**Project Description:**

Brenda & Warren Dammann

21899 506th Lane

McGregor, MN 55760

**Property current state:**

* Big Sandy Lake one acre lot on a point with 3 sides water, over 700 feet of natural shoreline, primarily rocks except 40 feet from dock to dock that is a sandy swim area.
* Over the past 4 years that we owned the property, the wave action from the wake boats has been eroding the soil and it now has exposed 2X4 boards sticking up out of the soil along the water’s edge, It appears that the prior owners had installed some coir or soil erosion barrier wall in that area that has eroded away due to the boat wave action. The 2X4 boards are now sticking up about 8–10” from the soil close to the water’s edge.
* There is no ice out issue on this area of the property, it faces a small island (Snell) on the east side and is protected from prevailing winds. In the 4 years we have been here, Big Sandy has been lowered enough to keep the ice back from the shoreline.

**Proposed change:**

* We have researched options to prevent further erosion while maintaining an accessible waterfront area for swimming and boating.
* We would like to install a vinyl retaining wall above the OHWL elevation, replacing the prior barrier that has failed, in order to keep the soil from further erosion while maintaining the current lake edge. We saw the Everlast vinyl product on Cass Lake which is commonly used near larger bodies of water and on golf courses. This withstands the elements better than a block wall and allows easy access to the water.
* The product is a piece of vinyl 20 inches wide by 7 inches deep and for our application will be approximately 15 inches high above ground with another 30 inches pushed down into the soil and held in place with tiebacks / deadheads. A cap is placed on top to create a level top surface. The product is natural gray in color and has a 50-year warranty.
* Behind the retaining wall, we will refill the soil that has eroded and reseed the grass.

**Big Sandy Lake Water Levels:**

* Ordinary High Water (OHWL) elevation: 1216.56 ft
* 7/1/2021 = 1216.13 (shoreline photos taken)

**State DNR Permit not required:**

I contacted Heidi Lindgren, DNR Hydrologist for Aitkin County to discuss and this is her email response: “Hi Brenda,

Thank you for calling and discussing your project in more detail.   We discussed the location of the retaining wall in more detail.  If the retaining wall was installed on the land side of the stakes, the wall would be above the Ordinary High Water Level (OHWL) and not in DNR’s jurisdiction.  A DNR permit would not be needed.  Some of the stakes are circled in the picture below which was taken on July 1, 2021.   Water levels were approximately 1216.4 feet on July 1, 2021 and the OHWL is 1216.56 feet (NGVD29 datum).  As you were planning, contacting Aitkin County Planning and Zoning for their requirements and permits is the next step.

Please feel free to contact me with any further questions.

Thank you,

Heidi

Attached photos show the project site from various angles taken on July 1, 2021 when the lake was at Ordinary High Water level. They show the two rows of stakes remaining from the prior retaining barrier. The new material will go in the same location as the prior one (40 feet from outside of one dock to the outside of the other dock). Also attached are a technical document of the vinyl sheet piling product and a drawing from the contractor and an example of an installed vinyl wall from the company website.