

Regulation Proposal Form

[Print Form](#)

[Email Form](#)

Proposal Title Lake Tomah northern pike regulation change	
Author Jordan Weeks	Date 06/15/2011
Location Information:	
Affected water(s) Lake Tomah	
County Monroe	WBIC(s) 1342100
Upstream/downstream boundaries, if applicable—Law Enforcement should be consulted Upstream: County road "CM" Downstream: Lake Tomah dam	
Will this regulation affect Ceded Territory water and are there any anticipated impacts to tribal fisheries? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Current Regulation Standard Statewide (southern zone) 26 inch minimum size limit, daily bag 2

Proposed Regulation Memorable Opportunity: 32" Minimum length limit with a daily bag of one northern pike

Management Goal Summary statement that characterizes the desired fishery (e.g. provide a naturally reproducing harvest-oriented walleye fishery; provide a bass fishery dominated by large adults that maximizes predation on smaller fishes) Provide a northern pike fishery dominated by large adults that maximizes predation on smaller fishes to complete a chemical treatment plan
--

Description of the Water(s) and Fishery Provide a brief description of the water(s), past regulations and other management actions. Summarize all applicable fisheries data, particularly from surveys meeting protocols (Table 1). Lake Tomah is a 225 acre "shallow" impoundment of the South Fork of the Lemonweir River located in the town of Tomah. Lake Tomah has a maximum depth of 19 feet and average depth of 4 feet. In October 2009, Lake Tomah was chemically treated with rotenone to eliminate a carp-dominated fishery which was negatively impacting habitat and water quality. Currently, bluegill, black crappie, northern pike, largemouth bass, white sucker, fathead minnow, and creek chub inhabit the lake. In order to create a balanced fishery and protect against re-invasion of common carp a large predatory game fish dominated fishery is desired. To that end, a high minimum size limits are necessary to reduce angler harvest and maintain a high predator population. Northern pike have and will be stocked to develop this fishery and need protection from exploitation. This size limit will protect pike from harvest until they reach maturity and is necessary to facilitate bio-manipulation and maximize predation on small planktivorous fish and benthivorous rough fish. Historically Lake Tomah had the standard statewide regulations in place (26 inch minimum size, 2 bag). More information about shallow impoundments can be found in the Lake Tomah Plan (Attachment 1).

Management Objective(s) a) Goals are general, objectives are specific. Objectives are used to evaluate the effectiveness of your action and determine if you have achieved your goal. Provide a management objective that is specific, measurable, able to be achieved, related to the goal, and has a temporal component (e.g. increase walleye harvest rate to 0.1 fish/hour while maintaining recruitment at or above 10 YOY/mile within 5 years; increase largemouth bass RSD14 to 35 and bluegill RSD8 to 15 within 5 years Maintain northern pike RSD-M over 5 by the year 2020. This timeframe will allow northern pike ten years to grow and achieve maximum growth potential. b) Describe how the management objective and associated target levels for metrics were developed (e.g. lake management plan, stakeholder meeting, comparison to other water(s)). This objective was developed through lake stakeholder meetings (Citizens of Tomah, Lake Association
--

Members, and local conservation groups), lake treatment/management plan, Gabelhouse 1984, and by analyzing data from other water bodies with similar regulations in Wisconsin. This data came from the FH Database. Specifically, I compiled all data relating to RSD-M (32") from lakes that currently have the 32" minimum 1 bag limit. Values from 12 lakes (64 observations), were on average 9.89.

Gablehouse, D. W., 1984. A length-categorization system to assess fish stocks. North American Journal of Fisheries Management. 4: 273-285.

Current Problem

Use survey data or provide context for a similar water or group of waters (e.g. lake type, watershed) to demonstrate how the fishery is not meeting the desired management objective. Identify hypothesized problem(s) you hope to address.

Carp were by far the dominant fish in the lake pre-treatment. Their presence prevented the establishment of a quality sport fishery. In addition, their feeding behavior prevented the growth of valuable aquatic plants and degraded water quality by re-suspending lake sediments and excreting high amounts of nutrients. In the past, DNR fisheries crews have electro-shocked Lake Tomah in attempts to remove carp from the lake. Although truckloads of carp were removed, the removal had a negligible effect on the carp population. In order to effectively remove the excessive carp population, a whole lake and watershed fisheries reclamation was performed. All waterways and wetland areas expected to hold carp were treated with rotenone, a chemical that kills all fish species.

Following treatment, the lake has been re-stocked with native fish species which include northern pike. Permanent protection from excessive harvest of large predator fish is essential in order to produce a natural reproducing fish community. After stocking, restrictive size and bag limits will be proposed via the Spring Conservation Congress Hearings in order to protect fish from harvest. Proposed size and bag limits include northern pike, 32 inch minimum length limit with a daily bag of one fish. The protective regulations will allow fish to grow to adulthood, reproduce, and maintain a healthy fish community without the need for additional stocking into the future. In addition, these protective size and bag limits will allow for a quality fishing experience, allowing harvest of some fish.

Proposed Regulation Justification

How is the regulation change expected to meet your objective(s)? Demonstrate expected results of the regulation using tools such as modeling, comparisons to other waters, peer-reviewed literature, etc...

In an extensive analysis of data Gabelhouse (1984), found that high populations of largemouth bass can produce preferred length bluegills, crappies and bullheads. Biology of northern pike indicates that, like largemouth bass, pike will prey on small bluegill. In a biomanipulation project, fewer large panfish are preferred versus many small panfish. Small panfish prefer eating zooplankton and can, in large numbers, reduce beneficial zooplankton. Zooplankton are important because they eat algae. Algae clouds the water, and causes reduced sunlight penetration which stops rooted aquatic plants from growing. Rooted aquatic plants are important because they take up excess nutrients from the watershed, provide nursery habitat for young fish and work as cover for adult fish. So in essence this regulation will help balance the entire food chain in Lake Tomah. Algae will be kept in check by abundant zooplankton, which will allow sunlight to penetrate and grow rooted aquatic plants. Large zooplanktors like "Cladocerans" will be able to control the algae because there are few small panfish in the system. The number of small panfish will be a direct result of predation by the abundant population of northern pike. However, this system will only work if we protect main predators in the lake. The best way to accomplish this is to limit harvest of northern pike. In addition the abundant pike will provide anglers excellent angling opportunity and may guard against an invasion of carp, should that occur.

This is not the first time this type of management system has been implemented. Similar projects occurred with success on Delavan Lake (1989), Big Muskego (1997), and Eagle Lake (2008).

Evaluation Plan

Provide a suggested plan and timeline for evaluating whether the objectives are met in response to the regulation change. Indicate potential courses of action if objectives are not being met. If proposed regulation is not part of the "toolbox" (Table 2) the evaluation plan needs to be additionally detailed with an explanation of how the costs of evaluation will be covered.

Fisheries surveys will be performed by La Crosse staff beginning in 2011 to monitor the fish population. Surveys will be done on a three year rotation or as needed. RSD, CPUE, and condition data will be collected.

Previous Action

Include details on previous regulation proposals that were intended to address the current problem, if applicable.

N/A

Public Participation in Developing Proposed Regulation

Was input solicited from stakeholders when developing the proposed regulation change? Include documented comments from affected user groups (positive and negative), contacts made with local Conservation Congress Representatives, lake associations, angler groups, etc...

Over the course of two years pre treatment, meetings were held with local stakeholders. This group included local Conservation Congress Representatives, Lake Association, citizens and anglers. This group is in favor of this regulation change for Lake Tomah.

Small Business and Fiscal Effect

Explain who is likely to be economically impacted and in what way. If possible, provide estimates.

A good sport fishery is likely to have positive economic benefits to the community.

Draft Question: for inclusion in Spring Hearing questionnaire

This proposal would (insert proposed regulation): Lake Tomah northern pike regulations

The Management Goal is: RSD-M at 5 or above to control panfish and to provide a trophy northern pike fishery for local anglers

This regulation proposal is one tool to help meet the management goal because: This proposal was developed by the Lake Tomah Committee, and is integral to rehabilitation of the lake after chemical treatment

Do you favor : Do you favor a 32 inch minimum length limit, daily bag limit of 1 fish for northern pike in Lake Tomah, Monroe County, Wisconsin

Fish Team Supervisor Regulation Proposal Review Checklist

Proposal Title		
Author Jordan Weeks	Reviewer Ron Benjamin	Date 6/28/2011
Previous Action (regulation history, include whether the proposal has previously been proposed) Is this complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Fish Team Supervisor Reviewer Notes: This is a good proposal. It will allow the Lake Tomah fishery recover from the chemical treatment and hopefully establish a balanced fishery.		

Recommended Action by Fish Team Supervisor

Approve Reject

Regional Fish Supervisor Regulation Proposal Review Checklist

Proposal Title Lake Tomah Bass Regulation Change		
Author Jordan Weeks	Reviewer Bob Hujik	Date 7-07-2011
Regional Fish Supervisor Reviewer Notes: Recommend approval		

Recommended Action by Regional Fish Supervisor

Approve Reject

Species Team Regulation Proposal Review Checklist

Proposal Title Lake Tomah northern pike regulation change		
Author Weeks	Reviewer Cunningham-Pike Team	Date 12/27/2011
Proposed Regulation Justification (how the regulation change is expected to help the fishery meet stated Management Objectives) Is there adequate documentation that the proposed regulation will achieve objective? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Which tools were used? (Select all that apply)		
Literature (summarized and cited)		<input type="checkbox"/>
Case Study or comparison to other waters (summarized with data)		<input checked="" type="checkbox"/>
Modeling of population responses to proposed regulation (modeling results with data and assumptions)		<input type="checkbox"/>
Species Team Reviewer Notes: (Cunningham- Team Leader): Recommend approval. Draft question needs to be re-worked. Author did not provide the analysis table to specifically show the waterbodies and data in setting his management objective of RSD-M > 5. For Tomah a RSD-M of 5 may be difficult to achieve given it's shallow depth and potential for high macrophyte coverage, nonetheless his Management goal will be better met with the proposed 32" minimum. (Stremick) This proposed regulation is a part of the standard, available regulation categories for northern pike. The proposed regulation is a standard on chemical rehab. projects where protection of vulnerable species/predators/year classes is needed to develop predator base. Recommend approval.		

(Kubisiak) I would assume that this proposal is in conjunction with a protective regulation for largemouth bass to achieve the biomanipulation goals. The author talks about a summary of data from lakes with the 32-inch rule and a Lake Tomah management plan, but these items were not attached. It would be useful to see just the key findings of these items in the document. Rotenone treatment was in 2009, so it is past due for a regulation change before carp become reestablished. Overall, this looks like a good approach to deal with the issues of carp eradication and biomanipulation. It would be useful to know about recruitment and past pike population levels, because it may not be possible to achieve RSD-32 of 5% if pike recruitment is high and they become over-populated. Nevertheless, an over-populated population of stunted pike may still provide predation predator on planktivores and smaller carp.

(Paoli) I recommend approve. This goes against my general preference to simplify regulations. I feel that any special regulation should include a sunset clause where the rule would automatically revert back to the statewide regulation after X years unless strong data shows that the special regulation is working well. If such sunsets were the case, we wouldn't have 31 pages of Special Regulations in the booklet, and it would reduce the work effort required to go through the process of changing the rule back (i.e. Lake Six, Iron County). With that said, I am in support of this particular special rule change because of the cost and effort involved in the reclamation project.

(Meronek) I have no issues with this size limit, we have this option in central Wisconsin and the 32 inch appears to work in flowages.

(Heusner) Added protection from angler harvest will help re-establish pike populations in this reclamation project. Having a large predator component in the fishery is essential in maintaining a balanced aquatic ecosystem, and northern pike are extremely vulnerable to exploitation.

Proposal approved.

Recommended Action by Species Team

Approve Reject