Lake Mitchell restoration project timeline

Lake Mitchell remains at normal level

- Additional data collection
- Final design and permitting
- Lake drawdown bidding

City retains drawdown contractor

- Construct new drawdown structure
- Lower lake level

City retains dredging contractor

- Removal of phosphorus-laden sediment
- Sediment placement at firesteel park

Completion of initial dredging

- Lake refill
- Firesteel park restoration

Lake management

- Protect investment
- O&M
- Evaluate and complete additional improvement projects

Future drawdowns

- Shoreline maintenance
- Jetty construction
- Other lake-work

2022 | 2023 | 2024 | 2025 | 2026+

Lake drawdown

Investigation, design, and permitting

Contracting & construction

Lake refill
(duration dependent on creek flow)

Periodic drawdowns

Sediment dredging & disposal

Investigation, design, and permitting

Contracting & construction

Disposal site restoration

Lake management and improvement projects

City of Mitchell SOUTH DAKOTA

FRIENDS of the FIRESTEEL

BARR

Brosz ENGINEERING, INC.

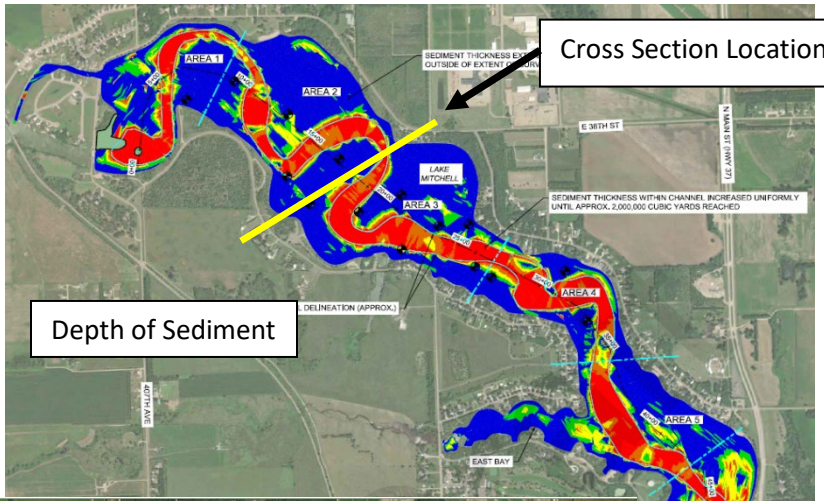
Version 1 - July 2022
Subject to change

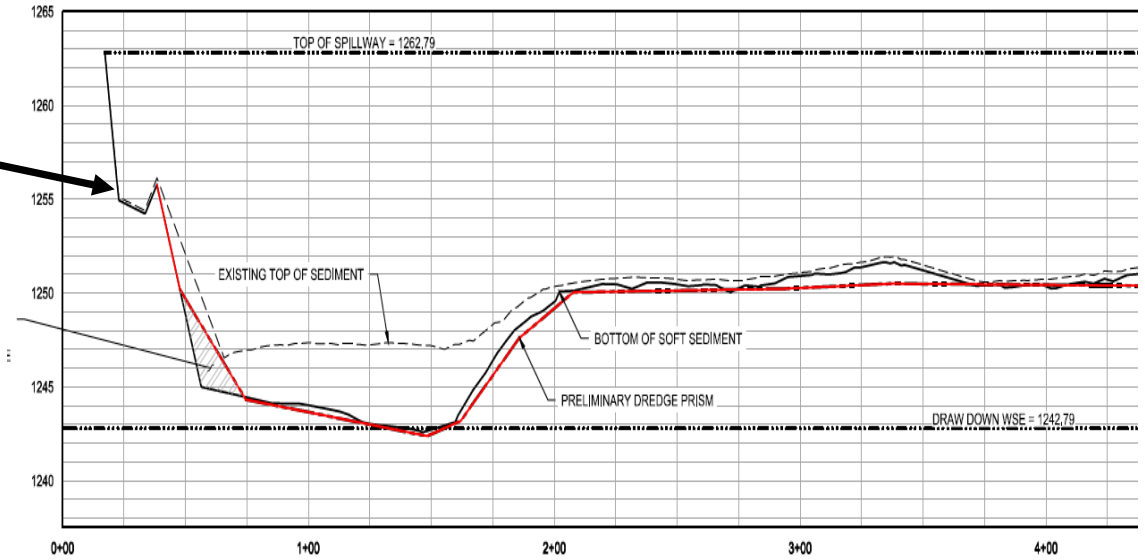
Lake Mitchell Dredge Project

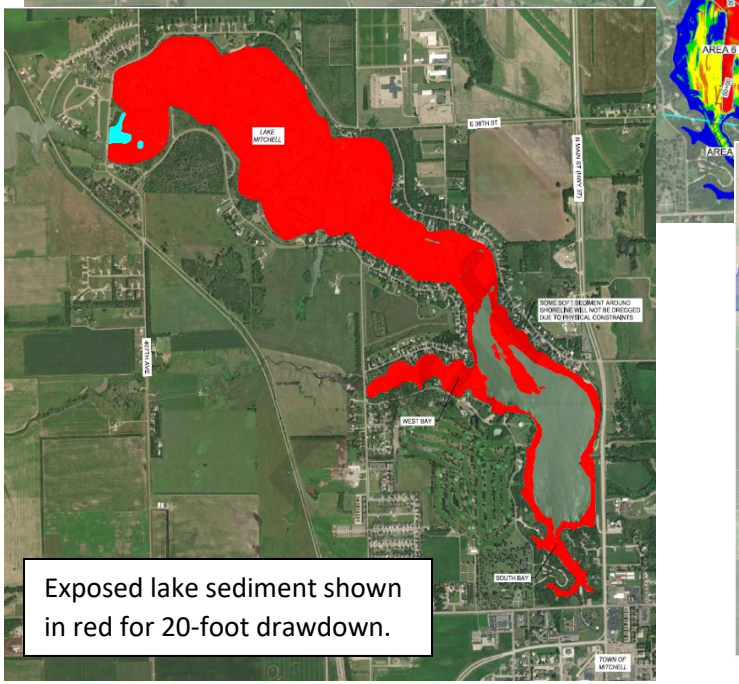
- 693 Acres

Lake Sediment

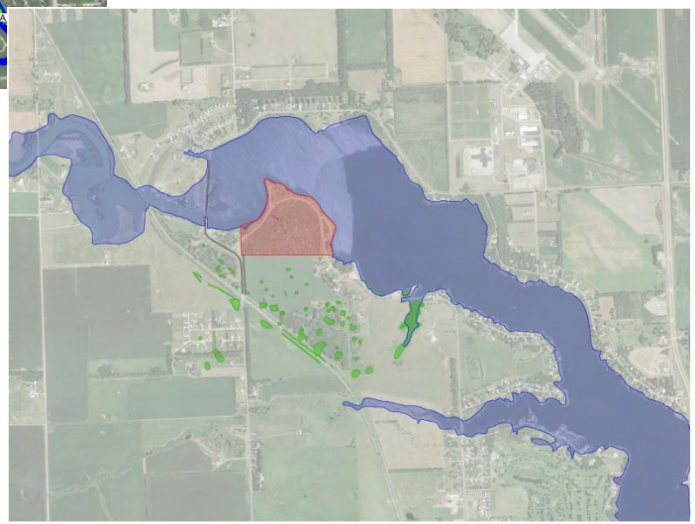
- Estimated 2 Million Cubic Yards of Material







Spoil Area

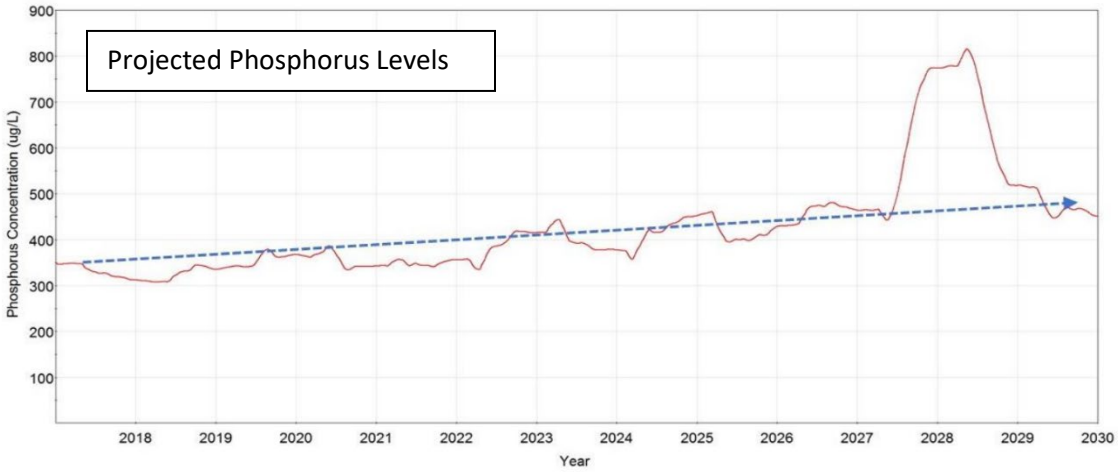


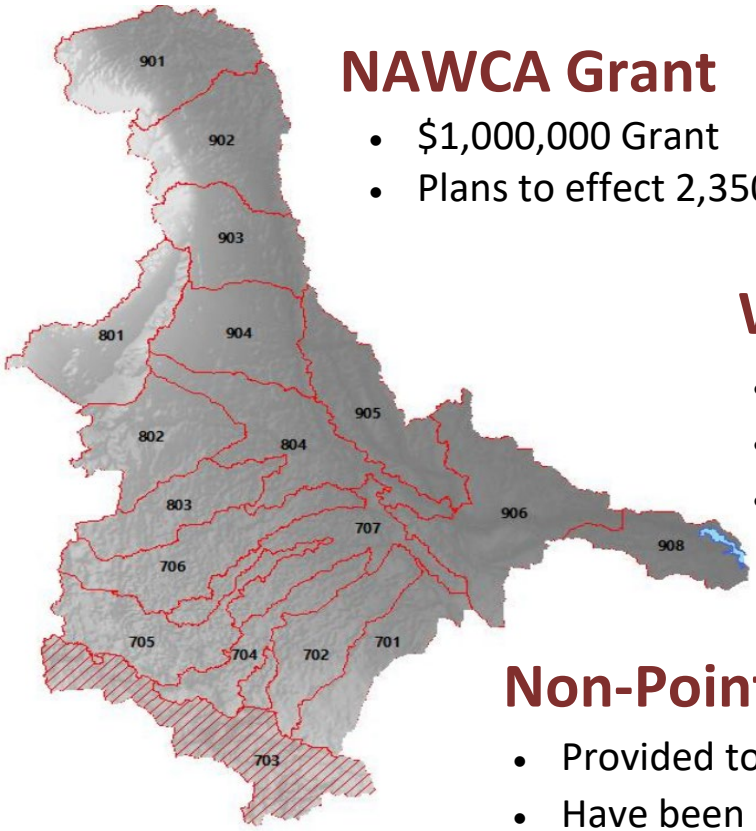
Firesteel Watershed

- Over 350,000 Acres
- Lake Area to Watershed Ratio of 500:1

Phosphorus

- Historic Ranges are 100ug/l to over 1200 ug/l
- Ideal phosphorus levels are 60 to 80 ug/L



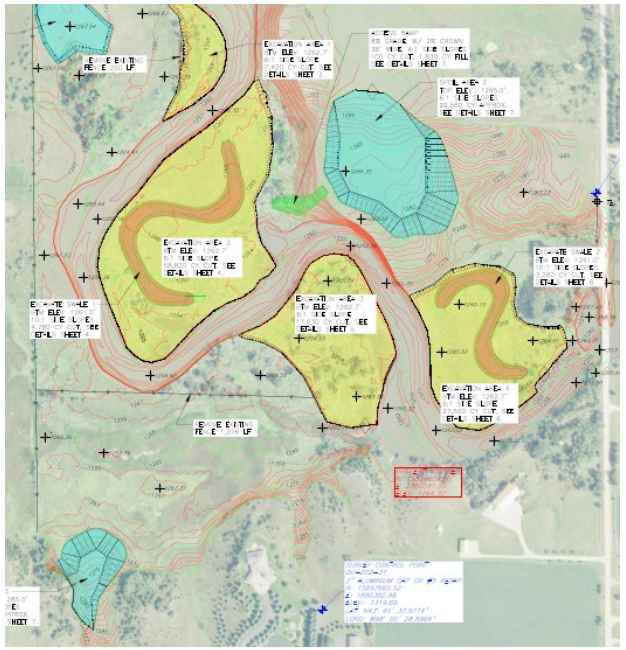


NAWCA Grant

- $1,000,000 Grant
- Plans to effect 2,350 acres

Wetland Project

- 37 Acre Wetland
- Partner – Ducks Unlimited
- Remove Nutrients Prior to Lake



Non-Point Source Funds

- Provided to the City through SRF Loans
- Have been awarded just over $3,000,000

Partners

Ducks Unlimited * Game Fish and Parks * NRCS/USDA * Pheasants Forever * James River Development District * US Fish and Wildlife Service * Counties and Farmers within the Watershed

Estimated Cost: $17,000,000

$15,000,000 Dredge Project
$2,000,000 Jetty/ Marina Construction Project

Identified Funding: $8,625,000

Sale of Kelly Property $1,600,000
Cash Applied from Future Capital Projects Fund $5,000,000
EDA Grant for Jetty/Marina $1,000,000
Designated Matching Funds for Jetty/Marina: $1,000,000
Bass Pros Shop/ Cabela's Outdoor Fund Grant: $25,000

Additional Needed: $8,375,000

LAKE MITCHELL
MITCHELL, SOUTH DAKOTA

Potential Funding Sources for the remaining costs

Debt Service

- SRF Loan 30 years at 2.125%
- $10,000,000 Annual Debt Service
- approximately $500,000/annual

Other Sources- Towards Debt Service

- New Annexations- Property Taxes
- New Sales Taxes- Annexation
- Boat Slip Revenue
- Campground Revenue
- Sale of City Owned Lots at the Lake (if approved by Vote)

Donations & Grants- Towards Debt Service

- Friends of Firesteel Fundraising Efforts
- Game Fish & Parks Grant- Habitat
- SD National Guard- Jetty Project
- Congressional Funding REquests
- Additional Grant Research

Questions and Comments from the public at the 7-27-22 meeting at City of Mitchell Day Camp

1. Zebra muscles in the lake and solution for them?
2. Explain the wetland construction.
3. Explain the draw down to keep the channel moving, possible to put a tile in the channel for constant movement.
4. Possible to make Lake Mitchell a licensed lake to use?
5. Look to future and maintenance schedule.
6. Rain runoff from streets going directly into lake, is it filtered?
7. With cleaning up the lake will City of Mitchell get the water treatment plant back up and running?
8. Will there be manufactured wetlands on the shorelines of the lake where the city owns the land?
9. Is the project based on affordability or effectiveness?
10. How long will this solution last and will the lake be self-sufficient in 20 years, or will we have to do this again?
11. Will there be a lost and found when draining and dredging?
12. What is the timeline of the project?
13. Will they be blocking off water from upstream to complete the project?
14. When this goes to bid will it be out of state and not locals and where will they stay during the project?
15. How many cubic feet will be dredged?
16. What about POET and the water they are supposed to get?
17. How far upstream will the cleanout go?
18. How do you get the dredged material across the main channel during the cleanout?
19. Wetlands are more effective and need to be done first.
20. What responsibility do the land owners have, can they reclaim their land and make lots bigger?
21. Who has to stabilize the shoreline for City of Mitchell owned land if it is sold?
22. What is expected while draining the lake, who will pay for retaining walls if needed?
23. What is Barr Engineering's experience with projects like this?
24. Why stop at 20' and not drain the whole lake if it's only 23' deep?
25. What do you do with the dead fish during the kill offs?
26. Will there be tree deaths as well from having the lake down for so long?
27. Is funding stopping or holding up progress of this project?
28. Can the City of Mitchell raise the sales tax ½ cent to help fund?
29. Can a TIF be done?
30. How much influence does the Army Corp have on the project?
31. GF&P interested in putting a hatchery in the lake?
32. Has the city looked at selling the dredged material to farmers to help pay for the project?
33. Will there be allum treatments to the lake after the project is completed?
34. To keep water moving after the project, explain the draw down feature vs water going over the spill way.
35. To do the original draw down, has the City of Mitchell looked at using the line going to the James River and creating a syphon?