POTENTIAL SHORELINE RESTORATION – HABITAT RECOVERY PROJECT

Project Summary: A large shoreline restoration project is proposed for Little St. Germain Lake, Vilas County. Little St. Germain is a multi-basin lake (Upper East Bay, East Bay, No Fish Bay, West Bay, and South Bay) with a total of 977 surface water acres. Maximum depth ranges from 10 -16 feet in East, No Fish, and South Bay to 53 feet in West Bay. Over seventy years of resort operation and housing development has resulted in moderate to severe erosion along its shoreline, which is also heavily impacted by run-off and pedestrian traffic. Impervious surface run-off has enhanced the impacts. Much of the impacted stretch of shoreline has little native vegetation and is at risk of losing mature white and red pine, and contributes large quantities of sediment to the lake during heavy rain events. In addition, much of the coarse woody material has been removed and few downed trees are found along the developed shoreline, resulting in degraded habitat for fish and their spawn. We propose to correct erosion problems through development of rain gardens to prevent run-off as well as use of biodegradable erosion control products to reduce bank erosion. We will also replace rip-rap, asphalt private boat ramps, and retaining walls with biodegradable materials such as bio-logs and delta-lock bags. Tree drops and establishment of aquatic macrophyte beds will be implemented to improve fish habitat. We will then plant the shoreline into native vegetation, including native trees, shrubs, and ground cover that are appropriate for the Little St. Germain Lake ecosystem. Aquatic invasive species such as curly pondweed and Eurasian Water Milfoil occur throughout the littoral zone of Little St. Germain Lake, and hand-pulling will occur whenever encountered in this research project. Terrestrial invasive species will be inventoried and eradicated as well. This project will be conducted in coordination with an ongoing Wisconsin DNR Science Services research project which is evaluating the ecological benefits of shoreline habitat restoration on 6 lakes in Vilas County. Little St. Germain Lake has historically provided habitat for Species of Greatest Conservation Need (Wisconsin Wildlife Action Plan, http://dnr.wi.gov/org/land/er/wwap/plan) including the mink frog and black tern, as well as ospreys, a state threatened species – this project will provide habitat improvements that will benefit these species. Consultation and plant material will be provided by local landscapers with over 10 years experience conducting riparian restoration projects. All project partners have a documented history of successful completion of successful projects. We will also partner with WDNR Watershed Management and U.S. Geological Survey to evaluate the potential for a nutrient run-off experiment to test the effectiveness of riparian buffer restorations in reducing nutrient loading to lakes. Finally, experiments will be conducted to develop Shoreland Restoration Best Management Practices for lakes in Vilas County.

Project Status: A Lake Protection grant has been awarded to the Little St. Germain Lake District for this project. **(Access to the grant documents is available on the district website under "Miscellaneous documents")**. It will provide 75% State cost share of up to $100,000 in project expenses. The remaining 25% will be paid from other funding sources including contributions of cash and/or labor by property owners participating in the project. None of the project expenses will be paid by the district. However, a short term (one year?) loan will need to be secured by the district to pay the project expenses until reimbursement from the State and other sources is accomplished. Interest on the loan may become the burden of the district. This will be discussed and voted on at the 2009 annual meeting.