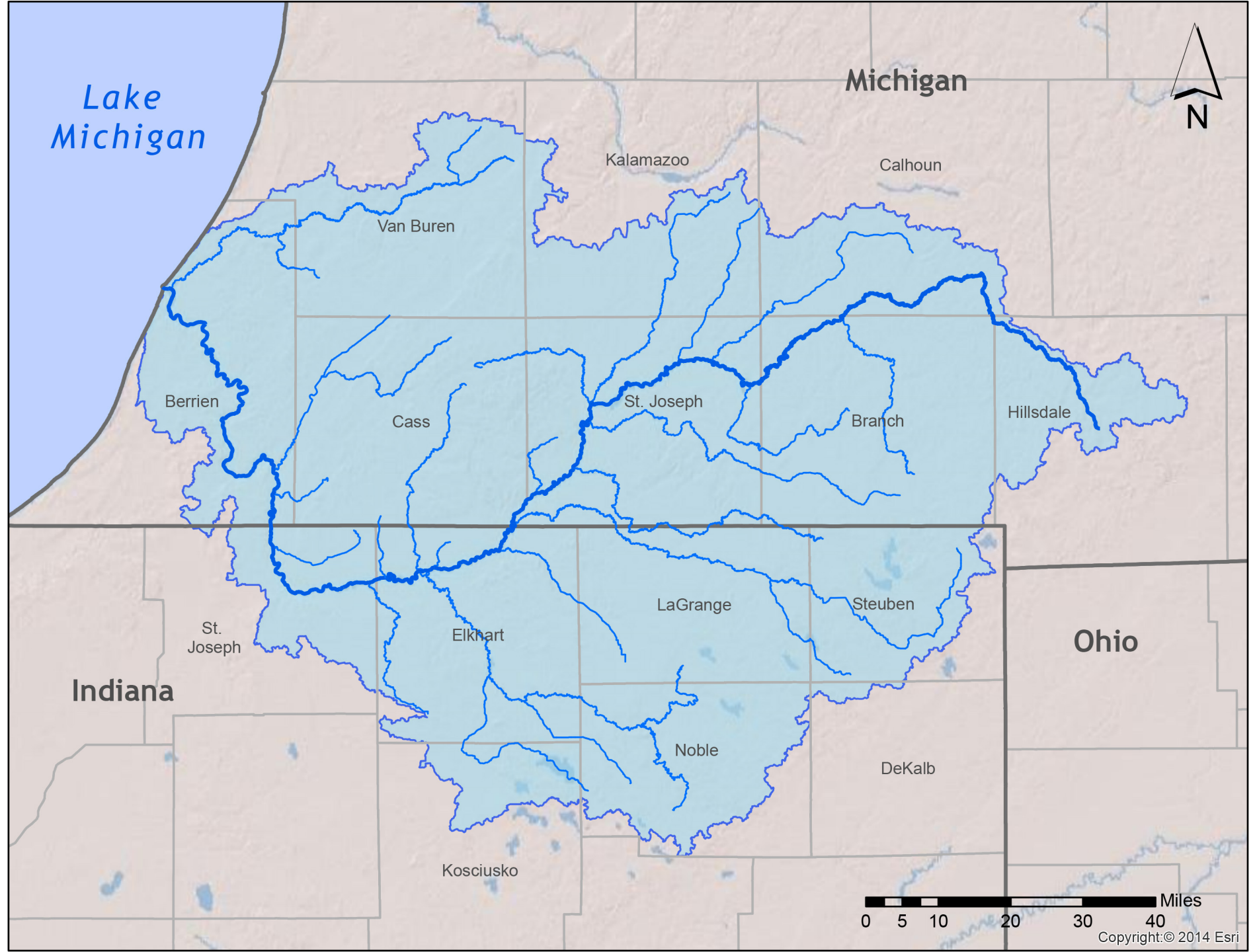


# Lake Country: Where the River Begins

St. Joseph River Basin: Lake Michigan Watershed

There are 20 branches to the St. Joseph River.

Today I will focus on the headwaters of 2 of these branches: The Fawn River and Pigeon Creek in Steuben County, IN



<http://www.sjrbc.com/>


- Potawatomi Inn
- Boundary between Fawn River and Pigeon Creek Watersheds




1842  
Steuben County  
Map

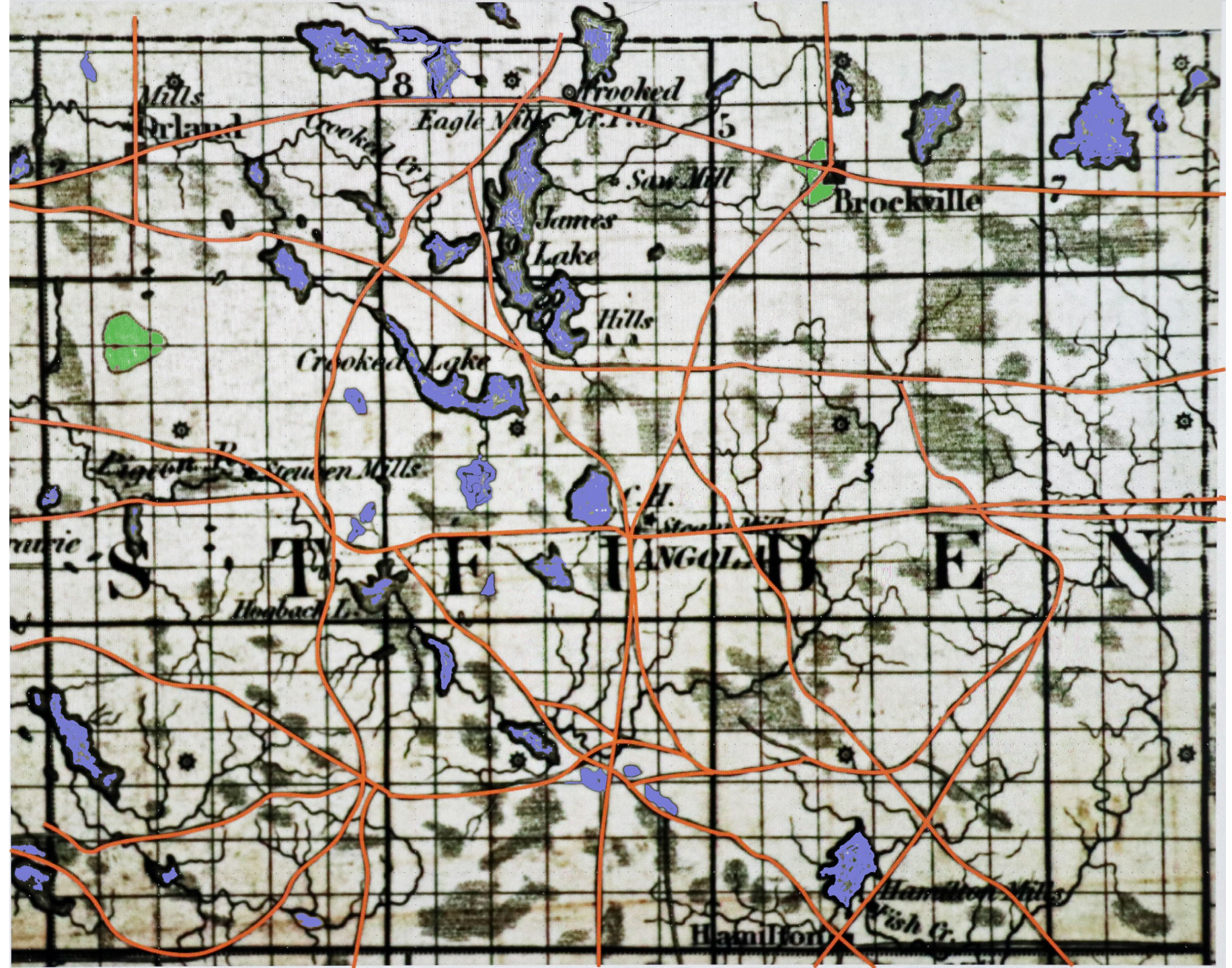
Lakes 

Prairie 

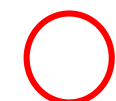
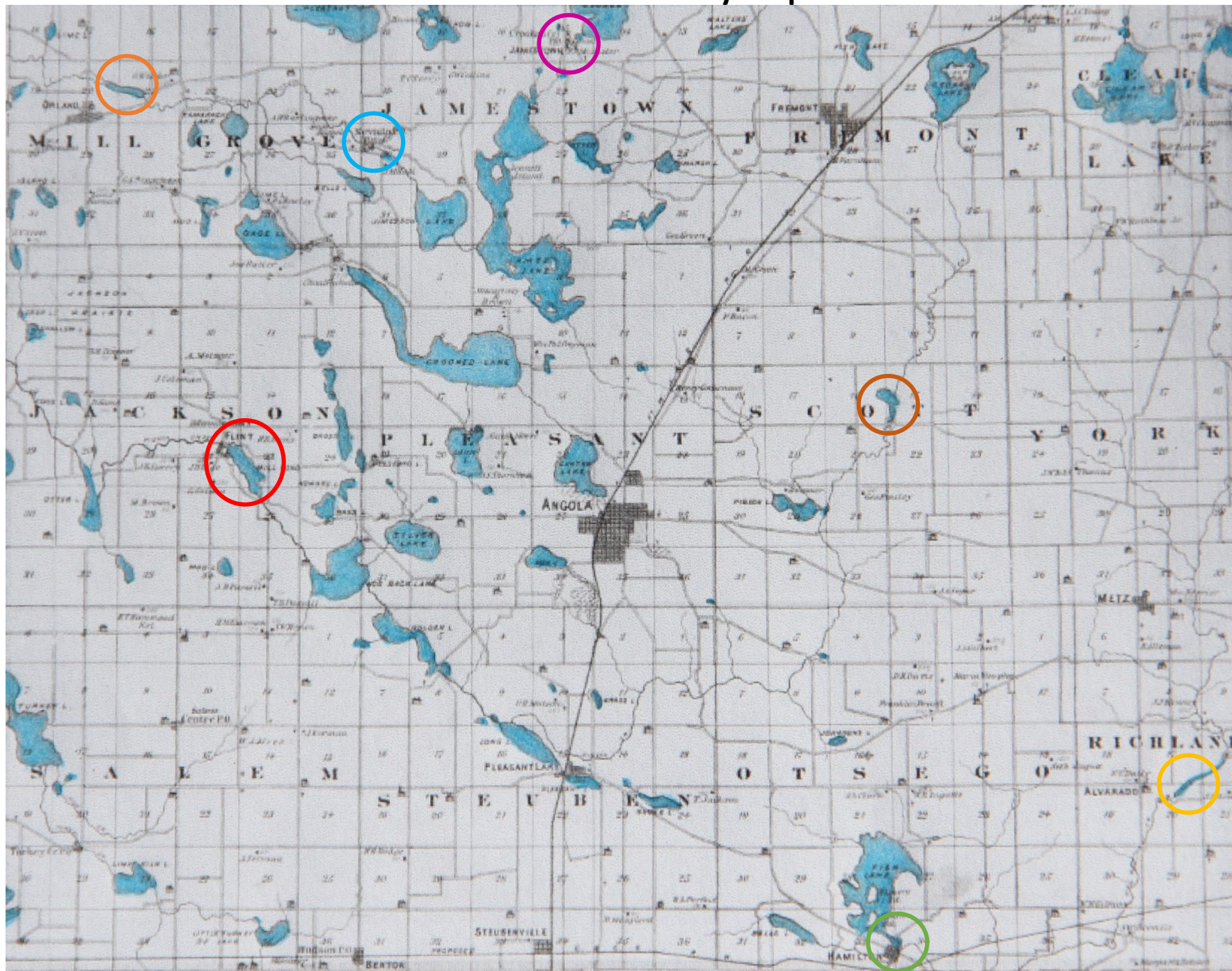
Wet Meadows 

Trails created  
by Native  
Americans and  
Early Explores 

Streams 



# 1876 Steuben County Map



Dams  
and  
Mill Ponds

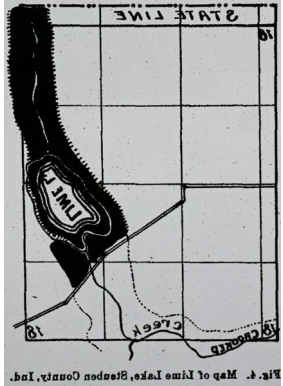
- Flint
- Jamestown
- Orland
- Nevada Mills
- Hamilton
- Alvarado
- Pigeon Creek

# Pleasant Lake 1880

Located on the Lake Shore Railroad



“A popular resort, having a fine, large, improved park in the village and on the lake with good hotel accommodations.”



Lime Lake

Hog Lake  
now Barton  
Lake

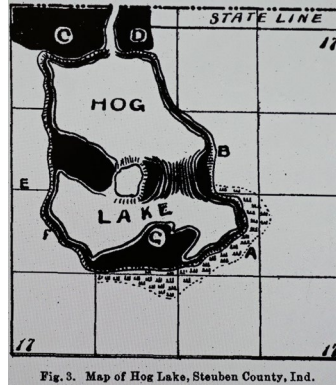


Fig. 3. Map of Hog Lake, Steuben County, Ind.

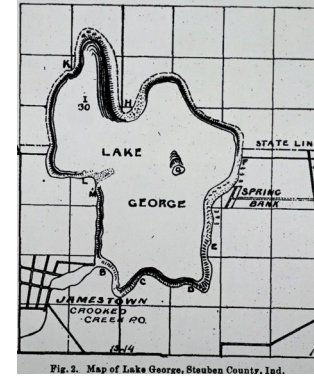


Fig. 2. Map of Lake George, Steuben County, Ind.

Lake George

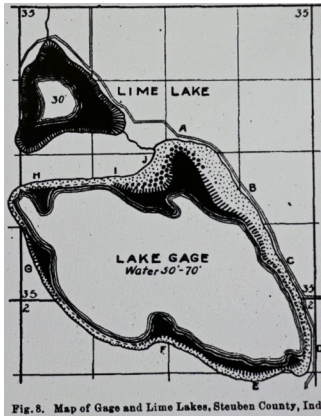


Fig. 8. Map of Gage and Lime Lakes, Steuben County, Ind.

Lime Lake

Lake Gage

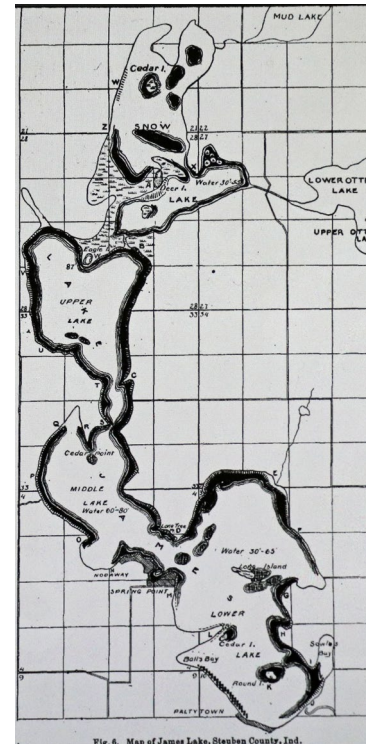


Fig. 6. Map of James Lake, Steuben County, Ind.

Snow Lake

Lake James

A commercial size deposit in 1898 was considered to be 10 feet deep and 160 acres in size.

## Fawn River Watershed Lakes sampled for marl in 1898

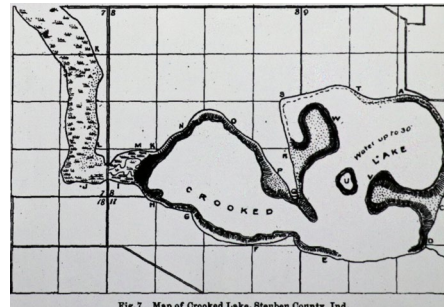


Fig. 7. Map of Crooked Lake, Steuben County, Ind.

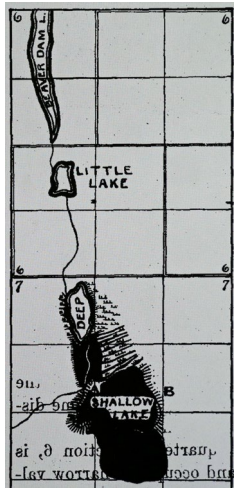
Crooked Lake

Beaver-Dam

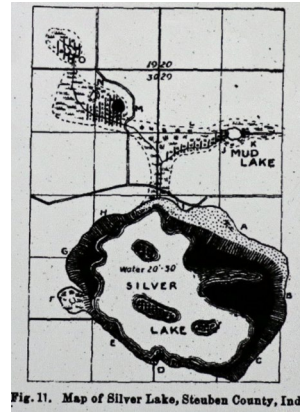
Little

Deep

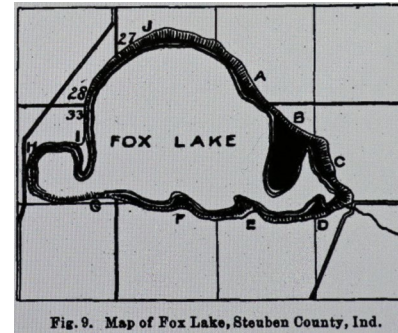
Shallow  
Lakes



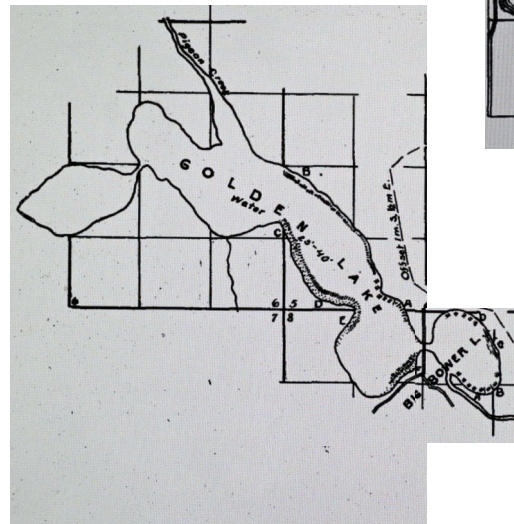
# Pigeon Creek Watershed Lakes surveyed for marl 1898.



Silver  
Lake

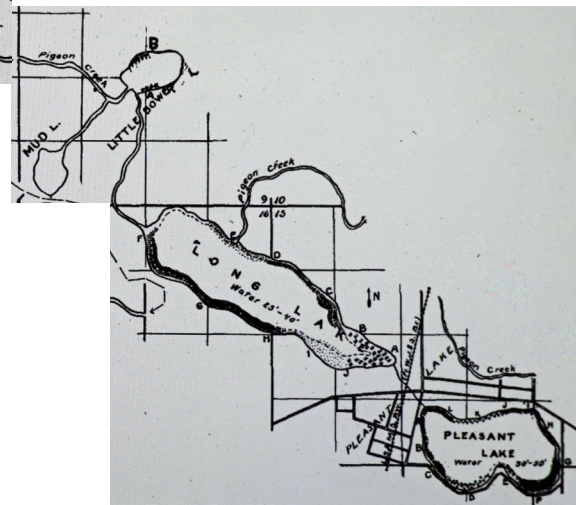


Fox Lake



Golden Lake

Bower Lakes

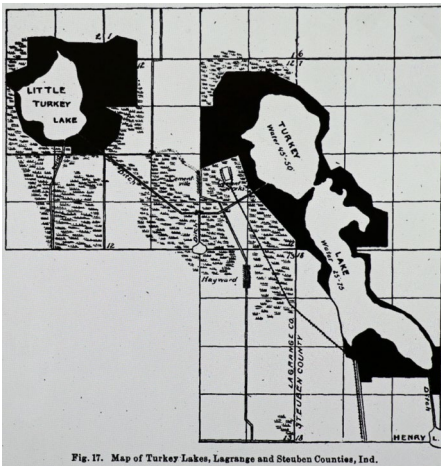


Long Lake

Pleasant Lake

Little Turkey Lake

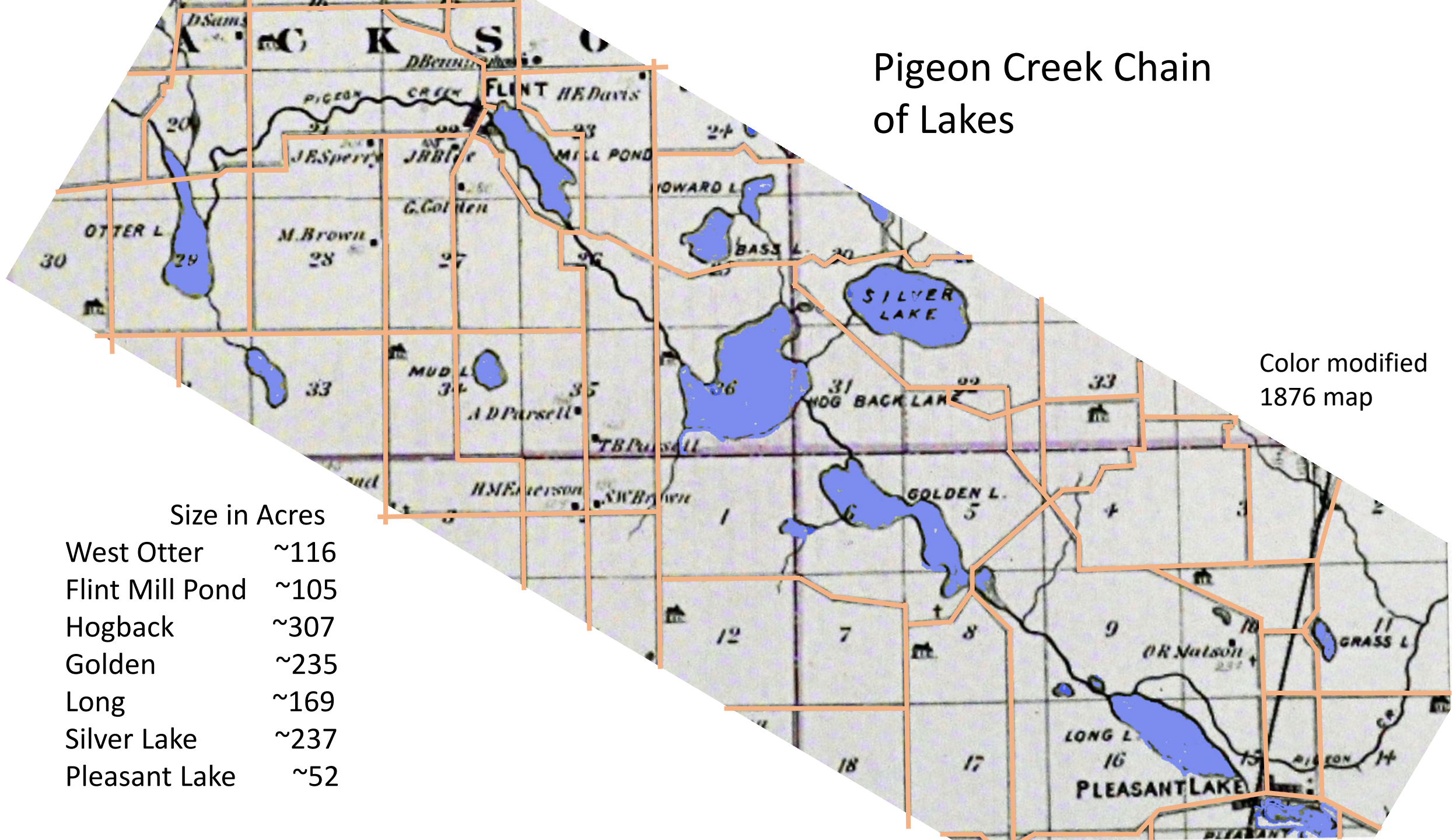
Big Turkey Lake



Big Turkey and Little Turkey were dredged for marl to make cement from 1900 to 1941.



# Pigeon Creek Chain of Lakes



Color modified  
1876 map

## Size in Acres

West Otter	~116
Flint Mill Pond	~105
Hogback	~307
Golden	~235
Long	~169
Silver Lake	~237
Pleasant Lake	~52



## The Pigeon Creek Dredge

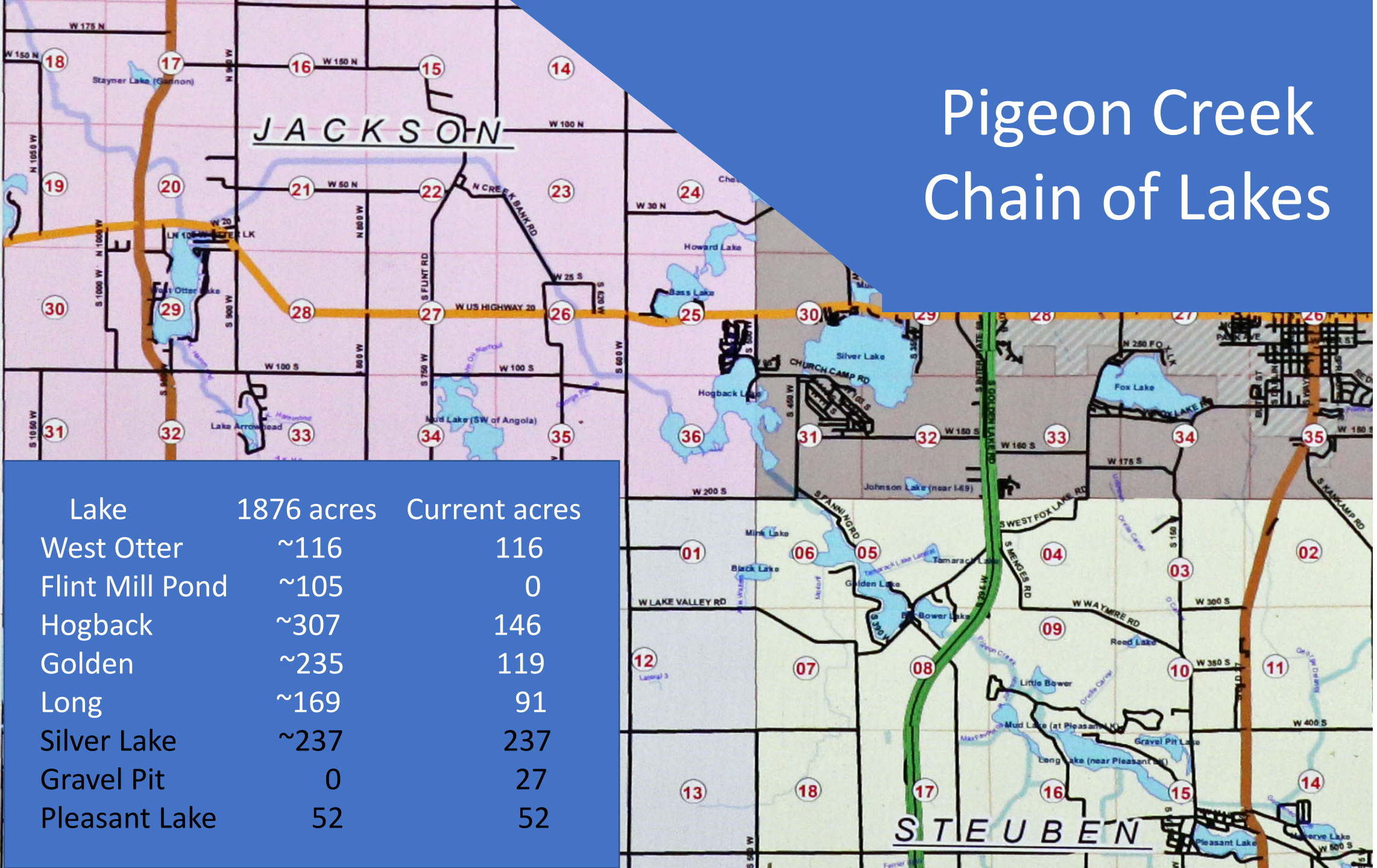
“The dredge boat is twenty feet wide and eighty-four feet long. Two 25-horse power engines will provide power for the outfit, which will include 25 light dynamo that will supply the necessary light.

The cook boat containing the cooking outfit, dining room and sleeping quarters ... will trail behind the dredge.

A coal boat will also be necessary to carry the fuel.”

Steuben Republican  
January 7, 1903

# Pigeon Creek Chain of Lakes



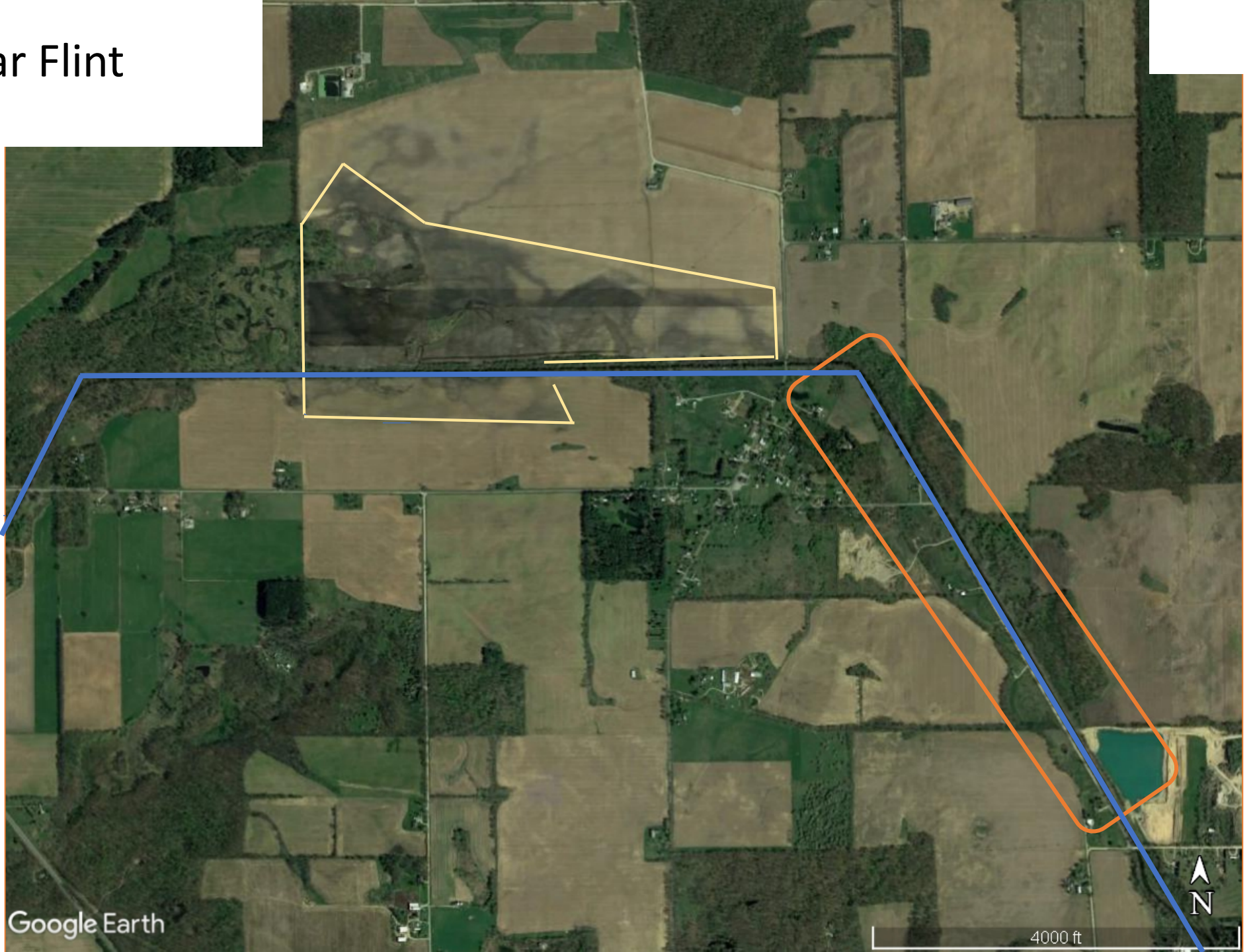
Lake	1876 acres	Current acres
West Otter	~116	116
Flint Mill Pond	~105	0
Hogback	~307	146
Golden	~235	119
Long	~169	91
Silver Lake	~237	237
Gravel Pit	0	27
Pleasant Lake	52	52

# Pigeon Creek near Flint

— Pigeon Creek  
or the George  
Shrimplin  
Regulated  
Drain

▭ Area of former  
Mill Pond

▭ Farmed hydric  
soils of original  
Pigeon Creek



4/23/2017

Google Earth

4000 ft

Farm area  
along  
Pigeon  
Creek  
1938

Pigeon Creek



Farm area  
along  
Pigeon  
Creek  
2017

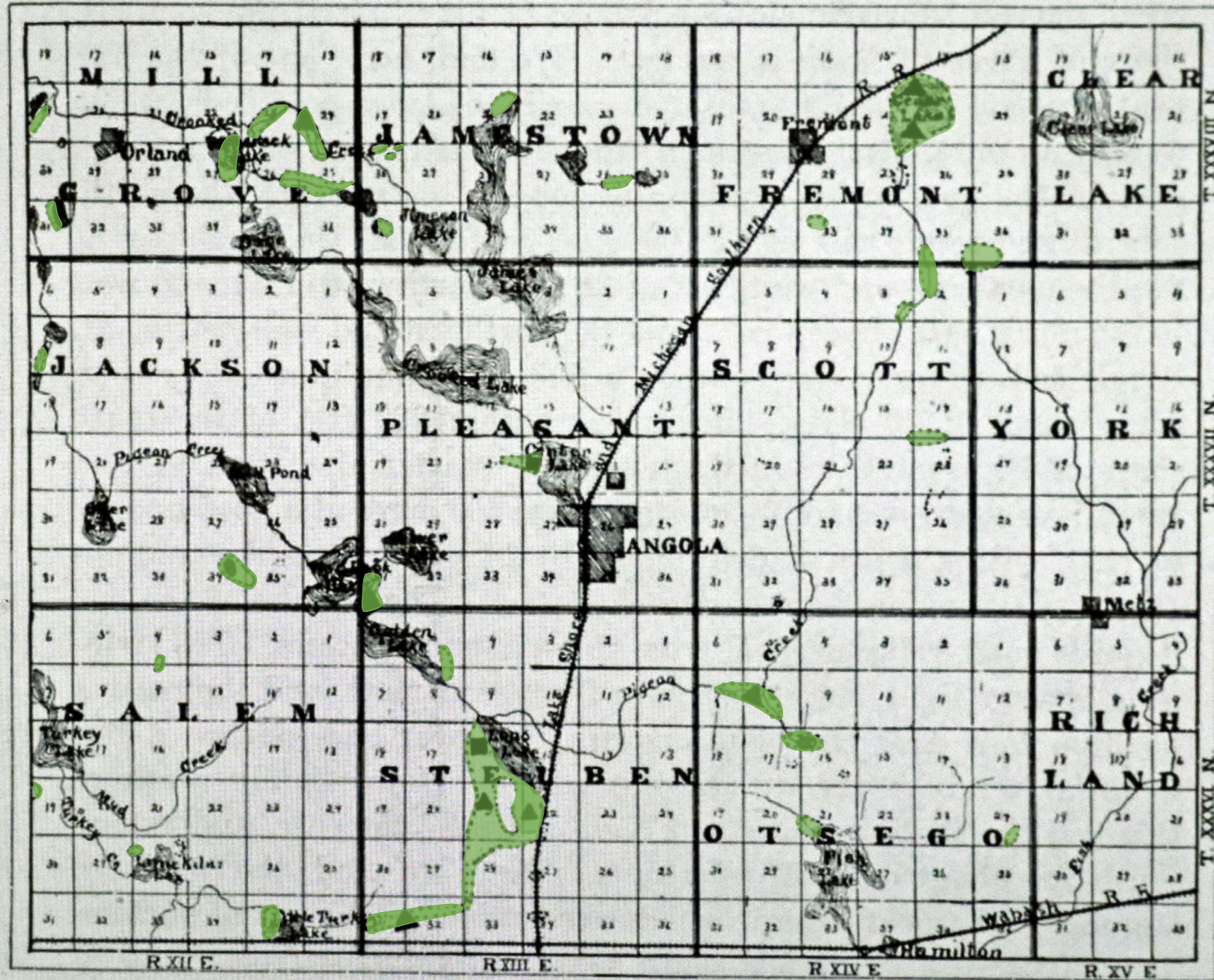


# STEUBEN COUNTY.

On the Peat  
Deposits of  
Northern  
Indiana 1907  
Taylor, A.E.

This survey  
was done to  
locate peat as a  
fuel source to  
replace wood.

The forests  
had been nearly  
all cut down.



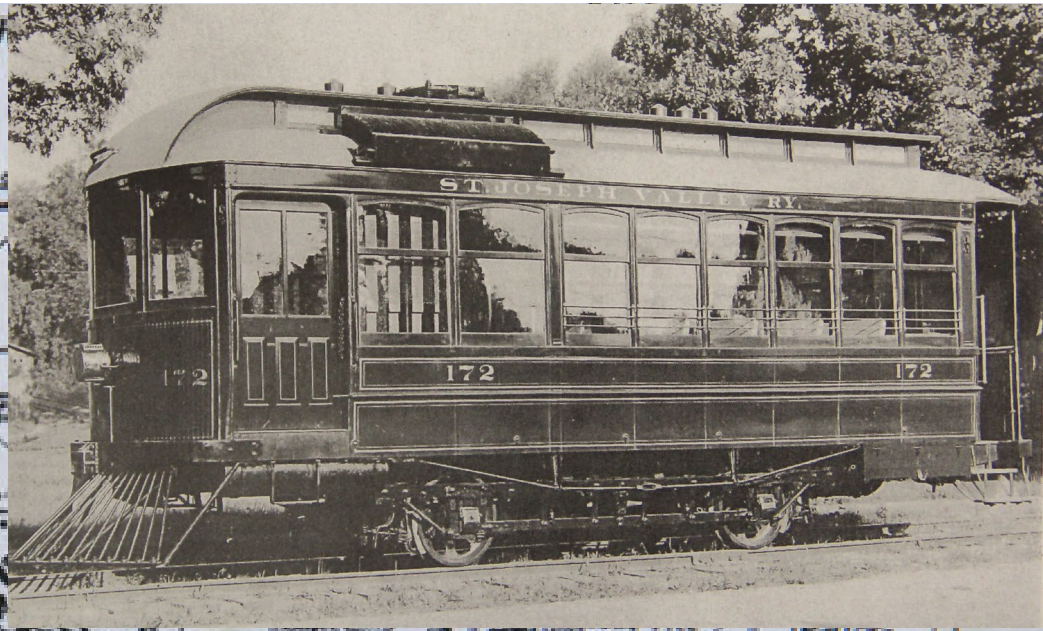
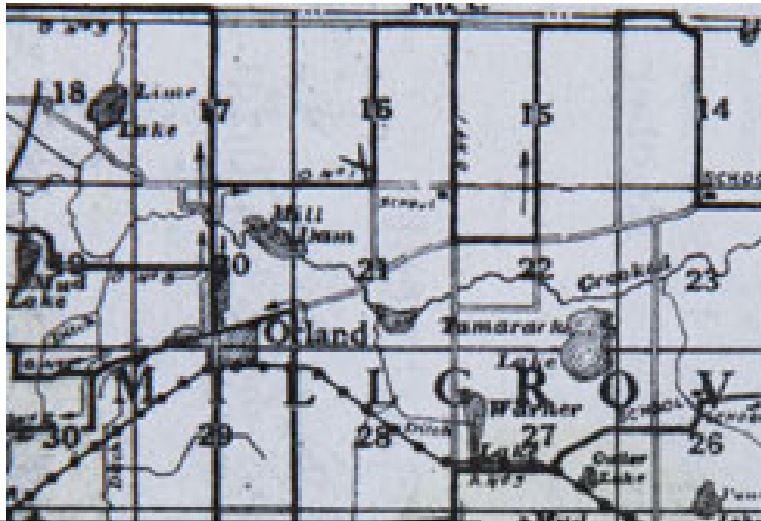
## LEGEND

- Workable deposit of peat of a moss variety
- ▲ Workable deposit of peat of a grass and sedge variety.
- ..... Lines enclosing areas in which peat deposits are found.

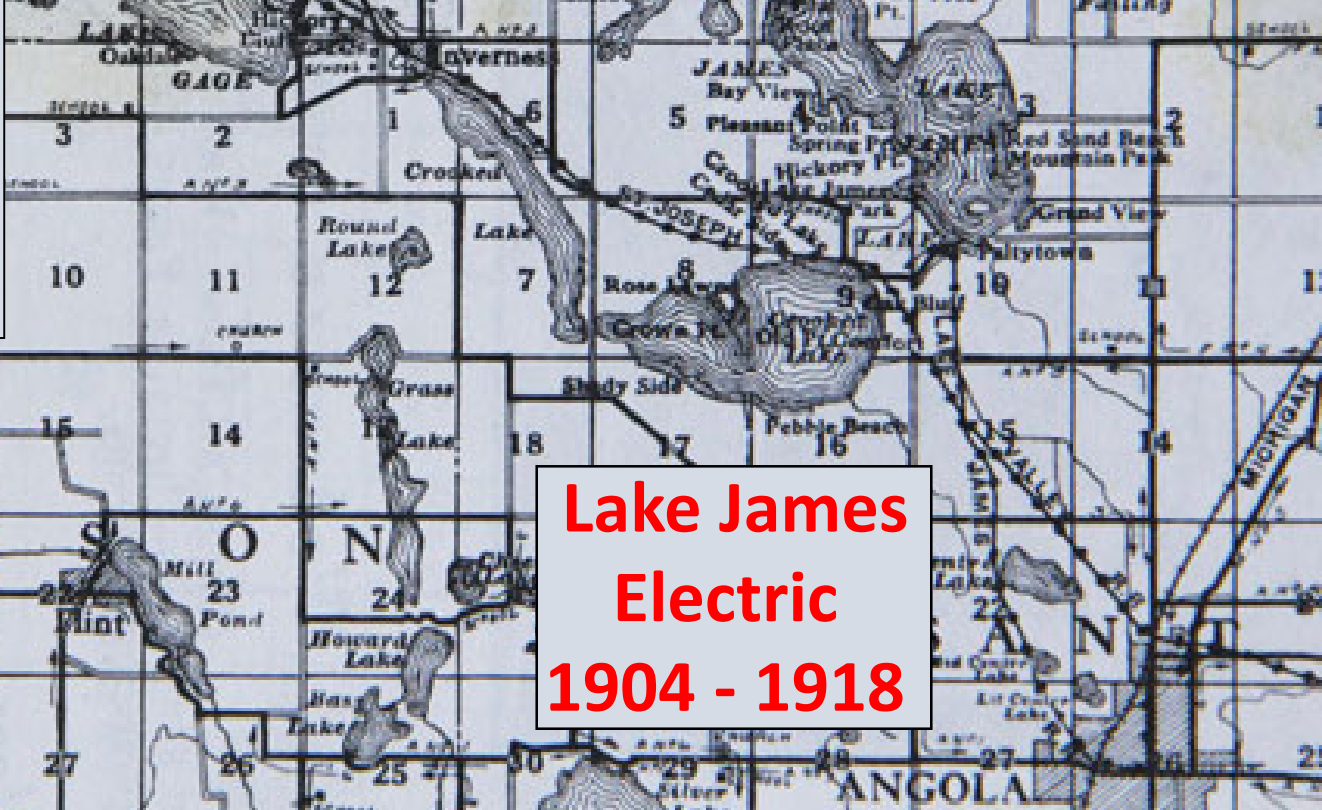
“It is an outrage that many of our fine lakes are being ruined by the insatiable desire to obtain more acres to be farmed.... So prevalent has become the practice of draining the lakes that it is a true relief to find one that has not been subjected to ditching and stands today as it stood ages and ages ago.”

*Indiana Fisheries Report of 1913-1914*





**St. Joseph Valley  
Railroad  
1905 - 1918**

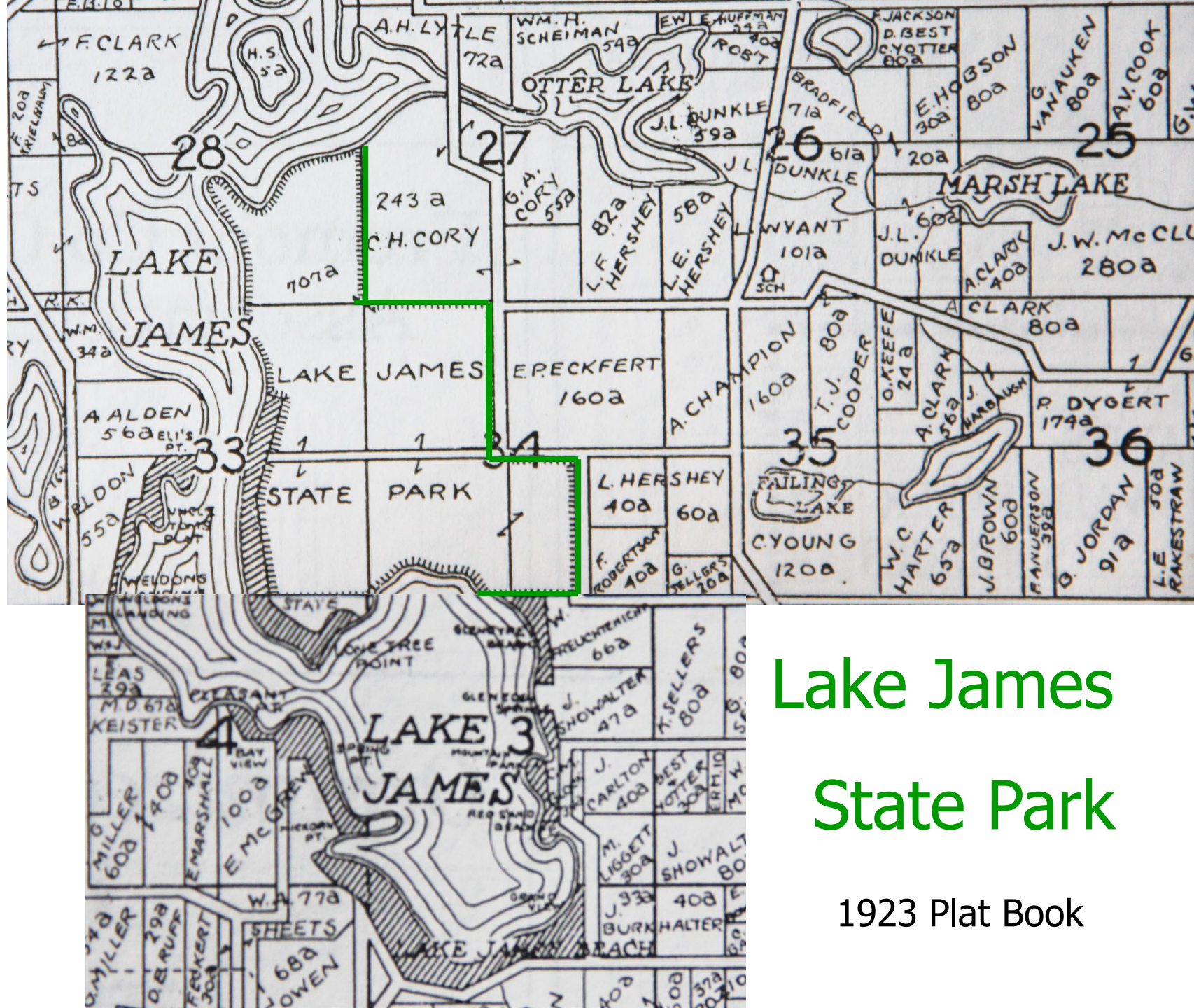


**Lake James  
Electric  
1904 - 1918**

**Lake Shore  
Michigan  
Southern  
Railroad**

In the 1920s  
Indiana started to  
establish State  
Parks.

The citizens of  
Steuben County  
donated 535 acres  
to state for a park.



## Lake James State Park

1923 Plat Book

POKAGON  
STATE  
PARK

1938



Marsh  
Lake

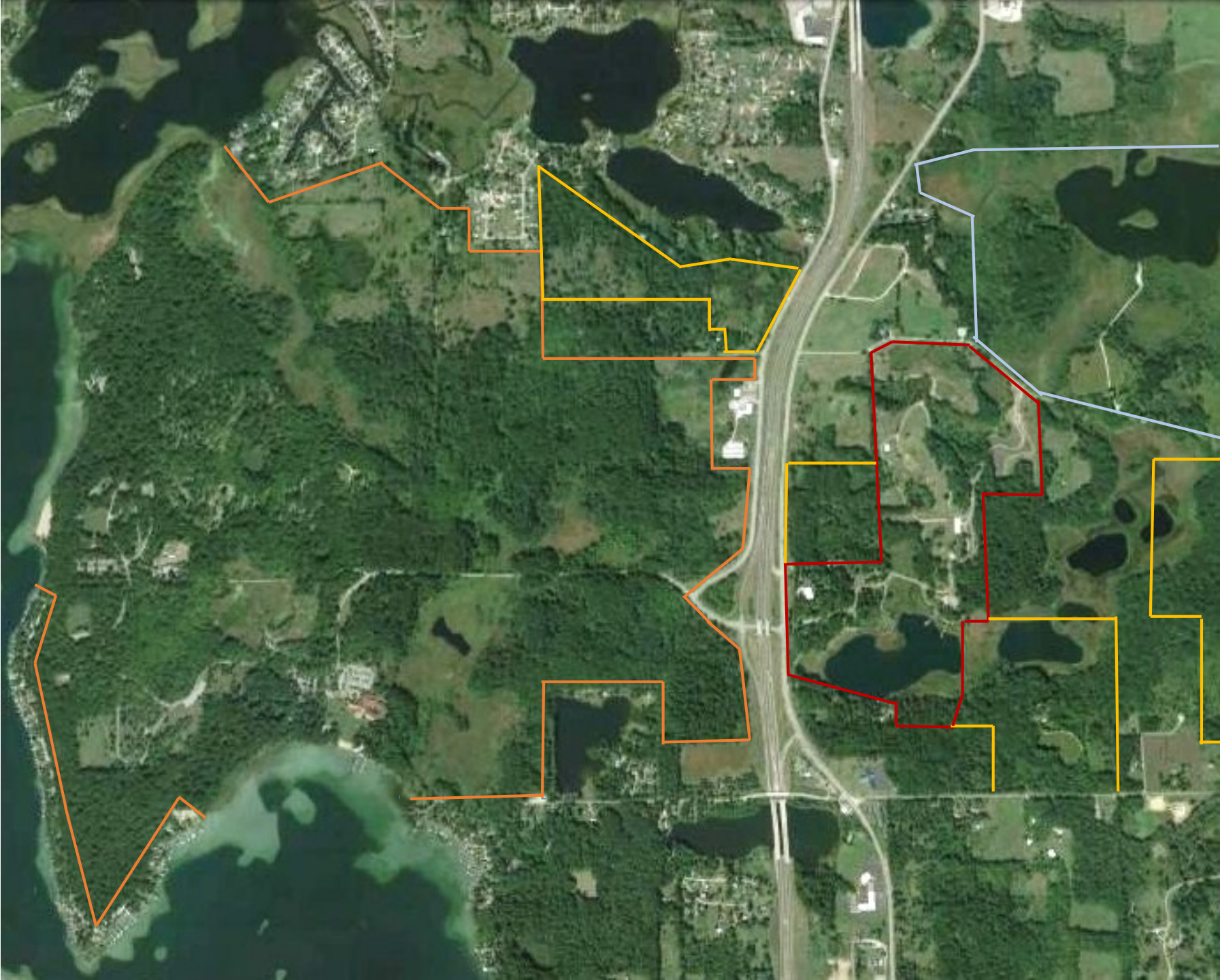
Seven  
Sisters  
Lakes

Civlian  
Conservation  
Corp barracks

The CCC did  
most of the early  
construction  
from 1934 to  
1942.

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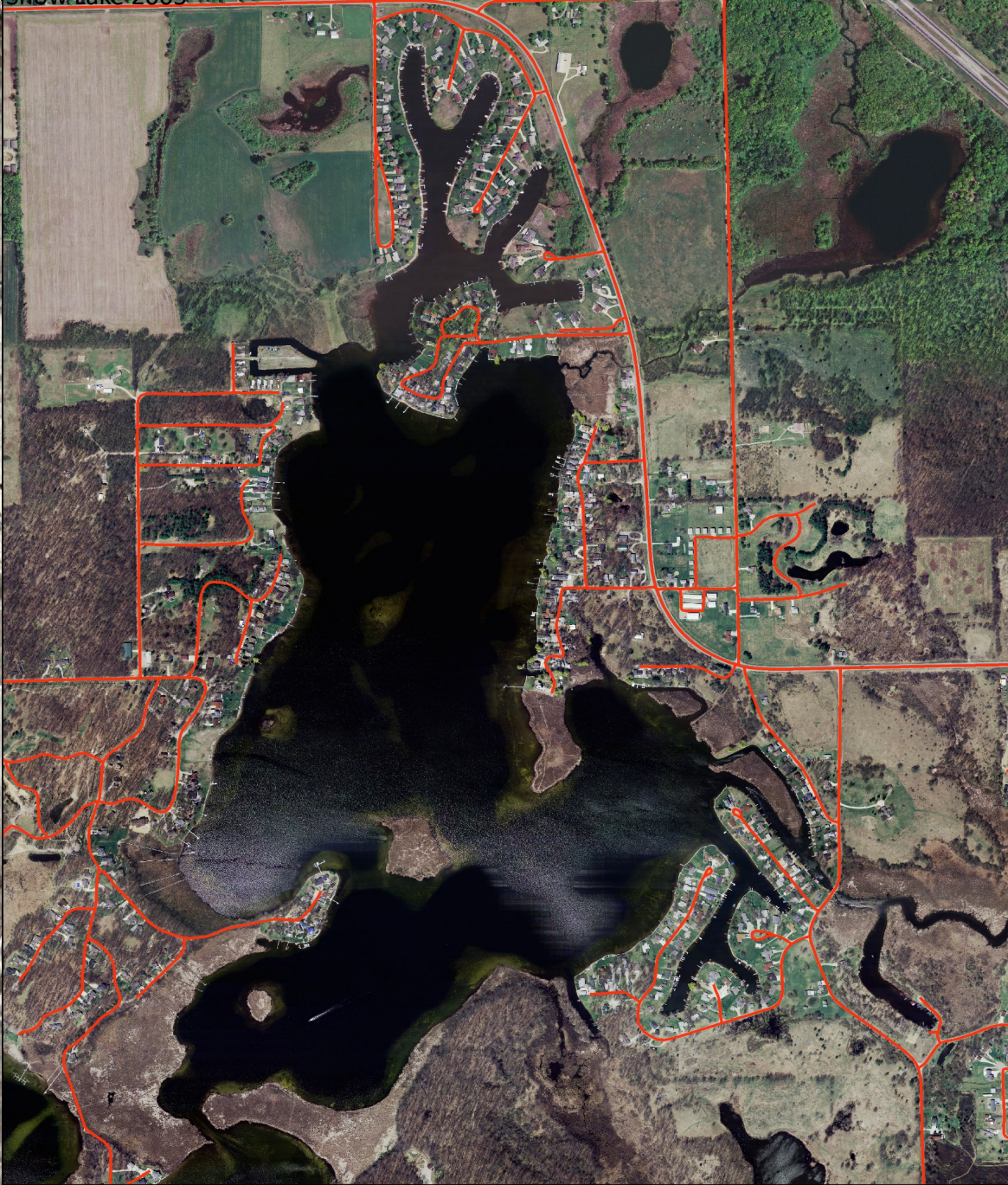
# Lake Preservation Act of 1947

- It gave the State “full power and control of all of the public freshwater lakes in Indiana” and provided the State “holds and controls all public freshwater lakes in trust for the use of all of the citizens of Indiana for recreational purposes.”  
I.C. § 14-26-2-5(d).
- Provided for the establishment of legal lake levels.  
I.C. § 14-26-4-9.

Snow Lake 1938



Snow Lake-2005



# Feick's Point Area 1938



Feick's Point 1<sup>st</sup> & 2<sup>nd</sup> Additions, Blue Heron Wetlands, Former Restaurant Property, Water's Edge Place 1<sup>st</sup> & 2<sup>nd</sup> Additions, Whisper Bay Condos, Rolling Hills, Sunny Shores, and Potawatomi Acres



1972

The Clean Water Act,

The Clean Air Act,

and the

Steuben County Lakes Council



*The Steuben Lakes Regional Waste District* (SLRWD) was established in 1975 as Cluster Systems for critical areas around the lakes. In 2005 it expanded to a central treatment system at cost of \$46.1 million. Other lakes joined in 2006 and 2010. Currently the district is in the process of a 12.5 million dollar expansion and upgrade.

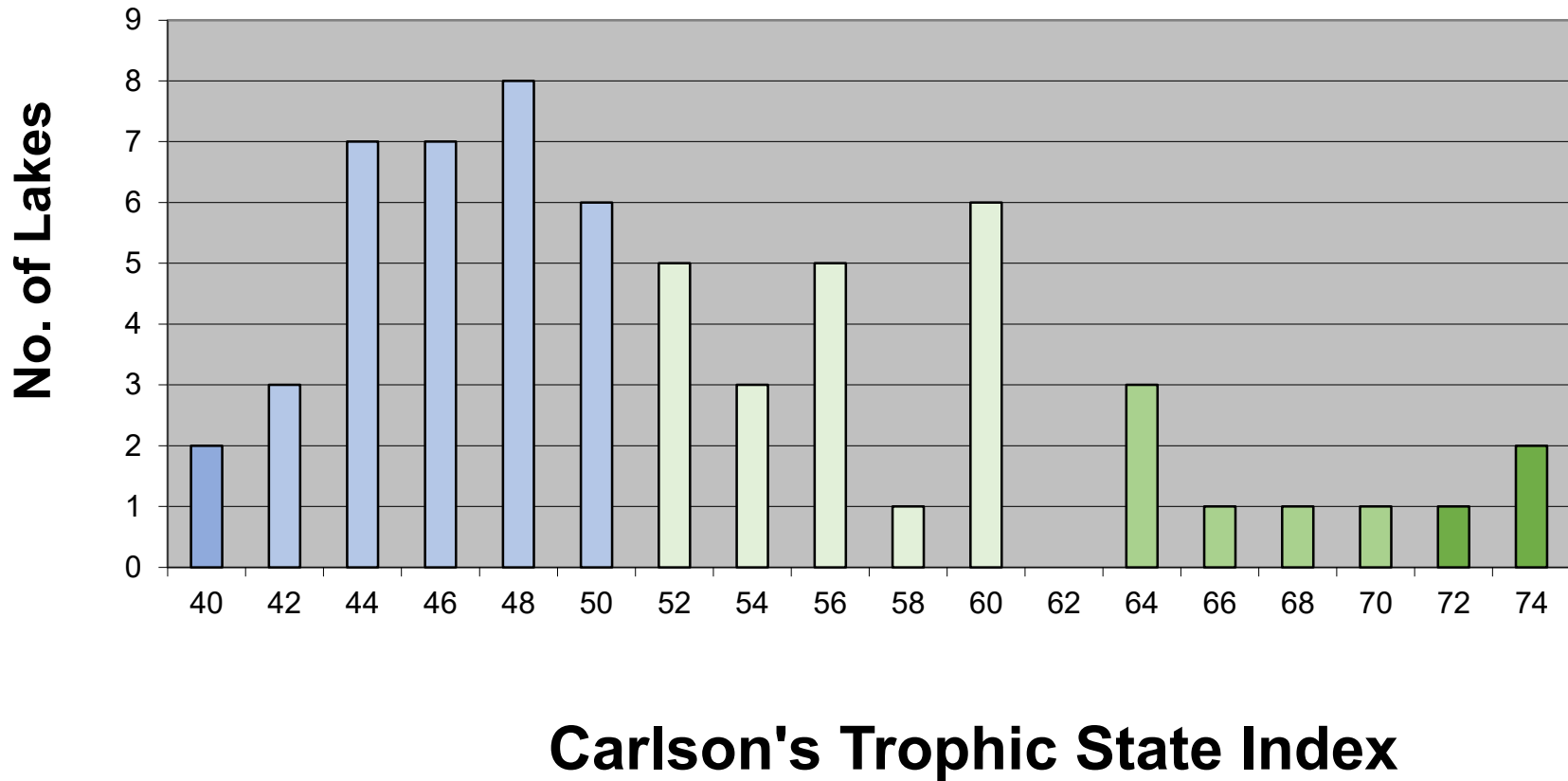
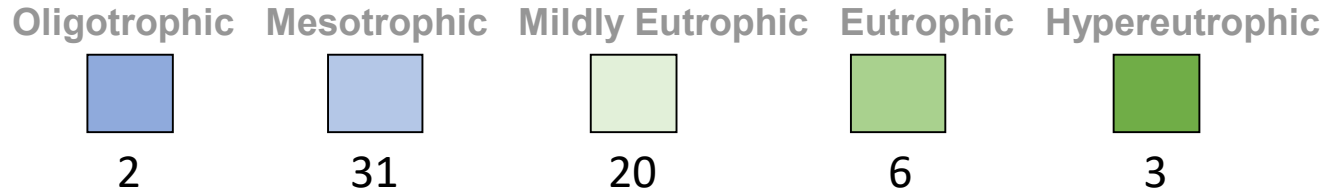
Most all customers are in the Fawn River Watershed but the STP effluent discharges into Pigeon Creek.

“For more than 40 years, we have been dedicated to water quality management in our region. The SLRWD serves approximately 5,000 residential and business customers and is dedicated to protecting the Pigeon River & Fawn River watershed - and our way of life - for generations to come.”

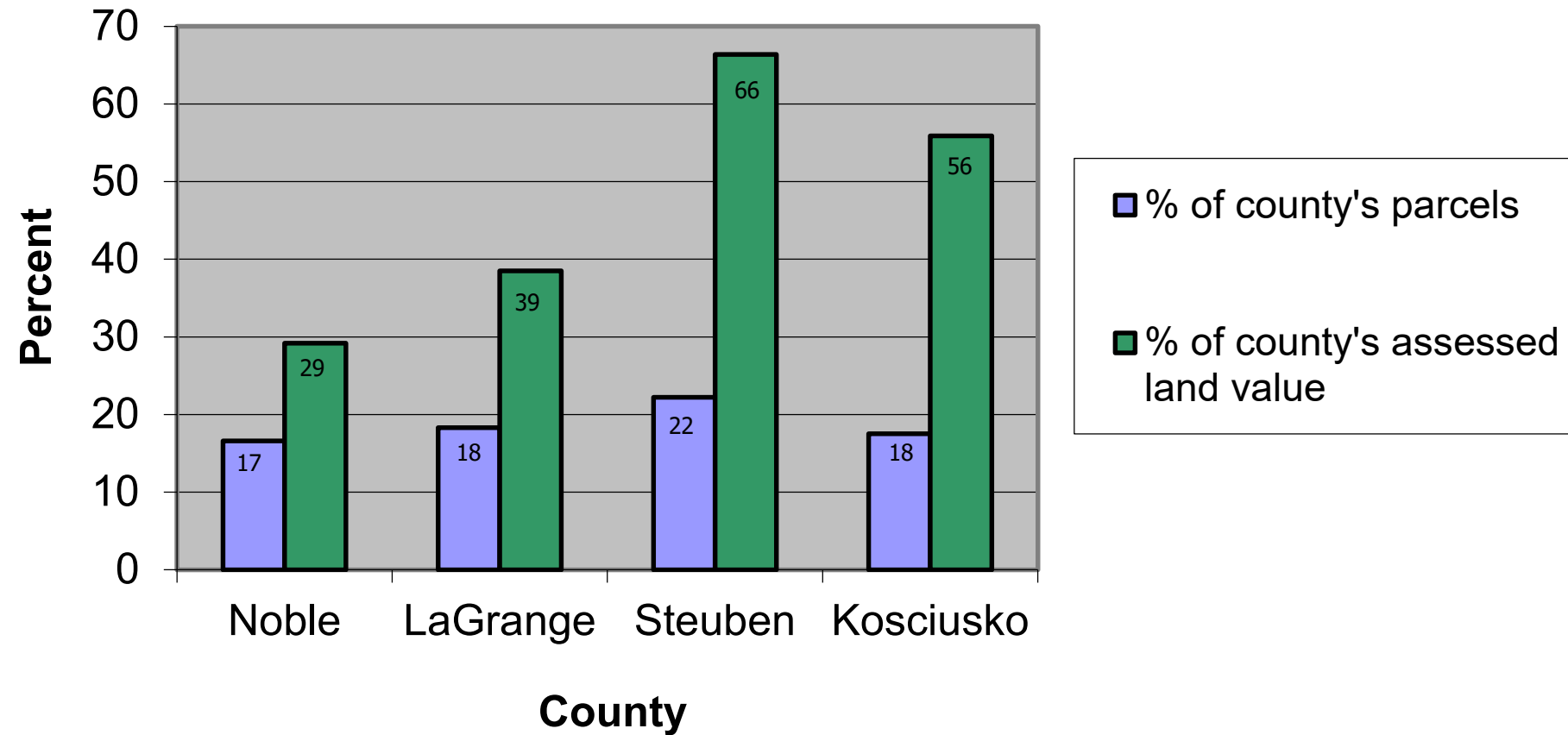
<https://slrwd.org/>

Indiana  
Clean  
Lakes  
Program  
Data  
1989 thru  
2015

### Trophic Conditions of the Steuben County Lakes



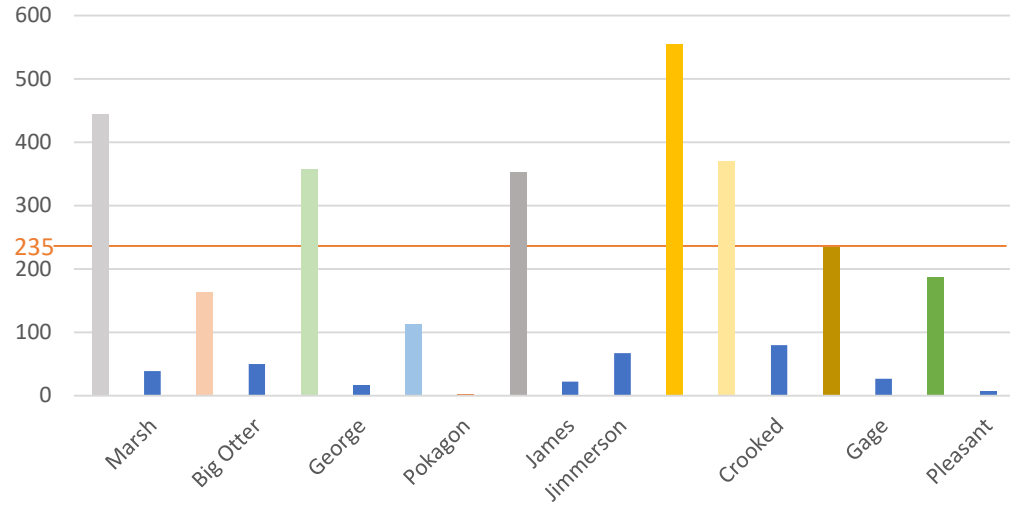
## Lake Riparian Parcels Impact on the Tax Base



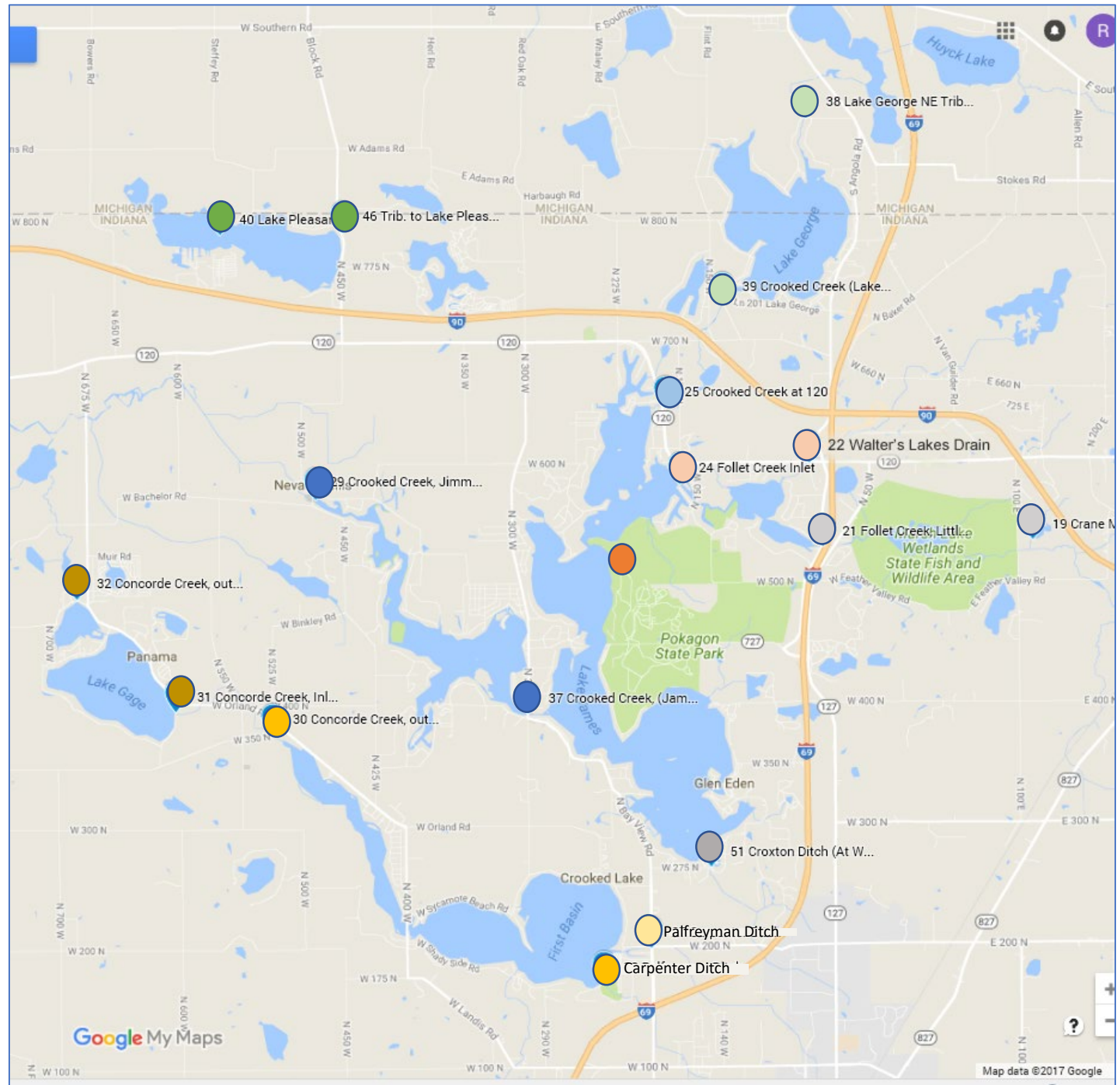
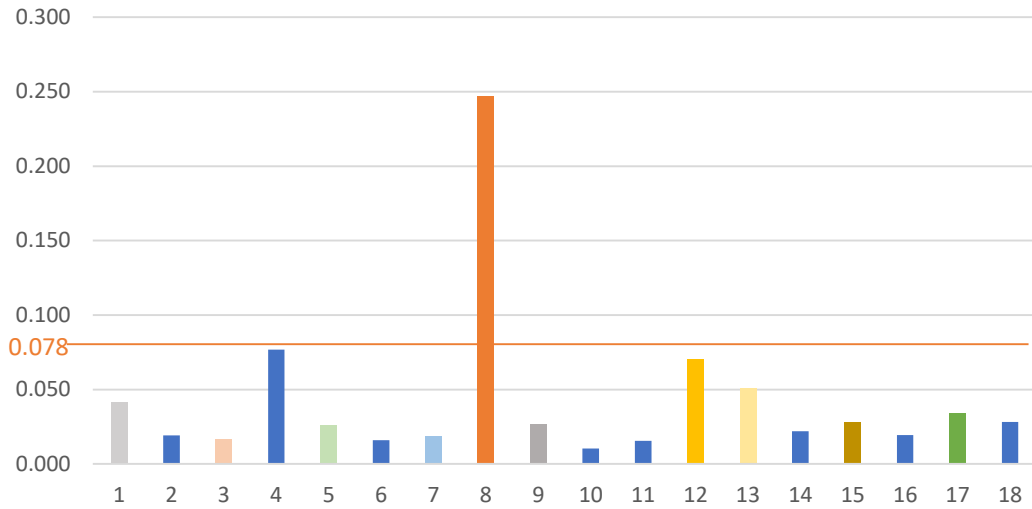
For the past 11 years the Lakes Council has funded 46 sample sites within the two watersheds. This data was used as important information in the development of the Pigeon Creek Watershed Management Plan of 2014 and the Fawn River Watershed Management Plan of 2015.



## Fawn River E. coli CFU/100 ml

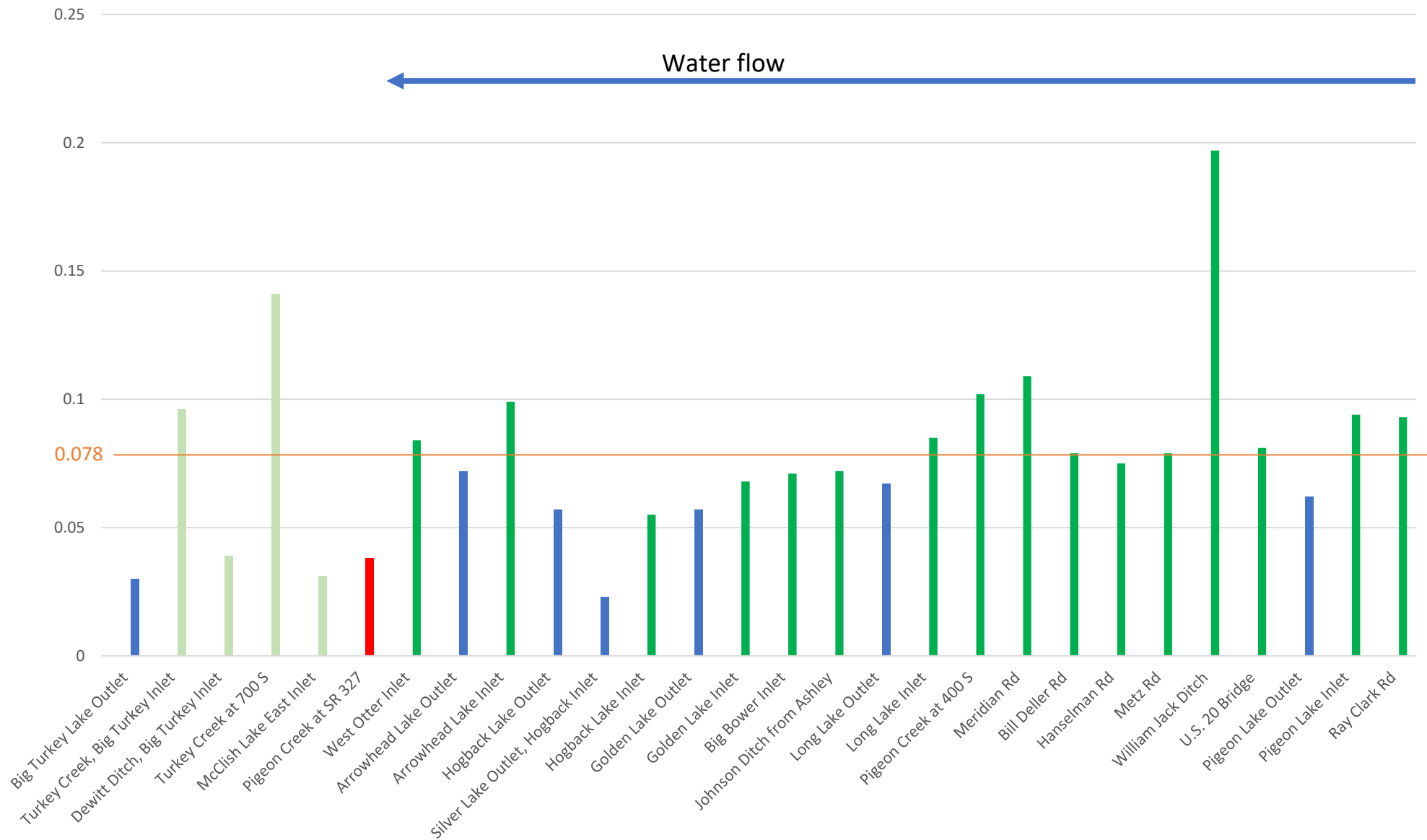


## Fawn River Phosphorus 2017-18

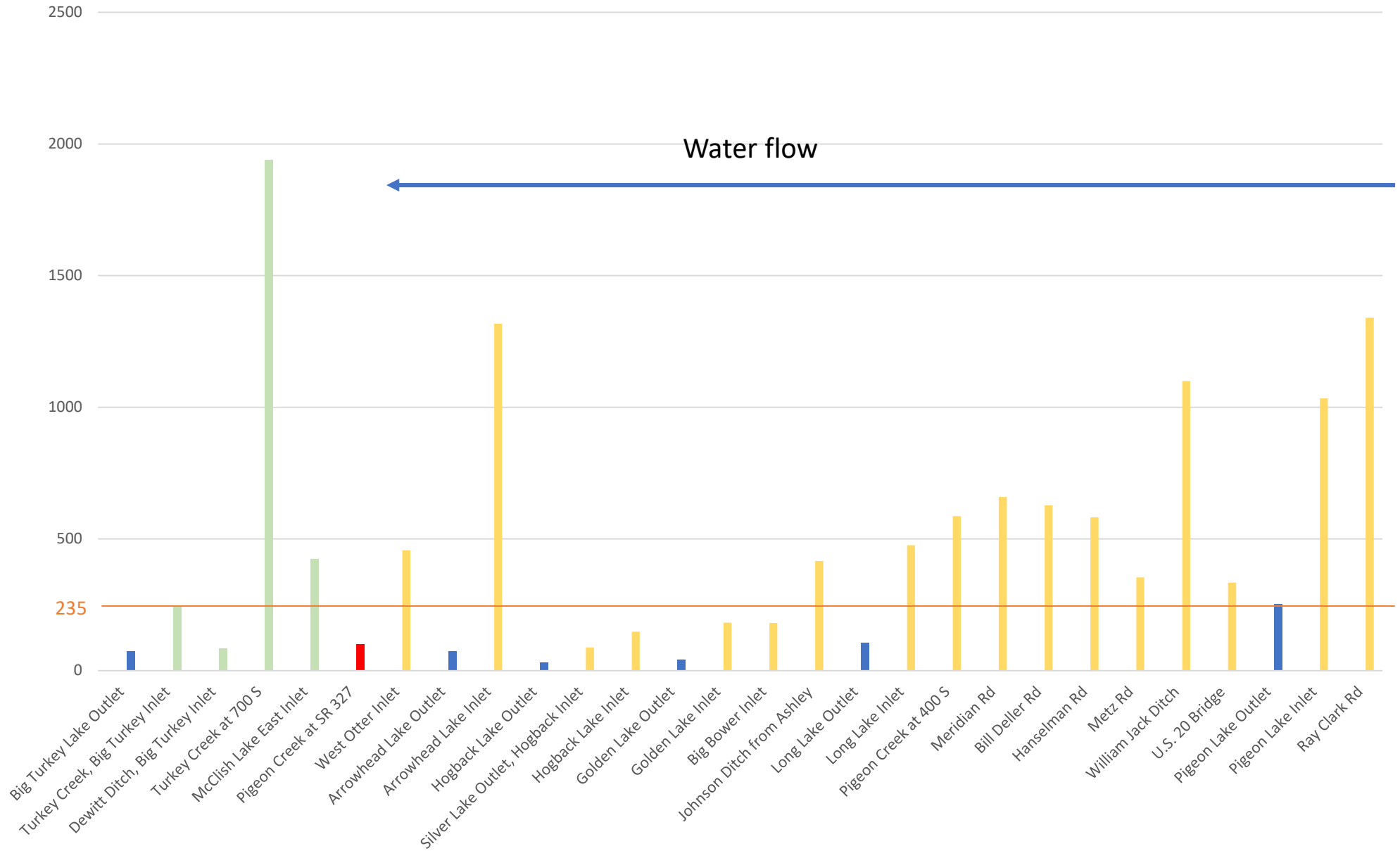


# Pigeon Creek Phosphorus mg/L

## 2017-18 averages



# Pigeon Creek E. coli CFU/100 ml 2017-18 averages



## Water use continues to change

In 2012 the Pigeon Creek and Fawn River watersheds had 46 agricultural irrigation wells.

2012 was considered the worst drought in 30 years.

46 new irrigation wells were added the next year.

Since 2013 another 30 wells have been drilled.





Lawsuits filed in several states have obtained injunctions against EPA's proposal under the revised definition of "Waters of the United States" (84 FR 4154; Docket ID No. EPA-HQ-OW-2018-0149)



April 16 (Reuters) - Fourteen states, including New York and California, and the District of Columbia said the Environmental Protection Agency's proposal to replace an Obama-era water regulation would end federal protection for half of wetlands and 15 percent of streams across the country.

A group of 17 states, led by West Virginia, sent a separate letter to the EPA and the Army Corps of Engineers supporting the EPA's plan to update the Waters of the United States rule, saying it would provide relief to landowners and farmers.

# Garbage clogs Bosnia rivers amid neglect

VISEGRAD, Bosnia-Herzegovina (AP) — Plastic bottles, rusty barrels and even old washing machines are among tons of garbage clogging rivers in Bosnia that were once famous for their emerald color and crystal clear waters adored by rafters and adventurers as well as fishermen.

Journal Gazette May 2, 2019

## Change is going to continue!

“The 11-county Northeast Indiana regional region’s population is now 784,805; if the population continued to increase by last year’s rate, it would reach 840,000 11 years from now – still short of the partnership’s target of one million.

Development advocates say that should just make us work harder to distinguish our region from others by emphasizing job opportunities, affordable living and quality-of-life opportunities.”

*Journal Gazette 4/23/2019*

The St. Joseph River Basin’s water resources will continue to play an integral part in its quality-of-life opportunities.