

Comprehensive Management Goals	Objective Reference Number	Objective	Action	Priority
Goal 1 - Education and Information	1	Establish a constituent supported “committees” structure to address major areas of lake management	Education and Information	
			Shoreland Habitat Improvement	
			Water Quality	
			Aquatic Plants, Algae, and AIS	
			Fish and Wildlife	
	Government and Grants			
	2	Use existing channels to deliver at least one focused educational message per quarter to meet the goals of this plan.	Quarterly Messaging (print and digital media)	
Education/Implementation Sessions				
Program Participation Recognition and Reward				
Goal 2A - Reducing Phosphorus Loading - External Sources	1	Plan and install 3-5 shoreland improvement projects annually.	Develop and deliver an educational message	
			Organize annual workshops to encourage property owner participation healthy lakes projects	
			Identify property owners interested in installing practices	
			Apply for grant funding to support implementation of BMPs	
			Implement shoreland improvement projects	
	2	Reduce the amount of foreign debris (grass clippings, leaves, road salts, sand and sediment, etc.) that are put into the lake.	Develop and deliver an educational message	
			Work with the local Township to come up with ways to clean up/reduce sand and salt applied to roads	
	3	Upgrade 100% of existing non-compliant or failing, and drainfield-based septic systems; eliminate all gray water discharge to the lake.	Develop and deliver an educational message	
			Identify shoreline property owners willing to upgrade their septic system	
			Provide financial support for non-mandatory upgrades to existing septic systems	
	4	Protect and preserve undisturbed/undeveloped property around the lake.	Identify areas of the lake to protect and preserve	
			Research and explore the formation of a conservancy, purchase of easements, grant funding, and other opportunities	
			Identify property owners who may be interested in preserving property	
	5	Restore wetlands adjacent to Dowling Lake.	Identify restorable wetland areas adjacent to the lake	
			Identify property owners willing to participate in wetland restoration projects	
			Develop a wetland restoration plan and implement it	
6	Prevent forestry timber management operation	Monitor forestry activities within the direct watershed		

	6	from negatively impacting Dowling Lake.	Communicate forestry concerns to Douglas County	
Goal 2B - Reducing Phosphorus Loading - Internal Sources	7	Reduce sediment disturbances caused by boating.	Develop and deliver an educational message	
			Consider a boating or wave restriction ordinance	
	8	Maintain or increase the amount of existing shallow lake and wetland/lake fringe vegetation	See Goal 4, Objectives 2-4	
	9	Investigate the construction/installation of a controllable water outlet for the lake.	Work with property owners to garner support for and to promote the benefits of water level manipulation	
			Design/engineer and install an outlet structure	
			Develop and implement a water level manipulation plan	
	10	Consider the use of biomanipulation to improve water quality.	Complete a fisheries survey	
			Continue stocking of walleye and other predator fish species	
			Complete a zooplankton survey	
	11	Consider the use of an alum application to improve water quality.	Complete a sediment release study	
Work with property owners to garner support for and to promote an alum treatment				
Develop and implement an alum application plan				
12	Install one or more fountains and/or artificial floating island/wetland.	Research, build, install, and monitor one or more artificial floating islands and/or fountains		
Goal 3 - Prevent the introduction of new invasive species and manage existing invasive species.	1	Monitoring and management of existing AIS.	Purple loosestrife	
			Yellow iris	
			Curly-leaf pondweed	
	2	Prevent the introduction and spread of new aquatic invasive species.	Participate in a watercraft inspection monitoring and education program	
			Place and update AIS signage at the boat landings	
			Participate in the Citizen Lake Monitoring Network AIS Monitoring program	
			Develop and implement an AIS Rapid Response Plan	
1	Document changes in native aquatic plant density, distribution, and diversity.	Redo a spring and summer whole-lake, point-intercept, aquatic plant survey		

Goal 4 - Protect and enhance native aquatic plant growth	2	Protect existing native aquatic vegetation in the nearshore and wetland fringe area of the lake.	Develop and deliver an education and information program	
			Provide recognition for property owners who support no management or re-establishment of aquatic plants	
	3	Re-establish wild rice in Dowling Lake.	Develop a wild rice reintroduction program	
	4	Reintroduce certain species of native aquatic plants into Dowling Lake.	Develop and implement an aquatic plant reintroduction strategy	
Identify property owners willing to support re-establishment of aquatic plants				
Identify and collect aquatic plants in Amnicon that can be used in Dowling				
Goal 5 - Evaluate the progress of lake management efforts and needs through monitoring	1	Monitor short and long-term changes to water chemistry as a reflection of water quality.	Continue to monitor Chlorophyll-a and Total Phosphorus	
			Complete monitoring for the dissolved forms of nitrogen and phosphorus	
			Complete NDS testing to determine the limiting nutrient	
			Collect pH and conductivity data	
			Monitor for bacteria and E-coli	
	2	Monitor physical lake characteristics.	Water clarity	
			Dissolved oxygen and temperature profiles	
			Lake level	
			Precipitation	
	3	Document tributary loading of nutrients.	Collect flow, volume, and N and P parameters monthly and during storm events at three inlet sites and the outlet	
			Upgrading sampling methods for more consistent data	
	4	Document progress made in shoreland improvement.	Repeat a Shoreland Habitat Assessment	
	5	Document the status of past Galerucella beetle rearing and release projects.	Complete a general survey of the beetle population	
Goal 6: Follow through with implementation of this plan	4	Complete project implementation and assessment reports annually.	Prepare annual summary reports	
	5	Complete and mid- and end-of-project reports.	Take stock of the actions that have and have not been accomplished midway through the implementation	
			Take stock of the actions that have and have not been accomplished near the end of implementation	
	6	Develop and maintain the necessary partnerships to support implementation.	Maintain the open dialogue, constituent involvement, partner involvement, etc.	
Identify new partners and resources				

Focus	Methods	Stakeholders	Milestones					Funding
			0-2 years	2-4 years	4-6 years	6-8 years	8-10 years	
Determining ways to reach the Constituency about lake issues	Board discussion, public notifications, webpage, early meetings in 2022	ADLMD Board & Constituency	Yr 1	continued				ADLMD
Lead efforts to make shoreland improvements			Yr 1	continued				
Collecting and reporting on water quality data			Yr 1	continued				
Lead plant management and monitoring efforts				Yr 2	continued			
Identify and lead efforts to address Constituency concerns about fish and wildlife				Yr 2	continued			
Lead efforts to obtain grant funding and to involve local governments in plan implementation				Yr 1	continued			
Education and information campaign on issues impacting Dowling Lake	Community forums, Webpage, Newsletters, Email blitzes, new releases, presentations, and brochures	ADLMD Constituency, Lake Users, Community Members and Resources	Throughout Implementation					Surface Water Grants, UW-Extension, Social Change Organizations
In-person events to share, teach, and model desired behaviours	Pontoon classrooms, property tours, workshops, training sessions							
Recognize and reward property owner participation/support for various lake improvement initiatives	Create stickers or signs to symbolize participation in different lake improvement programs, Lake District Thank You List, etc.							
Property owners in the nearshore/developed area of the lake	Using results from the 2019 Shoreland Habitat Assessment, promote and implement nearshore area BMPs that improve habitat, reduce runoff, and limit P loading	ADLMD Constituency, Resource Professionals	2-6 projects	2-6 projects	2-6 projects	2-6 projects	2-6 projects	WDNR Healthy Lakes and Rivers Grants
	Follow Healthy Lake Grant Application guidelines							
Property owners, lawn clippings, leaf blowing, pet waste, fire pits/ash, use of ice melt, etc	Education and information, working with local town on leaf pickup and street sweeping, diversions, and catch basins	ADLMD Constituency, Local Town, local dump	X	X	X	X	X	ADLMD, local township budgets
Local road maintenance, debris disposal sites								
Encouraging 100% switch from septic systems with drainfields to holding tanks, reduction of graywater discharged by property owners	Education and information, maintenance reminders, property owner recognition	ADLMD Constituency, County Zoning	X	X	X	X	X	County and Town funding, Surface Water grants
	Survey and personal contacts		X	X	X			
	Costsharing with WDNR Surface Water or other funding			X	X	X	X	
Encourage property owners that currently have undeveloped lots and back lots to keep them that way.	Aerial and satellite imagery, lake surveys, local knowledge	ADLMD, Property Owners, Conservancy Programs	X	X				Surface Water grants, Stewardship grants, private conservancys
Figure out how the ADLMD can help secure funds to protect and preserve identified spaces	Discussions with entities who can provide funding			X	X	X		
Properties and property owners around and adjacent to the lake	Personal contacts, local knowledge				X	X	X	
Identification will be primarily adjacent to the lake but could be in the larger, direct watershed of the lake	Working with Douglas County and State resources, possible restoration sites will be identified	ADLMD, Property Owners, Douglas County, Resource Professionals	X	X				Surface Water Grants, Douglas County, Wetland Restoration Organization Funds
Once a wetland has been identified, property owners will be approach to solicit their participation	Personal contacts			X	X			
Identified wetlands	Wetland restoration specilists will be contacted and plans developed and approved				X	X	X	
Watershed forestry activities	Visual awareness and communication with the	ADLMD Constituency	Throughout Implementation					ADLMD

Proposed forestry activities	Douglas County Forester	Constituency, Douglas County	Throughout implementation					ADLMD
Continuous reminders to lake users that running a boat motor in shallow water or creating large wakes in the lake resuspend sediment and introduce P	Education and information, brochures, newsletters, webpage postings, welcome kit	Lake users and property owners	X	X	X	X	X	Surface Water Grants
Preempt the use of wake and other large wave producing boats	Working through the Town, develop and adopt an ordinance			X	X			
Promoting how aquatic plant are important to the overall health and water quality of the lake	See Goal 4, Objectives 2-4	Property owners, Plant Specialist	X	X	X	X	X	Surface Water Grants
Water level manipulation of even just a foot or two at the appropriate times could help restore native vegetation and improve water quality	Education and information	ADLMD and their Constituency	X					Surface Water Grants
	Identify and work with an engineer to design and construct an outlet structure	Resource Professionals		X				
	Work with a consultant, plant specialist, and/or University or College, and consult other lake plans	Resource Professionals, University and College programs		X	X			
Identify the current makeup of the fish community to determine if top down predator manipulation could be improved	Partner with the WDNR and Tribal Resources to help determine parameters of the next fisheries survey	WDNR and SC Tribal Fisheries, ADLMD, Resource Professionals	X	X				NA
Increases top down trophic cascade that may increase zooplankton grazing on phytoplankton	WDNR and Tribal Resources stocking, and additional stocking by the ADLMD		X	X	X	X	X	Surface Water Grants
Identify the current makeup of the zooplankton community to determine if top down predator manipulation could be improved	Partner with a University or College program to complete a survey	ADLMD, University and College programs	X					
Determine the likely P loading capacity of the sediment in the lake	Partner with a University or College program to complete a sediment release study and possible alum treatment plan.	University and College programs	X					Surface Water Grants
Provide understandable data to the Constituency to garner their support for an alum treatment	Education and information	ADLMD	X	X				
Binding of excess P in the water column and sediment	Work with a consultant to guide implementation of an alum application plan	Resource Professionals			X	X		
Ways to improve or increase vegetation in the lake to improve water quality	Partner with a University or College program to build and analyze results	Property owners, ADLMD, University or College program		X	X	X		Surface Water Grants, University Funding
Controlling the spread of purple loosestrife	Survey work, physical removal and/or bio-control	ADLMD, Resource Professionals	X	X	X	X	X	Surface Water Grants - AIS
Controlling the spread of yellow iris	Survey work, physical removal and/or aquatic herbicides		X	X	X	X	X	
Controlling the spread of CLP	Survey work, physical removal		X	X	X	X	X	
Reminding boaters to clean off their boats, trailers, and equipment before entering and leaving a lake	Clean Boats Clean Waters	ADLMD, Douglas County, Town of Summit	X	X	X	X	X	Surface Water Grants - CBCW and AIS
Reminding boaters of appropriate AIS prevention efforts			X		X		X	
Monitoring the shallow areas and shoreline for AIS	CLMN AIS Monitoring		X	X	X	X	X	
Put in place a plan to guide rapid management if a new AIS is discovered	Modeling after plans from other lakes		X			X		
A spring survey would be focused on CLP and other early season plants. The summer survey would cover all species of aquatic plant	Grant funding to hire a plant specialist, completed following WDNR guidelines	Resource Professional, Plant Survey Specialist	X			X		Surface Water Grants

Encourage minimal removal of aquatic plants by property owners	Education and information	ADLMD, Property Owners	X	X	X	X	X	ADLMD
			X	X	X	X	X	
Attempt to re-establish wild rice in the lake as a means to use up available nutrients	Work with Tribal Resources, GLIFWC, and Property owners to determine if wild rice should be reintroduced, where and how	SCTR, GLIFWC, Lake property owners	X	X	X			ADLMD, SCTR, GLIFWC
Dowling Lake needs more large vegetation.	Work with a consultant or possible a University or college program. Seek DNR approval	Aquatic Plant Specialist, Resource Professionals, ADLMD, Property Owners, University and College Resources	X					Surface Water Grants, University Funding, ADLMD
Property owners willing to try and have aquatic vegetation introduced adjacent to their properties are needed.	Information and education, in-person contact		X	X				
There are several aquatic plant species that either were or are in both Amnicon and Dowling that may be able to be transplanted to Dowling.	Physical removal via rake or divers of identified aquatic plant species from Amnicon, transplanted into Dowling		X	X	X	X		
Collecting at least enough data to support data analysis completed during each 2-yr impaired waters listing	CLMN Expanded Monitoring, grant-funded monitoring, water samples sent to a lab for analysis	ADLMD, Resource Professionals	X	X	X	X	X	CLMN
Monitoring changes during times of spring runoff, heavy rain events, and when homes and cabins get the most use	Complete 2-3 years of continuous monitoring perhaps five years apart. Sampling can be done with less expensive individual test kits or through water samples collected and sent to a lab for analysis			X			X	Surface Water Grants
Sample sites within the lake	Installation of algae growing disks with different nutrient combinations		X	X				
sampling during periods of substantial algal or plant growth and when homes and cabins get the most use	Handheld or individual test kits (pH), water samples or digital meter (conductivity)			X			X	
During periods of spring snowmelt and when homes and cabins get the most use	Water samples collected and sent to a lab for analysis		X	X			X	
See CLMN guidelines	CLMN	ADLMD, Resource Professionals	Throughout Implementation					CLMN
Weekly	CLMN/digital meter							County
Weekly	Staff gauge installed by Douglas County							ADLMD
Seasonally	CoCoRaHS							
Nutrient loading from the three tributaries that enter the lake and from the outlet of the lake	Following Water Action Volunteer guidelines	ADLMD, Resource Professionals		X		X (7-9 years)		Surface Water Grants
Improve sampling results	Discuss past sampling issues with resource professionals to come up with alternatives if possible		X	X				
Nearshore area from high water mark back 35-ft, and a 300-ft developed band around the lake	Following Shoreland Habitat Assessment guidelines	ADLMD, Resource Professionals		X		X		Surface Water Grants
Around the lake and adjacent wetlands and roadside ditches	Following WDNR purple loosestrife biocontrol monitoring guidelines	Resource Professionals	X					Surface Water Grants
Each year's implementation	Annual review of accomplishments and results	ADLMD, Resource Professionals	X	X				Surface Water grants, ADLMD
Evaluate progress made	Five year review of accomplishments and results	ADLMD, Resource Professionals			X			Surface Water Grants, ADLMD
	End of project review of accomplishments and results						X	
Developing and maintaining the necessary cooperative relationships necessary to implement this Plan successfully	Communication and transparency	Everyone involved in the project	Throughout Implementation					ADLMD