



Loon Lakes Management Association

www.loonlakesmgmt.com

Hydrography



West Loon Lake and East Loon Lake – Antioch IL

West Loon Lake is a glacial lake that has a maximum depth of 38–44 feet. It has an area of 166 acres and more than 2.1 miles of shoreline. It is an extremely clear lake, transparency of the lake is 15–18 feet depending on the time of year. Water clarity has been at the highest level in 15 years.

East Loon Lake is a Glacial lake that has a maximum depth of 26–28 feet. It is slightly larger than West Loon Lake with an area of 168 acres and more than 4.8 miles of shoreline. East Loon has a different ecological makeup; compared to West Loon, it is more of a nature lake than a recreational lake. The clarity of this lake is much poorer than West, only 5–7 feet.

Association Information



Loon Lakes Management Association (LLMA) is an umbrella organization that is funded by Lake County tax revenues (SSA). The LLMA Board is comprised of an elected President, Vice-President, Secretary and Treasurer and Director representatives from 14 HOAs within the watershed of the two lakes.

In the late 1970's The Loon Lakes Management Association was formed by a group of volunteer homeowners who owned properties around East and West Loon Lakes. They came together for the purpose of handling any concerns they had regarding the lakes. In 1989 a Special Service Tax Area (SSA) was set up for the purpose of providing funding for the care and maintenance of the lakes. The Loon Lakes Management Association, by then representing all property owners in subdivisions around the lake, was named to work in a stewardship role with the SSA. Today, the objectives of the Loon Lake Management Association are to provide a coordinated and unified effort for the implementation of policies and programs for the long-term management, restoration and protection of East and West Loon lakes in Antioch, IL, including the management of the lakes' watersheds and other natural resources and manmade features within the defined SSA area. The LLMA works together with the Illinois Department of Resources and the Lake County Lakes Management Unit toward these goals.

Challenges



- Aquatic Weed Management
 - Herbicidal Treatment
 - Mechanical Harvesting
- Threatened and Endangered Fish Management
- Channel Restoration
 - Seawall Replacement
 - Channel Dredging
- Lake Level Management

Aquatic Weed Management



- Allowed under an Incidental Take Agreement (ITA) with the IDNR
- Herbicidal Treatment
 - Invasive weed species ONLY (Eurasian Watermilfoil).
 - Acreage, application timing and herbicide (2, 4-D) controlled under ITA
 - LCHD conducts “rake studies” and approves the aquatic plant management plan each year
- Mechanical Harvesting
 - Harvesting areas controlled by ITA and lake bottom owners

Threatened and Endangered Fish



- Threatened and Endangered Species in Loon Lakes accounted for in (ITA)
 - Banded Killifish
 - Starhead Topminnow
 - Blackchin Shiner
 - Pugnose Shiner (not documented for several years in Lake County per the LCHD)
 - Iowa Darter
 - Mudpuppy (amphibian)
- ITA requires regular Fish Studies be conducted to monitor impact to T&E species

Channel Restoration



- Channel between the West and East Loon became impassable
- Channel Seawalls replaced in 2013. Steel plate replaced collapsed wood seawalls
- Hydraulic dredging completed in 2017
 - Extended permitting process
 - Sediment de-watered and hauled offsite
- Water Outflow through Sequoit Creek

Solutions



- ITA with IDNR for weed control and T&E management
- Association Marketing
 - Website – Loonlakesmgmt.com
 - Facebook Page – Loon Lakes Management Association
- Community Involvement
- Funding through SSA-8 and Community Fund Raising events
- Received 501(c)(3) Tax Exempt Charitable Organization Status

Future Challenges



- Replacement of 25 year old Weed Harvester
- Supplemental Funding to static SSA-8 fund levels



Highland Lake Property Owners Association

Background Information

- Lake County, Illinois
- 110 acres – 29 feet – Kettle Lake Geomorphology
- 150 of residents/homes
- Near the top of the drainage basin
- Strict access policy on boats
 - Limited locations
 - No public access points
 - All boats inspected before and after removal
 - Signs posted
 - Community informed of policies

Trailer Boat Policy



Policy Regarding Boat Trailer Use in Parks

Please refer to [rules and information](#) for general boating policies. All watercraft (motorized or not) and trailers must be power washed and inspected for zebra mussels prior to placement in Highland Lake. Please contact your shore representative if you need help with the inspection. Anyone found to be introducing zebra mussels into the lake is subject to local and IL state fines.

Trailer Boat Policies and Procedures

Effective March 1, 2017, the following procedures must be followed by all boat owners wishing to launch and/or remove their boats using a trailer:
Per a 2009 court decision, use of 36 volt electric motors was found reasonable on Highland Lake.
Downey Park is the only approved launch/removal site. As Szontagh Park does not fall under the governance of HLPOA, no rules regarding the use of that park can be offered.

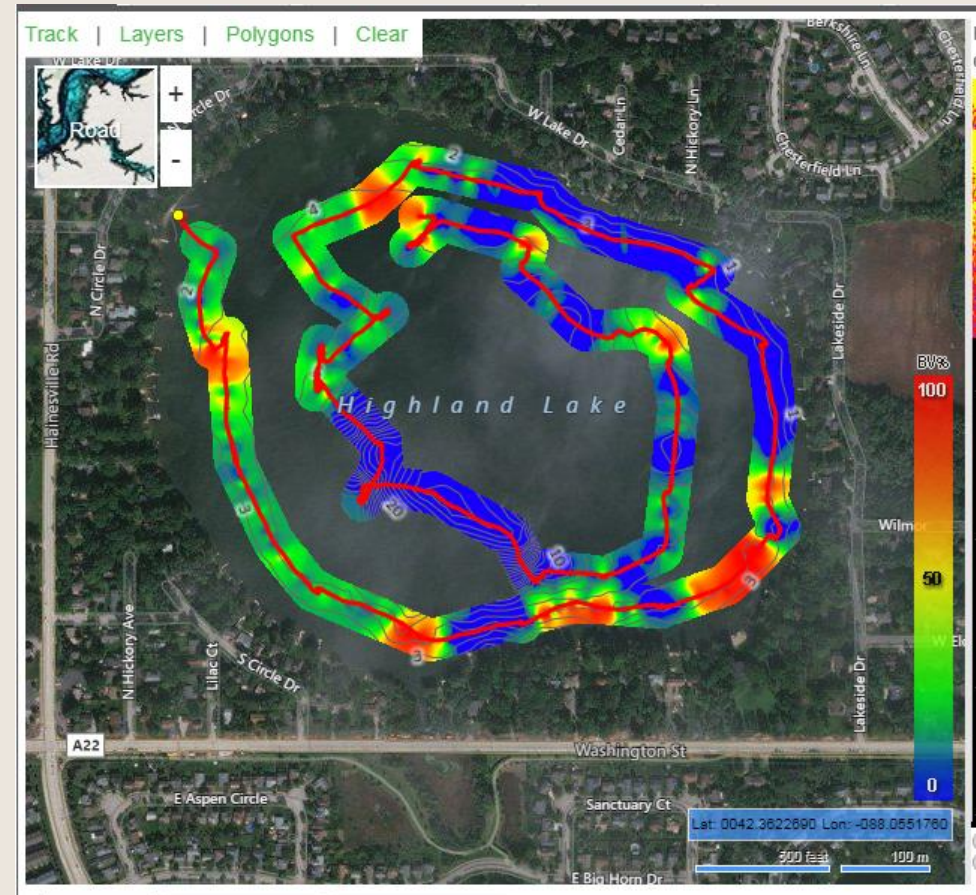
In order to obtain access to Downey Park, boat owners must contact their shore representative or the HLPOA President at least **five days** prior to the scheduled launch/removal date. Failure to do so may necessitate a delay in the occurrence. The president will arrange for a Board member to unlock the gate and monitor any damage to Park property. If any significant damage occurs, the boat owner will be responsible for its repair. The boat owner must be present at the time of the launch/removal in order to address any issues that may come up.

Anyone using a trailer to launch/remove a boat must be a HL resident. The gate unlocking fee for trailered boat access can be paid by either payment of annual dues to HLPOA, or payment of the unlocking fee of \$50.00 to HLPOA for **each** unlocking event.

Owner must use the services of Board approved marine providers. Currently, only Ahlstrand Marine in Mundelein has been approved. The approval is contingent on Ahlstrand's cooperation with power washing the trailer just prior to its entry into Highland Lake. Use of any other provider must be approved at least thirty days prior to the desired launch/removal date.

Challenges

- What are some past problem(s) for your HOA?
 - EWM
 - Lily pads
 - Fish populations
 - Water level
- What are the causes of these problem(s)?
 - Invasive water plants
 - Fishing policies
 - Dam grate control
- Did you study the issue? If so, how? Was it helpful?
 - Extensive research on EWM –
Now using spot treatment along with whole lake
 - Stocking – Carp Fest
 - Avon township monitors grate



Future

- problems that you currently are working on – Zebra Mussels
- need help? Yes, we have some solutions, but need to study the process
- need ideas? Yes, any thoughts are welcomed
- how can ILMA members help? Help document Zebra Mussel monitoring and control



Solution

- First Zebra Mussel May 27, 2018.
- Resolution to problem
 - Monitor
 - Study
 - QZ-Tech David Hammond dhammond@earthsciencelabs.com
 - Others
- did it work? – not yet
- how did you fund?
 - Need funding for research
 - Need you – sign up

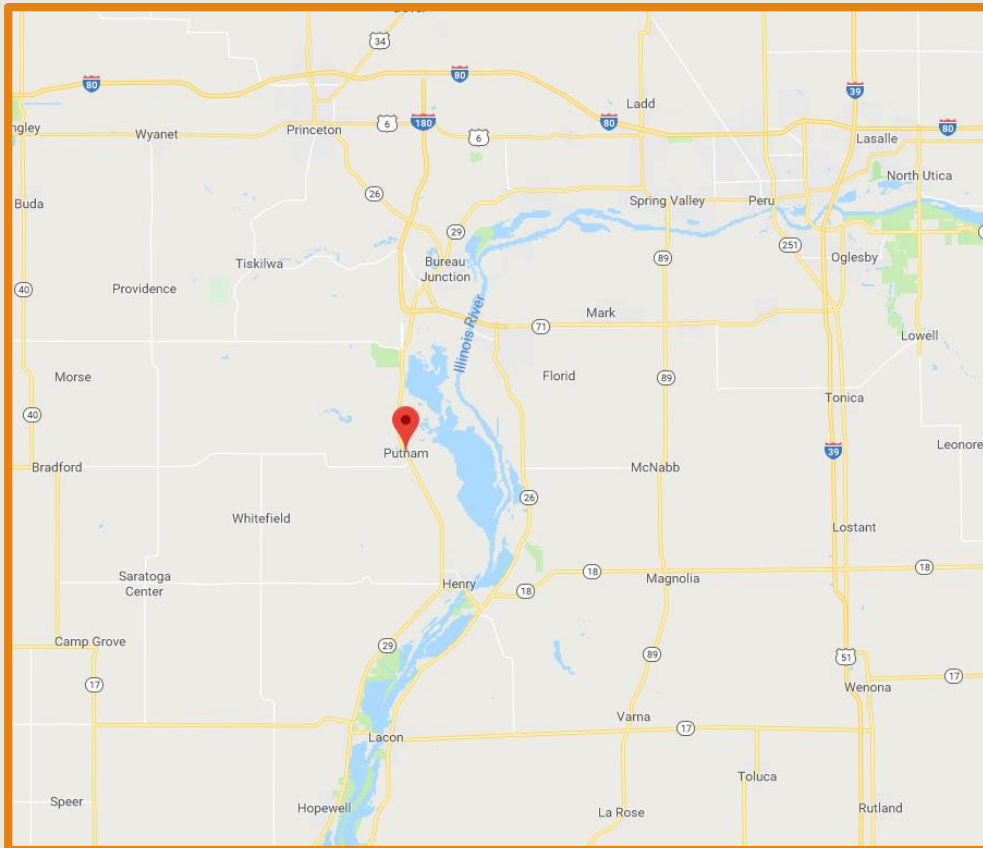




Lake Thunderbird Association

Background Information

- Putnam IL
- Approximately 120 acre Lake
- 1982 lots, 500 homes, 300 full time residents



Background Information

- Large agricultural watershed with deep ravines
- Lots of sediment and runoff



Challenges – Lake Characteristics



- Sedimentation
- Erosion
- Lake and shoreline habitat

Challenges – Gizzard Shad

- Ongoing problem
- Working with consultant on fisheries management



Solutions -- Dredging



- Mechanical or hydraulic dredging?

Solutions -- Mitigation



- Weirs
- Slowed velocity

Solutions -- Mitigation

- Bank stabilization
- Funded by reserve

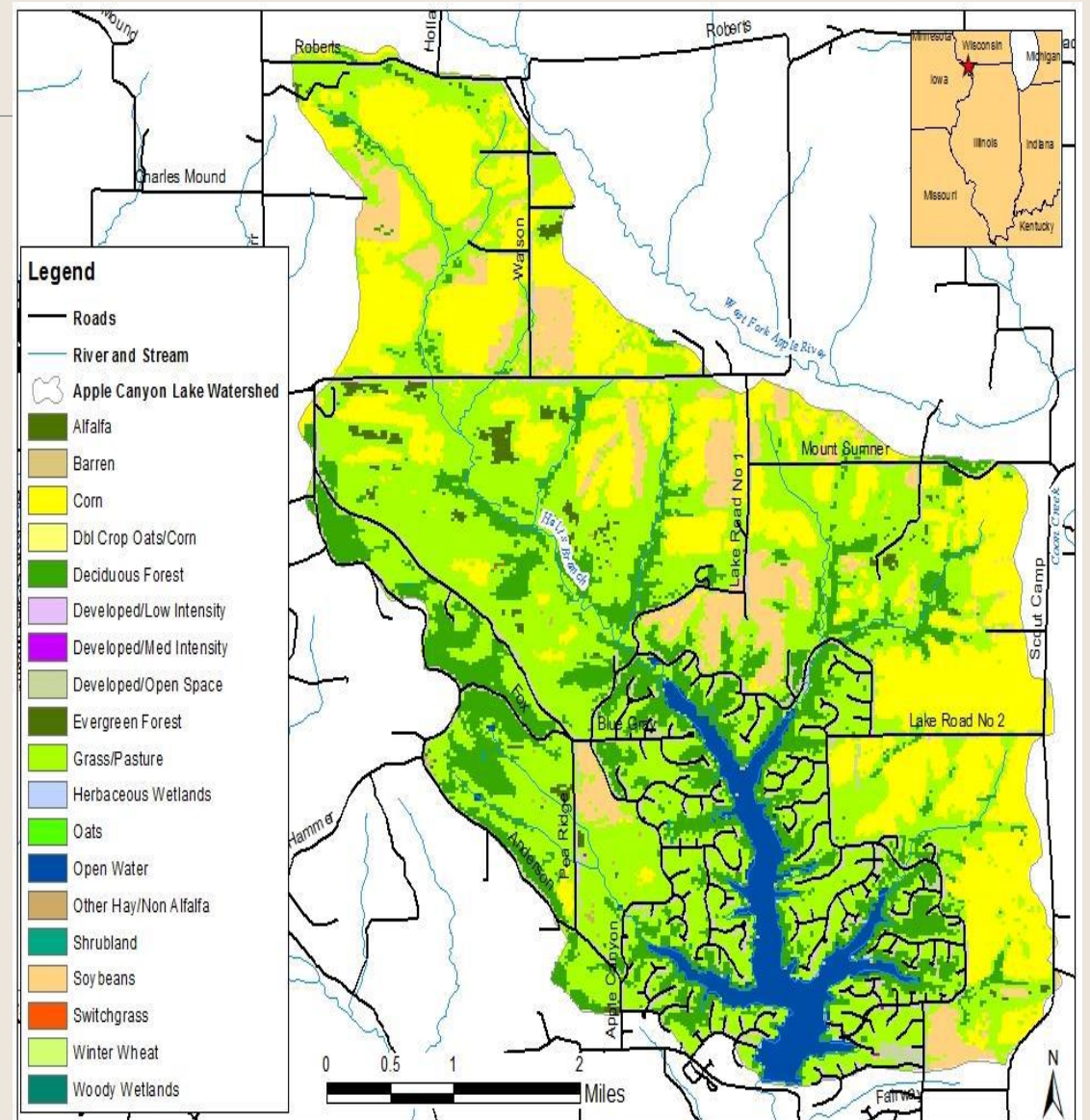
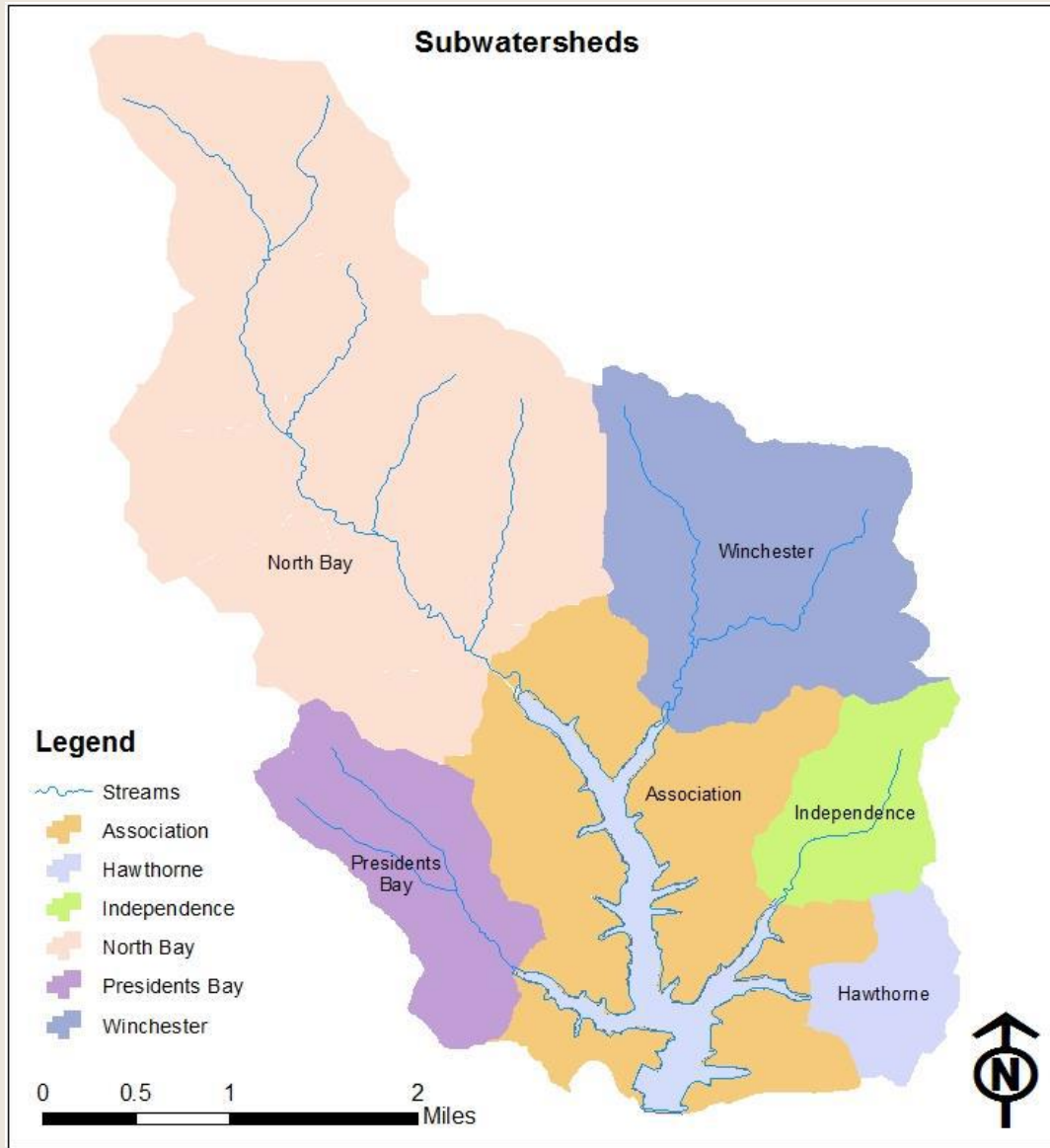


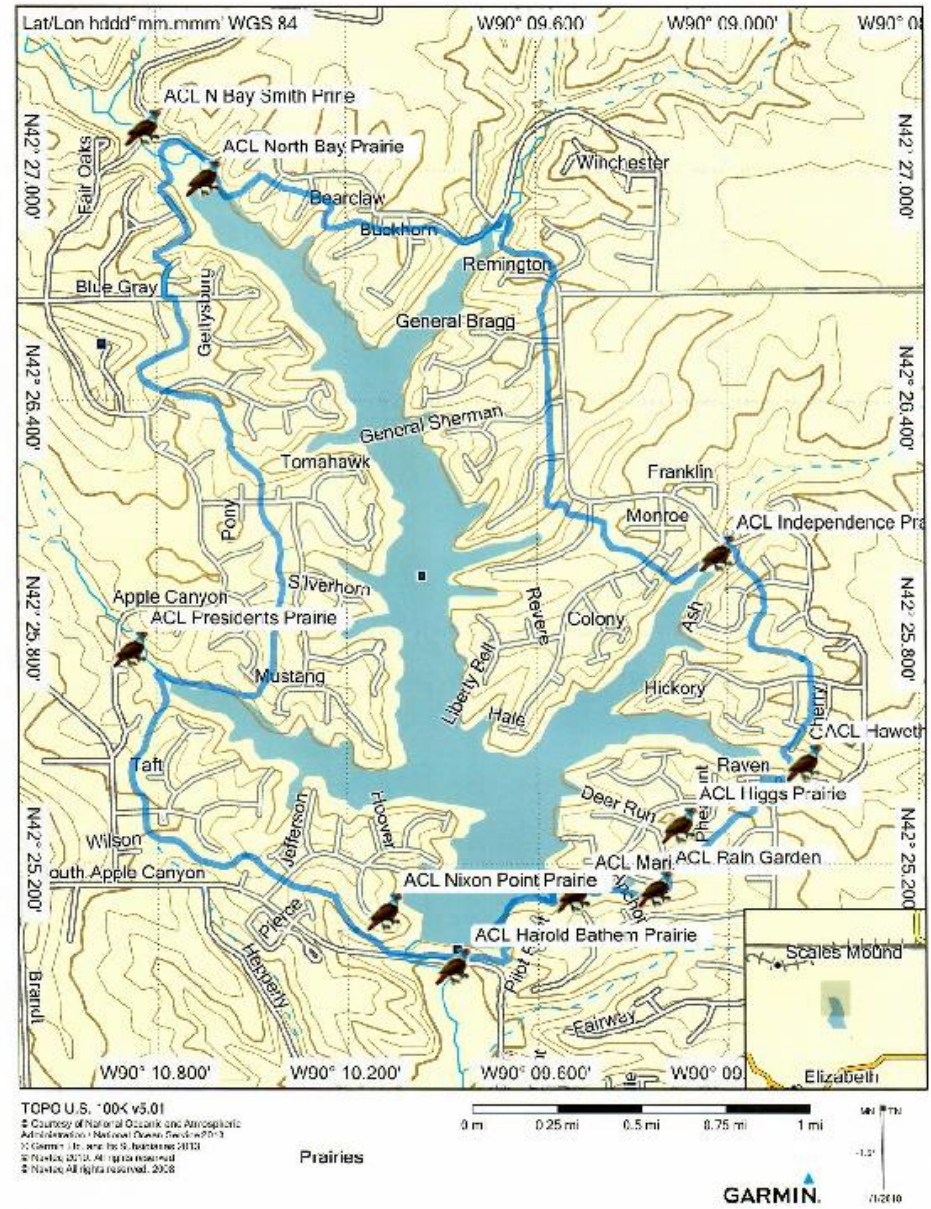
Future Work

- Still have many ravines and creeks that need mitigation
- Work constantly with engineers helping design ways to slow the sediment down
- Current initiatives
 - Weed control
 - Landscaping along 2 miles of trails along our creeks



Apple Canyon Lake





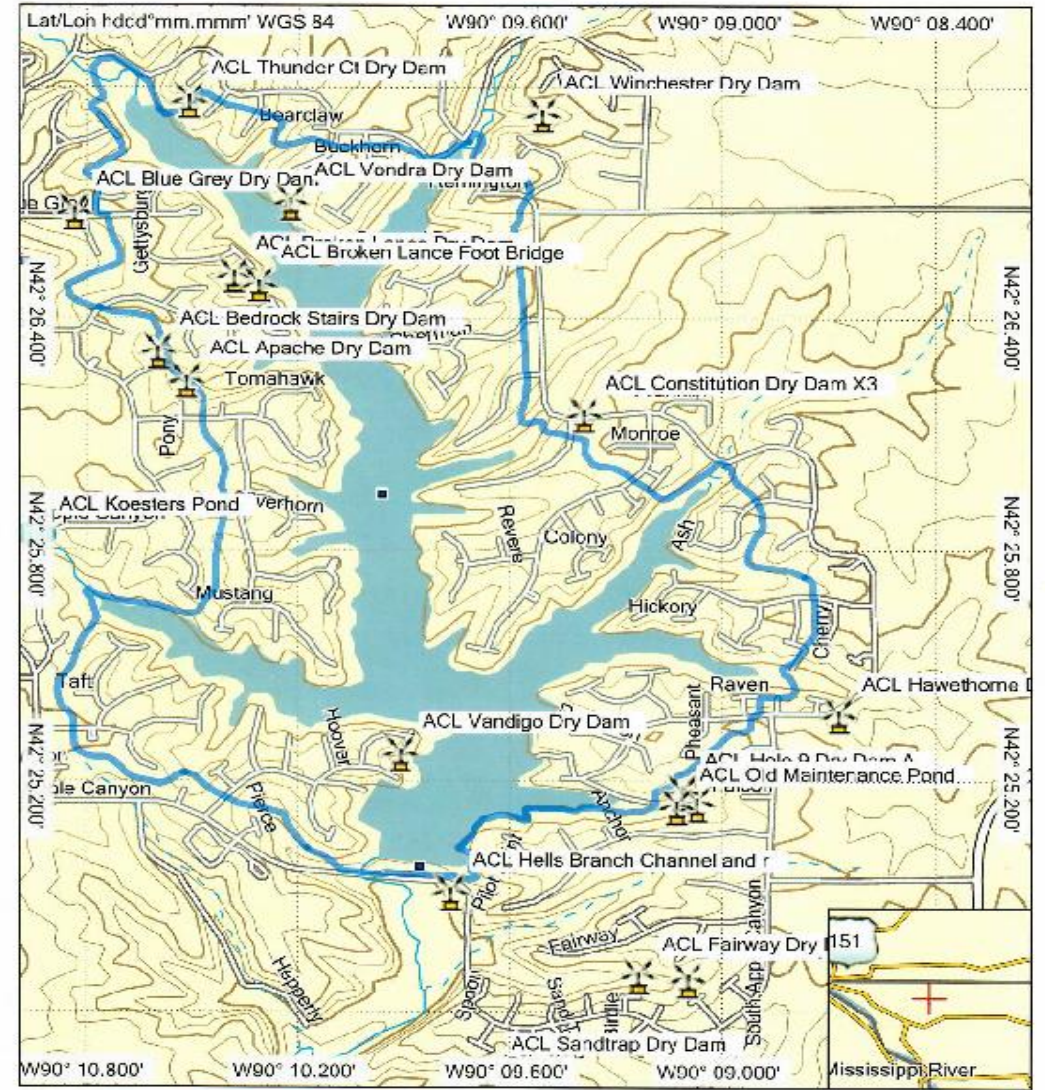


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Dredge Ponds

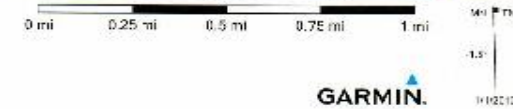


GARMIN

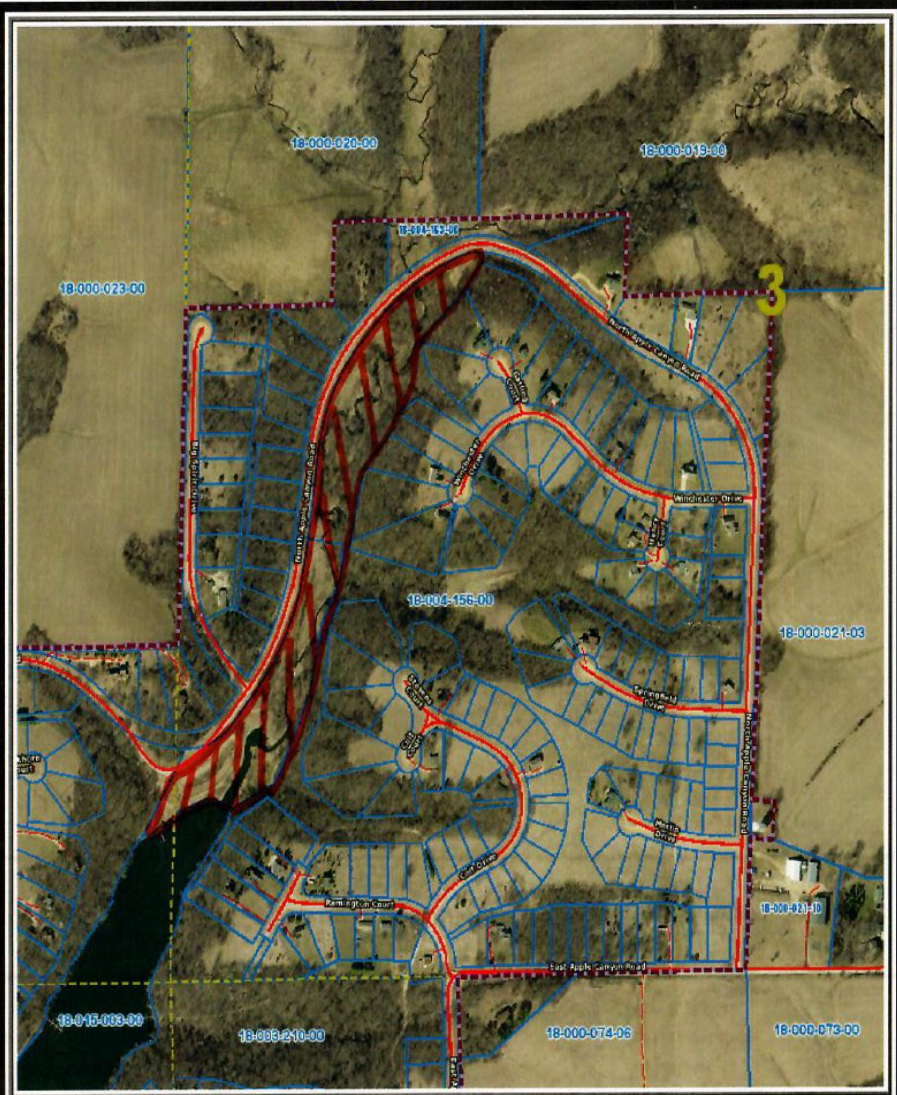


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Dry Dams



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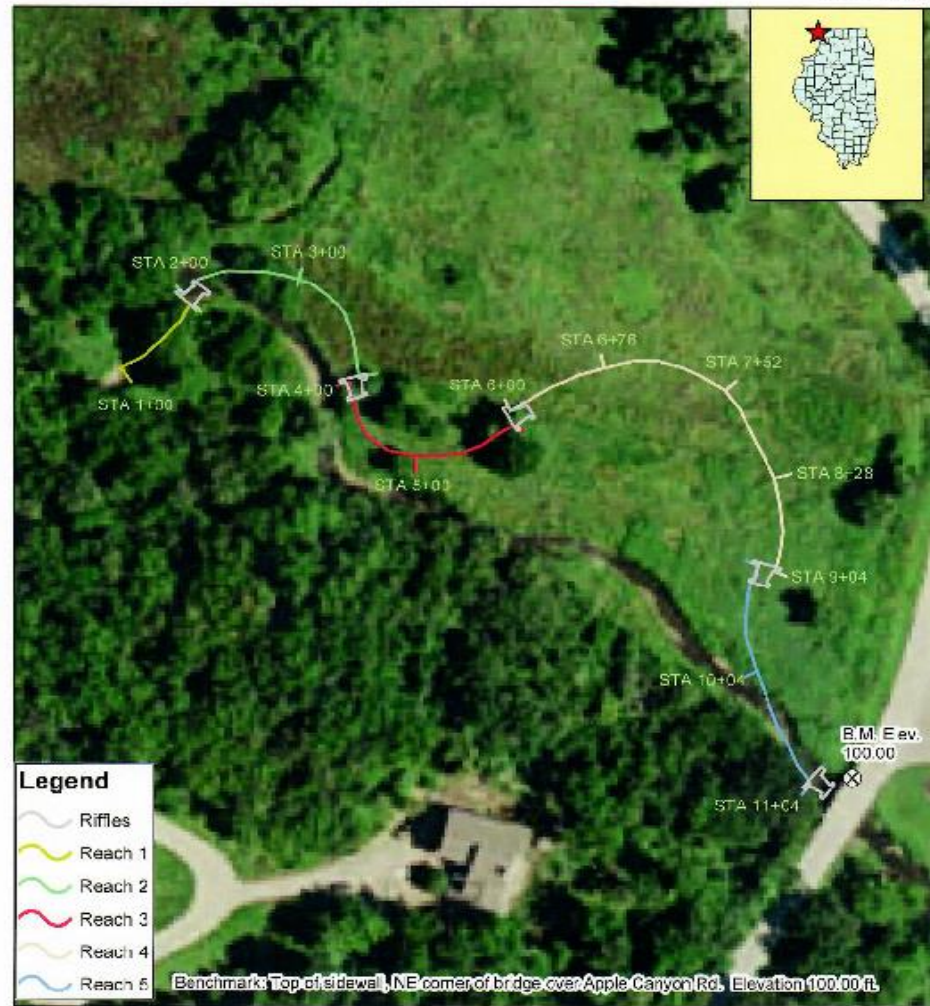


Area: 13.63 Acres
 Distance from Lake: 2,300 feet
 Average Width: 200 feet
 Drainage Area: 2.47 Sq. Miles
 2,026.4 Acres

Parcel : 07-000-448-00 Acres : 192.1
 Owner Name : HOLLAND CHARLES E
 Owner Address : 5201 S BURTON RD
 Owner City : ELIZABETH IL 61028

Road Names
 Section Numbers
 Lake Development

APPLE CANYON LAKE PROPERTY OWNERS ASSOCIATION
 NORTH BAY STREAM RESTORATION



Legend
 Rifles
 Reach 1
 Reach 2
 Reach 3
 Reach 4
 Reach 5

Benchmarks: Top of sidewalk, NE corner of bridge over Apple Canyon Rd. Elevation 100.00 ft.



2015 Aerial Imagery
 1 : 1,200 Scale or 1 in. = 100 ft.
 Jo Daviess County Soil and Water Conservation District

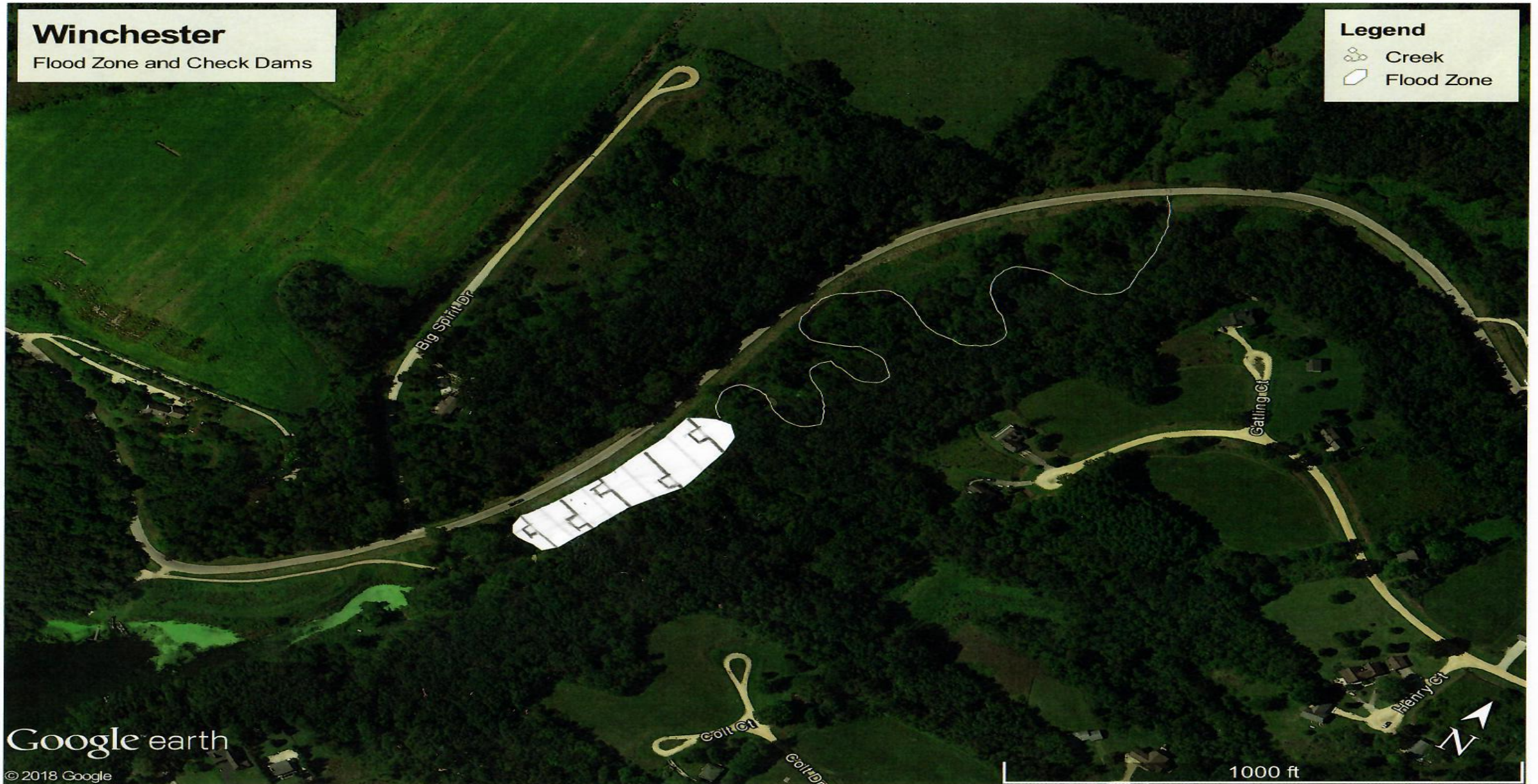


Winchester

Flood Zone and Check Dams

Legend

-  Creek
-  Flood Zone



Google earth

© 2018 Google

1000 ft

When the lake is healthy, everyone is happy!



Lindenhurst Lakes Commission

Lakes Waterford, Linden, Potomac and Springledge



Lake Potomac

~14 acres

Max depth 4'

Ave depth 1.75'

Lake Waterford

~67 acres

Max depth 13'

Ave depth 6.5'

Lake Springledge

~7 acres

Max depth 10'

Ave depth 8'

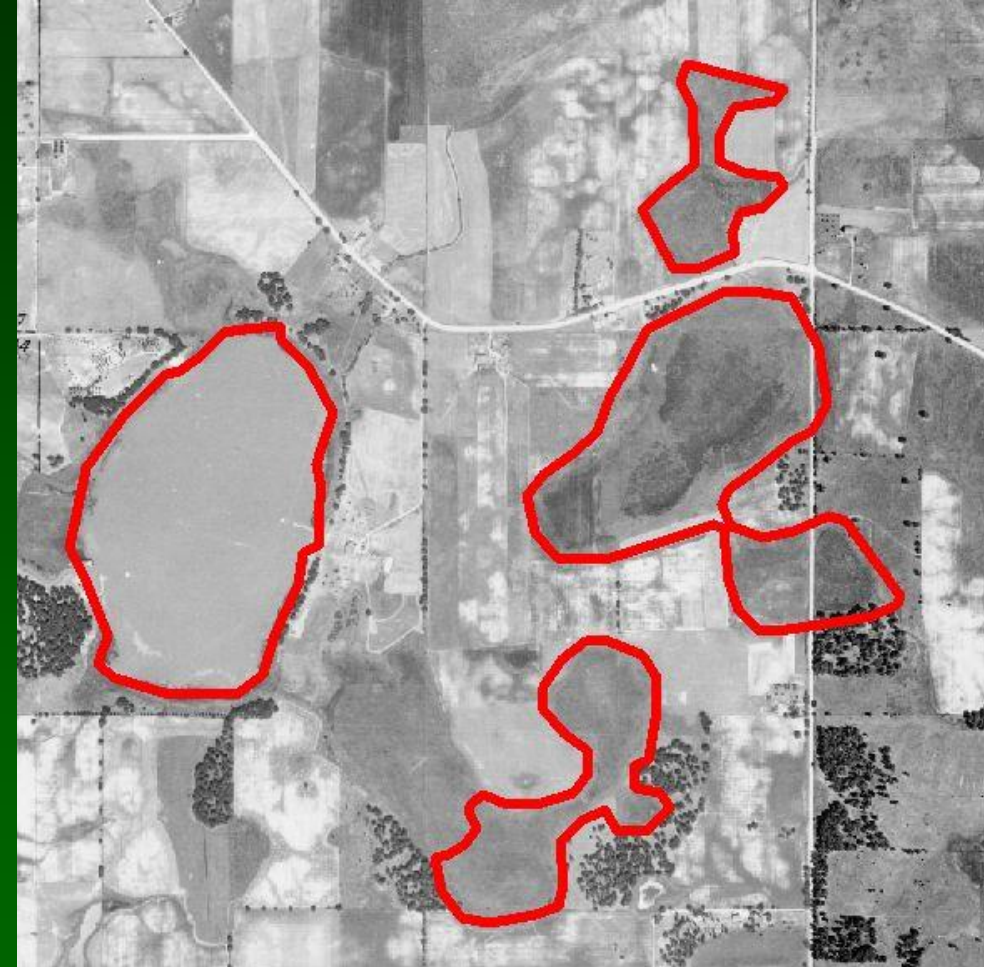
Lake Linden

~30 acres

Max depth 9'

Ave depth 3.1'

1939





Lake Potomac

~14 acres

Max depth 4'

Ave depth 1.75'

Lake Waterford

~67 acres

Max depth 13'

Ave depth 6.5'

Lake Springledge

~7 acres

Max depth 10'

Ave depth 8'

Lake Linden

~30 acres

Max depth 9'

Ave depth 3.1'

Lindenhurst Stats:

- Homes - 4,500
- Residents - 14,000
- Shoreline Properties - 340

Who we are

- Mayoral appointed volunteers
- One commissioner per lake
- Five commissioners at-large
- Village Trustee Liaison
- Village Administrator
- Bi-monthly open meetings

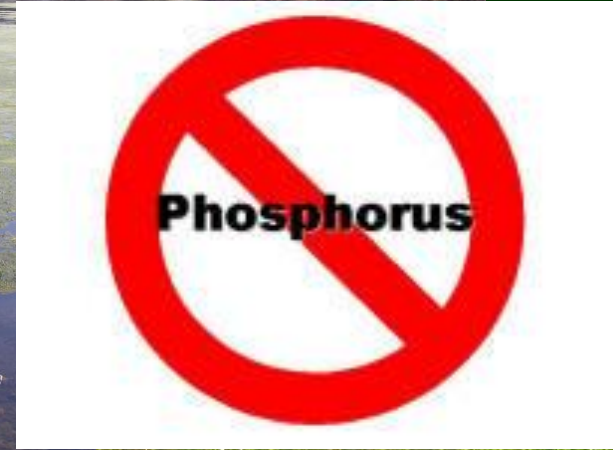
What we do...

- Recommending body to village board
- Review and recommend ordinances
- Manage the lakes and fishery (not beaches)
- Work with herbicide applicators
- Shoreline stabilization and plantings
- Boat sticker program for watercraft
- Interface with IDNR, LCHD ES, ILMA, local biologists and Lindenhurst Police
- Public education and interaction
- Web Site: www.lindenhurstlakes.com

Challenges



Challenges





Problem Studied



IDNR Electrofishing Survey Lake Waterford June 5, 1995

Problem Studied

SPECIES	NUMBER	PERCENT	LENGTH (in)		
			MINIMUM	AVERAGE	MAXIMUM
Largemouth Bass	45	33.09	10.8	13.3	18.0
Bluegill	48	35.29	1.2	4.9	8.4
Pumpkinseed Sunfish	22	16.18	2.0	5.9	7.2
Sunfish Hybrid	2	1.47	6.0	6.4	6.8
Black Crappie	4	2.94	6.0	8.8	10.4
Yellow Bass	1	0.74	11.6	11.6	11.6
Golden Shiner	2	1.47	7.6	7.6	7.6
Black Bullhead	12	8.82	10.4	11.3	12.0
Carp	0				
SPECIES = 9 TOTAL =	136	100.0			

1 hour electrofishing + overnight set of 250 foot gill net

J. Ferencak, IDNR

IDNR Electrofishing Survey

Lake Waterford

June 25, 1998

SPECIES	NUMBER	PERCENT	LENGTH (in)		
			MINIMUM	AVERAGE	MAXIMUM
Largemouth Bass	29	18.2	1.6	10.7	14.2
Bluegill	41	25.8	1.6	3.7	7.5
Pumpkinseed Sunfish	3	1.9	2.4	4.8	6.7
Spotfin Shiner	2	1.3	1.0	1.2	1.4
Yellow Perch	1	0.6	4.7	4.7	4.7
Yellow Bass	10	6.3	4.3	5.1	6.3
Black Bullhead	1	0.6	11.9	11.9	11.9
Carp	72	45.3	15.8	17.4	19.0
SPECIES = 8 TOTAL =	159	100.0			

1 hour electrofishing

IDNR Electrofishing Survey
Lake Potomac
June 24, 1998

SPECIES	NUMBER	PERCENT	LENGTH (in)		
			MINIMUM	AVERAGE	MAXIMUM
Largemouth Bass	1	1.2	13.8	13.8	13.8
Bluegill	1	1.2	4.8	4.8	4.8
Green Sunfish	1	1.2	3.9	3.9	3.9
Carp	78	96.3	6.6	9.4	21.9
SPECIES = 4 TOTAL =	81	100.0			

15 minutes electrofishing

312 carp / hour



Problem
Studied



Problem Resolved

Lake Linden after removal of carp in 1991

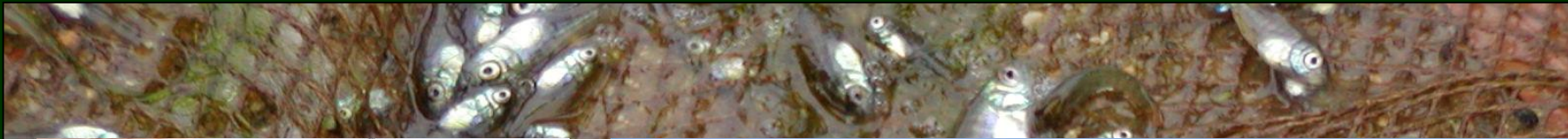
~ 28 year ago

Lake Waterford before removal of carp in 1999

~ 20 years ago

7 10 9







Issues and Concerns

Shoreline stabilization

Sedimentation

Waterflow



Grant proposals to deal with sedimentation seem lacking in merit.

Grant proposals dealing with the benefits of water flow may have merit.



1.36 MG daily
40.68 MG monthly
445.00 MG annually

Potomac	26 acre-feet
Waterford	433 acre-feet
Springledge	13 acre-feet

gal/acre-foot = 325829

Potomac	83 MG
Waterford	141 MG
Springledge	42 MG



How you can help...

Any suggestions and recommendations for grant proposal justification, logic and rationale appreciated.

