

Turtle Lakes Initial 5 Year Watershed Education and Best Management Practices Lake Protection Program Description

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Introduction and Background

The Turtle Lakes Watershed is located in west central Barron County, Wisconsin along State Hwy 8 between the Villages of Turtle Lake and Almena and includes both Upper and Lower Turtle Lakes. It is part of the larger Red Cedar River Watershed. Upper Turtle Lake is north of the Hwy and Lower Turtle Lake is south. The combined watersheds of these two lakes cover more than 5000 acres. Lower Turtle Lake has a smaller surface area than Upper Turtle Lake, but a larger individual watershed. More than 3000 acres of the total watershed are incorporated into agricultural practices each year. Approximately 60% of that is planted in row crops. At least two free flowing and/or intermittent streams carry sediment and the associated nutrients into Upper Turtle Lake. Turtle Creek, which flows continuously between the two lakes, carries nutrients from Upper to Lower Turtle Lake. Three additional free flowing and/or intermittent streams carry more sediment and nutrients into Lower Turtle Lake. Both lakes experience excessive plant growth early in the year until nutrient enrichment in the summer months limits water clarity and sunlight penetration. Lower Turtle Lake, at the bottom of the watershed, is considerably worse than Upper Turtle Lake, but both are impacted when sediment and the associated nutrients are washed into the lakes throughout the season.

Curly-leaf pondweed (CLP), a non-native invasive aquatic plant species, exists in both lakes. The extent of CLP was documented in Lower Turtle Lake in a 2008 point-intercept plant survey. Two large beds, one on the north end, and one on the south end, cover approximately 10% of the lake surface in the spring and early summer. CLP has been documented in Upper Turtle Lake, but an early-season cold-water survey specifically for CLP has not been completed, so the extent of its growth is still largely undocumented.

Several lake planning studies have been completed on Lower Turtle Lake, and at least one has been completed on Upper. In 1994, watershed modeling indicated that approximately 232 tons of sediment enter Lower Turtle Lake per year carrying with it over 1100 lbs of phosphorous. This modeling was revisited in a 2005 lake study and upped the total phosphorous coming into Lower Turtle Lake to at least 1500 lbs per year. A 2003 study on Upper estimated phosphorous loading to be 400 lbs per year. In 1994, it was estimated that agriculture accounted for about 60% of the total phosphorous load. Modeling in 2009, based on 2008 farming data suggested agriculture accounted for about 68% of the total phosphorous load.

There are many farming best management practices (BMP's) that can significantly reduce phosphorous loading to area lakes and streams. The most beneficial BMP in the Turtle Lakes Watershed is the transition from common field preparation and planting practices of plow-boarding, disking, and cultivation to "no-till" field preparation and planting. Increased involvement in "no till" crop management could potentially reduce agricultural phosphorous loading by 40% or more. In 1994 modeling on Lower Turtle Lake, it was shown that if all row cropping occurring in the watershed was converted to "no till" phosphorous could be reduced from 1128 lbs per year to 678 lbs per year. In 2005, conservation tillage, but not necessarily "no

till” was used on about 27% of all the row crops in the area of the Turtle Lakes Watershed according to the Barron County Soil and Water Conservation Department. The remaining 32% of the phosphorous loading is coming from a number of different sources including the near shore area around the two lakes, internal release and re-suspension of sediments, plant decay (specifically CLP), groundwater, and atmospheric deposition. Little can be done to reduce phosphorous loading from groundwater and atmospheric deposition as these are mostly natural sources. Internal loading could potentially be addressed but before doing so more information is needed. Early season senescing of CLP adds phosphorous but estimates of how much vary with biomass, density, lake characteristics, and other variables. Regardless, management of curly-leaf pondweed in both lakes could help reduce this source of phosphorous loading. Eurasian water milfoil (EWM) is currently not known to be in either lake and it will be important in the long run to keep EWM out for as long as possible. There are many shoreland BMP’s that riparian owners can implement to reduce phosphorous loading coming off the near shore area including restoration, buffer strips, septic system maintenance, rain gardens, rain barrels, driveway and path diversions, infiltration areas, and no use or use of phosphorous-free fertilizers.

This 5-yr Lake Protection Projects seeks to educate farmers and riparian owners in the combined watershed of the two lakes about those BMP’s that will benefit both lakes in the long run. It also seeks to provide incentives and cost-sharing to help implement these BMP’s. This project will provide funding and support for completing aquatic plant surveying and for making aquatic plant management recommendations, followed by implementation planning. Lake User and riparian owner education are included through the establishment of Watercraft Inspection and In-lake Invasive Species Monitoring programs. Extensive water quality testing will be completed in the two lakes and associated tributaries to document changes that are expected from the successful implementation of this program. Annual lake education fairs and several larger agriculturally focused education and demonstration events are planned over the course of five years.

Turtle Lakes Management Plan Approval and Eligibility for Lake Protection Grant Funding

In March of 2009, a request was made of the Wisconsin Department of Natural Resources to approve a combined and revised version the Lower Turtle Lakes Lake Management Plan and the recommendations therein. Furthermore, a request was made of the WDNR to determine which of the management recommendations made in the Revised Plan were eligible for implementation funding via the Wisconsin Lake Protection Grant Program. Notice from the WDNR was received on April 16th, 2009 designating those management recommendations eligible for lake protection funding, and giving the Lower Turtle Lake Management District (LTLMD) approval for the submittal of a Lake Protection Grant to request funding for the implementation of the 5-yr Turtle Lakes Watershed Education and Best Management Practices Lake Protection Program. The following is a description of those management recommendations that the LTLMD wishes to implement over a five-year period with funding support, volunteer time, and donated services provided by the LTLMD, Lower Turtle Lake Association (LTLA), Upper Turtle Lake Association (UTLA), Town of Almota, Barron County Soil and Water Conservation Department (SWCD), and a Wisconsin Lake Protection Grant.

Best Management Practices Stakeholders Board

Due to the immense scope of this project, a Project Administration and Oversight Board made up representatives from the various stakeholders is necessary. It will be the responsibility of this board to oversee the watershed project; provide input into the development of all project materials

including farmer contracts and application guidelines for BMP project cost-sharing; review, evaluate, and award payments for all cost-sharing and incentive programs; and help set up any Lake Fair, Demonstration Tour, or “No Till” Progress Event. For the purposes of this Lake Protection Grant Application, it is recommended that the board have nine regular members and a WDNR Liaison. The suggested make-up of this board would include two representatives from the LTLMD, two representatives from the UTLA, two representatives from the farming community in the watershed, a Barron County SWCD representative, an at large representative who could come from the local township or another organization like the LTLA, and an SEH representative. All board decisions would be based on a majority vote, with SEH casting the tie breaker vote if necessary. Board membership would not be compensated, however, all time donated by board members would be considered match for the larger Project. Each stakeholder would provide their own representatives. How those members are chosen and the length of their term is up to the individual stakeholder.

Assembly of the Stakeholders Board would occur between May 1st, 2009 and the award date of the grant. Immediately following the award of the grant, the board will go to work to begin developing the necessary materials and contracts for 2010.

Farmer Education

One way to get farmers within the Turtle Lakes Watershed to incorporate more “no till” farming practices into their daily operations is to provide them with the opportunity to learn more about conservation farming practices and the benefits they stand to gain by incorporating them. Providing them with education materials, access to experts in the conservation farming field, face to face meeting with farmers already incorporating “no till”, access to equipment manufacturers, and taking them to demonstration sites where questions can be asked and answered is imperative. To do this, two-day “No Till” Farm Progress Events will be organized and presented within the watershed in 2010, 2012, and 2014. The weekend long “farm progress days” style event will be open to the general public and farming community at large, but will specifically focus on those practices most beneficial to the watershed and lakes.

In addition, partial day “no till” field trips or bus tours will be organized each year where local farmers are invited to travel with lake residents, SEH, County, or others to complete on-site visitations to locales where “no till” and other BMP’s are already practiced. These face to face visits to farms and with practicing farmers will provide a great opportunity for new farmers to gain valuable knowledge from experienced practitioners.

***The goal of this component of the program is to be able to say all farmers in the watershed have been given the opportunity learn more about conservation tillage practices on their own terms.**

“No Till” Farmers Incentive Program

Currently, Barron County offers several cash incentive programs for farmers all over the county who are willing to incorporate “no till” and other farming BMP’s into their daily operations. One such program, tied into a phosphorous reduction/trading program for the City of Cumberland, initially provided farmers with an \$18.50/acre incentive payment for each acre where “no till” was practiced. “No till” was specifically targeted because it provided the greatest return in phosphorous reduction and trading. The Cumberland program, while not necessarily targeted to farmers within the Beaver Dam Lake Watershed anymore, is still being offered but payments are now at \$15.00/acre. Barron County offers this program and programs like it to farmers in an

attempt to increase the farming conservation practices in the county as a whole. Once signed up, farmers receive incentive payments at the end of the year after Barron County Staff have confirmed that conservation practices stated to occur actually did. Funds for these existing programs are limited. The Barron County Soil and Water Conservation Department is interested in the Turtle Lakes Watershed Project because it provides another source of funding to offer farmers. It would not be in addition to the existing Barron County programs but rather an alternative program for farmers practicing within this specific watershed.

Any farmer actively row-cropping farmland within the Turtle Lakes Watershed can participate in this incentives program. Currently the list of crops considered row cropping are corn, soybeans, snap beans, and grain. Pasture or hay crops would not be eligible. It is expected that in any given year the maximum amount of farm land devoted to row cropping in the Turtle Lakes Watershed would be 1250 acres. This would be the starting maximum amount of land that would be eligible for this program in any given year. A minimum requirement of 20 acres would be set for participation in this program.

As an alternative to the existing Barron County programs, the Turtle Lakes program must be as good or better than the existing programs or farmers may not be interested. Discussion with Barron County also suggested that farmers may not be interested in signing more than a one-year contract because of the unpredictability of the farming industry. From the perspective of the LTLMD and other lake stakeholders, one year contracts are not satisfactory, as incorporating farming BMP's for only one season will not likely benefit the lakes in the long run. It is also the nature of switching to "no till" practices that farmers may experience problems and reduced harvests that may discourage "no till" after only one year. It often takes a minimum of two to three years to experience the increased crop yields and cost savings that are promoted to encourage "no till" and to work out the "details" of a successful "no till" conversion. This is the primary reason for extending this Lake Protection Project out over 5-years. It has to be in effect long enough to show farmers that they can save and make money by switching to better conservations practices over the long hall to keep them involved after this five year program expires.

The Turtle Lakes Incentive Program will incorporate yearly contracts, but also promote multiple year contracts of 3-5 years. For single year contracts, an additional incentive payment will be added for each subsequent year a contract is entered into up to five years in a row. Farmers willing to sign a multiple year contract will receive a higher "per acre" incentive payment from the start.

Once again, Barron County is interested in the multiple year aspect of this incentives program because of the onset of "carbon sequestering/trading" programs that are just now beginning to be developed. "No till" farming affords a greater amount of carbon being sequestered in the soil. Much of this carbon is released into the atmosphere when other forms of farming are practiced. In the age of global warming, paying farmers to increase their carbon sequestering capabilities may get a lot of traction. Contracts currently being developed by the EPA require a minimum 5-yr Contract. The success or failure of the Turtle Lakes Watershed Program may help determine the viability of the larger carbon trading program in this part of Wisconsin.

The actual contracts farmers would sign will be developed by SEH in cooperation with the Barron County SWCD and a Project Stakeholders Board immediately following award notice. Contracts should be ready for farmers to sign before the 2010 farming season begins. Final incentive payments are yet to be determined and subject to all local, state, and federal restrictions, but the following is an example of how it might work.

Table 1: Possible "per acre" No Till Incentives Program

Example	1st Year	2nd Year	3rd Year	4th Year	5th Year
Multiple Year Contracts (min 3-yrs)	\$18.50/acre	\$18.50/acre	\$18.50/acre	\$18.50/acre	\$18.50/acre
Single Year Contracts	\$15.00/acre	\$15.45/acre (3% increase)	\$15.91/acre (3% increase)	\$16.39/acre (3% increase)	\$16.88/acre (3% increase)

The maximum time frame that any one farmer could be involved in this program is five years. A farmer signing a single year contract may change to a multiple year contract but only if there is at least three of the stated five years still available. A farmer signing a multiple year contract could re-enroll after the initial 3-years for the remaining two or sign up for five at the beginning. Breach of multiple year contracts would entail some sort of penalty yet to be determined. It is possible that a farmer could sign up for this program in years three, four, or five of the current project. Language in the contract would clearly state that extending this program beyond the initial five years is dependant on receiving additional funding through another Lake Protection Grant or other source.

***The goal of this component of the program is to have nearly 100% of the row cropping going on in the watershed completed following “no till” conservation practices by the end of the 5-yr period.**

Incentives Program Administration and Oversight

The Barron County SWCD has agreed to work with SEH and a Stakeholders Board to develop all associated materials and contracts necessary for the administration of this program. They have also agreed to be the primary program administrator once development is complete and will provide follow-up to determine compliance. The Stakeholders Board would be responsible for making the payments. A Yearly Stakeholders Review will be completed and an “End of Year” report will be completed by SEH with input from the Stakeholders Board and Barron County and submitted to the WDNR.

Riparian Owner Education

Reducing the amount of phosphorous coming from the watershed is the main focus of this project. However, near shore areas of both lakes contribute to the phosphorous loading as well. Riparian owners along both lakes need to be made aware of what they can do to reduce phosphorous loading from their individual properties. BMP’s including but not limited to no use of fertilizers, shoreland restoration, the establishment of buffer strips, septic system maintenance, rain gutter and downspout spreaders, drain tiles, infiltration pits and trenches, rain barrels, rain gardens, drop pipes, and driveway and path diversions including broad-based dips and water bars are all activities riparian owners could incorporate to help improve the lakes long term. Education of riparian owners to that end is essential.

This project includes the establishment of an Annual Lake Fair to be held or sponsored by the Upper or Lower Turtle Lakes Association or Management District. This fair would focus on those activities that could benefit the lakes short and long term. A program specific newsletter will be sent to all landowners within the watershed on a twice yearly basis. A project webpage will be set up either as a link on the SEH webpage or as a stand alone page. All pertinent information related to this project would be uploaded to the webpage for public viewing. Yearly property demonstration tours will be arranged and riparian owners from both lakes invited to participate. Tours could be on Upper and Lower Turtle Lake or to an entirely different body of water to hi-light BMP's that have been successfully implemented. A certain amount of money will be set aside to allow interested parties to attend workshops, conferences, and presentations related to shoreland BMP's and other lake education issues. The Stakeholders Board will do its best to alert lake users and owners about upcoming events.

EWM is currently not known to be in either Upper or Lower Turtle Lake. It is, however, in nearby lakes. In each of the five years, a watercraft inspection and in-lake monitoring program will be established. Volunteers from all stakeholder groups will be tapped to provide volunteer time to help these programs function. The latest information on aquatic invasive species will be included in all annual lake fairs. All watercraft inspection will occur following "Clean Boats, Clean Waters" guidelines and data submitted to the appropriate places.

***The goal of this component of the program is to insure all riparian owners have been exposed to the practices that would most benefit the lake over time and to maintain interest and motivation on the part of the general public to implement these practices.**

Best Management Practices Project Cost-sharing

It is not enough to just educate farmers and riparian owners as to the practices they can implement to improve conditions in the lake and the watershed. The "no till" incentives program only addresses the total acreage a farmer is willing to put in "no till" management. There are many other beneficial agricultural BMP's including installing grassed waterways or buffer strips near waterways, feed lot adjustments, manure management, barnyard runoff diversions, etc that a farmer would be willing to implement if cost-sharing was provided to do so. Likewise, individual or groups of riparian land owners may be more willing to implement shoreland BMP's if cost-sharing of projects was also available to them. To that end, this project will provide limited cost-sharing for both agricultural and riparian BMP's. This cost-sharing will be dependant on available funding, the number of projects to be funded, and the overall benefit to the lakes.

A BMP Project Cost-share Application will be developed for both agricultural and shoreland BMP's. Any party wishing to apply for cost-sharing support will be asked complete a cost-sharing application and to provide a detailed project description and budget. It will be the responsibility of the Stakeholders Board to evaluate these applications, vote to award or not award them, and issue notification to the designated party that the request has been awarded. Cost-sharing will be a reimbursement type program similar to the existing grant programs run by the WDNR, meaning monetary awards can not be paid until after the project has been completed.

Agricultural BMP's are typically more expensive and larger scale than shoreland BMP's and as such, cost-sharing for these projects will be limited to 25% of the total project cost. Cost-sharing for shoreland BMP's would be capped at 50% of the total project costs. These percentages are the maximum amount of any project that can be awarded. It is conceivable that if many project funding requests are made that the total amount given to any one project would be less than 25 or 50%. It is also conceivable that if very few requests were received and the perceived benefit to

the lakes was significant that more than 25 or 50% could be awarded. A designated amount of money would be set aside in each of the five years of this program to support these project requests. Money left over from previous years could be made available in subsequent years, but not vice versa.

Project cost-sharing is by no means limited to the projects mentioned here. Any project type that has merit and will benefit the lakes is eligible.

***The goal of this component of the program is to assist in funding as many credible agricultural and shoreland BMP Projects as possible.**

Lake and Tributary Water Quality Monitoring

This entire project is centered around improving water quality conditions in both lakes, specifically by reducing phosphorous content and algae production. Upper Turtle Lake has not experienced the level of degradation experienced by Lower Turtle Lake. Water quality goals for Upper Turtle include maintaining or improving existing condition and to arrest further degradation. Existing water quality data for Upper Turtle Lake suggest that there have not been significant changes to overall water clarity (Secchi Disk), total phosphorous, and chlorophyll content (algae). There have been complaints about excessive vegetation though. Healthy and abundant native plant growth helps to use up available nutrients before they can be utilized by algae, but can also cause navigational impairment and nuisance conditions. As nutrients build up in a system, plant growth generally accelerates. At some point decay of that plant growth may lead to accelerated oxygen depletion in bottom waters, which in turn may cause additional phosphorous release in the system leading to increased algal growth and eventually a shift from a plant dominated system where algae is at a minimum to an algae dominated system where plant growth is at a minimum. Decreased sunlight penetration as a result of algae dominated lake water limits plant growth, changes the diversity and density of plant growth, and reduces habitat.

This process has likely already occurred in Lower Turtle Lake. Over the last 20 years water clarity readings in the summer months have declined although the number summer Secchi readings since 2000 are perhaps less than desirable. Average summer phosphorous concentrations have increased from the early 1990's to now, and average seasonal chlorophyll concentrations have nearly doubled.

To assess the impacts this 5-yr lake protection program has on the water quality in both lakes, extensive lake and tributary monitoring will occur. Complete nutrient testing, chlorophyll *a*, and turbidity sampling will occur on three lake sites in Upper Turtle and on two lake sites in Lower Turtle. Sampling will be completed a minimum of 5 times during the open water season. Additionally, complete temperature and dissolved oxygen profiles will be taken from all lake sites at least every two weeks. Conductivity and pH will also be recorded. To assist with this lake testing a Hach Company HQ40d multi-probe meter will be purchased. The importance of regular Secchi disk readings will be stressed with existing and new water quality testing volunteers.

Tributary monitoring for similar water quality parameters as well as suspended solids, flow, and volume will be completed on four tributaries to Lower Turtle Lake and on two tributaries to Upper Turtle Lake a minimum of five times during the season including spring runoff. Should any of the tributaries be dry during any of the regularly scheduled testing dates, samples will be collected immediately following significant rain events up to the five scheduled.

***The goal of this component of the program is to reverse the negative trend in water quality that is most notable on Lower Turtle Lake and to maintain or improve the water quality trends in Upper Turtle Lake.**

Aquatic Plant Management (APM) Planning

Aquatic plants are an important part of any lake ecosystem. However, native plant growth that causes navigational impairments and/or creates significant nuisance growth conditions that can be documented may need to be addressed. The introduction of non-native aquatic invasive species like curly-leaf pondweed and Eurasian water milfoil to a lake may cause serious negative impacts. At the present time neither lake is known to have EWM. In order for aquatic plant management to be efficient and effective, the total number of plants in a system both native and non-native, the locations of these plants, and their growth density must be known. Critical habitat and sensitive areas need to be designated, protected, and enhanced. Neither lake has a state approved Aquatic Plant Management Plan.

This project completes whole-lake plant surveys on both lakes following required WDNR protocol. Lower Turtle completed a plant survey in 2008. WDNR protocol recommends redoing plant surveys every 5 years. Another plant survey will be completed in 2013. Upper Turtle Lake has never had an appropriate plant survey completed. One will be completed in 2010. Aquatic Plant Management Plans will be written for both lakes including EWM Response Plans in the event that EWM is discovered in either lake. Lower Turtle Lake's will be completed in the fall of 2009, and Upper Turtle Lake's will be completed in the fall of 2010. It is already expected that management of CLP in Lower Turtle Lake will be needed. This project provides funding for the writing of an Aquatic Invasive Species Control Grant for Lower Turtle Lake after the APM Plan has been approved by the WDNR.

***The goal of this component of the program is to focus attention on the plant community in both lakes as a vital part of the ecosystem, to manage the impacts that CLP has on either lake, and to prevent EWM from getting into either lake**

Project Management

Funding for particular project management activities including "end of year" reports, final project analysis and reporting, and the preparation of a second Lake Protection Grant Application and Project Description has been included in this project

Developing Partnerships and Public Involvement

Developing and maintaining partnerships with stakeholders is imperative for the success of this project. Of greatest importance is developing a positive working relationship between lake riparian owners and the farmers actively working in the Watershed. Both stakeholders rely on each other for different things. Farmers need the tax revenue and demand for goods and services that lake people provide, and lake residents need the good and services provided by the farmers. Maintaining quality lakes benefits both stakeholders. Open dialogue and a willingness to listen to and provide for the needs of both parties will go along way toward promoting a positive relation between these groups. The importance of riparian owners attending the farming functions in this project and the importance of farmers attending the lake functions in this project will be stressed. Understanding the needs of others requires involvement with others.

Additionally, coming to understand that a watershed encompasses not only the lakes and rivers, but also the land is important. What happens anywhere in the watershed affects the entire watershed. Addressing the needs in one part of the watershed without addressing the needs in other parts will only solve part of the problem. This project goes to great lengths to address issues on a complete watershed basis. Once the problems addressed by this project are successfully dealt with, other perhaps more focused issues can be resolved. The Lower Turtle Lake Management District may be sponsoring this project, but it is a cooperative project between them and the Lower Turtle Lake Association (providing volunteer time), the Upper Turtle Lake Association (providing volunteer time and monetary support), local farmers (providing input and incorporating best management practices to help improve the lakes), Barron County SWCD (providing donated services and expertise), the Town of Alma (providing project support), and several private companies (providing services, expertise, and donated services). More stakeholders may become involved as the program progresses.

The activities encompassed in this project description have far reaching impacts beyond just the Turtle Lakes Watershed. If this program succeeds it could become a model for other small watersheds facing similar issues. If farmers in the Turtle Lake Watershed are satisfied with the results of this program, they may be more willing to become involved in future issues like carbon sequestering.

Continued public involvement in this project is encouraged through newsletters, the internet, open and public meetings, lake fairs, field trips, and stakeholder's board.

Other Lake and Watershed Management Efforts

The 2006 Barron County Land and Water Resource Management Plan addresses many of the activities included in this project. The Barron County SWCD has a keen interest in the activities included to address agricultural concerns in the Watershed. Both Lakes are specifically mentioned in the Water Resource Management Plan. Invasive species prevention and management are also concerns addressed in the County Plan. Shoreland improvement projects are also indicated as important and necessary BMP's for the continued improvement in Barron County lakes.

The Red Cedar River Watershed Rapid Assessment Plan, released in September 2008 reads the following under the section entitled "Resource Concerns."

"The major resource concerns from agricultural production lands in the watershed include sheet, rill, and ephemeral gully erosion, and water quality concerns from excessive nutrients and organics in surface water. Some best management practices well-suited to treat these concerns are Conservation Crop Rotations, No-Till, Mulch Till, Nutrient Management, and Grassed Waterways."

This project certainly reflects the concerns expressed in this document.

Donated Services and Volunteer Time

Donated services in this 5-yr project amounting to almost \$40,000.00 come mostly from the Barron County SWCD and SEH. Almost all of the Incentives Program Administration will be completed by Barron County. Barron County and SEH attendance at Lake Fairs, on Field Trips, and during the two-day "No Till" Farm Progress Events is also donated. Volunteer time provided

by the LTLMD, LTLA, UTLA, and others amounts to more than \$54,000.00 over the course of this 5-yr Program.

Budget

The total cost for this lake protection project over five years is \$307,523.52. State share (75%) for this project is maxed out at \$200,000.00. Volunteer time and donated services valued at \$94,280.00 more than covers the required 25% sponsor match. Because the scope of activities to be completed by this project is so large, an additional \$13,275.51 will be a direct financial charge to the sponsor. A total project budget and budget summary is included with this application as is a Wisconsin State Lab of Hygiene water quality sampling spreadsheet detailing what sampling is to be completed and when.

Project End Date

This Lake Protection Project will begin with the award of the grant and end on December 31st, 2014. All supporting material and the Lower Turtle Lake Aquatic Plant Management Plan will be completed prior to the 2010 farming season. All other parts of this program will begin in 2010 and last through 2014. As stated before, a second Lake Protection Grant may be applied for in 2013, if the activities up to this time seem to be having the desired results.

Project Deliverables

All required records, permits, data results, etc will be part of the deliverables. A yearly report of the progress of this program will be submitted to the Lower Turtle Lake Management District, Upper Turtle Lake Association, Barron County, and the WDNR; and posted on the project webpage and placed in at least one public place for inspection. A final report will be completed and delivered to the same group of stakeholders in both paper and digital copy.

The support of Barron County in this endeavor is critical to its success. A written letter of support from the County will support this ascertain. Members of the Upper Turtle Lake Association are also critical to the success of this program and are providing more than \$22,000.00 in volunteer labor and monetary support over the 5-yr period (> 5% of the total project cost) A written letter of support from that organization will be included. Additional letters of support have been received from the Lower Turtle Lake Association and the Town of Almena.

Please accept this Lake Protection Grant Application, budget, and project description on behalf of the Lower Turtle Lake Management District.