberta surface water and Canadian drinking water guidelines. Although manganese exceeded the guideline for aesthetic water quality in 2004 and 2007, it posed no threat to biological life or public health or safety. And in 2006, mercury exceeded an Alberta guideline for the protection of aquatic life; however after more detailed sampling in 2007, levels were below the previous year levels, and better than the Alberta guideline.

Ball concluded her presentation by reporting that this long term program will include sampling at Wizard Lake to take place in 2010 and every five years thereafter.

<u>Diane McQueen</u>, MLA, in her role of parliamentary assistant to the Environment Minister, Rob Brenner, discussed her mandate to lead the implementation of the "Too Good to Waste" strategy for waste reduction and management, and to assist with the "Water for Life" strategy, Alberta's framework for water policy, as well as with conservation and energy efficiency initiatives. "Stewardship is a big part of what we do. The province sets the stage - through legislation, policies and programs – for Albertans to be good stewards of our natural resources."

"Many Albertans care deeply about their local lakes, ponds, rivers and wetlands," she added, "and it's this passion that has led to the desire for people to have a greater say in how water is managed. The value of the work of the community watershed stewardship groups such as yours cannot be overstated; your accomplishments are impressive, as is the attendance and interest here today."

#### **CANADA DAY CELEBRATIONS!**

More participants than we ever expected participated!







#### **ASN Meeting at Rich Valley**

We (Laverne Faulkner, LeVerne & Carole Ellsworth and myself) arrived at the Rich Valley Agriplex a little after 8 AM to set up the Watershed display board, photos, etc. and to look at all the other displays that were set up. ASN had refreshments and a bite to eat for the guests. We heard from:

- Dr. Michael Sullivan, Provincial Fisheries Science Specialist from the Alberta Sustainable Resource Development who spoke and showed slides. He was very interesting.
- Brenda Robinson from The Robcan Group on Communication & Building Teams.

After that was the annual General meeting and elections of Board of Directors, awards and gifts. LeVerne is on the Board of Directors and I think they are very pleased to have him on their board.

At 2 PM we put on our rubber boots and got on a large bus and to Lac La Nonne. They showed us how they handled a stream of water that runs into the Lac La Nonne Lake with having cattle grazing in the area. They had a livestock watering system that the animals drank out of a tank rather than the steam.

We got on the bus again and they took us to Nakamun Lake to the Ted McDonald Park – Summer Village of Nakumun Park. There was a short history of the people who lived in that area. Then we took the Riparian Area Field Tour at Nakamun Lake. The rubber boots came in handy as we were walking the natural shore line with water, wild natural grasses, shrubs, insects, etc. They pointed out the difference of a natural Riparian shore line and one that had trees taken down for view and a shore line that was altered.

It was a long day but I found the ASN Meeting to be very informative and educational. I was pleased with my decision that I chose to go.

(Ruth Kolodychuk)

WLWLSA wishes to thank Jerry McCracken for taking out (ALMS) Alberta Lake Management Society personnel for lake water sampling on June 16, 2008.

WLWLSA is working with ALMS to collect water samples on Wizard Lake. These results will be coordinated with the samples taken from inlet runoff. This is part of a 3 year sampling program, established with Alberta Environment. ALMS tests for: water chemistry, nutrients and trophic status, temperature and dissolved oxygen, water clarity and secchi depth.

Thank you Jerry, for donating your time and your pontoon boat.

Also thank you to Albert Faulkner for taking out Sophie from ALMS on July 24, for sampling # 2.

## DIVERSITY IS AN INDICATION OF HEALTH IN ALBERTA'S WETLANDS

The cottontail rabbit, northern pintail, yellow warbler, western blue flag iris, red-winged blackbird, dragonfly, and brook trout all have something in common. They all live in riparian areas that border lakes, rivers, streams, wetlands, sloughs and springs.

Riparian areas are home to many species of plants, animals, insects, fish, reptiles and amphibians. Almost two-thirds of Canada's rare and endangered species and 80% of Alberta's wildlife species use these areas for all, or part, of their life cycle requirements.

Biological diversity, or **biodiversity** for short, refers to the variety of all living things. Healthy riparian areas support a variety and abundance of species, and therefore, the biodiversity in these areas is higher than in many near-by uplands. Landscapes with a high level of biodiversity are resilient and better able to handle stressors such as drought, flooding and disease.

Healthy riparian areas act as corridors to link together a variety of ecosystems, or communities of living and non-living organisms. Animal, plant, fish and insect species travel through riparian systems to join distant areas together.

Recreational, agricultural, residential and industrial activities all may have an impact on riparian biodiversity. Noise, vegetation clearing, and excessive livestock grazing are some of the things that affect riparian biodiversity.

Alberta's own *Cows and Fish* works directly with community-based groups to help develop riparian management practices that work for them – specific to their area. As healthy riparian areas mean stability, productivity and reliability, maintaining these areas in a healthy, functioning state is in everyone's best interest.

For more information on biodiversity, the *Cows and Fish* program and their resources, or to arrange a presentation in your area, visit their website at <a href="https://www.cowsandfish.org">www.cowsandfish.org</a>, or contact the Program Manager at 403-381-5538.

### A Real Estate Agent's Perspective

- Water quality affects desirability of property adjacent to lakes.
- Before searching for a specific property at a specific lake, new buyers usually start their search for lakeshore property with questions about the quality of the lake (ex. Can we swim in the lake? Are there fish in the lake?)
- According to a survey, the reasons for choosing a location to buy included water clarity (98%), quality of swimming (87%), and scenic beauty (82%). This illustrates the importance of water quality to the long-term investment in a property (Braley et al., 1996).
- People usually associate lake level with water quality, however, the two are not always directly linked. A lake with reduced water levels can still function as a healthy lake (ie. Maintain fish populations and aquatic life).
- The health of the lake is influenced by human activity near the lake and in the entire watershed, and is often exaggerated by low lake levels.
- Shoreland alteration (clearing vegetation, maintaining beaches or lawns) contributes to reduced lake health in the following ways:
  - Increased erosion of shoreland no plants/rocks to hold sand and dirt
  - Increased sedimentation decreases suitable habitat for fish spawning
  - Increased nutrients in the lake plants act as filters for the lake
  - Increased nutrient loading results in algal blooms
- Private lots *do not* extend to the waters edge. Alteration of this **public land** could have legal implications.
- Degraded water quality at existing resorts not only leads to suppressed property values but also increases demand and development pressure on remaining, undeveloped lakes with better water quality, ultimately lowering their water quality (Krysel et al, 2003).

In addition to property values being suppressed directly through reduced water quality, owners of lakeshore properties should also consider that the cost of shoreline alteration and maintenance, loss of privacy, and the realization that they have knowingly contributed to the

deterioration of the lake may not be offset by the market value of their property, particularly in a real estate market where new buyers are becoming more environmentally conscientious.

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