



Four Lakes Task Force

The Four Lakes of Gladwin and Midland County

# Fact Sheet

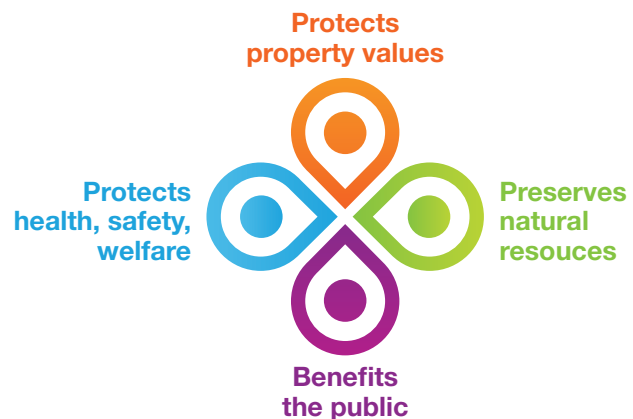


## Four Lakes Task Force (FLTF)

Four Lakes Task Force (FLTF) is a 501(c)(3) nonprofit organization led by volunteer lake residents. It serves as a “Delegated Authority” for Midland and Gladwin counties to restore and oversee the maintenance and operations of Secord, Smallwood, Wixom and Sanford lakes and their dams, so the lake communities can enjoy the water long into the future.

Looking for the long-term stability of the Four Lakes, in 2018 representatives from lake associations began the process of transitioning the four hydroelectric dams from private ownership to public ownership. In 2019 the counties of Midland and Gladwin requested this citizen task force to explore the process of acquiring, financing and managing the dams and lake water levels per Part 307 “Inland Lakes Levels” of the Michigan Natural Resources and Environmental Protection Act.

**FLTF MISSION:** Lessen the burden of local government in managing the lake levels of the dams and ensure the sustainable future of all four lakes for the benefit of property owners around the lakes, the environment, local economy, recreational lake use and the general welfare of Midland and Gladwin counties.



## Background Information

### Four Lakes Communities

Currently 8,475 parcels, 6,525 waterfront parcels, estimated economic value of \$800 million

2 counties, 9 townships, 1 village

4,500 acres, nearly 40 miles of lakes, over 220 miles of shoreline

Significant economic engine for the region

### Part 307 Authority

The lake levels are established under Part 307 of the Natural Resources and Environmental Protection Act (NREPA) 451 of 1994. The purpose of Part 307 is to provide for the control and maintenance of inland lake levels for the benefit and welfare of the public.

- A delegated authority is assigned by the counties to provide for and maintain the lakes
- Part 307 allows counties to make policy decisions as to the levels of their inland lakes, and to finance, build and maintain dams as necessary
- Costs in connection with the maintenance of the normal levels of the Four Lakes shall be defrayed by special assessments on both public and privately owned property in the Four Lakes Special Assessment District for the benefits derived from the lakes

### Estimated Design Capacity of Dams Stated in Flood Frequency (CFS)

	Secord	Smallwood	Edenville	Sanford
Pre May 2020 - Capacity	7,695	10,185	20,670	29,690
<b>May 2021 Design Estimate</b>	<b>21,150</b>	<b>24,550</b>	<b>52,275</b>	<b>47,470</b>
Current State Requirement	12,700	15,600	44,600	44,900
Dam Design Estimate in Flood Frequency	>10,000 Years	>10,000 Years	>5,000 Years	>5,000 Years

Estimates from August 3, 2021 "Critical Issue #4 Flood Studies and Design Capacity"

### Governmental Agencies Engaged with FLTF Restoration



### Four Lakes Special Assessment District

The Four Lakes Special Assessment District (SAD) offers a method of financing the acquisition, operation, maintenance, repairs and improvements to the dams. It is an established boundary of waterfront properties along or near the four lakes, and backlot properties with dedicated (private easement) access. The properties within the SAD share in the financial responsibility by paying an annual assessment.

Properties share the cost based on benefit factors such as front lot, backlot, amount of frontage, lake view, water depth, land use, etc. The SAD can be funded by local, state and federal government dollars and private donations.

### Operations Assessment

- Starts in 2022
- Pays for general operations, maintenance, and administration of regulatory and legal requirements

### Capital Improvement Assessment

- Starts near the year when the respective lake returns
- Pays for construction of dam repairs and associated costs such as engineering, legal, financing, permitting and cost associated with implementing the capital improvement project

FLTF is exhausting every possible source of funding by seeking private, state and federal donations and grants to make sure the restoration path forward is affordable.



## May 19, 2020

On May 19, 2020, after days of steady rain, the Edenville Dam in Gladwin County, Michigan, failed. The resulting surge overwhelmed the Sanford Dam in Midland County, causing it to fail. The upstream Secord and Smallwood dams were also damaged by the flood and the Federal Energy Regulatory Commission (FERC) ordered the private dam owner, Boyce Hydro Power (Boyce), to open the spillway gates and lower the lakes as much as possible. Ten thousand people were evacuated, the area was declared a national disaster by the President of the United States and the community was left with extensive economic, environmental and property damage.

The only path forward to protect the safety, welfare and environment of the lake communities was for Gladwin and Midland counties to take the properties through their eminent domain authority under Part 307. FLTF, as the counties' delegated authority, performed emergency repairs and continues to manage the recovery and restoration of the Four Lakes system and make plans to restore the lakes to their Part 307 legal levels as defined.

**FLTF is committed to restoring Secord and Smallwood legal lake levels by summer 2024, Sanford by summer 2025 and Wixom by summer 2026.**

### Critical Success Factors for Restoration

FUNDING	ASSESSMENT	ENVIRONMENT	HYDRAULIC STUDIES
<p><b>CHALLENGE:</b> Making the cost of restoration affordable for property owners.</p> <p>FLTF needs to acquire at least \$10 million from outside the SAD by early 2022. In the next three years, approximately \$250 million will be needed to restore the lakes.</p>	<p><b>CHALLENGE:</b> Developing a fair and consistent assessment methodology.</p> <p>A fair and consistent methodology for the assessment of property owners of the Four Lakes Special Assessment District needs to be put in place to assure that there are financial means for long-term operations and maintenance.</p>	<p><b>CHALLENGE:</b> The environmental restoration of Wixom and Sanford lakes.</p> <p>Environmental recovery on Wixom and Sanford lakes will take significant effort. A restoration plan must be developed and implemented that is acceptable to the community and to EGLE.</p>	<p><b>CHALLENGE:</b> Setting acceptable dam spillway capacities that address public safety and meet state requirements.</p> <p>Risk assessments must be completed and informed by hydraulic studies, and capacity designs must be acceptable to the state and community to move forward with the completion of engineering.</p>

### Estimated Costs

Based on preliminary design and engineering studies, FLTF predicts the cost to restore the lakes and dams to be about \$300 million.

$$\begin{array}{r}
 \$50 \text{ million} \\
 \text{(recovery phase} \\
 \text{2020-2022)}
 \end{array}
 +
 \begin{array}{r}
 \$250 \text{ million} \\
 \text{(restoration phase} \\
 \text{2021-2026)}
 \end{array}
 =
 \$300 \text{ million}$$

Estimated Dam Construction Costs		
	Restored By	Total Cost
Secord Dam	2024	\$25.1 million
Smallwood Dam	2024	\$17.9 million
Edenville Dam	2026	\$120.9 million
Sanford Dam	2025	\$51.2 million

Numbers based on 30% engineering estimates.



## Restoration Plan

FLTF conducted a thorough feasibility report that concluded the best alternative for Midland and Gladwin counties is to fulfill their legal obligations under Part 307 to return the four lakes, as soon as safely possible, to their legally defined lake levels. The study concluded:

- Lake levels of the four lakes, as legally defined under Part 307, best describe the end state of the restoration; best protect public health, safety and welfare; preserve the natural resources of the state; and best preserve and protect the value of property around the lakes
- It is technically feasible to rebuild and repair the dams

## Design Flood and Precipitation

FLTF precipitation and inflow design flood studies completed in August 2021 indicate the dam design cost estimates from the last study are valid. The studies were needed for determining the spillway designs.

A few notable points about the studies:

- The hydrologic study was completed by Ayres Associates. Applied Weather Associates conducted the probable maximum precipitation (PMP) study. There has been significant peer review
- GEI Consultants continues with its hydraulic engineering and modeling based on these studies to establish the dam spillway design

- Dam flow rates will be determined first on Secord and Smallwood dams, and then on Edenville and Sanford dams based on the outcome of the northern dams. We must study all four lakes as a system to understand the upstream and downstream impacts of each dam
- Each of the four dams must and will have greater spillway capacity than prior to the May 2020 flood
- FLTF studies are being shared with EGLE, the U.S. Army Corps of Engineers, FERC and other agencies



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