



ILMA Conference 2017



www.foxwaterway.org



FWA Headquarters

Serving the Fox River & Chain O'Lakes

Lake & McHenry Counties in Illinois



Creation of the FWA

Created in 1984 by local support and reaffirmed by referendum in 1995 the FWA was established as a “special purpose” unit of local government consisting of an elected board of directors to fulfill the FWA’s mission statement and goals, known as the Fox Waterway Agency Act 615ILCS90/

Article Sept 1988



Dredger at work in May in canal between Nippersink and Grass lakes.

News-Sun Photo by Mary Carmody

Dredging, disposal sites key to Chain

Without dredging and approval of more disposal sites, it's just a matter of time before the Chain breaks, said one Chain O' Lakes-Fox River Waterway Management Agency official.

"If nothing is done now, in 15 years some areas of the Chain will be unnavigable," said Bruce Bossow, a director of the agency.

To date, the only approved disposal site is Ackerman Island, located between Nippersink and Grass Lakes. According to agency officials, the site is about half full.

The dredger, which sucks silt and mud from the lake bottom by a churning action and sends the waste via tubes to the disposal site, has a maximum range of two miles. Consequently, the dredger is locked to a two-mile radius around Ackerman Island, effectively negating its effects on most of the Chain.

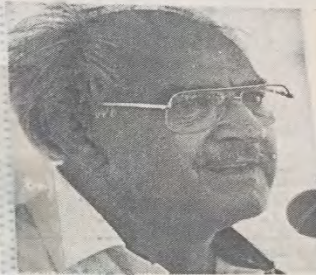
Approval for 20 more disposal sites has been slow in coming, Bossow said. He said the earliest the agency could start using another site is next spring. Environmental reasons are the big hurdle for approval, but

Bossow said he doesn't think disposal sites would adversely affect the Chain's natural resources.

"If we didn't need approval for sites, we could redo the whole chain and not have a big effect on the ecology," he said.

The two sites which are top priority for the agency are one above and one below the

Continued on Page 3



John Soffiatti

Dredge

Continued from Page 2

McHenry Dam on the Fox River. Grass Lake is probably the most critical lake, Bossow said.

"You can go 1,000 feet from shore and still be in 1½ feet of water," he said.

Representatives from the real estate acquisition division of the Illinois Department of Transportation recently made a personal inspection of the 20 sites and are in the process of completing a detailed study.

John Soffiatti, agency chairman, thinks the prospects for approval in the near future are good.

"We are confident that by next year we will be in the process of acquiring at least two sites ... and dredging for the next couple of years will be a reality," he said.



Mission Statement

To improve and maintain the Fox River and Chain of Lakes public waterway for recreational uses, to restore environmental quality, control flooding, promote tourism, and to preserve and enhance the quality of life along the waterway for residents and users alike.



GOALS

SAFETY: Improve and maintain a safer waterway for a variety of recreational uses, including power and non-power boating (i.e. power boat cruising, power boat racing, canoeing, sailing, canoe racing, sail boat racing, sailing school, personal watercraft), water fishing, hunting, swimming, and scenic enjoyment.

WATER QUALITY: Make the waters cleaner looking and clearer, reduce the likelihood of algae blooms, and provide the necessary water quality to support a wide range of fish and wildlife (i.e. bass, water fowl, lotus beds, water lilies, and the necessary plants and animals needed to support sport fish and water fowl).

PROTECTION: Reduce the damages to buildings, septic systems, and water-based businesses due to erosion, siltation, and flooding.

RECREATION: Encourage and promote the Fox River and Chain O'Lakes as a Midwestern tourist destination for a full range of water-based recreational uses, such as power boating, boat fishing, hunting, sailing, canoeing, swimming, water-accessed dining, restaurant operations, historical interests and scenic enjoyment.

ACCOUNTABILITY: Provide a publicly accountable and professionally run organization that is fiscally sound with a well trained, customer-service-oriented staff, is responsible to waterway users and the residents of the territory, and has the necessary resources to fulfill its mission.



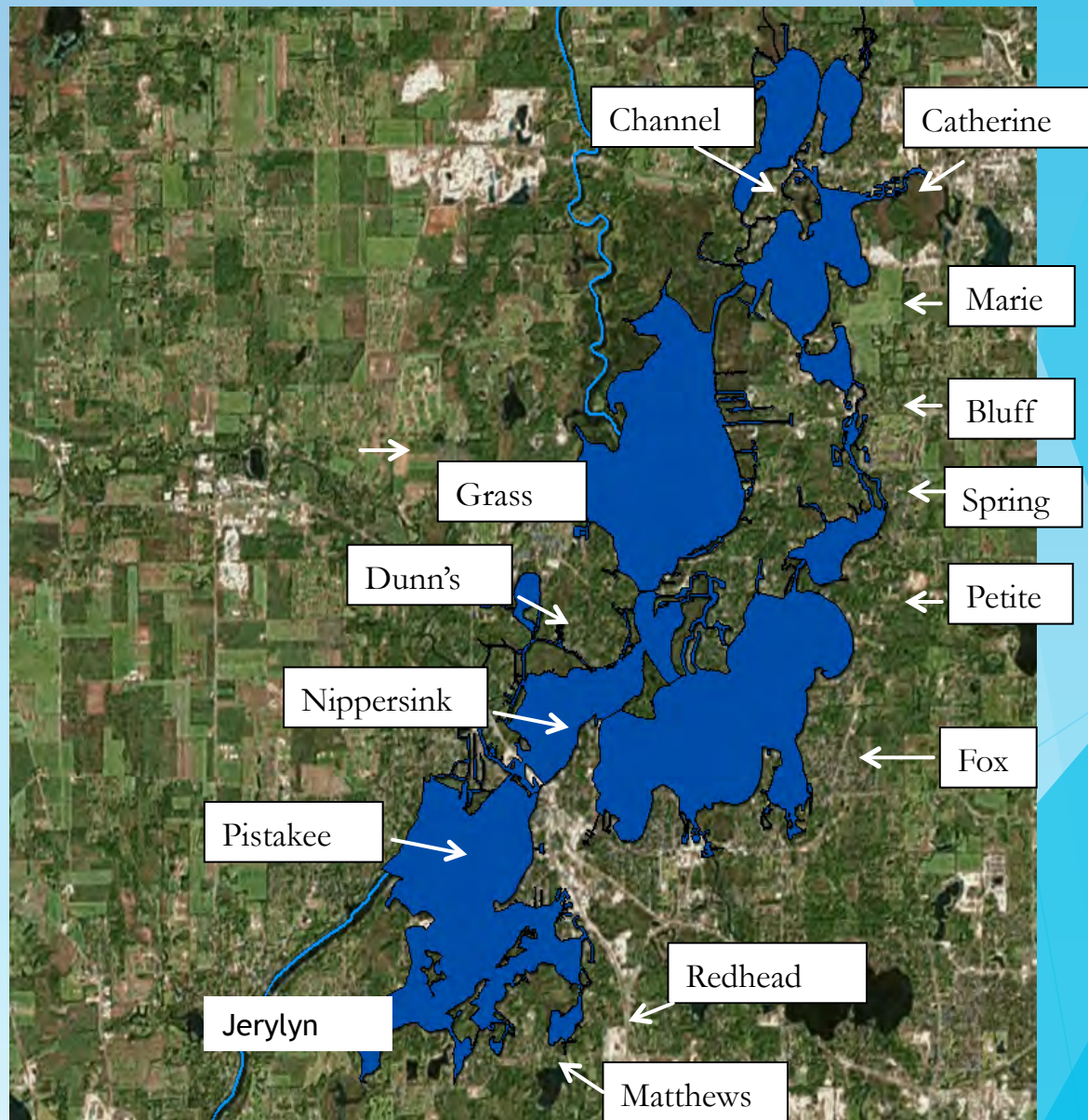
Fox River-Chain-O-Lakes facts

- 15 Lakes
- Over 7100 Acres of Water
- 488 miles of shoreline
- 45 miles of river
- Busiest inland recreational waterway per boat per acre in the United States
- Weekend crowds up to 30,000 people
- Holiday crowds in excess of 100,000 people



Made up of

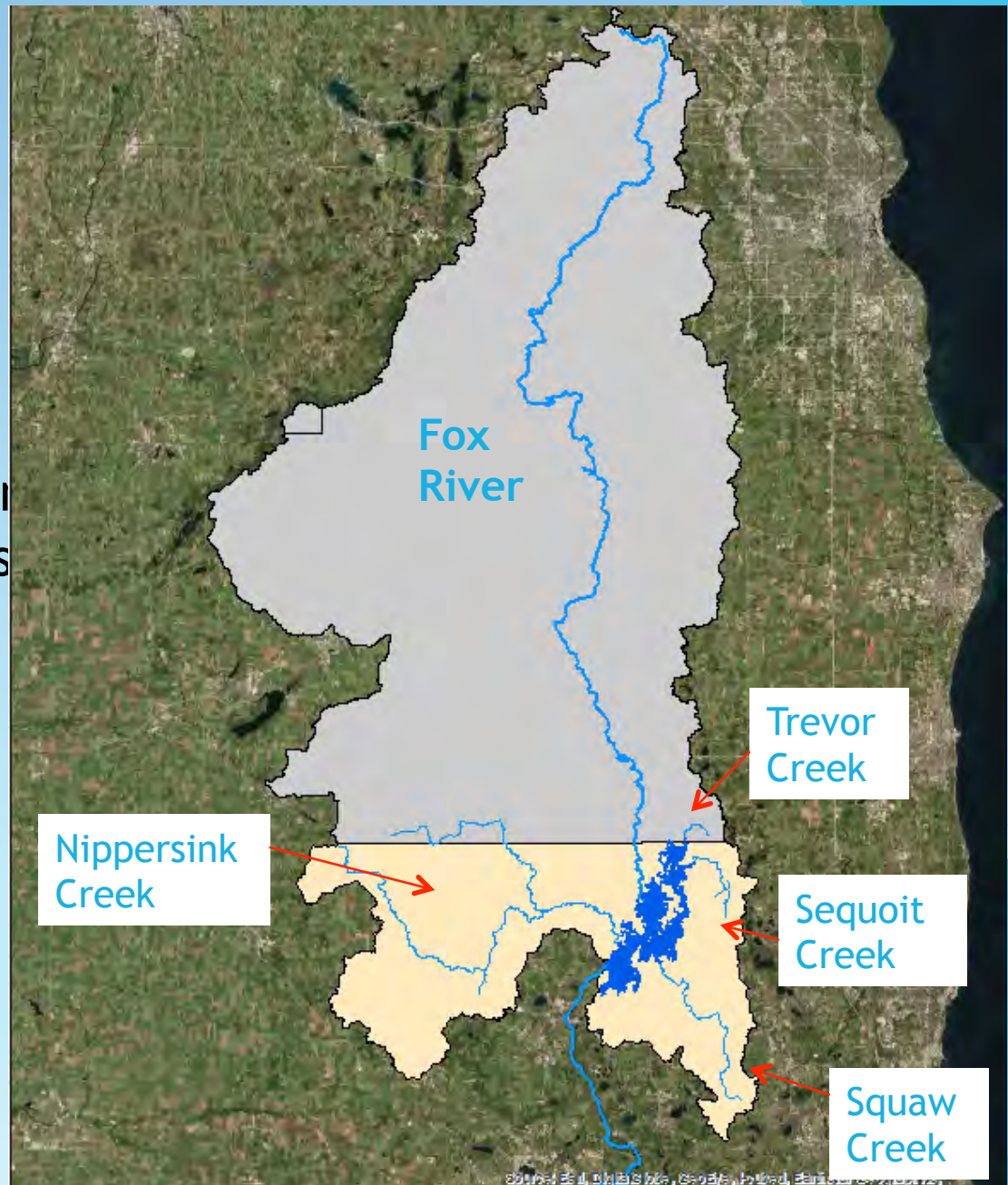
- ▶ 15 Unique
Glacial lakes
- ▶ Grass Lake is a
Riparian Marsh





Watershed

- 1300 sq. miles (930,000 acr.)
 - 938 sq. miles Wisconsin
 - 362 sq. miles in Illinois
 - Lake & McHenry Counties
- Main tributaries include:
 - Fox River
 - Nippersink Creek
 - Sequoit Creek
 - Squaw Creek
 - Trevor Creek





Funding/Budget

- Estimated annual budget for 2017 is \$2.2 million
- \$1.9M of that is from user fee sticker sales
- No property tax or sales tax is in our revenue stream



Current Funding Sources



Boater user fees - Sticker sales

- ▶ *At least 75% of the gross income collected under this section of the code shall be used exclusively for projects designed to maintain and improve the waterway, as written in the enabling legislation.*

State and/or Federal grants as available

Project-specific grants and bonds

Sale of processed sediment, top soil

Fox Waterway is a Non-Taxing body of State Government

2015 TAXES FOR ADDRESSES ON ONE TYPICAL ROAD ON OUR WATERWAY LOCATED IN ANTIOCH, ILLINOIS	
WATERFRONT	NON-WATERFRONT
\$7,472.91	\$5,813.62
\$22,830.35	\$9,574.33
\$19,607.66	\$9,933.30
\$13,932.73	
\$22,291.00	
AVERAGE: \$17,226.93	AVERAGE: \$8,440.42

TAXING BODY	RATE
COUNTY OF LAKE	0.531816
COUNTY OF LAKE PENSION	0.130992
ROAD AND BRIDGE-ANTIOCH	0.085921
ROAD AND BRIDGE-ANTIOCH GRAVEL	0.250000
FIRST FIRE PROT DISTRICT OF ANTIOCH	0.531147
ANTIOCH PUBLIC LIBRARY DIST	0.370138
ANTIOCH PUBLIC LIBRARY DIST PENSION	0.037478
GRASS LAKE SCHOOL DISTRICT #36	4.551266
GRASS LAKE SCHOOL DISTRICT #36 PENSION	0.090408
COLLEGE OF LAKE COUNTY #532	0.299388
ANTIOCH COMM HIGH SCHOOL DISTRICT #117	3.867193
ANTIOCH COMM HIGH SCHOOL DISTRICT #117 PENSION	0.061779
FOREST PRESERVE	0.196682
FOREST PRESERVE PENSION	0.011242
TOWNSHIP OF ANTIOCH	0.146200
TOWNSHIP OF ANTIOCH PENSION	0.014307

With this particular sample the upside difference in additional property taxes levied on the backs of the waterfront homeowner's equates to a 51% higher premium to live on the waterway. This sample is located on a typical dead end road of our waterway and our taxing bodies gain an estimated \$114,224.63 from these property owners. Using this sample for our entire waterway with an estimated 2,500 homes we estimate that roughly \$21,966,275 in additional property taxes alone are generated by our great Fox waterways.

These numbers include an estimated \$120,000,000-\$150,000,000 of yearly commerce that results because of our waterways. Nor do they include the millions of dollars in yearly motor fuel taxes that haven't made it back to the waterway that has generated them. See the next scratch sample...

Where is the \$\$\$?

Daily Herald

Education updated: 11/19/2015 3:40 PM

Grass Lake District 36 to freeze tax levy after complaints



Grass Lake School District 36 serves about 200 students in one building in Antioch.

The board's decision follows accusations from some residents that district leaders have banked too much property-tax revenue through the years, leading to a roughly \$12.7 million surplus.

"We're only asking for what is needed without putting the district in financial dire straits," he said.



Russell Lissau

270 Sundancer 100 gal tank = 650 LBS
7,800 dry lbs 6.5 LBS. gal
8,000 - 10,000 lbs with gas + passengers

454 cu in engine
300 hp single engine

3000 RPM 10.4 gals per hour
25 - (28) MPH depending on waves, wind,
2.69 MPG load, weather

4600 RPM 24.4 gals per hour
28 - (36) MPH waves, wind load
1.47 MPG weather

$$\$1000 \div \$2.50 = 400 \text{ gals}$$

$$400 \times .19 = \$76.00 \text{ gas tax revenue}$$

$$\$76.00 \times 20,000 = \$1,520,000 \text{ gas tax rev.}$$

2015 - 22,036 user fees



Projects exclusively designed to maintain and improve the waterway...

May include, but are not limited to:

- ❖ Dredging
- ❖ Habitat/Island restoration
- ❖ Waterway Maintenance
- ❖ Water quality projects
- ❖ Site acquisition being Critical



Challenges to Face

Fox River 2007



1939 1946 1961 1974 1980 1993 1997 2000 2002 2004

2007

Fox River 2008



Play

1939 1946 1961 1974 1980 1993 1997 2000 2002 2004

2008

Nippersink Lake 1939



1939

1939 1946 1961 1974 1980 1993 1997 2000 2002 2004

Nippersink Lake 2015



2015

1939 1946 1961 1974 1980 1993 1997 2000 2002 2004





Past & present Issues ...

- Yesterday's model:
 - Equipment need → Grant
 - Land/ limitations → Grant
 - Waterway projects → Grant
 - CHALLENGE → RESPONSE → FUNDING
- Present Reality: Springfield turmoil / Lack of budget
 - Unfunded Mandates / Obligations
 - After affect of misallocation of funds
 - No Grant monies available at the State level
 - Continued operations with little State support



Field Operations/Responsibilities

- Dredging
- Special Projects i.e. Island restoration
- Debris/Hazards
- Flood damage management
- Navigational Aides
- Duck blind management
- Homeowner buoy program
- Special events
- Beneficial reuse of dredge material program
- Working with other governmental bodies to fulfill our mission



Staff

- Executive Director
- Field Superintendent
- 3 Full time Office Administration
- 7 Full time Waterway Maintainers
- 4 to 6 Seasonal Employees

Debris Clean-Up



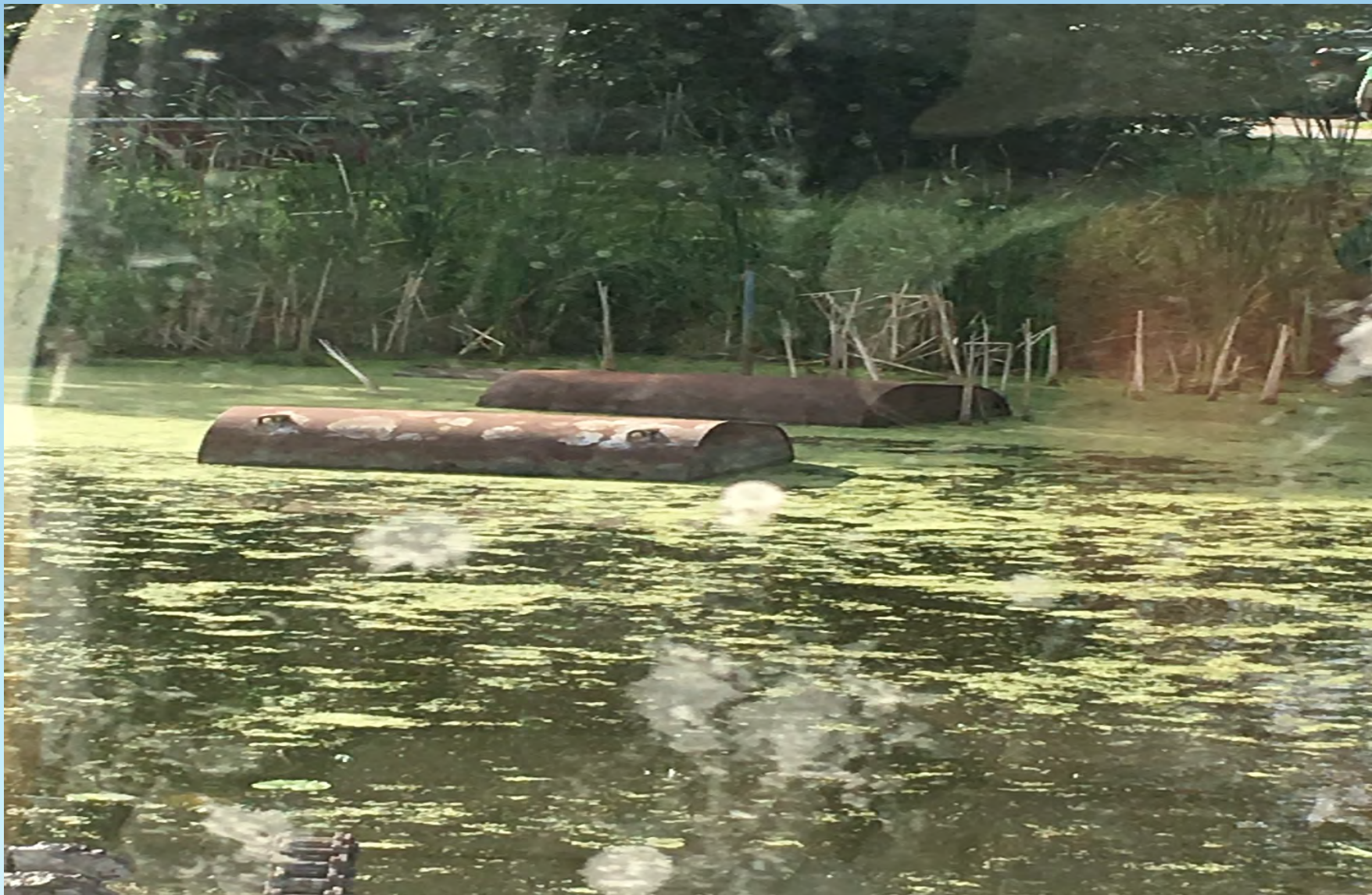
Clean up after flooding

Snowmobile





250 gallon oil barrels









Navigational aides





Waterway Projects

- ▶ - Hydraulic dredging
- ▶ - Mechanical dredging
- ▶ - Shoreline Stabilization
- ▶ - Island Restoration



The Agency utilizes:

- 3 hydraulic dredges
- 2 land excavators
- 2 amphibious excavators
- 4 dump trucks
- Subcontractors



Direct loading of dredged material from land excavator onto a truck



Barracuda Hydraulic Dredge



Hydraulic dredge pumping into upland dewatering facility

Photo Credit: FWA Staff

Hydraulic dredge



Mechanical Dredging



Mechanical dredging



Mechanical dredging



Geo-bags



Open Cell dewatering- Cooper





Cooper dewatering cell

Ackerman Island- dewatering cell



Grass Island



Island restoration



Shoreline Stabilization



Beneficial reuse of dredge material

- Dry and process wet dredge material into a saleable topsoil material
- Helps offsets the operational costs of dredging
- Provides a means of permanently removing the material
- Provides a product to the public that is high in demand and satisfies a need

Typical Processing Site



Drying the material uses approximately 1 acre per week.

The Process



*The material is delivered by truck to the site
in an extremely wet condition.*





Systematic Dumping



The material is dumped in rows to dry.



Drying the Material



The material then has to be spread and turned over to dry before it is processed.



The material is loaded into a pulverizing machine.



Screened topsoil





The Material is Finally Removed



The material is loaded into a line of waiting trucks.



Community gardens











New and Better thinking for the future

1. Agency Opportunity

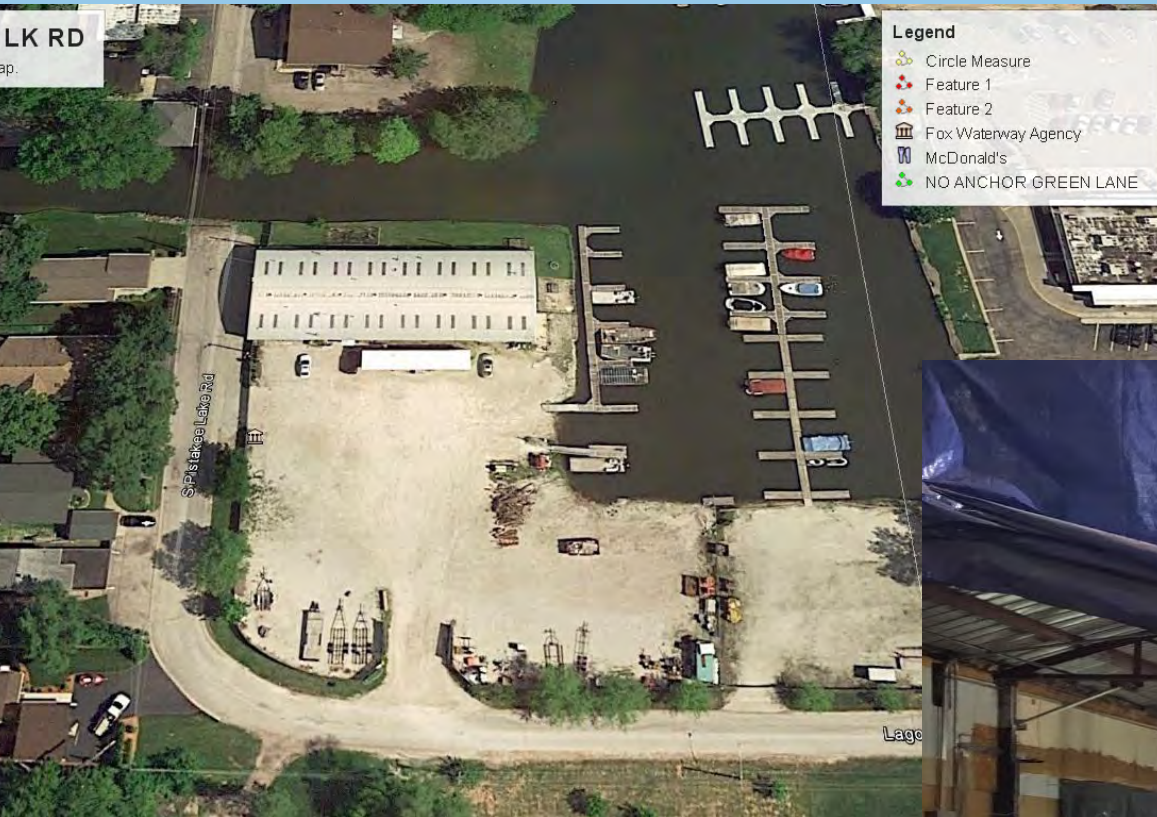
- ▶ A. Better stakeholder communication and collaboration
- ▶ B. Revised Legacy - Planning, collaboration and Regulation vs. sediment harvesting.
- ▶ C. Improved Watershed Management.
- ▶ D. Improved Water quality.
- ▶ E. Financial self-reliance.

2. Agency Directives Moving Forward

- A. Continue to fulfill current mission with limited revenue sources.
- B. Improve visibility and working relationships with partners.
 - i) Other Illinois agencies (State, county, etc.)
 - ii) Villages
 - iii) Watershed groups and lake associations
 - iv) Wisconsin Partnerships (SERPC, SEFR Partnership, SEFR Commission)
- C. Evaluate and engage in Project Opportunities.
- D. Watershed and Science based approach to long-term management and planning.
- E. Transitioning from a reactionary agency to a more proactive one.

Waterway Agency

Building on a solid foundation



The Fox Waterway Agency

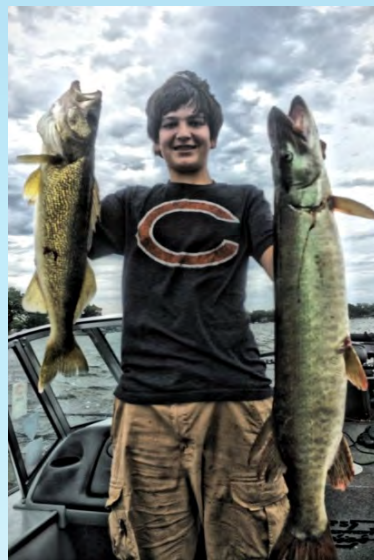
***Overcoming the challenges of today and tomorrow
to better preserve our great Fox Waterway for all!***

ing this with you through...

- 1. Education ~ Awareness ~ Passion!***
 - 2. Strong Alliances ~ Relationships ~ Partnerships!***
 - 3. Accepting that yesterday is gone and adopting new
methodologies for the future to solve today's***
- allenges.***
- 4. Overcoming ourselves and being open to new ways,
new ideas, & new solutions. Let us think and act in new and
improved ways. We must not be afraid we must be bold and
fearless! Have Faith and believe!***
 - 5. Understanding that our work is vital and it is worth it!***

Better Stewards of our Environment

The Fox Waterway Agency would like to more effectively work within our waterway communities and with our partners to further enhance and preserve more of our greatest natural resources for the many future generations that will follow after us. *Thank you very much in your efforts to assist us in making our waterways everything they ought to be!* ☺ ☺ ☺



For more information



WWW.Foxwaterway.com