School and Public Lands

Brock L. Greenfield, State Land Commissioner

January 29, 2026

Dear Residents of Richmond Lake,

Our office has received many questions about the upcoming Richmond Lake Dam Rehabilitation Project. This letter is intended to answer the most common questions that have been asked of us. For more detailed information, please refer to the attached reference document, "Richmond Lake Dam Rehabilitation Project: Lake Restriction During Construction Considerations." I am writing you to provide clear information about this essential work, which will address critical deficiencies in the dam and spillway to ensure its long-term safety and compliance with state regulations and federal requirements.

The project involves installing a cutoff wall to mitigate seepage and constructing a new primary spillway to handle required flood discharges. This construction is anticipated to increase the dam's lifespan by as many as 130 years, ensuring that the lake remains viable for many generations to come. While these improvements are vital, they will require temporary restrictions on lake levels during construction. I understand this may impact your enjoyment of the lake, and I want to explain the reasons and process transparently. Below, I'll outline the need for lake restrictions, the sequencing of water control measures, and the plan for refilling the lake. Our goal is to complete this work efficiently, with restrictions below normal pool levels lasting **less than one year**.

1. Lake Restriction During Construction Need

The primary reason for lowering the lake is to create a safe and stable working environment for our contractor(s). For the first phase—the cutoff wall—very large, heavy equipment must be used to excavate and install the barrier effectively. The weight of this equipment poses significant risks to the dam's stability if the lake remains at normal levels. Lowering the water reduces the load on the dam, ensuring a safe working environment during construction. Without this restriction, we would need to enlarge the dam embankment significantly to create a stable platform, which would add substantial cost, time, and permitting requirements.

Additionally, the second phase—the new spillway—requires excavation, foundation treatment, and construction in a dry environment to ensure it functions properly. To achieve this, we'll build a cofferdam—a temporary embankment with sheet pile—immediately upstream of the spillway. This cofferdam must be constructed in the dry, as its materials need to be placed in controlled lifts and compacted adequately to act as a reliable water barrier. Other options, such as building in the wet, are not compatible with the sheet pile needed to minimize seepage and pumping costs. Lowering the lake initially allows us to build the cofferdam safely and efficiently.

We have no choice during construction but to close the road, as it—along with the bridge—must be removed during the construction process. We wish that we didn't have to do it, but it is unavoidable, and we ask for your patience during the construction.

2. Water Control/Lake Restriction Sequencing

To minimize disruption, we've planned a careful sequence for managing lake levels during construction:

1. Lower the lake to elevation 1349 to allow safe construction of the cofferdam upstream of the spillway.

2. Once the cofferdam is complete, maintain the lake level between elevations 1349 and 1355 during the cutoff wall construction. This range ensures dam stability under the heavy equipment loads.

3. Construct the cutoff wall.

4. After the cutoff wall is finished, the lake will be allowed to rise to elevation 1360.6 (the normal pool and spillway crest level) and must remain at or below this throughout the remaining construction.

5. Upon full project completion, all restrictions will be lifted.

This sequencing prioritizes safety while progressing the work as quickly as possible. The lake will only be held below normal pool until the cutoff wall is done, which we expect to take less than one year.

3. Refilling the Lake

Once the cutoff wall is complete, the lake will be allowed to refill to its normal pool elevation of 1360.6. This will happen gradually, depending on natural inflows, and it will be maintained at or below this level until the entire project wraps up. After that, there will be no further restrictions, and the lake can return to full, unrestricted use. We anticipate the full project timeline will keep major impacts as brief as possible and we will work to restore normal conditions as swiftly as possible, but we need to do this correctly so that the dam will last well into the future.

We appreciate your patience and understanding as we undertake this important rehabilitation to protect the community and preserve Richmond Lake for future generations.

If you have questions or concerns, please contact my office at (605) 773-3303 or my deputy via email at Justin.Nagel@state.sd.us. Updates will be shared through local channels and on our website as the project advances.

Sincerely,

Brock L. Greenfield

Brock L. Greenfield
State Land Commissioner

Important Note

This presentation includes a selection of key slides from the full Richmond Lake Project presentation. We have removed redundant material to provide a clear, concise overview of the essential information for public review. All pertinent details regarding the project—including objectives, timeline, impacts, and next steps—are included in the remaining slides. If you would like the complete version of the presentation or have additional questions, please contact our office.
Thank you for your interest in the Richmond Lake Project.

Richmond Lake Dam Rehabilitation Project

Lake Restriction During Construction Considerations

October 23, 2025

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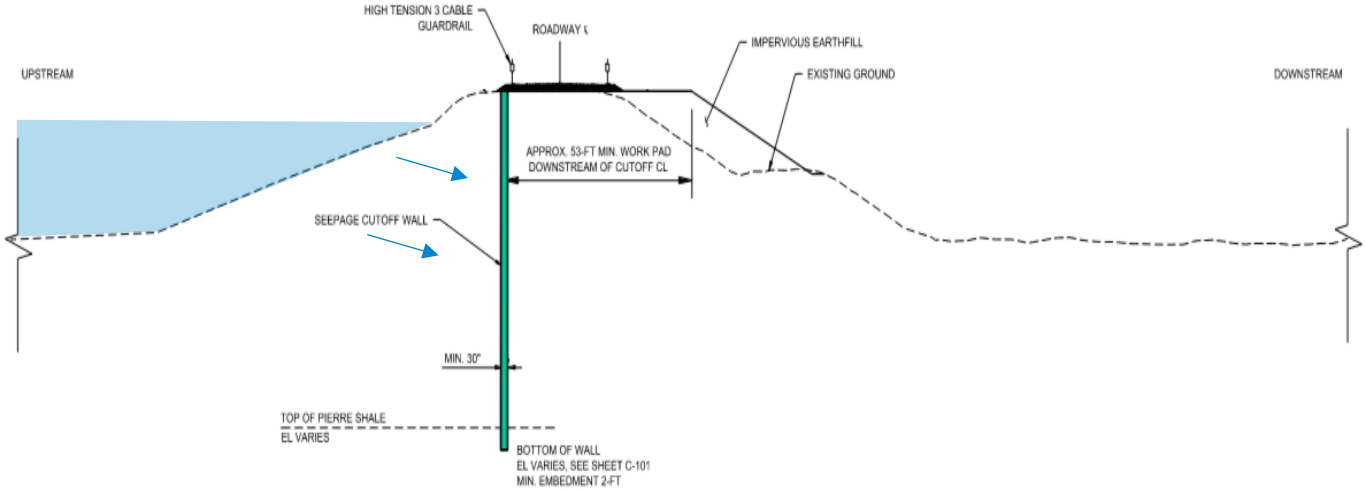
Outline

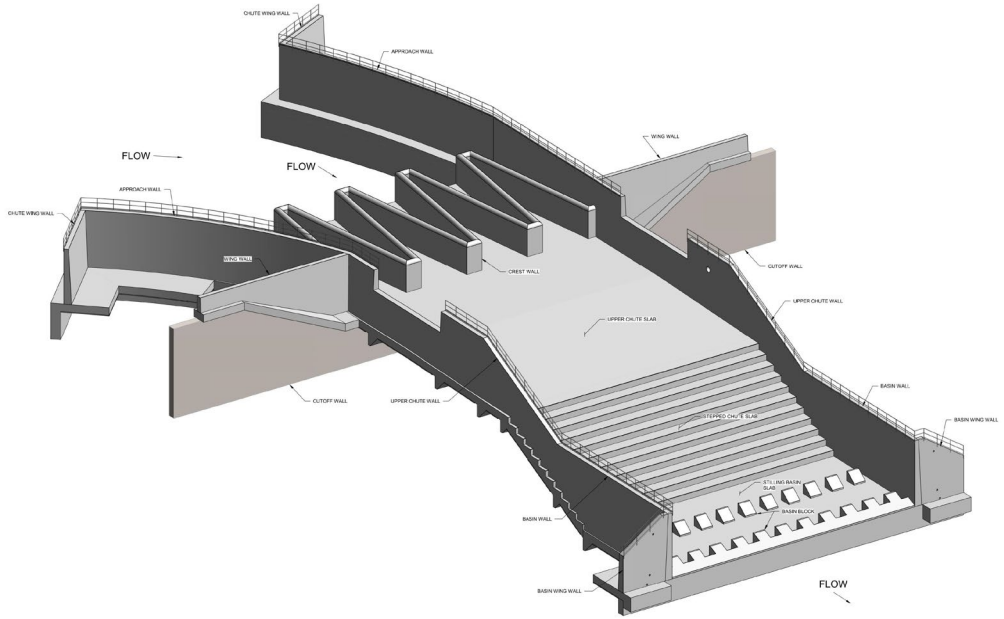
1. Lake Restriction During Construction Need
2. Water Control/Lake Restriction Sequencing
3. Refilling the Lake

Primary Features

Project has two main components:

- Cutoff Wall / Seepage Barrier
  - To mitigate current deficiencies related to seepage through the dam.
- New Primary Spillway
  - To provide adequate discharge capacity to safely pass the minimum inflow design flood required by state rules.





Why do we need to lower the lake?

- To provide a safe working environment for the construction of the cutoff wall.
- To allow for the cofferdam upstream of the spillway to be constructed in the dry.

Cutoff Wall Construction

- The selected cutoff wall installation method provides the best value for the project.
- Requires very large/heavy equipment to construct.
- Lake restriction is to help ensure the stability of the dam given the large loads associated with the required construction equipment.
- Not lowering the lake would require a bigger enlargement of the dam embankment (to provide a safe working platform for the cutoff wall construction), adding cost, time, and permitting requirements to the project.

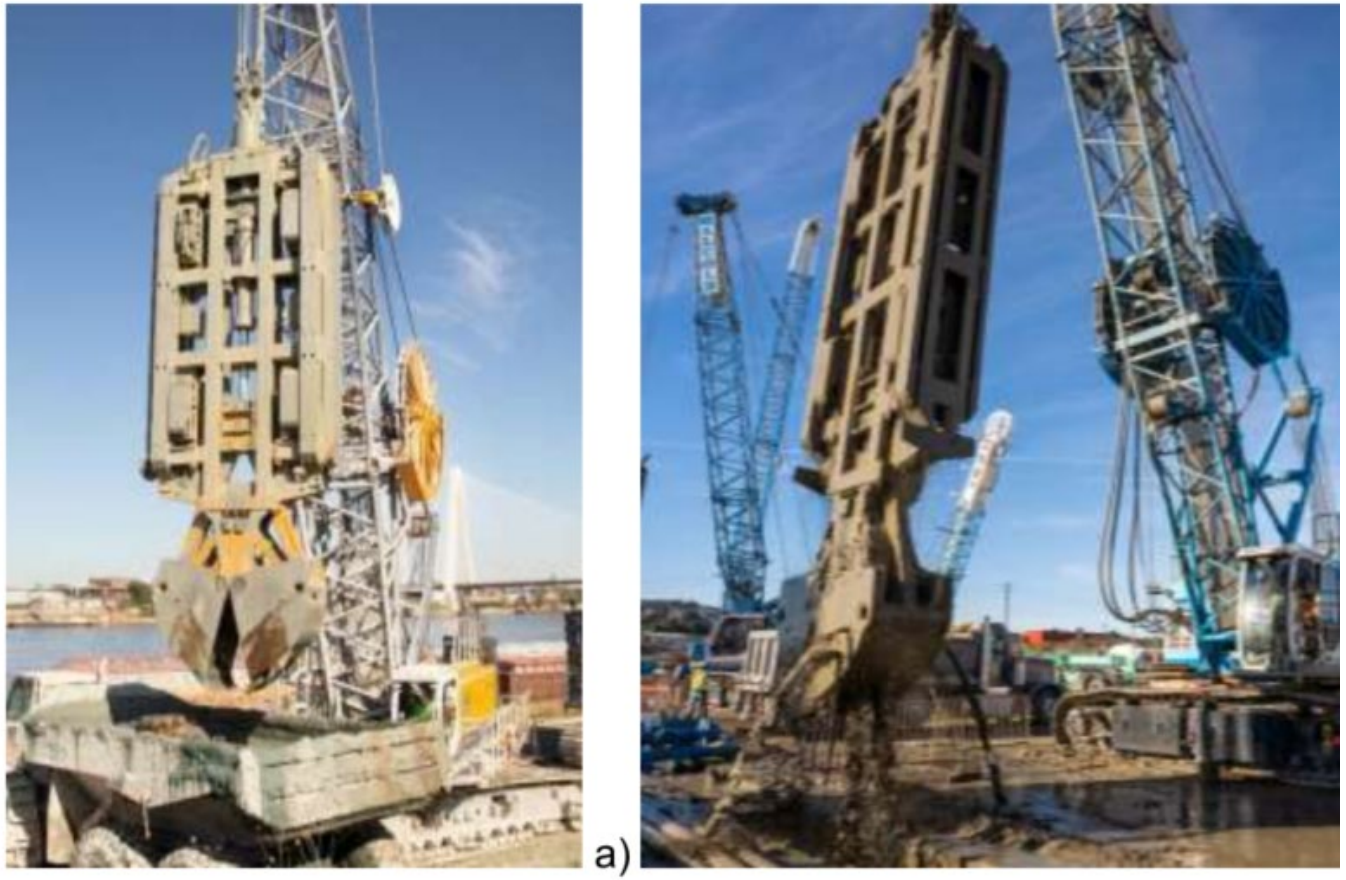
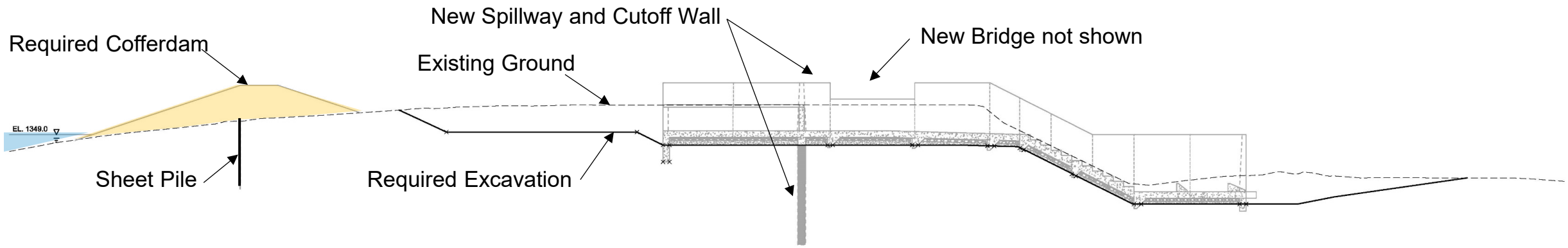


Figure 2. Mechanical grab panel wall excavation equipment (a) courtesy of Bauer), b) Malcolm Drilling).

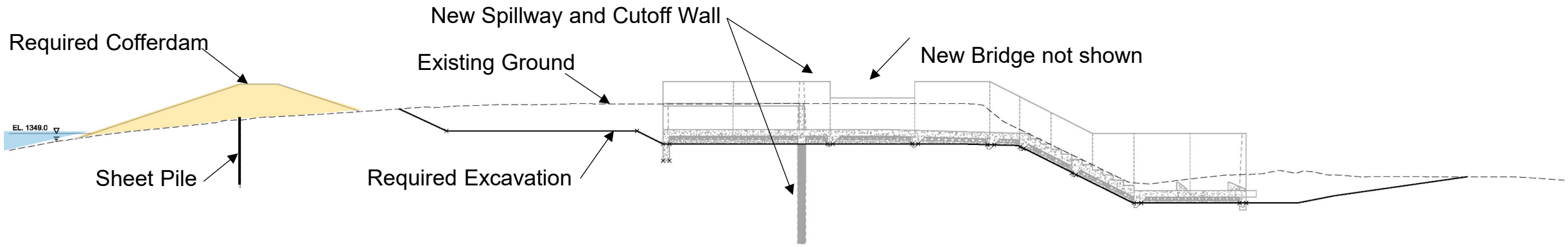
Spillway and Cofferdam Considerations

- The spillway option selected was the best value for the project as it maximized the available discharge capacity within the same general footprint as the existing spillway.
- The excavation, foundation treatment, and subsequent construction of the spillway needs to be performed in the dry to ensure the spillway will function as intended. Building a cofferdam immediately upstream allows for working in the dry at the new spillway.



Spillway and Cofferdam Considerations

- An embankment cofferdam with sheet pile were selected as this combination provided the best value to the project while ensuring a safe working area.
  - An embankment cofferdam does not require special construction methods, but it is recommended to be constructed in the dry. Other options that can be installed in the wet are not necessarily compatible with the sheet pile.
  - The sheet pile is required to minimize pumping costs during construction and a significant amount of seepage into the work area is expected if these layers are not cut off.
- Lake needs to be drawn down initially to construct the embankment cofferdam. The embankment materials acting as the water barrier need to be placed in controlled lifts and adequately compacted to perform as intended.

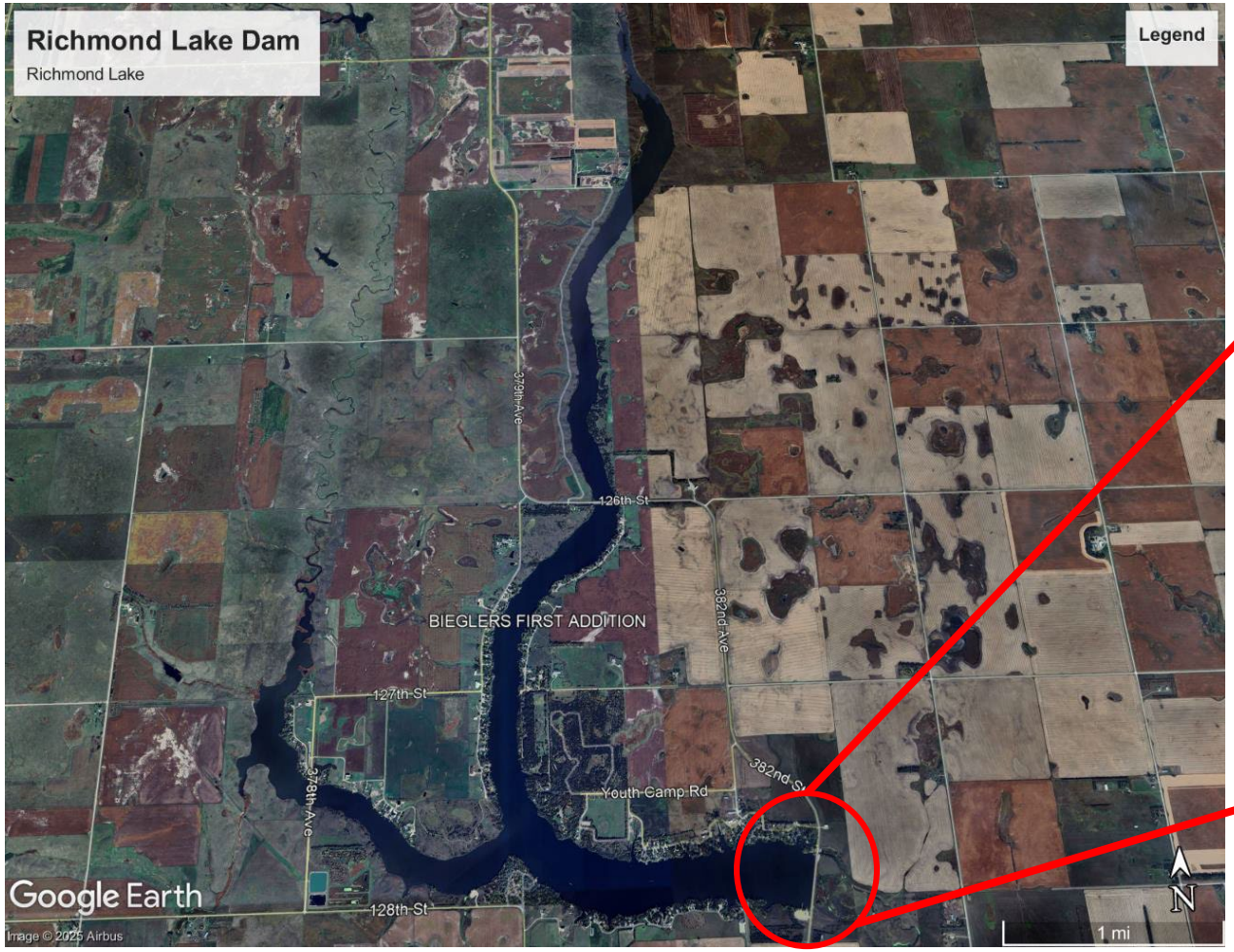


Required Construction Sequencing for Key Tasks

1. Lower lake to El. 1349.
2. Construct cofferdam upstream of spillway.
3. Upon completion of cofferdam, maintain lake level between El. 1349 and 1355 during construction of the cutoff wall.
4. Construct cutoff wall.
5. After completion of cutoff wall, lake is allowed to rise to El. 1360.6 (normal pool/spillway crest elevation) and must be maintained at El. 1360.6 or lower throughout the remainder of construction.
6. No restrictions once construction is completed.

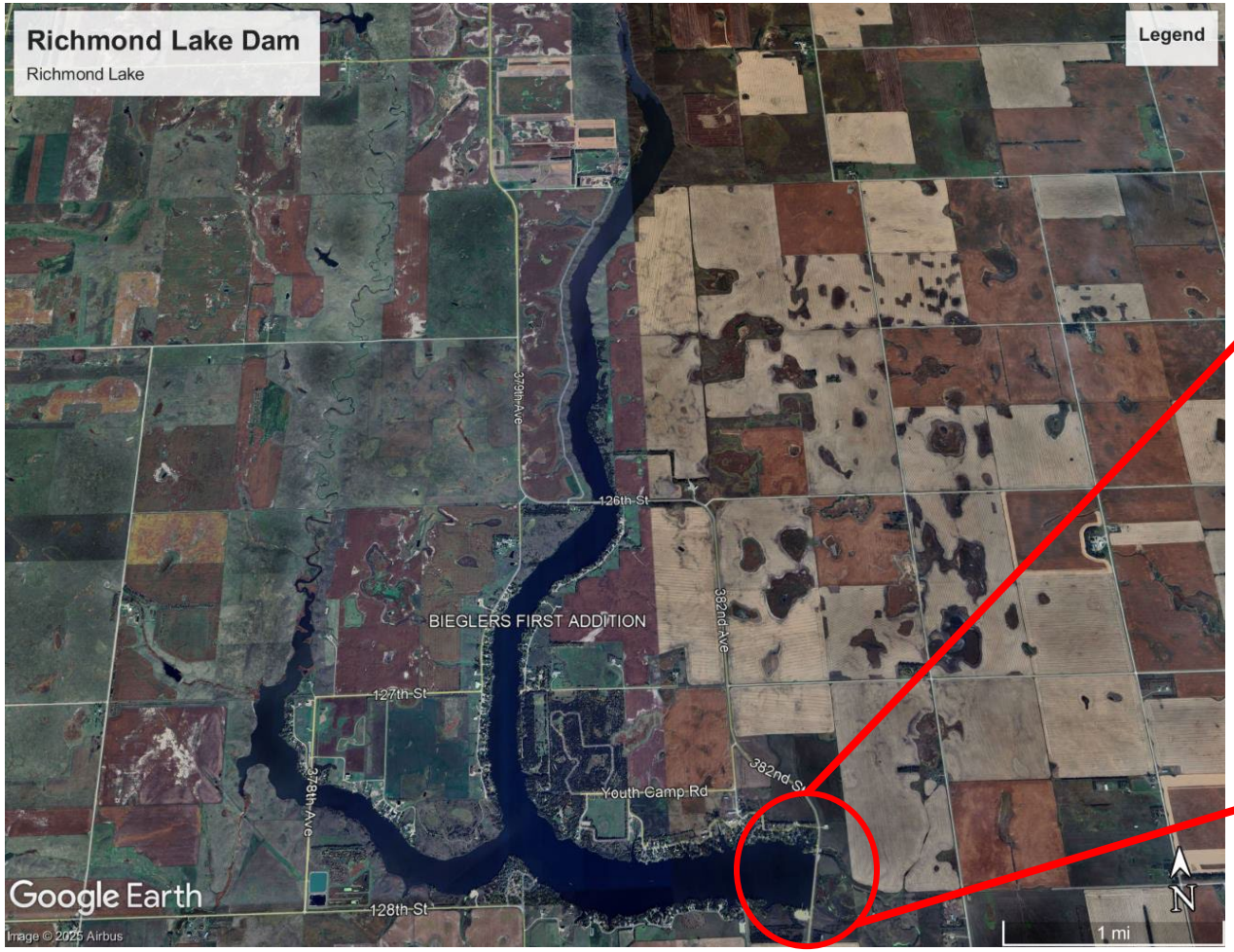
** The lake will only be restricted to elevations below normal pool until the cutoff wall construction is completed, less than 1 year.

Why won't a cofferdam further upstream or new dam downstream work?



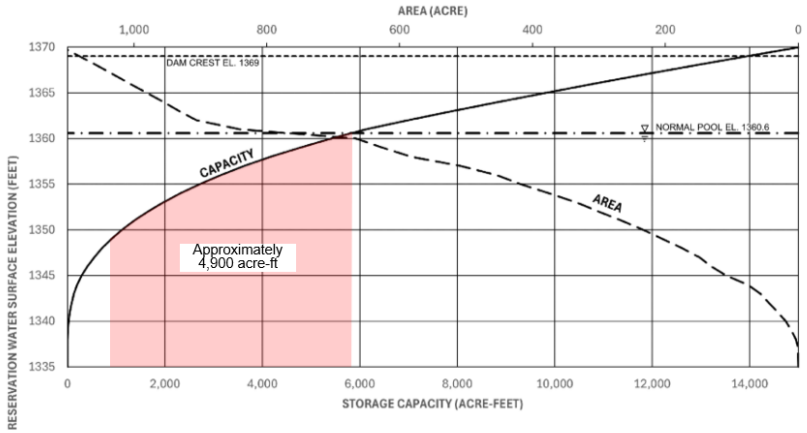
- A cofferdam further upstream does not keep the required work area dry or lower the lake to reduce the loading on the dam needed for stability during construction unless we lower the lake as well.
- A cofferdam upstream will require additional permitting and approvals which will significantly increase the cost and delay the project without providing a benefit.

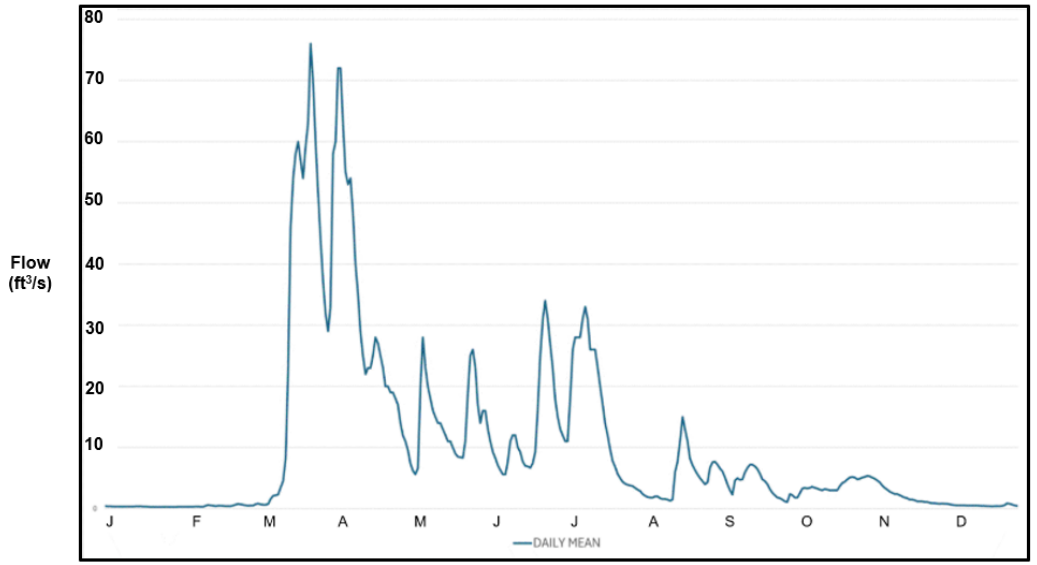
Why won't a cofferdam further upstream or new dam downstream work?



- A new dam downstream does not provide any benefit for the required modifications.
- A new dam downstream would require a completely new design, exploration and testing, land acquisition, water rights determination, environmental studies, permitting, additional years, and be significantly more expensive than the proposed modifications.

How Long Will It Take To Fill the Lake?





Approximate Volume to Fill (acre-ft)	Inflow (ft^3/s)	Inflow (acre-ft/day)	Days Required to Fill
4,900	10	19.8	247
	20	39.7	124
	30	59.5	82
	40	79.3	62
	50	99.2	49

* It is anticipated to only take 1 season to fill Richmond Lake