

Regulation Proposal Form

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Proposal Title Lake Tomah bass 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 Tomah dam Upstream: County road "CM" Downstream: Lake	
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 14 inch minimum size limit for both large and smallmouth bass
Proposed Regulation Memorable Opportunity: 18" Minimum length limit with a daily bag of one bass
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 bass 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 limit is necessary to reduce angler harvest and maintain a high predator population. Largemouth bass have and will be stocked to develop this fishery and need protection from exploitation. This size limit will protect bass from harvest until they reach maturity, is necessary to facilitate bio-manipulation, and will maximize predation on small planktivorous fish and benthivorous rough fish. Historically Lake Tomah had the standard statewide regulations in place (14 inch minimum size, 5 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 bass RSD-M over 5 by the year 2020. This timeframe will allow bass 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 (17") from lakes that currently have the 18" minimum 1 bag limit. Values from 18 lakes (54 observations), were on average 6.5.

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 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 largemouth bass. 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 largemouth bass, 18 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. 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 largemouth bass. 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 largemouth bass. In addition the abundant largemouth 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 bass regulations

The Management Goal is: RSD-M at 5 or above to control panfish and to provide a trophy bass 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 an 18 inch minimum length limit, daily bag limit of 1 fish for bass in Lake Tomah, Monroe County, Wisconsin

Fish Team Supervisor Regulation Proposal Review Checklist

Proposal Title Lake Tomah bass regulation change		
Author Jordan Weeks	Reviewer Ron Benjamin	Date 6/28/2011
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 bass regulation change		
Author Jordan Weeks	Reviewer Bass Team	Date 12/14/2011
Species Team Reviewer Notes: The Bass Team supports this proposal. While no past data were presented, the team feels that any restoration project on lakes with the intention of reclaiming from rough fish should be coupled with regulation changes to promote predator biomanipulation. The team suggests adding some more information to the "This proposal would" portion of the Draft Question section and modifying the management goal in the Draft Question by removing the specific component of the objective, i.e. RSD-M 5. Readers will not know what that is referring to--the goal should be a general statement.		

Recommended Action by Species Team

Approve Reject