Four Lakes Task Force

Gladwin and Midland Counties' Delegated Authority of the Four Lakes Special Assessment District

Board Meeting and Plan of Financing Hearing



March 3, 2022

Preamble

Today there are two separate meetings occurring.

Each will have a public comment period.

- Notification of intention to pursue financing in anticipation of Michigan state grant or municipal bond
- FLTF Board Meeting on behalf of the Four Lakes Special Assessment District

Agenda

TEFRA* Hearing Four Lakes Special Assessment Plan of Financing

- Call to Order
- State Funding Update
- **III.** Interim Financing
- v. Vote on Financing Plan
- v. Public Comment
- v. Adjourn

FLTF Board Meeting

- . Call to Order
- Approval of Agenda and Minutes
- **111.** 2022 Financial Plan
- N. Recovery Progress
- v. Restoration Program
- v. SAD Update
- VI. Events and Closing Comments
- VII. Public Comment
- VIII. Adjourn

^{*}Tax Equity and Fiscal Responsibility Act

Four Lakes Task Force

Gladwin and Midland Counties' Delegated Authority of the Four Lakes Special Assessment District

Hearing on the

Four Lakes Special Assessment Plan of Financing

Required under the Tax Equity and Fiscal Responsibility Act (TEFRA)



March 3, 2022

Purpose of This Meeting THIS IS NOT A SPECIAL ASSESSMENT HEARING

- The board to approve a FINANCIAL PLAN that may include the issue of \$10 million of grant and/or bonds in anticipation of a grant from the State of Michigan
- □ On March 31st, the FLTF Board will meet again to either:
 - Approve the issuance of notes/bond, if a Michigan grant is approved, but funds are yet not available in April or
 - Determine not to issue Notes/bonds if Michigan grant funds are available in April
 - Discuss solicitation of funds to receive federal funds for recovery projects, and notes for interim financing and USDA loans for dam restoration.
- The Financial Plan will be Reviewed at today's Board meeting, that assumes State Funding is in place.

State Funding Update

- State of Michigan has not yet approved a new state grant
 - □ SB 565 allocated the \$250 million in funding
- \$250 million Planning Estimate was in FLTF May 2021 Restoration Plan
 - \$10 million was to complete 2022 work to get to full financing
 - \$240 million was to fund the remaining project through restoration
- The House and Senate are meeting on the bill, with the Governors Staff this week.
 - We will be providing a status update before we vote.

TEFRA (Tax Equity and Fiscal Responsibility Act)

THIS IS NOT A SPECIAL ASSESSMENT HEARING

- The FLTF board, on behalf of the Four Lakes Special Assessment District, is conducting a hearing to approve a financial plan for the restoration of all Four Lakes; and this includes interim financing for the project
 - IRS rules require non-profit entities to hold a hearing on the proposed financing plan.
 - The plan of financing also describes potential future notes, loans (i.e. USDA loans) and bonds in connection with the project.
 - The plan does NOT authorize the issuance of notes, loans or bonds. It is simply a plan of financing.
- If approved, FLTF will request resolutions from Gladwin County and Midland County to approve the plan of financing, and to request full faith and credit as secondary security for anticipated notes or bonds

Vote on Plan of Financing

Board roll call vote on resolution declaring official intent and approval of the plan of financing.

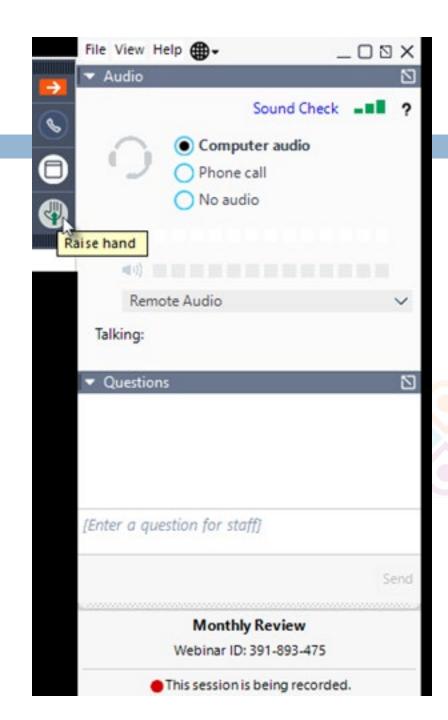




Public Comment for the Financing Plan

Ground rules:

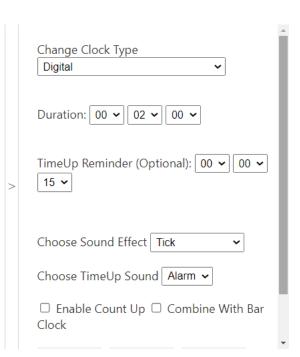
- 1. Public comment will be taken.
 - Those joining virtually should use the hand raise feature in GoTo Webinar
 - Those joining live may go to the podium
 - Via email to info@fourlakestaskforce.org
- 2. Because of time restrictions we will only allow individuals to make comments within 2 minutes
- 3. Any commenter who is disrespectful, slanders another, is in any way inappropriate or otherwise refuses to follow the protocol will be muted or asked to leave the microphone.



Comment Timer

Please state your name, address and lake.

00:02:00





Four Lakes Task Force

Gladwin and Midland Counties' Delegated Authority of the Four Lakes Special Assessment District

Board Meeting



March 3, 2022

Board Agenda

Opening Items

- Approval of Agenda
- December 2021 Meeting Minutes

New Business

- . 2022 Financial Plan Kayla Stryker
 - Final 2022 Budget Approval
 - FLTF 3-Year Plan
 - Restoration Planning Costs

Informational Update

- Recovery Progress Adam Heinrich
 - A review of the Erosion, Stabilization, Debris Removal and Dams' Stabilization Progress and Costs

- v. Restoration Program Dave Kepler & Ron Hansen
 - Progress Timeline and Review of the Use of the Lakes, Dam Design, including Spillway Capacity to address Safety, with a review of Flood Probability and Flowage.
- v. SAD Update Ron Hansen
 - Preliminary Days of Reviews
 - Examples
 - At-Large Assessments

Closing Items

- Critical Issues
- PSC Survey
- Upcoming Meetings and Events
- v. Public Comment
- v. Adjourn

2022 Financial Plan



EXPENDITURES		Planned Revenue Source						
	2022 Budget	General Funds	MI	NRCS	Other Funding	County and Homeowner	TOTAL	
Operations and Program Office	\$1,110,000	\$500,000					500,000	
Program Office	\$360,000	150,000					150,000	
Operations	\$750,000	350,000					350,000	
Special Assessment District Implementation	•	\$50,000					50,000	
Acquisition	\$1,126,000		1,046,000				1,046,000	
	\$13,325,000		4,525,000	8,450,000	350,000		13,325,000	
Booms Secord/Smallwood/Edenville	'				350,000		350,000	
Edenville Phase	\$500,000		200,000				500,000	
Edenville Phase I	' '		1,000,000				2,250,000	
Sanford Dam			3,300,000	6,900,000			10,200,000	
Smallwood and Secord + Monitoring	\$0						0	
Third Party Reviews	\$25,000		25,000				25,000	
Erosion Stabilization and Debris Removal	· ·		,		710,000	500,000	4,750,000	
EWP Eligible Erosion Projects	\$2,000,000		300,000	1,500,000		200,000		
Debris Remova			200,000	1,500,000		300,000		
Bottomland Vegetation Management	\$750,000	40,000			710,000			
Restoration	\$100,000		100,000				100,000	
Flood Study	\$100,000		100,000				100,000	
Design Engineering	\$6,250,000		6,250,000				6,250,000	
Design Engineering Secord	\$800,000		800,000				800,000	Note: planned
Design Engineering Smallwood	\$950,000		950,000				950,000	revenue is
Design Engineering Edenville	\$2,500,000		2,500,000				2,500,000	\$1.06 million
Design Engineering Sanford	\$2,000,000		2,000,000				2,000,000	under
Environment and Natural Resource	\$1,000,000		1,000,000				1,000,000	expenditures.
Lake Management Plar	\$750,000		750,000				750,000	This is where
Construction/Permitting			250,000				250,000	FLTF intends to
	\$1,200,000		1,200,000				1,200,000	utilize the LOC
	\$1,870,000	10,000	1,860,000				1,870,000	to cover costs
USGS Gauges	•		185,000				185,000	related to the
Restoration projects- all lakes	· · ·		1,675,000				1,675,000	SAD until SAD
Legal Defense Costs	\$10,000	10,000					10,000	funding is
Total	\$31,181,000	600,000	16,511,000	11,450,000	1,060,000	500,000	30,121,000	realized

FLTF 3-Year Plan

(Excludes dam restoration construction)

2021-2024 Restoration Budget

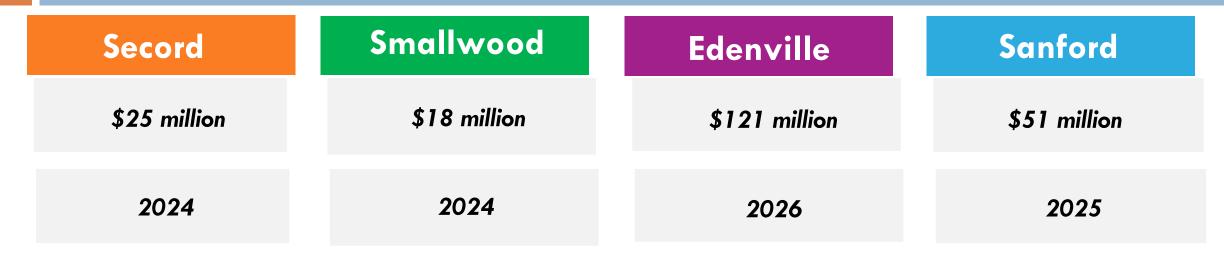
- □ Note: this is only the preliminary restoration budget, not including construction
- □ These are highlevel projections subject to change

Project Category	Expenditures	Annual Project Budget Projection		
	2021 Spend [^]	2022 Budget	2023 Budget	2024 Budget
Special Assessment District Costs*	\$1,500,000	\$1,640,000*	\$1,190,000*	\$1,250,000*
Project Acquisition	\$765,000	\$1,046,000		
Dam Stabilization	\$12,070,000	\$13,325,000		
Erosion Stabilization and Debris Removal	\$5,025,000	\$4,750,000	\$1,000,000	\$0
Design Engineering	\$4,070,000	\$6,250,000	\$1,250,000	
Environment and Natural Resource	\$620,000	\$1,000,000	\$700,000	
Program Management	\$1,450,000	\$1,200,000	\$1,200,000	\$1,000,000
Other	\$605,000	\$1,970,000		
Total	\$26,105,000	\$ 31,181,000	\$5,340,000	\$ 2,250,000

[^]Final 2021 expenditures to be reported in March

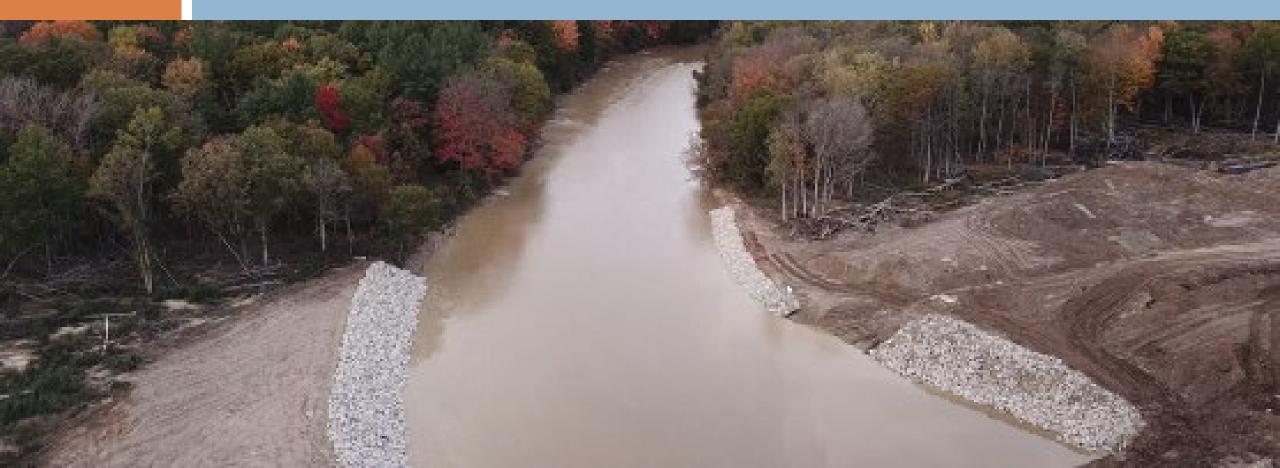
^{*}SAD costs include program office, operations, acquisition and SAD implementation costs. The final computation of cost for the SAD will also include a 15% contingency that is not in these numbers.

Restoration Planning Costs - \$240 Million - May 2021



- \square \$215 million planning estimate for construction (+/- 25% confidence)
- □ \$25 million
 - Risk, property acquisition, environmental permitting & restoration, flood plain modeling
- Updated estimate by May 2022
 - Alternatives being finalized on Second and Smallwood
 - Edenville and Sanford will have updated estimates

Recovery Progress



Erosion, Stabilization and Debris Progress

Shoreline Stabilization projects- Winter 2021-22

Dundas Road- Wixom Lake- 5 homes protected Wilson Road- Sanford Lake- 15 homes protected Sunset Way- Sanford Lake- 5 homes protected E. Lakeshore A*- Wixom Lake- 3 homes protected

* Demobilizing now

Accomplishments to-date

Total projects completed - 12
Total projects remaining - 12
Total length of shoreline protected- 2.0 miles
Total properties protected- 89
Projects in the queue with EGLE permits - 5

Total spending estimate (NRCS + FLTF)- \$9,050,000

Post-flood dam stabilization

Secord Dam stabilization - done
Smallwood Dam stabilization - done
Edenville Dam stabilization - done
Sanford Dam stabilization - in progress

Total spending estimate \$25,300,000

Flood debris removal

Sanford Dam- done
Sanford Village (with Midland County) - done
Sanford Village (with Sanford Village) - done
Sanford Lake County Park (with Midland County)- done
River Trails County Park (with Midland County)- starting

Total spending estimate, to-date only- \$500,000

Secord and Smallwood Stabilization Progress

- Majority of stabilization work has been completed (total investment \$2M)
 - Safety booms will be added this spring/summer
- Engineering for final restoration underway
 - FLTF engineers are finalizing alternative options and in permitting process



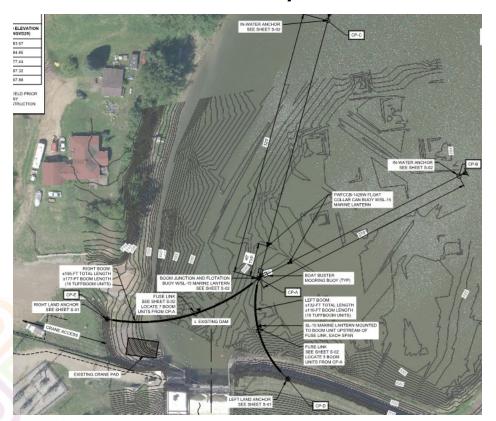


Secord Dam

Smallwood Dam

Installation of Safety Booms

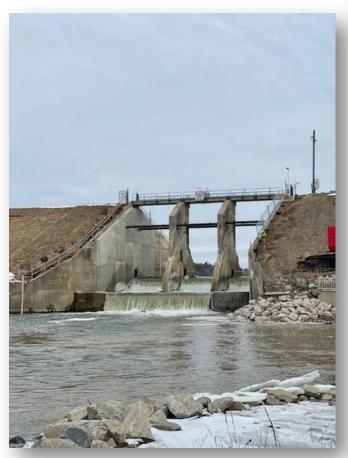
- Public Safety Booms will be utilized at all dams
 - Provide safety for recreation and engineered to sustain debris and ice





Edenville Dam Stabilization Progress - Tobacco Side

- EGLE emergency order to lower water and stabilize dam
 - □ Investment of \$4.5M (funding through NRCS and State)
 - Portions demolished, portions stabilized with concrete, tailrace area stabilized
 - Concrete work is finished, contractor is demobilizing equipment
 - Safety booms to be installed in spring/summer







Edenville Dam Stabilization Progress – Tittabawassee Side

- EGLE emergency order to stabilize dam
 - Investment of \$7.4M (funding through NRCS and State)
- Embankment Stabilized between M-30 and Dam
- Former primary spillway demolished
- Tailrace and downstream riverbanks restored
- I-wall installed through breachway
- Breachway grading will be finished and seeding late Spring 2022
- Expected completion late Spring 2022



Sanford Dam Stabilization Progress

Phase 1: Site Preparation and Access (current phase)

- Construct access roads, install temporary bridge, prep site
 for future construction and project phases
 - Road done; bridge done
- Estimated phase completion: March 2022

Phase 2: Spillway Modification

- Partially demolish spillway, construct a new mass concrete weir, remove existing spillway gates, re-route the river
- Underway estimated phase completion: Fall 2022

Phase 3: I-Wall and Downstream Restoration

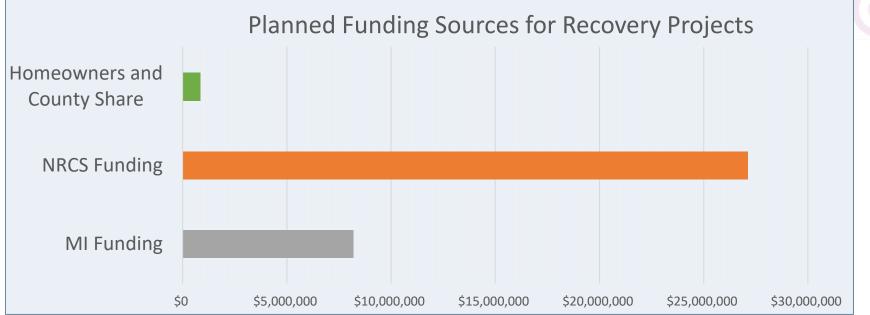
- Drive steel sheet pile through the breachway, place riprap downstream along the riverbank, remove sediment from the river
- Estimated phase completion: Fall 2022





\$35M in Stabilization, Erosion Control, Debris Removal

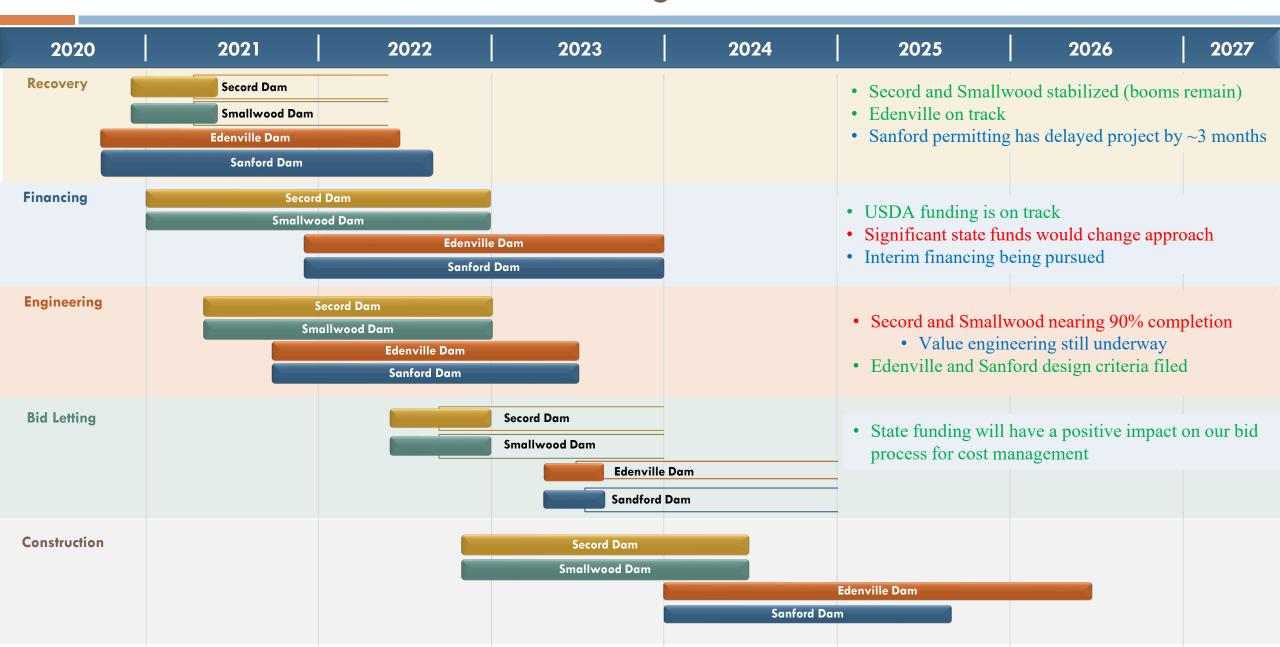
Project Category	Annual Pro	Total		
	2021 Expenditures	2022 Budget	2023 Budget	Total
Dam Stabilization	\$12,060,000	\$13,325,000		\$25,385,000
Erosion Stabilization	\$4,775,000	\$4,000,000		\$8,775,000
Debris and Sediment Removal	\$250,000		\$1,000,000	\$1,250,000
Total	\$17,085,000	\$17,325,000	\$1,000,000	\$35,410,000



Four Lakes Restoration



Dam and Lake Restoration Progress

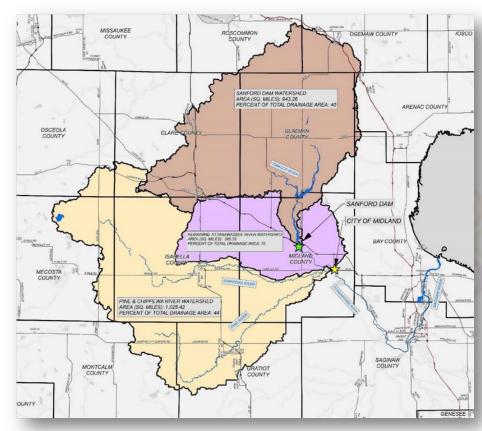


Communications, SAD and Permitting Milestones

Event	Date
Communications Update: Secord and Smallwood Plans	April 2022
Secord/Smallwood EGLE Permit Notice	April/May 2022
Property Owner Opinion Survey	April/May 2022
EGLE Public Webinar on Permitting	June 2022
SAD Hearings	June/July 2022
County Board SAD Meetings	July 2022
Communications Update: Four Lakes Progress	August 2022
Technology Summit	October 2022

THE FUTURE USE OF THE LAKES

- Recreation: The primary future use of the dams and the lakes will be for recreation
 - These lakes also have significant ecosystem capacity
- Power: Restoring the 10.5 Megawatts is not economically feasible
 - To replace this system the study indicated \$22M-\$33M of capital and significant uncertainty in licensing timing
 - Four 2.6 Megawatt windmills would cost \$5.2M (National Renewable Energy Laboratory)
- Flood Control: The lakes do not have the capacity
 - There is less than 10% operating capacity in the Four Lakes system compared to what is needed for material flood mitigation downstream
 - Dams will be safer by operating at "Run of the River"



Regional Watershed

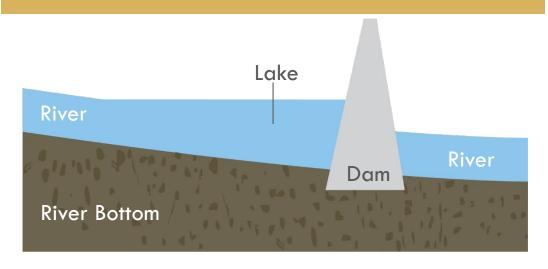
Run of River → OUTFLOW = INFLOW

NO DAMS

River Bottom

 Water flow of rain and streams come in and pass through the river basin

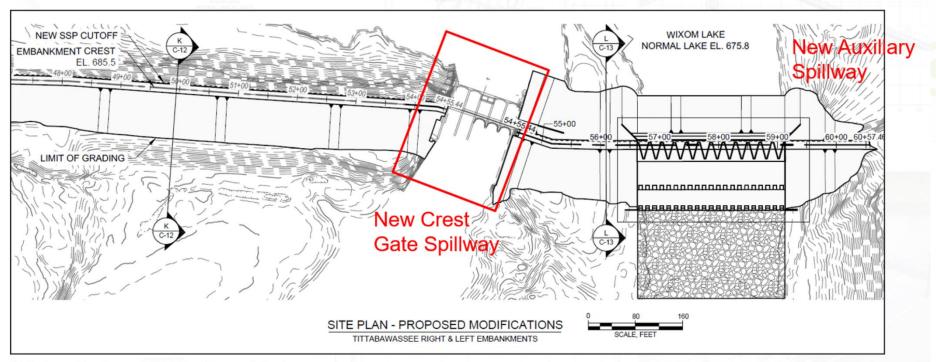
NEW DAMS



- Dam gates are operated to keep a normal "legal" lake level
- No additional water storage
- Result is more stable lake level and stability downstream; less negative impact on shoreline

Dam Design Concepts

- Embankments improved
- Primary spillways that pass ~ 100 to 200 floods at normal Lake Level
- Auxiliary spillways to manage greater storms



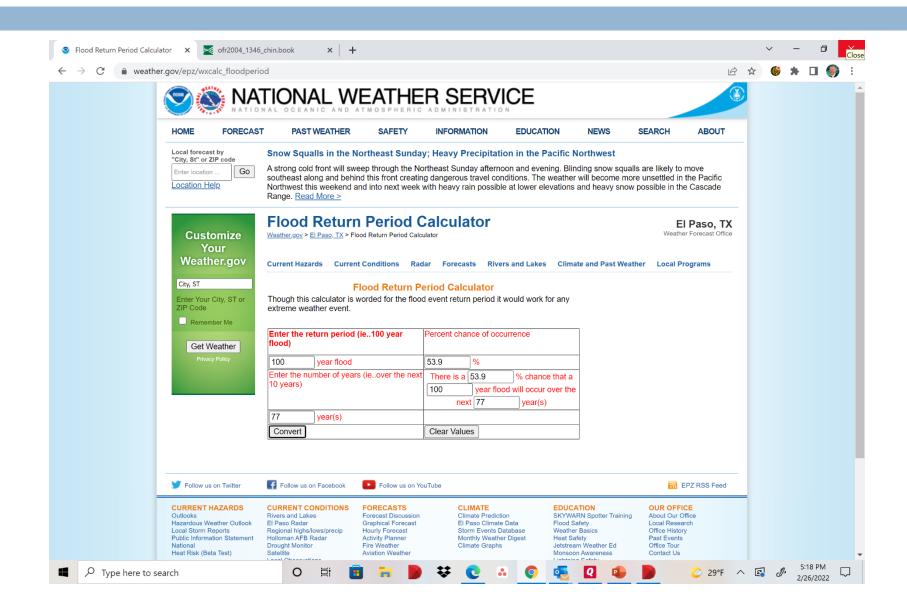
Tittabawassee River Proposed Plan View of Permanent Repairs

Dam Safety Downstream

- To help property owners understand the floodplain, floodplain modeling and mapping will be occurring on all Four Lakes, from Secord Dam to downstream through Sanford Dam
 - Frequencies of modeling include 2-year storm through the 500-year storm
 - These will be available as we get to final design and permitting of the dams
- □ The Army Corp of Engineers is modeling and mapping downstream of Sanford Dam
 - FLTF is providing flow rates, for no dams, stabilized dams and restored dams
 - Flow rates to be available by fall 2022
- This will be done in stages as the lakes are hydraulically linked
 - All the dams' capacity needs to be finalized to finish all the models

How Often Does a 100-Year Flood Occur?

https://www.weather.gov/epz/wxcalc_floodperiod



Flood Probabilities Calculated

A 1- in 100-year flood does not happen once every 100 years. it has a 63% probability It means there is a 1 in 100 chance that a flood this size or greater will occur in any given year.

Flood Size	Chance of occurrence in one year	Annual Exceedance Probability (AEP)	Probably of Occurrence in an Average Lifetime
50 year	1/50	2%	79%
100 year	1/100	1%	54%
500 year	1/500	.2%	14.3%
5,000 year	1/5000	.02%	1.5%
10,000 year	1/10,000	.01%	0.8%

- Annual Exceedance Probability AEP the probability of a flood occurring in one year, measured in percentage
- Probability of Occurrence in a Lifetime POL percentage probability in 77 years

Establishing Spillway Capacity

Inflow Design Flood (IDF) = Flow rate the dam will be designed to pass

Secord Dam and Smallwood Dam

- Established the IDF in late 2021
 - Progress through 90% design by early 2022
 - Begin construction second half of 2022
- Spillway capacity greater than 10,000-year flood frequency

Edenville Dam and Sanford Dam

- Full reconstruction design engineering will start in 2022
- FLTF expects spillway capacity ~5,000-year flood frequency
- Flows through Sanford Dam difference between damin and dam-removed hydraulic profile and downstream impact will be used to determine the IDF with EGLE's concurrence
 - Included in Army Corps of Engineers study



Inundation models and maps are used to measure upstream and downstream impact at different flood frequencies

Estimated Design Capacity of Dams

Spillway Capacity Upgrades

- GEI developed 30% designs for rehabilitation of all FLTF projects
- Spillway capacity for all dams will be greater than EGLE requirements
- IDF selected using FEMA risk-informed decisionmaking procedure
- Results show that the recommendations are within our 30% dam designs



Estimated Design Capacity of Dams Stated in Flood Frequency

	Secord	Smallwood	Edenville	Sanford
Pre May 2020- Capacity	7,695	10,185	20,670	29,690
May 2021 Design Estimate	21,150	24,550	52,275	47,470
Current State Requirement	12,700	15,600	44,600	44,900
60% Design	17,500	25,500	TBD	TBD
Dam Design Estimate in Flood Frequency	~10,000 Years	~10,000 Years	~5,000 Years	~5,000 Years

These capacities, measured in cubic ft. per second (cfs), will be updated as we conclude the hydraulic studies

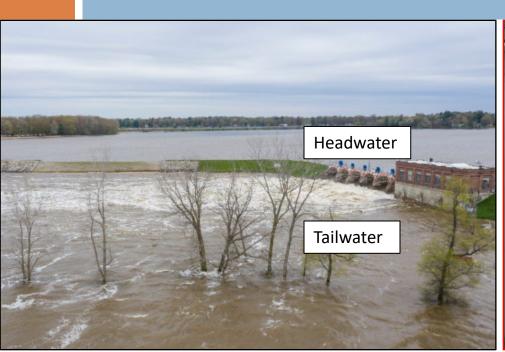
Secord and Smallwood Inundation Mapping

Preliminary 100yr flood inundation maps
generated for pre-disaster and proposed
conditions

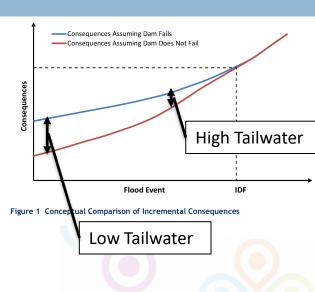
- Upstream of Smallwood Dam to upstream of Second Dam
- 1D-unsteady model currently only simulating 100year event for permitting
- Post permitting
 - Update models with final design and geometry
 - Provide flood inundation maps for a variety of storm event frequencies
- Refine model with new geometric data and final design discharges

100-year Floodplain at Upstream Face of Secord	Dam
Legal Lake Level	<i>75</i> 0.3'
Flowage Right Elevation	755.3'
Pre-Disaster Model – 100-year elevation	752.4'
Proposed 60% Design Model – 100-year elevation	750.6
Reduction in 100-year elevation	1.8'
100-year Floodplain at Upstream Face of Smallwo	od Dam
Legal Lake Level	704.3'
Flowage Right Elevation:	707.3'
Pre-Disaster Model – 100-year elevation	708.2'
D 1/00/D: W 11 100 1 ::	707 11
Proposed 60% Design Model – 100-year elevation	707.1'
Reduction in 100-year elevation Proposed	1.1'

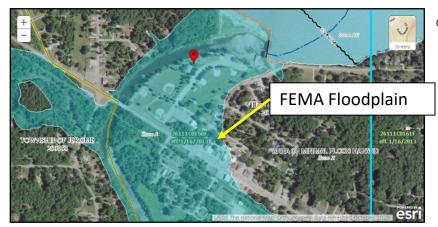
Sanford: Designing for Tailwater Submergence











May 2020 Flood Event

- Flood pictures from May 2020 show the complete submergence of the switchyard fence.
- Head differential of 7 to 8 feet between headwater upstream of dam and tailwater downstream of dam
- FEMA floodplain maps show significant flooding downstream of Sanford Dam for 100-year event
- Example of reduced impacts between dam failure and nonfailure

Special Assessment District



Special Assessment – Preliminary Days of Review

- First two Days of Review were conducted
 - Overall positive input on benefit factors
- Based on input, further consideration will be given to:
 - Calculation of lake frontage and frontage benefit factor
 - Focus on properties with irregular lots and frontage
 - Water depth factor
- Combining lots
 - Working on details for deadline for landowners who wish to combine parcels

SAD Examples – Front and Back Lots

EXAMPLE 1 — Front Lot

- Residential lake front property
- 100 ft. of frontage
- Water view greater than 500 ft.
- Water depth greater than 4 ft.

Est. annual assessment: \$160

Depending on the factors
 outlined above front lots will
 range \$90-325

EXAMPLE 2 – Back Lots

- Residential back lot property
- Highest quality access location (i.e., large lot with park or boat launch)

Est. annual assessment: \$80

Depending on the factors outlined above backlots will range \$50-\$80

At-Large Assessment for Counties and Townships

Counties

- After discussing with the Counties, FLTF is working toward a 3% at large assessment for Midland and Gladwin Counties
 - This would have to be voted on and approved by the county BOC
 - Important clarification: this is not a new milage or tax to county residents.
 This would be managed within the county general funds

Townships

FLTF is looking at the at-large assessment relative to the burden it is placing on the townships

Events and Closing Comments



Update on Critical Issues

In its <u>Restoration Plan</u>, FLTF identified four critical issues that are vital to successfully restore the lakes.

- 1. FLTF needs to acquire at least \$10 million from outside the SAD by early 2022. In the next three years, approximately \$250 million will need to be funded for restoration.
- 2. Environmental recovery on Wixom and Sanford lakes is significant, and FLTF is engaged with EGLE to get state acceptance of the restoration plan, and then identify funding sources.
- 3. A fair and consistent methodology for the assessment of property owners of the Four Lakes Special Assessment District (SAD) needs to be put in place to attract funding and assure there are financial means for long-term operations and maintenance.
- 4. Flood studies must be completed, and capacity designs must be acceptable to the state to move forward with the completion of engineering.

PSC Survey Repeat



- □ Repeat of 2021 survey
 - 49 percent response rate in 2021
- Designed to understand property owner concerns and willingness/ability to pay
- Survey options: electronic and U.S. mail

TIMING:

Survey will launch in early April 2022



2022 Board Meeting Schedule

Thursday, March 31st

□ Tuesday, July 26th

Tuesday, October 11th

Tuesday, December 13th

5:00pm-7:00pm

5:00pm-7:00pm

5:00pm-7:00pm

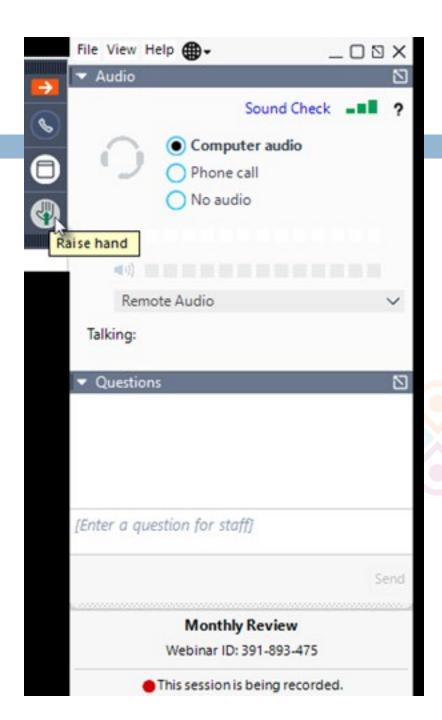
5:00pm-7:00pm

We will have periodic communications webinars in addition to board meetings - details to come throughout the year.

Questions and Public Comment

Ground rules:

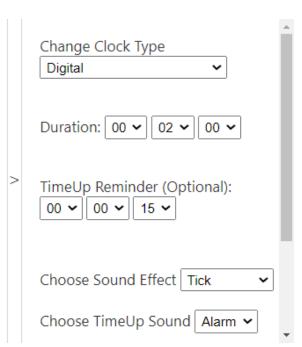
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 - 2. Those joining live may go to the podium
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- 3. Any commenter who is disrespectful, slanders another, is in any way inappropriate or otherwise refuses to follow the protocol will be muted or asked to leave the microphone



Comment Timer

Please state your name, address and lake.

00:02:00





Thank you for joining us!

