DEPARTMENT OF NATURAL RESOURCES

Minnesota Department of Natural Resources
Ecological and Water Resource
1200 Warner Road
St. Paul, MN 55106

July 28, 2017

Transmitted Electronically

Cole Loewen
Clearwater River Watershed District
75 Elm Street East
PO Box 481
Annandale, MN 55389

Re: Engineer's Report: School Section Lake Outlet 2017

Dear Mr. Loewen,

On behalf of the Director of the Division of Ecological and Water Resources of the Department of Natural Resources (DNR), I offer the following comments on the Engineer's Report for the above-cited project, in accordance with Minnesota Statutes section 103D.711, subdivision 5. As indicated in Subdivision 5, the advisory report shall include:

1) a statement about the completeness of the report in relation to statutory requirements;
2) a statement as to whether or not the report presents a practical plan;
3) recommendations for changes, if considered advisable, and
4) a recommendation as to whether a soil survey appears advisable.

General Comments

The Engineer's Report appears to be complete from a Division of Ecological and Water Resources viewpoint. The Engineer's Report is approved as a practical plan with changes as discussed below. A soil survey is not needed.

Specific Comments

Section 3.0 Alternatives Considered: Option #3.3 indicates that "the DNR has indicated that they will not permit any other alternatives". This is an incorrect statement. The DNR is open to discussion regarding other project alternatives. What had been stated by the DNR is that if the existing I-beam structure were to be damaged by ice action, a different structure or alternative will likely be required. The sheet pile weir structure is what has been offered, although other alternatives may exist.

If alternative 3.3 is moved forward by the WD in the form of a permit application to the DNR, we suggest creation of a "sedimentation sump" area below the invert of the culvert to allow any sand that does enter the weir structure to settle out before entering the outlet culvert. The sediment sump area could be cleaned out as needed by removing the wooden boards on top of the weir structure. The DNR believes creation of the

sediment sump area inside the new weir structure would allow the Watershed District to save up-front costs as well as future maintenance costs of vacuum/jet cleaning the outlet pipe.

Another possible option for preventing sand from entering the outlet culvert (if the sump area idea is rejected) would be a screen that would prevent sand, but not the water, from leaving the lake.

DNR also questions the need to remove the existing culvert and manhole/poured concrete weir that is still functional as the water control strcuture, set at the proper elevation (which has been verified multiple times), and has not been damaged.

Section 4.4 Other Requirements: An amendment to Public Waters Work Permit 1985-3135 will be needed for the alteration of the outlet control structure for School Section Lake. An amendment request and final plans can be submitted through the on-line permitting system MPARS at http://www.dnr.state.mn.us/mpars/ .

Section 5.3.1 Constructions Costs (Table 5.4): It is possible that line items 2, 9, 12, and 13 may be removed by choosing to leave the existing culvert and manhole/poured concrete weir in place. By leaving the existing culvert and manhole/poured concrete weir in place, a significant cost savings on the project may be possible ($14,000 to $19,000... 24% to 32%).

Leaving the existing, poured concrete weir in place creates a (proven) protective redundancy while reducing the environmental impact of the proposed project and subsequent potential for erosion and sedimentation into School Section Lake.

Thank you for the consideration of our comments. If you have follow up questions with our comments or would like to discuss the project or submit an amendment request, please contact Area Hydrologist, Nicola Blake-Bradley in our Sauk Rapids area office at (320) 223-7844 or e-mail her at Nicola.blake-bradley@state.mn.us.

Sincerely,

Dan Lais
EWR Regional Manager

CC: Luke Skinner, EWR Division Director
Nicola Blake-Bradley, Area Hydrologist
Al Kean, BWSR