



February 7, 2023

We have received questions regarding the material in the [Secord Lake Association News You Can Use . . . The Rest of the Story](#) issued January 28, 2023. Here is a link to that article.

https://www.secordlakeassociation.org/files/ugd/cd86dd_c8f0735fcf344417ad2268f6a181550a.pdf

We continue to provide information on the progress to Restore Secord using the most up to date information available. This project is complex with many moving parts. We understand information changes as does the plan over time. Our goal is to take the complicated issues impacting the project and break them down into digestible pieces. We have member/volunteers that attend meetings, webinars and read the materials carefully to help create the updates. When we have questions, we seek clarification.

We acknowledge this project is complex. The project has and will change. This can lead to confusion - - "what the heck is going on?" Which can lead to frustration. And frustration can lead to anger. Our goal is to share details to help remove some confusion to allow for better understanding.

Unfortunately, the complexity around the restoration process, which began summer of 2020, is not one that can easily be explained with a simple Facebook or Twitter type post. Here are the questions received along with an answer to the best of our ability with the information that is available. If you don't see your question exactly as it was written, it may have been weaved into similar questions asked by others. This is a developing story, and more updates will be published as appropriate.

Q1: Are there going to be any lake specific meetings this spring? What kind of, for the lack of a better term, progress/status updates can we expect?

You can expect continued updates from the Secord Lake Association. These updates will include townhall meetings. Our team is working through these details now.

There is a team of engineers from various organizations working on the construction plan for Secord and Smallwood. When details are available to us, we look forward to sharing them with our lake community.

There is a plan in full motion to restore Secord dam in 2024. The Secord Lake Association is focused on what is required to prepare Secord to return. Keep an eye out for updates, there is more to come. You can sign up for email updates at www.secordlakeassociation.org

Q2: There were questions from various people interested in learning more about the specific timeline from Fisher as the construction company.

Fisher Contracting has done the stabilization work on Secord and is currently installing the sheet piling as a pull ahead project. Our FLTF representative, also an officer with the SLA, has a very good relationship with the crews working on the dam. He visits the dam weekly for updates and serves as our conduit with the team.

There is a team of engineers from various organizations working on the construction plan for Secord and Smallwood. When details are available to us, we look forward to sharing them with our lake community. We plan to share timely updates regarding their plans and progress. You can sign up for email updates at www.secdlakeassociation.org

Q3: There were questions around who the various players are in the rebuilding process. Since there are so many company names and acronyms, here is a high-level summary:

Michigan Department of Environment, Great Lakes and Energy (EGLE) - - is a principal department of the U.S. state of Michigan for environmental issues. The lakes fall under their state jurisdiction.

GEI Consultants - - GEI has successfully completed dam projects in all 50 states. Their expertise is focused on this project in the Engineering of the Dams, Dam Safety, and the Hydrology of the water flows. They also have expertise in Dam Safety related to inspections and operations issues. GEI is a consultant to the FLTF to rebuild and operate the system safely and responsibly. [GEI \(geiconsultants.com\)](http://geiconsultants.com)

Spicer Group - - provides professional engineering, land surveying, construction management, community planning and architectural services. Spicer is the Owner's Engineer and leads in the coordination of all the permitting. Ron Hansen, who many of us are familiar with as the lead engineer on the Four Lakes Restoration Project, was recently named President of Spicer Group, Inc. Ron continues to lead the engineering charge to RestoreTheLakes. [Dams and Lake Level Control Structures — Spicer Group](#)

Fisher Contracting - - is another familiar name to the Four Lakes Restoration Project. Fisher rebuilt the HWY 30 bridge at Edenville after the breach and has done most of the stabilization work on the 4 dams to include Secord. Fisher is currently working on the installation of sheet piling on Secord dam. They are a family-owned business founded in 1957 specializing in heavy civil construction projects. With operations in Michigan and Kentucky, they work on a wide variety of civil infrastructure projects. They own Central Concrete with three locations in Michigan. They perform work for a variety of federal, state, municipal, and private clients throughout the Midwest and Southeast regions of the United States. www.fisher-contracting.com

Q4: A Facebook post claims, "Starting from scratch in the 1930's it took less than 5 years to build the Hoover dam from nothing". Why is it taking 4 years to rebuild Secord dam?

Construction on Hoover Dam took about 5 years from 1931 to 1936. The project averaged 3,500 construction workers with 5,218 workers at its peak. There were 96 "industrial fatalities" (deaths) during construction. It was constructed during the Great Depression. There is more to this story . . .

The **planning and engineering** work started in **1920**. About 200 engineers worked on the plan over **11 years**.

The first attempt to gain Congressional approval was 1922. In 1928 Congress approved the project. **It took 6 years for the project to be approved.**

There was a \$140 Million mortgage or loan from the US Treasury to help build Hoover Dam. Users of electricity from the project **paid off the loan over 50 years** by paying the government back \$5.4 Million a year at 3% interest.

Today – In today’s dollars, the cost to build Hoover Dam is estimated at **\$860 Million**. Experts indicate the Dam would **not pass today’s environmental guidelines**.

If one adds up the time, the project started in 1920 and was completed in 1936. **It took about 16 years to complete the Hoover Dam project.** [Bureau of Reclamation \(usbr.gov\)](https://www.usbr.gov)

Regulatory - - Today, this is a sample of the regulatory agencies the FLTF has coordinated with that have been involved in permitting, design, financial oversight, or consultation: On the State level ELGE, MDNR, MDOT, State Treasury, Attorney General and Michigan State Police; On the Federal level FEMA, USFWS, EPA, USDA, FERC, USBR, USACE and USGS. **Most of these regulatory agencies did not exist when the Hoover Dam and Secord Dam were originally built.**

Q5: Why are we paying for maintenance of a dam that will not be in operation until at least 2024?
Just like the Hoover Dam example; money is required to move these infrastructure projects forward.

The assessment is for operations, maintenance, and repairs. This answer has three parts.

PART 1: To obtain required construction permits from EGLE, these three things need to be in place:

- 1) 100% Engineering with detailed construction and regulatory plans, **and**
- 2) Funding for construction, **and**
- 3) Funding in place for long-term operations, maintenance, and repairs.

And here is what happened to meet these requirements:

- The \$200 Million State of MI grant to help fund construction awarded on March 31, 2022.
- The Counties approved the special assessment for operations, maintenance, and repairs on July 12, 2022.
- 100% Engineering for Secord provided to the Regulatory Agencies in Aug-Sept 2022.

The budget for construction and operations (to include repairs and maintenance) were approved by Gladwin and Midland Counties on July 12, 2022. This approved the construction budget to include the \$200 Million grant. They established the special assessment for operations, maintenance, and repairs to begin with the December 2022 property tax bill.

With all three requirements met, the Secord construction permit was issued by EGLE on November 2, 2022. The pull ahead sheet piling project began and a construction contractor was named in December.

PART 2: In addition to meeting the requirements for the EGLE construction permit, the FLTF has ongoing dam operations and management expenses that need to be covered. The FLTF indicated this amount is about \$1.56 million annually for all 4 dam sites. To date, these have been covered by other grants, matching funds, and donations. The \$200 Million MI grant can only be used for construction. These funds are **not** available for operations, maintenance, and repairs.

The FLTF Board is made up of unpaid volunteers from each of the lakes and one from each County Board of Commissioners. There is a small staff of people focused on finance, legal, communications and dam operations.

To this point, these costs have not been paid for by property owners, rather other grants, matching funds, and private donations.

Of interest, the process to apply and account for funds from the \$200 Million grant is complex and detail orientated. The FLTF has qualified finance professionals managing this relationship with the State.

PART 3: Dam safety monitoring and maintenance is required by EGLE for an impoundment to hold water. A FLTF Dam Operations team is currently staffed to maintain EGLE compliance requirements. To acquire a permit from EGLE to fill the lake when ready, a very detailed operations and maintenance plan will be required. This plan relies on trained operators to develop and execute. To learn more about dam operations and requirements: [Operations - FOUR LAKES TASK FORCE \(four-lakes-taskforce-mi.com\)](http://four-lakes-taskforce-mi.com)

The assessment for operations, maintenance and repair was required from the special assessment district to qualify all 4 dam projects to qualify for EGLE requirements and permits.

If one is wondering the question, what happens if this assessment is canceled? The dams would be out of compliance with EGLE directives outlined in a letter to FLTF dated June 30, 2021 that reads in part:

Interim Operations:

During this period of recovery and restoration of the dams, FLTF shall continue to operate and maintain the dams in a safe manner consistent current industry standard practices. FLTF should develop an Operation, Maintenance and Surveillance Plan which outlines operational procedures (if any) and type, frequency and reporting of monitoring and maintenance at each dam. Emergency action plans are required to be developed for each dam in coordination with the County Emergency Managers. These plans must be submitted to EGLE for review and should be reviewed annually FLTF and updated accordingly as modifications are made to the dams.

As high hazard dams, inspection reports are required every three years according to Part 315. Throughout 2020, the four dams underwent several inspections and in 2021 thorough engineering investigations and analyses were completed as part of the Feasibility Study. These reports satisfy the inspection requirement, and the next inspection will be due by December 31, 2024.

[EGLE Letterhead Lansing Central \(four-lakes-taskforce-mi.com\)](http://four-lakes-taskforce-mi.com)

Q6: We watch the news with reports of government money being spent on a variety of projects or initiatives. What support has the FLTF received to help rebuild the 4 dam projects?

A: Here are the approximate amount of funds received by FLTF to RestoreTheLakes:

Federal Funds	Approximately	\$ 20.0 Million
State of Michigan	Approximately	\$222.5 Millon
Private Donations	Approximately	<u>\$ 5.0 Million</u>
		\$247.5 Million

The investment the State is making to restore the 4 Lakes has ripple effects for the local economy, the local tax base and recreational value Pure Michigan is known for. Restoring these lakes is important to Michigan.

To put the \$247.5 Million into perspective, the annual operating budget for Gladwin County is about \$11 Million. The amount of funding secured by the FLTF to restore the dams represents the equivalent of 22.5 years' worth of the annual Gladwin County operating budget.

As another illustration, across the 4 Lakes there are 8,442 parcels, with 6,520 waterfront parcels with an estimated market value of \$800 Million. The money raised by the FLTF represents 31% of the \$800 Million market value representing about \$29,300 per parcel within the special assessment district. (\$247.5 Million divided by 8,442 parcels).

Q7: What are the next steps in the assessment for Construction? Are the amounts known yet?

The FLTF, with the Counties, plan to hold a hearing later this coming year (2023) to establish the Construction special assessment. This will be a hearing and the County Boards will need to approve. There will be informational meetings. More details to come.

The plan is to approve the Construction assessment this year but will not go into effect until 2025 (one year **later** than the financing plan shared in 2022). The FLTF, on behalf of the Counties, may issue bonds to cover the balance of the construction costs.

The primary source of repair and reconstruction will be the \$200 Million State of Michigan grant appropriated in March 2022. This grant does not likely cover the total project cost. A special assessment is needed to cover a portion of the construction and repair costs.

The grant requires a 20% match. The Recovery funding, federal funding and private donations count towards the match. Additional funds need to come from other sources. While the FLTF continues to seek other grants to help ease the gap, the reality is property owners will need to assist. For illustration, if the total construction cost for the 4 dam projects is \$270 Million (does not include the cost to stabilize the dams), the grant relieves \$200 Million leaving a balance of \$70 Million. FLTF latest estimates were \$240 to \$270, and the next estimate will come after a bid is set on the remaining two dams. The balance represents the amount needed to be covered via a Construction special assessment.

At this point we will wait until the FLTF has more detail to answer specifics regarding the special assessment amounts. You can sign up for email updates www.fourlaketaskforce.com

Q8: Since the interest rates have gone up, will this impact the Construction special assessment?

We will rely on the FLTF and Counties to explain how the Construction special assessment will be structured later this year. It does make sense that since a loan will be used to access the construction funds over the \$200 Million grant, a higher interest rate will impact the loan payment. No different than a car loan or a mortgage. We will share the FLTF details when they are available later this year.

Q9: Second dam is standing. Why does anything need to be done?

Prior to the FERC required drawdown for safety reasons, the public had no visibility into the structural integrity of these dams. As hydro operations, (FERC) classified our dam as CEII (Critical Electrical Infrastructure Information). As Critical Infrastructure reports are confidential under the Department of Homeland Security. The FLTF or the public did not and could not access these reports.

The Detroit News reported in November 2019 - - - “Nineteen Michigan dams were categorized as both high hazard and in unsatisfactory condition” It listed: “Edenville Dam in Gladwin County and Secord Dam in Gladwin County”. <https://www.detroitnews.com/story/news/nation/2019/11/11/us-dams-safety-risk-failure-flooding/40582497/>

In June 2021, EGLE recognized the Counties owned the dams. Hence more information was available.

In March 2022, the Independent Forensic Report was issued. This 502-page report, while it did not focus on Secord, mentioned Secord 177 times. At a high level, here is the summary regarding Secord dam:

- All 4 dams were constructed using the same construction methods in the 1920’s and maintained in the same manner by their various owners over the past 100 years.
- The Forensic Report indicates Edenville failed due to “static liquefaction,” which it describes as “a sudden loss of soil strength” in saturated, loose sands contained in a portion of the embankment”.
- An engineer noted in 1925 a concern about the Secord “embankment which will cause very bad settling, and this clay material will produce cracks that will make this embankment of a considerable hazard.”
- The potential for static (flow) liquefaction was identified for the Secord Dam embankment as part of the 2001 dam safety review performed by Barr Engineering.
- Boring core samples taken from the Secord Dam embankment encountered the presence of very loose, saturated, poorly graded sands with intermittent layers of lean clay and silt that extended to the foundation.

[Final Forensic Report on 2020 Edenville and Sanford Dam Failures Released | Association of State Dam Safety](#)

To meet current safety regulations, before EGLE will issue a permit to fill Secord these three things need to be constructed:

- 1) The length of the Secord Dam earthen embankment needs to be strengthened, ***and***
- 2) An appropriate auxiliary spillway needs to be constructed, ***and***
- 3) The gates need to be upgraded.

The FLTF obtained agreement from EGLE for “pull ahead” projects at Secord. The installation of the rock and steel sheet piling is underway. Once completed, the rock and sheet piling will strengthen the embankment.

In plain language, Secord requires significant repairs to include an auxiliary spillway before EGLE will issue a permit to fill the lake. There is no one person that can make the decision to fill.

If you have additional questions you can email them to secordlakeassociation@gmail.com We will do our best to respond with another Secord Lake Association communication as others may have similar questions.

You can expect continued updates from the Secord Lake Association. These updates will include townhall meetings. Our team is working through these details now. **There is a plan in full motion to restore Secord dam in 2024.** The Secord Lake Association is focused on what is required to prepare Secord to return. Keep an eye out for updates, there is more to come.