



WIZARD LAKE

# Wizard Lake...where is it?

**Best kept secret!!**



*Interesting facts about Wizard Lake*

- Within 65 km SW of Edmonton!!
- Long narrow lake approx 13km long
- Located in the Strawberry sub-basin of the North Saskatchewan Watershed
- Lake lies in a steep-sided valley
- State of the Watershed Report 2012 is on our website [www.wizardlake.ca](http://www.wizardlake.ca)
- County borders both Leduc County and County of Wetaskiwin
- Leduc County, Jubilee Campground located north side of lake
- Lake's outflow to Conjuring Creek on to North Saskatchewan River
- Weir and fish ladder constructed in 1991 at east end of lake
- Lake is subject to heavy recreational boating activity

# WIZARD LAKE CHARACTERISTICS

- Lake area 2.48 km (610 acres)
- Maximum depth 11 meters (36.1 feet)
- Average Depth 6.2 meters (20.3 feet)
- Maximum width .55 km (.34 miles)
- Watershed area 19.8 km (11.5 sq. miles)
- Drainage area/lake area ratio 12
- Water residence time 13.5 years
- Length 11.5 km
  - (8 km from the east end to the narrow neck, then another 3.5 km along the next and the shallow northwest bay)



# WEIR

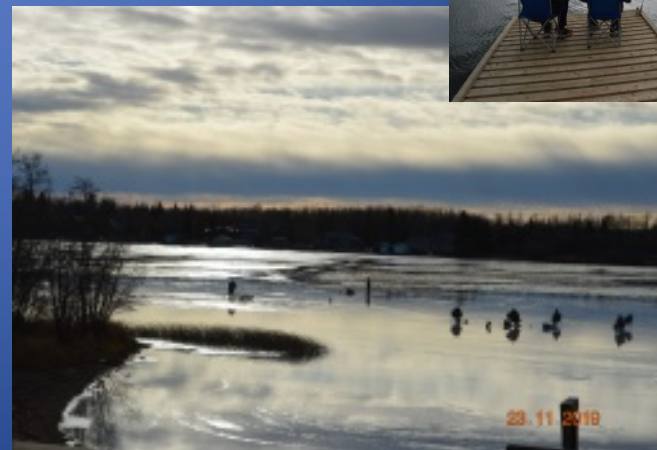
## Water level concerns

- Concerns with fluctuating water levels in the lake itself warranted the installation of a weir in 1991.



## Fish ladder

- Weir incorporates a fish ladder allowing fish to return to Wizard Lake after spawning.



# Board of Directors

## Sustaining Wizard Lake



## 17 Board of Directors

- BOOTS ON THE GROUND...MOVING FORWARD...



# 2 Challenges

## 1. “Getting our message out”

Comments.....

- I didn't know!
- What does that mean?
- What is the health of Wizard Lake?
- How can I help?



### NEW STRATEGY

Take the message to the people rather than trying to bring the people to the message!!

## 2. Reliable funding model

- Insurance costs, internet and stationery costs
- Event funding is from Leduc County, Wetaskiwin County, WLWLSA volunteers





# 'Boots on the ground/water'

## Alberta Lake Management Society

## Buoy installation/removal



Winter LakeKeepers Training



Father/son in training session

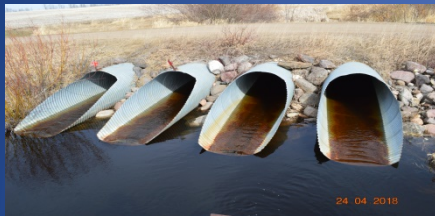


In-lake sampling



# Water Sampling of Tributaries

## Tributary Sampling



Conjuring Creek is the outflow which flows to the North Saskatchewan River.

*Sampling guidelines being followed by WLWLSA volunteers, Corey and Shane.*



## 8 Tributary testing sites





# Shoreline Cleanup

## Shoreline Cleanup / Garbage Statistics

- 2009 4.2 Tons 61 Volunteers
- 2010 1.5 Tons 60 Volunteers
- 2014 1.1 Tons 58 Volunteers
- 2017 1.7 Tons 40 Volunteers

Amazing what you find!!

- Unclaimed old dock removed by volunteers.
- (Approx. 800 lbs)



# On Water Activities

## Canada Day Boat Parade



65-70 decorated boats take part in a parade

More paddle boards/kayaks this year!



More boats.....busy, busy, busy!

# 'Try It' Community Winter Event

**2019 Temperature -18**

- 145 participants



**2020 Temperature -3**

- 345 participants





# This journey began.....

- March 16, 2016 WORKSHOP – Leduc County AG Services Workshop looked interesting....
- “Floating islands are a great treatment for wetlands that use the same basic principles as Mother Nature! By harnessing plants and microbes, floating islands remove excess nutrients and contaminants from ponds and lakes without the use of chemicals.”
- Question we came away with “???Why would floating islands not help Wizard Lake???

Research....gained knowledge

Purchased 4 biohaven floating islands from Vita Water Technologies

Fall of 2017 project was stalled due to AEP permitting requirement.

# Disposition License of Occupation

Government of Alberta, Province of Alberta, Public Lands Act

**August 2017 Began application process**

**August 2020 Success!!**

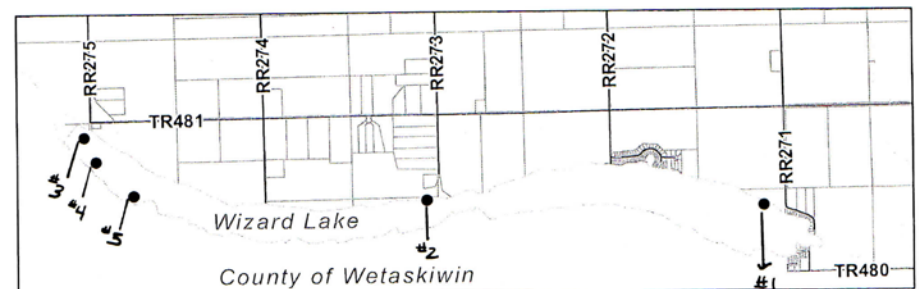
- Thank you to the many Alberta Government Departments who guided us through the application process.



• **DLO180182**

- 5 locations within Wizard Lake Water Body

*Lake information originally obtained from AltaLis; confirmed with 2017 aerial photography.*

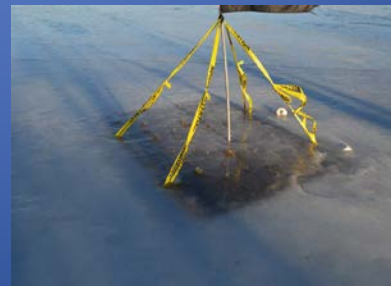


# BioHaven Floating Island Project

Financial assistance for this project was provided by  
Land Stewardship Centre through the Watershed Stewardship  
Grant Program, funded by Alberta Environment and Parks  
2017

## Volunteer bonding event!

- 80 aquatic plants per island





# BIOHAVEN FLOATING ISLAND PROJECT

In location as of Sept 2020

Root mass from underside of island is up-taking nutrients from lake



Island  
Inspectors



# COMMUNITY CONVERSATION AND ENGAGEMENT!!!

## 4 Island Themes

- Fish habitat
- Shoreline erosion
- Water clarity
- Loon nesting
- Signage will explain how a floating island works

## Education and Conversation

- Engage with local school students and youth groups about stewardship practices
- Engage volunteers to assist in planting and learning about the advantages of vegetation within the lake



# Our Deliverable to Each Watershed Residence

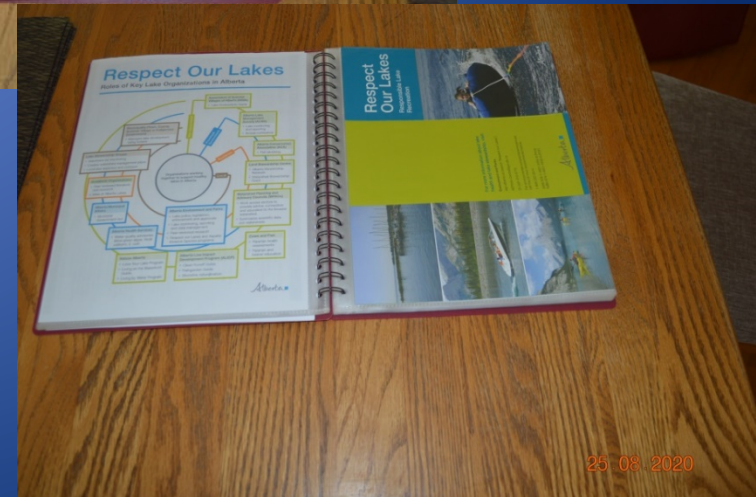
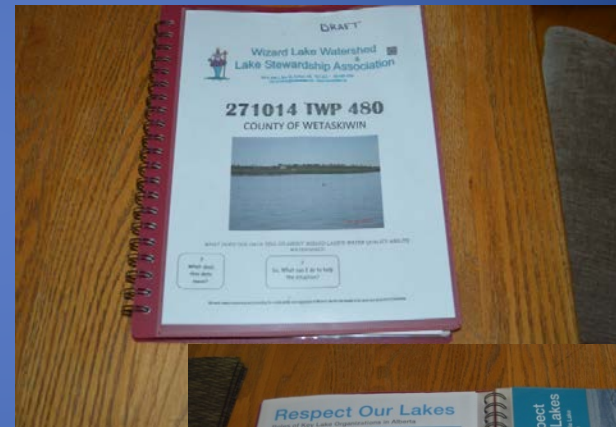
## 411 residents in watershed

Upon completion of these two projects:

floating islands and water quality,

An informational binder will be compiled containing the consultant's report with recommendations as well as a variety of fact sheets that will provide guidelines for watershed residents.

## Informational binder for each resident





# Thank you!!

[blake@wizardlake.ca](mailto:blake@wizardlake.ca)

A project such as this requires many hands to see success.

- *Thank you to our WLWLSA Board of Directors and volunteers*
- Thank you to Wizard Lake shoreline residents and Wizard Lake watershed residents for your participation in sustaining the recreational lake of Wizard Lake that we have grown to enjoy.
- Thank you to our two counties, Leduc County and County of Wetaskiwin #10 as the border between counties is in the middle of the lake!
- Thank you to Alberta Government, Parks and Recreation for your vision of preserving our lakes and watersheds.
- Thank you to North Saskatchewan Watershed Alliance for making this webinar possible.

## Funder Recognition

- “Land Stewardship Centre (LSC) is pleased to contribute to the delivery of this publication through the Watershed Stewardship Grant Program, funded by Alberta Environment and Parks. LSC is committed to working with stewardship groups to increase public awareness of the importance of the grassroots initiatives that are having a positive impact on watersheds, water quality and communities across Alberta. Opinions expressed in this publication are those of Wizard Lake Watershed and Lake Stewardship Association and not necessarily LSC’s.”
- Additional funding for this project was also provided by John Hrynkow, Bryan Mason, 598180 Alberta Ltd. c/o Linc Drynan, Richard Ipsen, Blake Bartlett
- [www.wizardlake.ca](http://www.wizardlake.ca)

# 2020!

## Consultant retained.

- ASSOCIATED  
ENVIRONMENTAL  
CONSULTANTS, INC.

Dorte Koster, Ph.D.  
*Senior Environmental Scientist*

*Goal to evaluate and analyze tributary  
water quality data collected and to provide  
recommendations on future work to  
advance knowledge on the health of  
Wizard Lake and its tributaries and  
Update the phosphorus budget*

## Tasks addressed

- Quality Assurance/Quality Control and analysis of Tributary Data
- Wizard Lake Water Quality Review
- Update Wizard Lake Phosphorus Budget