



What a LID can do for your lake

Jay Elshaug, PGOLID Chair

Moriya Rufer, PGOLID Lake Coordinator

<http://pgolid.org/>

Presenters



Jay Elshaug

- PGOLID Chair
- Board member for 5 years
- Day Job: Senior Director, Professional Services at Genesys

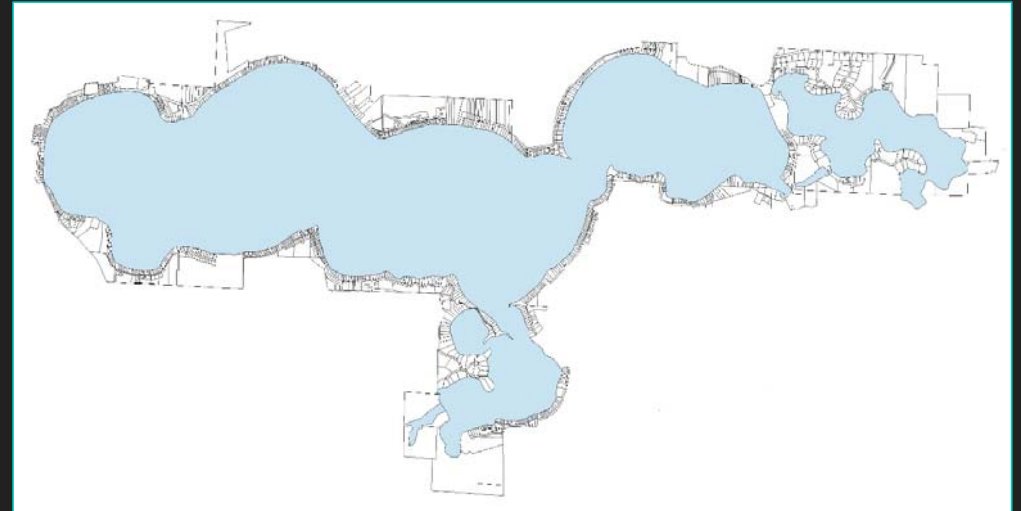


Moriya Rufer

- PGOLID Lake Coordinator
- Aquatic Ecologist at RMB Labs

LID Benefits

- Steady source of funding
- Good for programs that all property owners benefit from
- Relatively low cost per property owner
- Direct Tax – tax money goes directly to your own lake
- Organized and authorized action agency should an environmental crisis arise



Who We Are and Are Not

Pelican Group of Lakes Improvement District

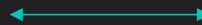
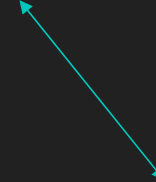
- Local Government Unit
- Taxing Entity
- Expenses spread over all property owners

Pelican Lake Property Owners Association

- Voluntary organization
- Membership dues
- Expenses spread over members

Pelican Area Community Foundation

- Non-profit organization
- Collects donations



Programs



Water
Quality



Mosquito
Treatment



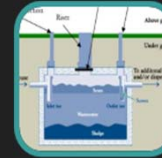
Shoreline
Restoration



Tree
Program



Dam &
Water Levels



Septic
Systems



AIS
Management



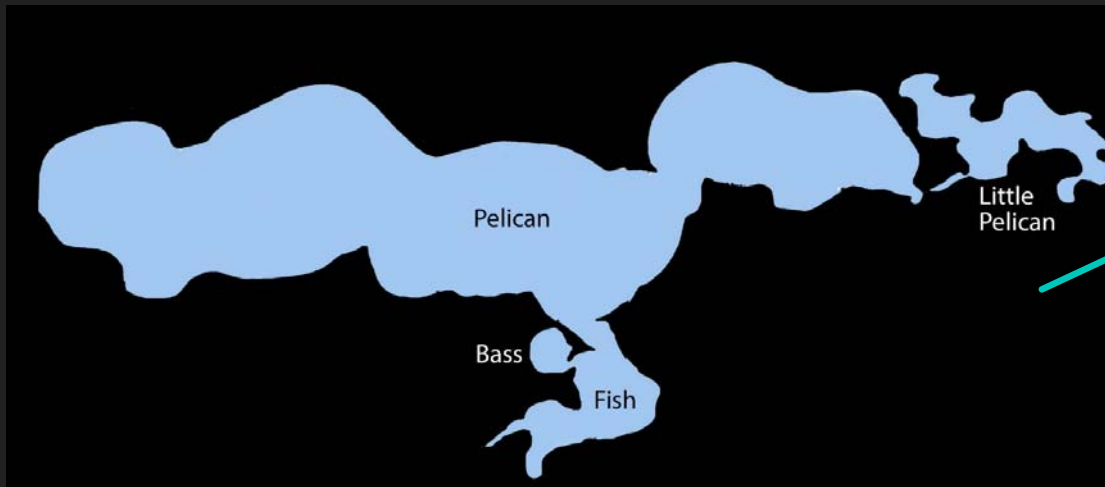
Safety &
Buoys



Education

Where We Are

- Four connected lakes in Otter Tail County, just south of Detroit Lakes, MN
- 45 minutes East of Fargo, ND
- About 180 miles Northwest of Minneapolis





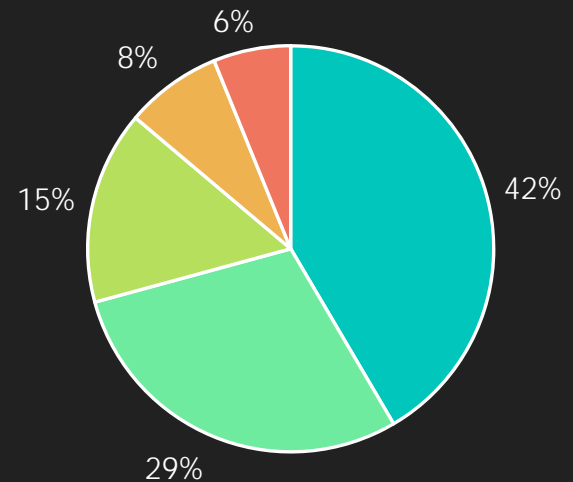
Who We Are

- Formed in 1994 by concerned citizens
- Formed to identify, quantify, study, and manage water resources to preserve their quality
- Lake Improvement District
 - Taxing entity through the county
 - 9 elected volunteer Board Members
 - Approximately 1,200 property owners with an estimated taxable market value >\$200 million dollars
 - Boundaries encompass all parcels located within 500 feet of the ordinary high water mark (except agricultural parcels)

Annual Budget

- Board Members set the annual levy at an annual meeting of membership in August
- Current total levy = \$130,000
- On average \$110 per property owner in the LID

Annual PGOLID Budget



- Lake Coordinator and WQ Monitoring
- Mosquito Spraying
- Invasive Species Management
- Health and Safety
- Administration

Key Impact Programs



Water
Quality



Mosquito
Treatment



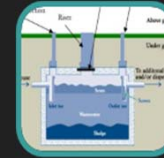
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Education

Most Popular



- PGOLID administers a seasonal **Mosquito Control Program**
 - Weekly Treatment of Lake Perimeter (36.5 miles)
 - Memorial Day to Labor Day, special treatment July 4th
 - Minimize spread of disease for people and animals

Property Name: PELICAN GRP OF LAKES IMPROVEMENT DIS
 Treatment Address: 50478 CRD 9
 Pelican Rapids, MN 56572

A representative from Clarke was at your property on 08/17/2017

Site ID/Section	County	Trade Name	EPA Reg. No	Dosage Rate	Unit of Measure	Qty	Unit of Measure	Time Start	Time End	Mileage
1	Otter tail	CEMM MN BIOMIST 4+4 GALLON	8329-35	0.39	gal	15.58	gal	08/17/2017 8:38PM	08/17/2017 11:42PM	36.500000

Wind Direction	Wind Speed	Temperature	Applicator's Name	Applicator's License Number	Applicator's Signature
SouthEast	2	71	Tyler Baier	20185855	tbaier (1433)


If you have any questions please feel free to contact your control consultant:

Rob Olson (952) 715-2159 rolson@clarke.com

Providing integrated environmental aquatic service and mosquito control.

[1-800-240-4262](tel:1-800-240-4262)

Clarke
 20061 Edison Circle East
 Clearwater, MN 55320
www.clarke.com



Notable Accomplishments

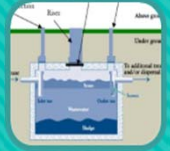


- PGOLID implements a **Health and Safety Program**

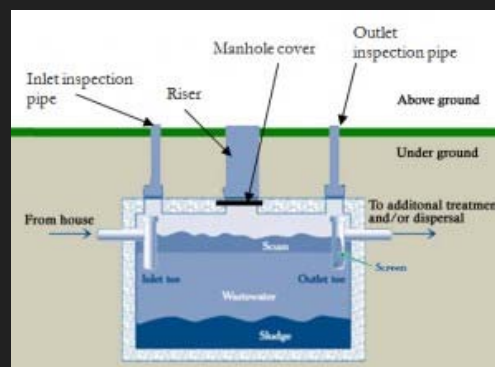
- Buoys
- AEDs



Notable Accomplishments



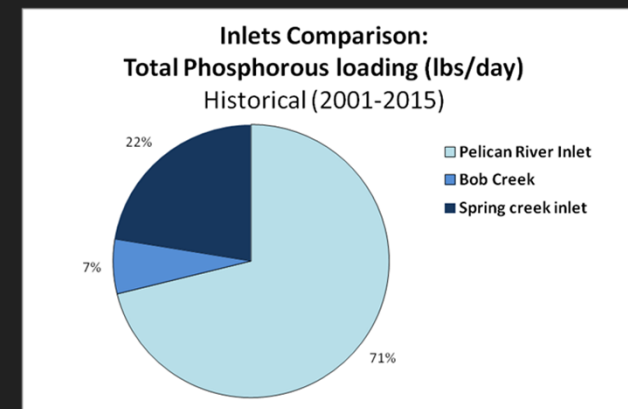
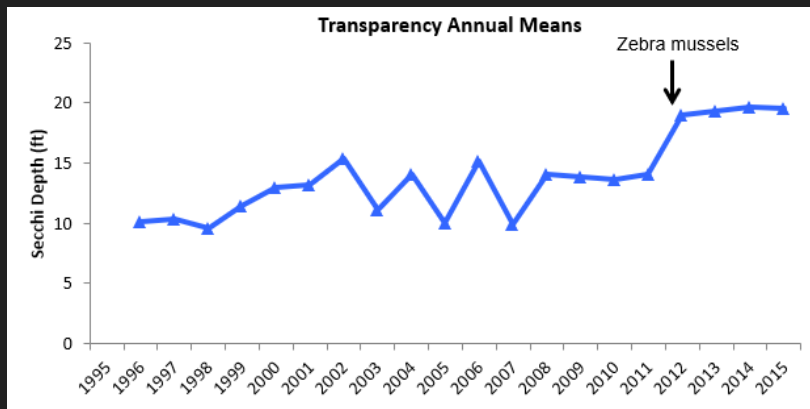
- PGOLID implements a **Septic System Maintenance** program
- We communicate with the county and have records of the ages of all the septic systems around the lake
- We provide education about septic system maintenance to lake residents and encourage those with older systems to get inspections



Notable Accomplishments



- PGOLID implements a **Water Quality Monitoring Program** annually
 - Lake and inlets/outlet
 - Tracking trends
 - Investigate problems
 - Shares data and collaborates on research



Notable Accomplishments



- **Curly-leaf pondweed** was discovered during an aquatic plant survey in 2003
- In 2005 we began a Curly-leaf pondweed treatment program
- Currently down to treating approximately 30 acres/year @ \$20,000
- Provided data to U of MN study of ongoing treatment

BEFORE



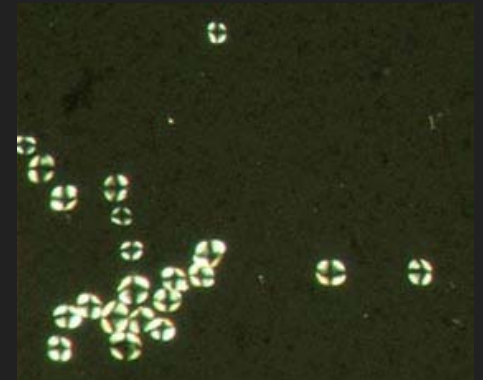
AFTER



Notable Accomplishments



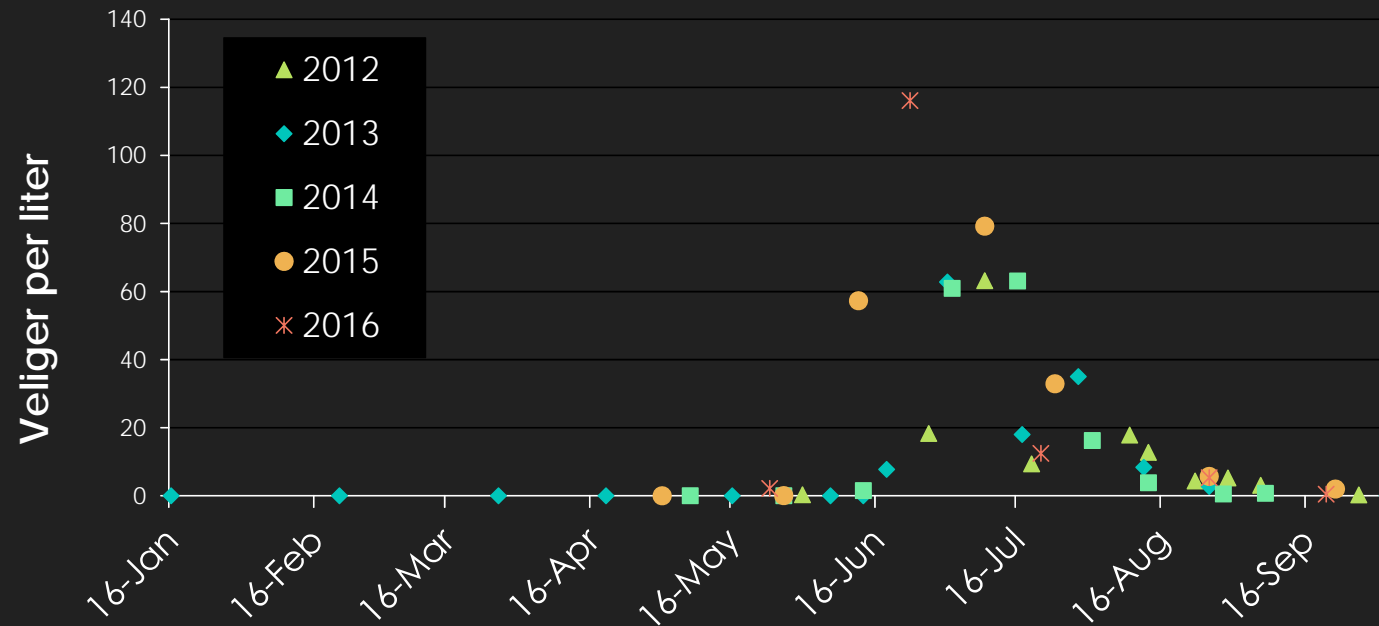
- PGOLID was infested with **Zebra Mussels** in 2009
- At this time, not a lot was known about their densities and distribution in MN
- PGOLID monitored veliger densities and shared the data with the DNR and U of MN
- We now know that veligers peak between the end of June and early July
- Other times of year the densities are quite low



Notable Accomplishments



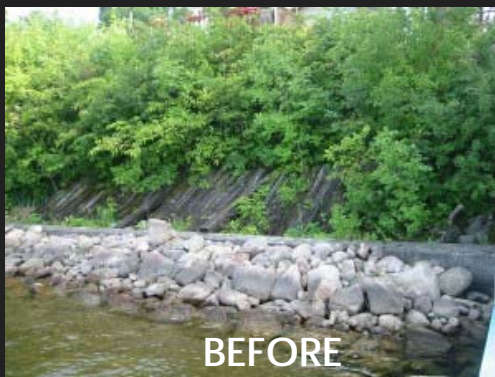
Pelican Lake Veliger Density Patterns



Notable Accomplishments



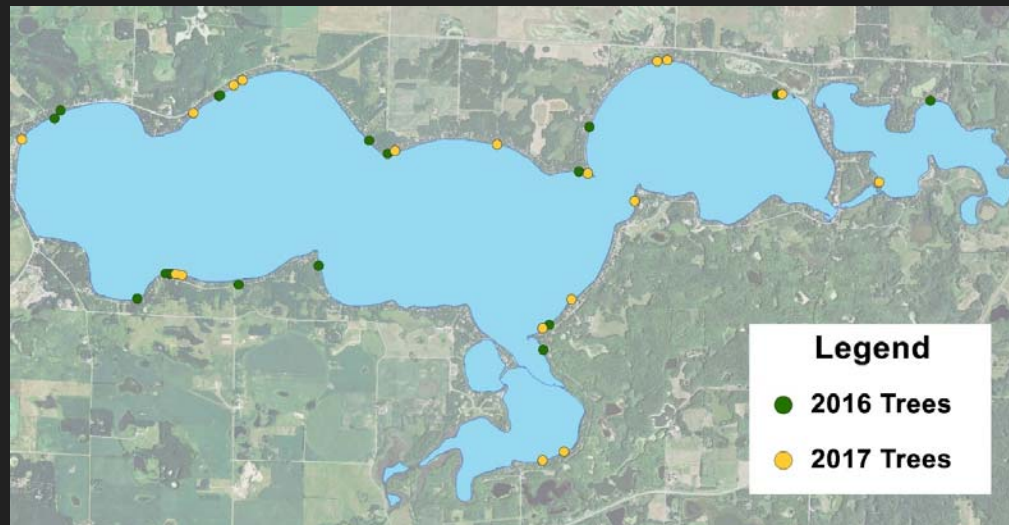
- From 2009-2015 we had a **Shoreline Restoration** program
- We applied for grants through the DNR Shoreline Habitat Program
 - In 2009: \$25,000 grant; 6 properties were completed
 - In 2011: \$21,500 grant; 7 projects were completed
 - In 2013: \$20,000 grant; 2 projects were completed



Notable Accomplishments



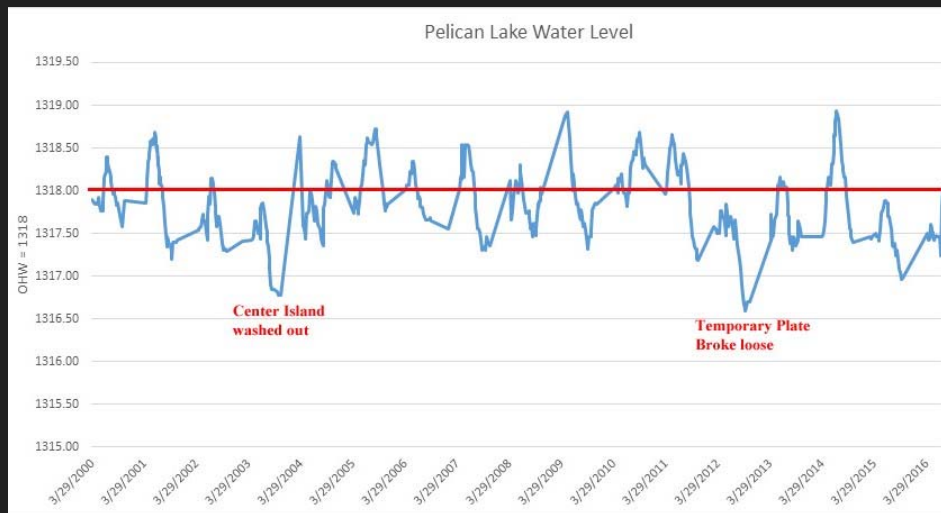
- In 2016 we started a **Tree Planting Program** addressing deforestation
- Property owners can purchase trees for \$15 each (3-4 ft tall) subsidized by PGOLID
- The cost includes delivery and planting of the trees
 - 2016 = 50 trees planted
 - 2017 = 34 trees planted
 - 2018 = 50 trees planned



Notable Accomplishments



- The **Fish Lake Dam**, located at PGOLID's outlet is in disrepair
- Numerous washouts and patches plague the structure
- Partnered with DNR, US Fisheries and other groups/agencies



Notable Accomplishments



- In 2016, PGOLID wrote a successful DNR Conservation Legacy Partners Grant to install rock arch rapids
- Project Partners
 - Houston Engineering: Project Design
 - DNR: \$305,255 CPL Grant and Project Oversight
 - USFWS: \$98,000 Fish Passage Program Grant
 - Lake Association: \$1,000 Donation
 - FM Muskies: \$1,000 Donation
 - Red River Sportsmen \$1,500 Donation
 - PGOLID: Coordinator wrote grant and Project Oversight
 - Formed a Community Advisory Board with key stakeholders
- Construction began in February 2018



Notable Accomplishments



Star Certified Since 2011

- In 2011, Pelican Lake earned Star Certification
- This was a joint application between PGOLID and PLPOA
- To attain a Star Lake or Star River designation, a lake or river association must, at a minimum:
 - lake or river management plan
 - membership of at least 50% of private shoreland owners
 - water quality monitoring program meeting MPCA standards
 - meet at least annually



The Future – Keys to Success

- In 2019, PGOLID will be celebrating their 25th Anniversary
- We have been gathering history to put together a timeline and videos
- Leveraging success, continuous improvement and commitment to future generations
- [PGOLID History Timeline](#)
- [Video](#)



Programs



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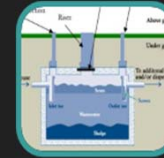
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Education

Lake Coordinator

- How do we accomplish so many programs?
- PGOLID Contracts with RMB Labs to provide a Lake Coordinator
- The Lake Coordinator coordinates:
 - water quality monitoring and data assessment
 - invasive species monitoring
 - septic system projects
 - maintains and updates the Lake Management Plan
 - writes grants
 - attends all board meetings
 - website maintenance
 - conducts education for PGOLID members
 - Provides continuity through board changes



Open Discussion and Questions

- How would a LID benefit your lake?

