

Minnesota Department of Natural Resources  
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St. Paul, MN 55155

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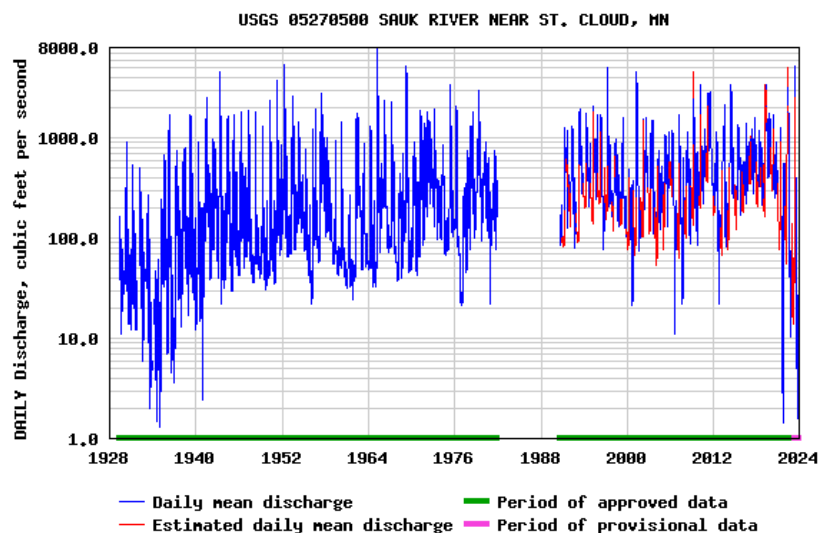
January 12, 2024

Mr. Brad Matuska  
President  
Sauk River Chain of Lakes Association  
P.O. Box 369  
Richmond, MN 56368

Greetings,

It is DNR's understanding that the Sauk River Chain of Lakes Association (SRCLA) would like the DNR to pursue a study to determine if changes to the Cold Spring Dam could alleviate issues with high water levels, erosion, impaired water, and limited access. We understand and empathize with the concerns. In response to this request, DNR staff analyzed stream gage and lake level records, researched electronic and hard copy files, reviewed engineering reports, and contacted other stakeholders to gain a better understanding of the watershed, the Chain of Lakes water levels, the dam, river conditions downstream, and the recent climate. Upon review, it does not appear to be feasible to modify the dam in a manner that is both consistent with public water laws and that would alleviate the above issues.

The last three years have seen extreme highs and lows in lake levels, including two of the five highest flows in the last 90 years as well as two of the four lowest flows in 90 years (see figure below which shows flows at a USGS gage downstream of the dam).



These extreme lake level and outflow fluctuations are a result of natural climatological conditions. Heavier than usual winter snowpacks has led to high spring flows, and several months of below normal precipitation in the summer has led to lower than normal summer flow and lake levels. The Cold Spring Dam sets the outflow elevation of the Sauk River Chain of Lakes, but the dam is “run-of-river”, meaning whatever flow goes into the Sauk River Chain of Lakes goes out without artificial manipulation. Run of the river operation has existed since about 1980 (43 years).

Changing the Cold Spring Dam will not change climatological conditions. We understand that extreme weather can lead to highly fluctuating lake levels. Over the past 40 years the Chain of Lakes water levels commonly rise two feet with spring runoff, with several years rising nearly five feet. This issue of fluctuating water levels is not localized to the Chain of Lakes. DNR has developed a guidance document for shoreline property owners experiencing fluctuating water levels titled, “What can (and should) I do about fluctuating water levels on my property?”. (see attached)

<https://files.dnr.state.mn.us/publications/waters/high-water.pdf>

We acknowledge that there are other dams within the watershed that have limited operational capabilities. The Sauk Centre Dam may be used to draw down Sauk Lake by one foot for the winter. The operation plan does not allow for operations that would eliminate lake bounces that occur from naturally occurring events, nor does it allow operations for minor flood control or for augmenting flow during droughts. Downstream from Sauk Centre, the Melrose Dam has gates that must be opened during flood events exceeding the approximate 20-year flood to prevent failure of the dam. A large flood event could overtop the earthen embankment and fail the dam if the gates aren’t opened. The recently updated operation and maintenance plan for the Melrose Dam allows operation of the gates only for maintenance of the dam and to prevent overtopping of the earthen embankment. Both the Sauk Centre Dam and the Melrose Dam are owned by the respective cities.

Changing the Cold Spring Dam and its operation would potentially create other issues. In our experience, dams with operable gates provide more contention, complaints, and liability than dams without operations. For example, operating a dam to pass more water to keep lake levels down is likely to trigger complaints from downstream interests. Drawing the Chain of Lakes down in the winter would send more flow downstream. Drawdown would also negatively affect some species like amphibians, potentially affect ice safety, and potentially create artificially low flow or low lake level conditions the following year if spring runoff is below normal or gates aren’t closed at the right time.

Modification of the Cold Spring dam to create artificial flow manipulation creates challenges for the DNR, including:

- Inconsistency with rules and statutes that emphasize natural flow, run of river operations, and limiting artificial manipulation of water levels
- Known and perceived impacts of manipulating lake levels, both upstream and downstream
- Significant stakeholder involvement and outreach
- Appropriateness of DNR to study watershed impacts
- The current dam is stable and in satisfactory condition
- Impacts on DNR base operating budgets and limited staff resources to conduct a study
- Potentially repetitive considering the 1992 study memo addressed similar concerns
- Uncertainty on the need of a study as the impacts/issues/problems haven’t been well defined

- Flooding impacts due to dam operation downstream of the dam, including property damage and environmental impacts to a Scientific and Natural Area
- High capital costs for modification of an existing dam, likely in the millions of dollars
- Operational challenges, including liability for misoperation
- Monitoring of flow rates challenges
- Additional long term maintenance costs
- Obtaining riparian property rights on the Sauk River Chain of Lakes as well as downstream of the dam

DNR staff are available to continue conversations regarding high water levels, erosion, impaired water, and limited access. We encourage you to continue to work with DNR and local stakeholders to address the issues. All the stakeholders we have contacted, including Sauk River Watershed District, Stearns County Soil and Water Conservation District, Stearns County, and the City of Cold Spring are open to continued dialogue and engagement on the subject.

Sincerely,

Jason Boyle  
State Dam Safety Engineer

cc: Jon Roeschlein, Sauk River Watershed District  
Chelle Benson, Stearns County  
Dennis Fuchs, Stearns County SWCD  
Kris Dockendorf, City of Coldspring  
Nicki Blake-Bradley, DNR EWR Area Hydrologist  
Dan Lais, DNR EWR Central Region Manager

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