

**BOIS DE SIOUX WATERSHED DISTRICT
BOARD MEETING MINUTES
April 24, 2018**

CALL TO ORDER The meeting was called to order by President Vavra at 1:04 p.m. Present: Linda Vavra, Doug Dahlen, Jerome Deal, Scott Gillespie, Steven Schmidt. Absent: Jason Beyer, John Kapphahn, Allen Wold. Also present: Engineer Chad L. Engels, Water Quality Specialist Roger Clay, EOR Limnologist Dr. Meghan Funke, MPCA Watershed Project Manager Carey Hernandez, NRCS District Conservationist Christopher Hogge, and Administrator Jamie Beyer.

SPECIAL MEETING The purpose of the meeting was to review MPCA's Bois de Sioux River WRAPS and TMDL Reports.

LAKE TRAVERSE & MUD LAKE SUMMARY Funke gave details on Traverse Lake, Mud Lake, Upper Lightning Lake, and Ash Lake. Mud and Traverse Lake are not considered impaired. Their shallow depth, narrow shape, carp populations, dependency on precipitation and dam management controls are a basis for study in the future. Funke relayed that MPCA had length discussions on the water flow between the Mustinka River, Lake Traverse, and Mud Lake when the dams are open vs. when the dams are closed. When the dams are open, the Mustinka flows into Traverse and then into Mustinka, acting overall more like a river; therefore, MPCA nutrient levels should be set higher. When the dams are closed, the Mustinka flows into Traverse, which acts more lake-like. Funke relayed that, although Lake Traverse exceeds its phosphorous limits, what is important is what happens because of the phosphorous – and, in Lake Traverse, turbidity and lack of light prevent the phosphorus from fueling algae. It was stated that Lake Traverse is most impacted by South Dakota land use, and that South Dakota does not have Lake Traverse listed as an impaired lake either.

INTERNAL LOADING MPCA's research shows that 2/3 of the phosphorous in Lake Traverse is from "internal loading" – which is affected by characteristics unique to the lake like summer temperature swings, decomposition of organic matter, and lake sediment. MPCA attributed 96% of the phosphorous load in Mud Lake to internal loading; external land management decisions surrounding Mud Lake will not reduce phosphorous levels.

ASH & UPPER LIGHTNING LAKES Overall, Funke found Ash and Upper Lightning Lakes in really good shape, and that a 30% reduction in phosphorus is an achievable goal.

TMDL PERMITEES Bois de Sioux rivers and streams were discussed next. The TMDL discussed regulated sources, and the primary challenge for the permitted sources is water flow. Permit modifications are in-process to ensure that permittees discharge waste outside June – September, when flows are low.

OTHER FINDINGS Nitrates are not a problem in this watershed. E. coli is high, but there are no correspondingly high manmade sources. Funke recommends that a future fecal investigation be conducted to identify what wildlife species is the prevalent source of bacteria in this watershed. Dissolved oxygen, fish populations, and turbidity are a concern in the watershed streams; increasing stream flow could improve dissolved oxygen levels and positively affect these concerns. Pesticides were not found to be a problem in the watershed.

PROPOSED IMPROVEMENTS Funke reviewed some possible watershed improvements that could be made to reduce the amount of phosphorous in streams. Gillespie requested that side inlets be considered in MPCA's modeling, as they have been found to reduce the amounts of sediment-bound phosphorous. Hogge relayed that their office does not encourage riparian buffers with trees, as their office feels trees were not native to the landscape. Hogge also requested that MPCA consider strip till (instead of no-till) in their modeling, as no-till is extremely difficult to implement in this climate.

IN-PROGRESS IMPROVEMENTS Engels summarized the improvements that have been made, and are in the process of moving forward, including: ditch retrofits, the North Ottawa and Redpath Impoundments, and stream restoration projects.

COMMENT PERIOD EXTENSION Hernandez confirmed that he received the Bois de Sioux Watershed's request for an extended comment period; he will relay the request to the appropriate MPCA personnel.