

# Durand Restoration Plan

07-1-137500

Aitkin County Shoreland Management Ordinance Section 5.32 (D)(4) states: *Access to water bodies for purposes of launching trailered watercraft require a land alteration permit, and are only allowed on lakes without a public water access or with public water access where launching of watercraft is not practical due to topography or other site restrictions. A plan must be submitted to the Aitkin County Soil and Water Conservation District for review and to the Aitkin County Planning and Zoning for approval. The Plan must show how surface water run-off will be managed to prevent erosion and sedimentation into the water body. The intent is to prevent exposed soil and/or concrete/asphalt driveways to the lake and to use vegetated areas for filtration.*

Note that no land alteration permit application was submitted to the Aitkin County Planning and Zoning office for the work that was done. Spirit lake has a DNR public access located on the south side of the lake. No private boat landing would be allowed.

**Gravel to be taken out and replaced with natural rock rip-rap placed at a 3:1 slope. Natural rock rip-rap cannot average less than 6 inches or more than 30 inches in diameter. Area above rip-rap shall be put back into vegetation.**



Aitkin County Shoreland Management Ordinance Section 5.31 (B)(2) states: *A vegetation alteration permit is required prior to vegetative clearing in the shore impact zone and bluff impact zone and on steep slopes. In the shore impact zones and bluff impact zones and on steep slopes, no clearing or cutting of tree and shrubs will be allowed until a plan is submitted to and approved by the Aitkin County Planning and Zoning Office. The approved plan shall be submitted with the application for the vegetation alteration permit. The approval of the plan may require rep-vegetation to meet the intent of this section.*

Aitkin County Shoreland Management Ordinance Section 5.31 (A) states: *The intent is to have a shoreline buffer, consisting of trees, shrubs, and ground cover for purposes of soil retention and filtering runoff.*

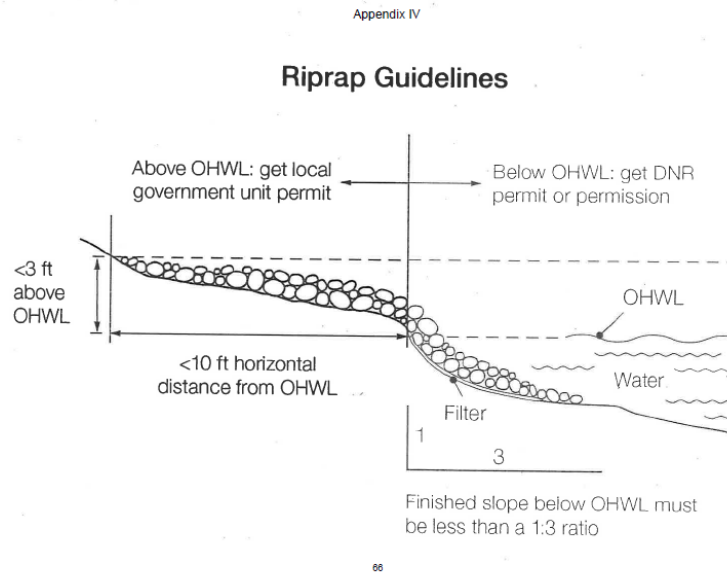


Aitkin County Shoreland Management Ordinance Section 5.32 (D)(6) states: *Placement of natural rock rip-rap, including associated grading of the shoreline and placement of a filter blanket requires a shoreland alteration permit and shall be done in accordance with MN DNR standards. The MN DNR standards require – a) the finished slope does not exceed three (3) feet (see Appendix IV). Rip-Rap will only be allowed in situations where active erosion problems exist. Any permit for rip-rap must contain a plan to establish a vegetation buffer shall be approved by the Aitkin County Environmental Services Department and shall be implemented immediately. The placement of natural rock rip-rap and retaining walls, where allowed, shall comply with M.S. 103G.245. Natural rock rip-rap shall only be used for the correction of an established erosion problem that cannot be controlled through the use of suitable vegetation, slope stabilization using coir logs, willow wattle or similar bioengineering means. Rip-rap and retaining walls used for ornamental purposes or for terracing natural slopes are prohibited within the shore impact zone and bluff impact zones, unless as allowed in Section 5.32,D.*



**A 3' vegetative buffer shall be implemented across the entire lot width above the installed rip-rap.**

Note that no land alteration permit application was submitted to the Aitkin County Planning and Zoning office for the work that was done.



Aitkin County Shoreland Management Ordinance Section 5.32 (D)(1) states: Activities requiring a land alteration permit: on steep slopes and shore and bluff impact zones – activities that involve the excavation and/or placement of earthen material of more than 240 square feet of area.

Aitkin County Shoreland Management Ordinance Section 5.32 (D)(6) states: ... retaining walls used for ornamental purposes or for terracing natural slopes are prohibited within the shore impact zone and bluff impact zones.

Aitkin County Shoreland Management Ordinance Section 5.32 (E)(2)(6)(8) states: Alterations must be designed and conducted in a manner that ensures only the smallest amount of bare ground is exposed for the shortest time possible; Fill or excavated material must not be placed in a manner that creates an unstable slope; Fill or excavated material must not be placed in bluff impact zones.



Bluff to be restored to pre-existing conditions. Area to be re-sloped and put back into vegetation.



Bluff to be restored to pre-existing conditions. Area to be re-sloped and put back into vegetation.



Bluff to be restored to pre-existing conditions. Area to be re-sloped and put back into vegetation.



Implementation of 4 water bars placed diagonally to control surface runoff



Water bar example



Note that no land alteration permit application was submitted to the Aitkin County Planning and Zoning office for the work that was done. Excavation within a bluff is prohibited.

Work to be completed by October 31<sup>st</sup>, 2022

Work will be subject to a 5x after-the-fact land alteration permit fee if land alteration permit is not applied for by September 2<sup>nd</sup>, 2022.