From:	June.Bergquist@deq.idaho.gov
To:	tannerw@nctv.com
Cc:	June.Bergquist@deq.idaho.gov; Woodruff, Leigh; Nickel, Brian; Daniel.Redline@deq.idaho.gov; Robert.Steed@deq.idaho.gov; Kristin.Larson@deq.idaho.gov; Thomas.Herron@deq.idaho.gov; AFuson@idl.idaho.gov
Subject:	KPSD proposal to discharge into PDO Lake
Date:	Tuesday, January 24, 2017 10:32:02 AM

Hi Tanner,

This email is in response to your request to learn if relocation of your outfall into Pend Oreille (PDO) Lake is a possibility. Although it is difficult to predict what your effluent limits might be and how they might appear in a permit, we can give you some information about the PDO Lake Nearshore TMDL for phosphorus and other water quality related activities that might affect such a discharge now and in the future. Below we have listed some of the options proposed by the District and under each option discussed issues and needs of each.

Year Round Discharge to Nearshore Area of PDO Lake:

After examining the Nearshore TMDL and related information we have concluded that a year round discharge into the nearshore area is not an option for several reasons. First, there is no wasteload allocation for the WWTP in the TMDL. In addition, recent monitoring indicates that the northern portion of PDO Lake may not be meeting the limits established by the TMDL. The 2015 five year review of the Nearshore TMDL also concluded that productivity conditions in the northern lake are higher than the mid and southern, and water column nutrients in the northern portion of the lake support higher periphyton productivity than do the nutrients in the southern portion. This indicates there is no more capacity for phosphorus in the northern lake. Until more data can be collected and the TMDL rewritten, a year round load increase to the nearshore area would not be considered even if your end of pipe concentration met the TMDL targets.

Year Round Discharge to Deep Water Area of PDO Lake:

We estimate that a very long outfall pipe would have to be constructed to reach deep water in the lake if you were to extend it from its current location along the bed of Boyer Slough into the lake. This very long outfall pipe would need to extend into water deeper than 16 meters per the TMDL. It would be the District's responsibility to demonstrate to DEQ that the discharge would be in a location that doesn't influence nearshore water quality.

The other consideration for this option is that the deep water portion of the lake is guided by the Clark Fork-Pend Oreille Basin Water Quality Management Plan and Border Nutrient Agreement, the development of which was established by Public Law 100-4 in 1987. The goal of this agreement was to maintain the quality of open water in PDO Lake. The phosphorus target for open water in this agreement is 7.3 µg/L TP. You would need to demonstrate to DEQ that there is adequate capacity in the deep water portion of the lake for additional phosphorus.

October – May Nearshore Discharge; June – September Land Application:

As we understand for this option the District would further develop their land application system so they would not discharge during the timeframe of the

Nearshore TMDL. The outfall would be extended along the bed of Boyer Slough to the nearshore area of Pend Oreille Lake.
To consider this option, DEQ would require flow, temperature and other monitoring data to determine if the discharge will meet Water Quality Standards (WQS) and comply with the mixing zone policy. Nearshore waters that experience slack water could be problematic.
As previously mentioned, recent monitoring indicates that the northern portion of PDO Lake may not be meeting the limits established by the TMDL. Additional monitoring is required to determine sources and seasonality. This work is currently not planned or funded by DEQ; however, the District can submit monitoring data to DEQ for review and approval to pursue this option. This work would need to be completed prior to DEQ making a determination that any new discharge during this timeframe to the nearshore zone is acceptable, and would meet WQS. Be aware that additional monitoring could show that a nearshore discharge even outside of the TMDL timeframe is adversely affecting the summer season water quality.
The pipe extension would likely require a lake encroachment permit from Idaho Department of Lands and possibly a lease. The relocation of the outfall would have to be shown to be in the public interest. Please contact Amidy Fuson-IDL at (208) 263-5104 for more information.

Regionalization

As we understand, this option was for Kootenai Ponderay Sewer District (KPSD) to hook up to Sandpoint's sewer, decommission the District's treatment plant, and retain the reuse site. There would no longer be the need for an NPDES permit and no issues with surface water quality. Lagoon seepage would not have to be addressed. Sandpoint could utilize KPSD's reuse to assist them in meeting their permit limits, potentially negating the effects of the additional flows from the District during the growing season.

Additional Information

Right to Existing Phosphorus Load:

The Nearshore TMDL did not account for the phosphorus load coming from the Kootenai Ponderay WWTP. It is clearly written in the TMDL that there is zero waste load allocation for point sources. There was no data collected in the vicinity of Boyer Slough during the development of the nearshore TMDL to indicate it was considered. In 2001the District submitted to DEQ an application for a reuse permit with the intention of eliminating their discharge during the growing season of June through September. The TMDL, finalized in 2002, was written with this knowledge. The 2015 five year review of the Nearshore TMDL indicates that the TMDL was based solely on stormwater runoff from the nearshore land and septic seepage through groundwater. The Nearshore TMDL also did not take into consideration loading from tributaries. The Pack River TMDL is an example of how pollutant loads to the lake are addressed. Currently pollutants from the KPSD discharge are being evaluated as part of the Boyer Slough subbasin assessment as part of the systematic effort of DEQ's to assess and prepare TMDLs for impaired waters.
In summary, the existing Nearshore TMDL does not provide the District with a right to an existing phosphorus load from the WWTP. Similar to other tributaries of PDO Lake, the assessment/TMDL process is underway for Boyer Slough and

described below. This is the process where phosphorus and other pollutants from the WWTP will be evaluated and pollutant loads determined for recovery of beneficial uses.

Boyer Slough Subbasin Assessment and TMDLs:

Boyer Slough is a water quality impaired waterbody and is currently in its initial stages of waterbody characterization. In Idaho's draft 2014 Integrated Report, Boyer Slough is listed as not supporting cold water aquatic life, salmonid spawning, and primary recreation beneficial uses due to excess nitrogen and phosphorus. Preliminary data indicates that Boyer Slough has double the phosphorus and three to four times the nitrogen concentrations than other streams in northern Idaho. These pollutants and possibly others may require significant reductions to recover beneficial uses of Boyer Slough. In the future, a subbasin assessment and development of a TMDL for one or more pollutants will be written with the input of a Watershed Advisory Group.

Hopefully this information is helpful to you. If you want to schedule a conference call to discuss this topic please let me know several potential dates and times you will be available and I can set it up. Thanks.

June

June Bergquist
Regional Water Quality Compliance Officer
Idaho Department of Environmental Quality
Coeur d'Alene Regional Office
2110 Ironwood Parkway
Coeur d'Alene ID 83814
Phone: (208)666-4605