



Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-40__

June 13, 2012

Legislative Reference Library
645 State Office Building
100 Constitution Avenue
St. Paul, Minnesota 55155

Re: In The Matter of the Proposed Amendment to and Repeal of Rules of the Department of Natural Resources Relating to Fishing Contests; Governor's Tracking #AR 200 (part 4)

Dear Librarian:

The Minnesota Department of Natural Resources intends to adopt rules relating to fishing contests. We plan to publish a Dual Notice of Intent to Adopt Rules without a Public Hearing in the June 18, 2012, issue of the State Register.

The Department has prepared a Statement of Need and Reasonableness. As required by Minnesota Statutes, sections 14.131 and 14.23, the Department is sending the Library an electronic copy of the Statement of Need and Reasonableness.

If you have questions, please contact me at 651-259-5206.

Yours very truly,

A handwritten signature in blue ink, appearing to read "Linda E", is written over the closing text.

Linda Erickson-Eastwood
Program Manager, Division of Fish and Wildlife

Enclosure: Statement of Need and Reasonableness



STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND WILDLIFE

IN THE MATTER OF THE PROPOSED AMENDMENT OF
RULES RELATING TO FISHING CONTESTS
STATEMENT OF NEED AND REASONABLENESS

March 9, 2012

Minnesota Department of Natural Resources

STATEMENT OF NEED AND REASONABLENESS

Proposed Amendment to and Repeal of Rules Relating to Fishing Contests, *Minnesota Rules*, parts 6212.2400, 6212.2525, 6212.2500, 6212.2600, 6212.2700,

INTRODUCTION

Purpose

The primary purpose of the game and fish rules is to preserve, protect, and propagate desirable species of wild animals and native plant communities while ensuring recreational opportunities for those who enjoy wildlife-related activities and continued use of these resources.

Scope

The proposed amendments to existing rules cover changes, additions, or clarifications of conditions for fishing contest operations and permits, including, permittee requirements, disposal of fish, off-site weigh-ins, high use periods, live release tournaments, pre-fishing, decontamination, and negative impacts to the resource.

Notification to Persons and Classes of Persons Affected by the Proposed Rules

A request for comments was published in the State Register on March 14, 2005. This notice described the specific areas of the proposed rules, the statutory authority for each proposed change, and the parties that could be affected by the proposed rules. The Department of Natural Resources (DNR) also provided additional notice to people who may be affected by the rules by sending the request for comments and additional information to a number of angling groups, other environmental and social organizations, businesses, individuals, educational institutions, and representatives from bordering states. The DNR also published a statewide news release that described major parts of the proposed rule changes with instructions on how to provide comments. The DNR web site described major parts of the proposed rule and was used to take comments directly related to the proposed changes.

In addition to the request for comment period, a number of meetings were held in St. Paul with fishing tournament representatives, night bowfishing groups, catfish anglers interested in using larger bullheads and with angling groups wanting to legalize fishing tackle referred to as “a quick strike rig”. A series of other meetings throughout this time to the present have also taken place with tournament organizers to help draft language for fishing contests.

In 2007, 2010, and 2011, portions of this rule package were completed: turtles, mussels, commercial fishing, core lake designations for commercial areas, permanent and seasonal fishing closures, use of bullheads and suckers, possession permits, angling tackle clarifications, changing or adding to existing fishing regulations to reflect statute changes, and other technical changes. The package was split due to needing to work with constituent groups, especially surrounding the tournament rules, to develop a proposal that would be viewed as reasonable. The DNR attempted to adopt the contest rules earlier, but was unable to do so since having lost our statutory authority under Minnesota Statutes, section 14.125, on some of the proposed changes that were using Minnesota Statutes, section 97C.081, subd. 4a. During the 2011 legislative session, legislators

made changes to Minnesota Statutes, section 97C.081, subd. 4, (see Laws of Minnesota 2011 Chapter 107, Section 51 and 1st Special Session, Chapter 2, Article 5, sections 56 and 57) and in our opinion started a new 18-month clock to adopt contest rules.

Organizations and individuals contacted during the request for comment period included:

- * organizations representing private and commercial riparian owners, such as the Minnesota Lakes Association and Minnesota Resort Association;
- * media groups such as In-Fisherman, Lund Boat, various newspapers, and Gemini Sport Marketing;
- * conservation groups such as the Izaak Walton League, Sierra Club, Fish and Wildlife Legislative Alliance, and Audubon Society;
- * Minnesota Sportfishing Congress;
- * Minnesota Tourism; businesses,
- * Minnesota Inland Commercial Fishermen's Association; licensed commercial fish and turtle operators; Minnesota Aquaculture Association; licensed bait dealers;
- * North Shore Charter Captains Association;
- * the chamber of commerce in several cities;
- * sports groups such as woman angler associations; Rainy Lake Sportfishing Club; United Northern Sportsmen; Minnesota Council of Trout Unlimited; Minnesota Trout Association; individuals, and local sports groups;
- * fishing tournament organizers;
- * individuals interested in whitefish netting;
- * Native American councils; Southeast Asian and Hispanic organizations; and
- * border state staff who are responsible for fishing and public waters rules and regulations.

Despite the extensive outreach done by the DNR, very little input was received regarding the proposed rule changes. The comments received during the comment period are summarized as follows.

Changes in fishing tournament permit conditions: This topic generated a lot of comments about what the rules should or should not encompass.

- Four people are in favor of clarifying the existing rules.
- Six people were not in favor of any limits on pre-fishing activities.
- Seven people requested that the DNR not consider identification stickers for participants.
- Three individuals requested that we no longer limit tournament permits.
- Six people commented that they thought the DNR should limit permits during high use time and limit access to high use areas within the lake.
- Three people suggested that all tournaments be required to get permits.
- Five people felt that the regulations needed to be tightened up on tournaments and that better enforcement was needed.
- One person suggested that the organizers of tournaments should be required to notify the public of the events ahead of time by posting accesses and letters to landowners.
- Three tournament participants felt that these changes were unfair and singled them out against other user groups.
- One person suggested that a process be defined for those who wanted to appeal denied permits or conditions established in the permit.

- One person felt that the current regulations were adequate and no additional changes or clarifications were needed.
- Five individuals were against any limits on parking at boat access areas.
- Three people indicated that parking at access sites should be limited based on some formula.
- Five individuals thought that a fee should be charged for the permits to cover administration costs.
- Three people wanted to see clarifications based on species specific criteria.
- Two people suggested better coordination of allowed tournaments on border waters.
- Four people suggested that we no longer allow off-site weigh-ins.
- Four other people felt that we should allow off-site weigh-ins with restrictions to protect the resource and ensure fish are not stressed or killed.
- The Sportsmen's Club of Lake Vermillion submitted recommendations for restrictions just for Lake Vermillion and indicated that we should base our clarifications so that they can be considered on a lake-by-lake basis.
- Five people had comments that they want us to discontinue issuing permits for tournaments and make them illegal because they are ignoring the rules, exploiting the resource, and participants' actions are detrimental to the resource and other anglers' experiences.

Other fishing regulations commented on but not part of this rule package:

- Five people commented that they support any clarifications and stronger restrictions that will protect the resource.
- One person asked to have the language that requires a patch of skin left on fillets be removed.
- One person wants us to ban the use of cell phones while fishing.
- One individual would like to see us license fishing guides.
- One person suggested that we have a season closure for panfish.
- One person feels that we should have different daily and possession limits for all fish, but especially panfish.
- One person commented that they would like to eliminate culling on walleye, perch, and crappie.
- One group was in favor of simplification of regulations.

REVIEW OF DOCUMENTS

Sources cited in this document may be reviewed on workdays between 8:00 am and 4:30 p.m. in the Section of Fisheries Management office at the DNR headquarters, 500 Lafayette Road, St. Paul, Minnesota.

ALTERNATIVE FORMAT

Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, Braille, or cassette tape. To make a request, contact Linda Erickson-Eastwood at Department of Natural Resources, 500 Lafayette Road, Saint Paul, Minnesota 55155-4020, e-mail linda.erickson-eastwood@state.mn.us, phone 651-259-5206, and

fax 651-297-4916. TTY users may call the Department of Natural Resources at 1-800-657-3929 or 651-296-5484.

STATUTORY AUTHORITY

Statutory authority for the various provisions of the proposed rules is listed below.

<u>Rules Part</u>	<u>Statutes sections</u>
6212.2400	97A.418, 97C.081, subd. 4a
6212.2500	Repealing
6212.2525	97A.031, 97A.418, 97C.081 subd. 4a, 97C.085 (section is the redrafted 6212.2500 with additions)
6212.2600	97A.031, 97A.505, 97A.510, 97A.418, 97C.081 subd. 4a, 97C.085
6212.2700	84D.05, 84D.09, 84D.10, 84D.13, 97A.418, 97C.081 subd. 4a

Under these statutes, the Department has the necessary statutory authority to adopt the proposed rules. During the 2011 legislative session, legislators made changes to Minnesota Statutes, section 97C.081, subd. 4, (see Laws of Minnesota 2011 Chapter 107, Section 51 and 1st Special Session, Chapter 2, Article 5, sections 56 and 57), so the 18-month deadline to publish a notice of intent pursuant to Minnesota Statutes, section 14.125, does apply to this section. All other rules being proposed will amend rules for which the statutory authorities have not been revised in any way by the legislature since 1995 and so Minnesota Statutes, section 14.125, does not apply, or previous rulemaking efforts since 1995 satisfied the requirements of Minnesota Statutes, section 14.125, and thus the department retains such statutory authorities. Please note that the rules we propose to move from part 6212.2500 to part 6212.2525 existed prior to 1985 and we are not making any changes to the rule language.

REGULATORY ANALYSIS

“(1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule”

The proposed clarifications to fishing tournament permit conditions (6212.2400 through 6212.2700) should be beneficial to organizers because it will establish the criteria being used to determine conditions for tournament permits and will allow non-profits and charitable institutions to receive gifted fish. The contest organizers will be the ones who will initially bear the costs for permits and decontamination of invasive species when applicable. However, the organizers will most likely pass these costs on to the contest participants through registration fees.

“(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues”

The proposed fish rules would result in no costs to the DNR or other agencies. Agencies that already require a permit under Minnesota Statutes, section 86B.121, for competitions will not be affected since these proposed changes only pertain to DNR-issued permits. The DNR already does extensive monitoring of the fish populations that would be affected by the proposed rules and no additional monitoring is planned if the rules are adopted.

There are no significant positive or negative direct impacts anticipated for state revenues as a result of these rules since the DNR already enforces and monitors these laws and already charges a fee to cover costs for tournament permits.

“(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule”

Some of the proposed rules would result in stricter and therefore more intrusive conditions on fishing contests. However, it has long been recognized by fisheries professionals that restrictions are necessary to provide a sustainable fisheries resource (*Inland Fisheries Management in North America*). The best option for maintaining fish and other aquatic animal populations is, by definition, more intrusive than alternatives, because “less intrusive” proposals would usually not provide the necessary protections. Examples of some of the less intrusive methods that were considered follow.

The proposed rules for clarifying fishing contest permit conditions (6212.2525) are less intrusive on organizers than the current language because they outline the criteria the groups need to meet to conduct tournaments and outline when and what types of conditions might have to be met. The proposed rules give organizations the best opportunities to host an event while protecting fish and fish habitat.

The proposed rules allowing gifting of fish (6212.2600, subp 4) are less intrusive on organizers than the current language because they allow the gifting of fish were before that was not allowed.

“(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule”

Two alternatives are: 1) limited entry where only a certain number of anglers or permits are allowed to engage in these activities (*Inland Fisheries Management in North America*), and 2) eliminate permits all together. Alternative one could achieve the purpose of the proposed rules. However, this proposal was not considered because it is considered to be unnecessarily intrusive. Limited entry would also require more monitoring from the DNR to determine who and how many would be allowed to participate in these activities. Alternative two would not achieve the purpose of the proposed rules: “to allow tournaments while still protecting the resource.”

“(5) the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals”

The majority of the types of restrictions being proposed do not result in increased costs for the public, anglers, businesses, or fishing contest organizers. The only restriction that could result in minimal costs of \$300 to rent equipment is when the contest organizer was directed in the permit to do the decontamination for invasive species. The proposed rules layout the criteria that will be used to determine if such a measure is needed. Most contests will not be required to do the decontamination; but, if the contest is being held on infested waters with zebra mussels or spiny water flea this requirement could be triggered for those participants before leaving that water body.

The proposed rules do not involve any new regulatory, permit, or license fees or any other charges to the public. Minnesota Statutes, section 16A.1285, does not apply because the rules do not set or adjust fees or charges.

“(6) the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals”

The probable consequences of not adopting these rules is the inability of the Department to be able to successfully manage and protect the natural resources under our jurisdiction and to provide the best fishing and commercial opportunities possible.

“(7) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference”

The majority of the proposed rules cover areas that are not addressed by federal law; therefore, this consideration is not applicable for those portions of the rule. However, the rule language that restricts the use of public accesses (6212.2700, Subp. 1) is consistent and complies with those requirements outlined in the federal assistance program guidance (United States Fish and Wildlife Service 2006, Federal Code, part 522, chapter 22).

PERFORMANCE-BASED RULES

The agency’s objective with regard to recreational fishing is to provide for resource conservation, public safety, and equitable use, while maintaining flexibility for anglers and businesses to participate in a variety of opportunities for use and enjoyment of the aquatic resources consistent with state and federal law. To the extent possible, the DNR attempts to maintain simplicity and understandability of regulations, balanced against the demand for more specialized regulations to protect resources and provide additional opportunities for use of these resources. The agency also attempts to balance the economic and social impacts against the biological requirements necessary to meet goals that conserve and protect the aquatic resources.

In developing the proposed rules, the agency sought to make the rules less restrictive and more business-friendly where resource conservation, safety, and equitable use will not be compromised. A good example is the proposed rules to clarify fishing contest permit conditions. These proposed changes should benefit contest organizers and other associated businesses since the changes will make it clear what activities are eligible, and under what conditions.

ADDITIONAL NOTICE

Additional notice on the proposed rules will be provided to persons or classes of persons who could be affected, using the following methods:

- Sending the notice of intent to adopt rules with or without a public hearing to all tournament organizers previously mentioned who have a role or interest in these areas being adopted.
- Sending information to a number of parties: angling groups, businesses, and individuals, who have an interest in these areas, and staff from bordering states that are responsible for rulemaking.
- News releases that detail the major parts of the rule will be issued statewide.
- Using DNR web site to inform the public of our intent to adopt rules and take

requests for hearings.

Our Notice Plan also includes giving notice required by statute as follows:

- We will mail the rules and Notice of Intent to Adopt to everyone who has registered to be on the Department's rulemaking mailing list under *Minnesota Statutes*, section 14.14, subdivision 1a.
- We will also give notice to the Legislature per *Minnesota Statutes*, section 14.116.

Our Notice Plan does not include notifying the Commissioner of Agriculture because the rules do not affect farming operations per *Minnesota Statutes*, section 14.111.

Our Notice Plan does not include notifying the state Council on Affairs of Chicano/Latino People because the rules do not have their primary effect on Chicano/Latino people per *Minnesota Statutes*, section 3.922.

CONSULTATION WITH MMB ON LOCAL GOVERNMENT IMPACT

As required by Minnesota Statutes, section 14.131, the Department will consult with the Minnesota Management and Budget (MMB). We will do this by sending the MMB copies of the documents that we send to the Governor's Office for review and approval on the same day we send them to the Governor's office. We will do this before the Department's publishing the Notice of Intent to Adopt. The documents will include: the Governor's Office Proposed Rule and SONAR Form; the proposed rules; and the SONAR. The Department will submit a copy of the cover correspondence and any response received from Minnesota Management and Budget to OAH at the hearing or with the documents it submits for ALJ review.

DETERMINATION ABOUT RULES REQUIRING LOCAL IMPLEMENTATION

As required by Minnesota Statutes, section 14.128, subdivision 1, the agency has considered whether these proposed rules will require a local government to adopt or amend any ordinance or other regulation in order to comply with these rules. The Department has determined that they do not because all authority to regulate activities to protect fish and fish habitat lies with the Department and not local units of government.

COST OF COMPLYING FOR SMALL BUSINESS OR CITY

Agency Determination of Cost

As required by Minnesota Statutes, section 14.127, the Department has considered whether the cost of complying with the proposed rules in the first year after the rules take effect will exceed \$25,000 for any small business or small city. The Department has determined that the cost of complying with the proposed rules in the first year after the rules take effect will not exceed \$25,000 for any small business or small city.

The Department has made this determination based on the probable costs of complying with the proposed rule based on the fact that the rules do not impact small business or cities but instead are to be complied with by specific user groups.

LIST OF WITNESSES

If the rules go to public hearing, the witnesses below may testify on behalf of the DNR in support of the need and reasonableness of the rules. The witnesses would be available to answer questions about the development and content of the rules. The witnesses for the DNR include:

Linda Erickson-Eastwood, Fisheries
Department of Natural Resources
500 Lafayette, Box 20
St. Paul, MN 55155

Pat Watts, Enforcement
Department of Natural Resources
500 Lafayette, Box 20
St. Paul, MN 55155

Al Stevens, Fisheries
Department of Natural Resources
500 Lafayette, Box 20
St. Paul, MN 55155

RULE-BY-RULE ANALYSIS

6212.2400 PERMIT REQUIREMENTS FOR FISHING CONTESTS

Subpart 1. The proposed language adds the phrases fish handling and release procedures, disposition of harvested fish, reference to Department web site, and the need to submit a parking plan to this part. This language is necessary so that the permittee is aware to provide this information with their applications so that staff reviewing these applications can implement the rules as outlined. It also provides the angler information about electronic avenues for submitting an application. It is reasonable to request this information because the majority of fishing contest applicants will already be dealing with this information as they setup these events and set their own contest rules.

Subpart 2. The proposed language is a technical change because it is the old language of part 6212.2500, subpart 1 that was moved to this section. The change is needed and reasonable to ensure that clarifying language for similar permit requirements is under the same rule part.

6212.2500 PERMIT CONDITIONS.

This language repeals the rule language that originally outlined permit conditions that could be added. The language in part 6212.2500 is being reorganized and expanded as part 6212.2525. The sections that remain the same from the old language in 6212.2500 are noted below.

Table 1. List of the technical changes due to reorganizing 6212.2500.

Previous Rule	Proposed Rule
6212.2500 Subpart 1	6212.2400 Subpart 2
6212.2500 Subpart 4	6212.2525 Subpart 1
6212.2500 Subpart 11	6212.2525 Subpart 3, Item E.
6212.2500 Subpart 12	6212.2525 Subpart 3, Item F
6212.2500 Subpart 13	6212.2525 Subpart 3, Item G
6212.2500 Subpart 5	6212.2525 Subpart 3, Item H
6212.2500 Subpart 13	6212.2525 Subpart 3, Item H

It is necessary and reasonable to expect that obsolete language would be repealed.

6212.2525 PERMITTED FISHING CONTESTS

The rules being proposed in this part apply only to Department of Natural Resources permitted fishing contests as defined in Minnesota Statutes, section 97C.081. Permitted fishing contests, commonly called tournaments, generally include a specific number of registered participants fishing competitively for a set amount of time on a specific body of water.

Most fishing contests involve some form of “weigh-in”, where contest participants bring their fish to a designated location to have them weighed and registered. While fish are transported and weighed they are held in tanks of water. The quality of that water, primarily temperature and dissolved oxygen, greatly determines the fish’s likelihood of survival. Other factors that influence the health of the fish include exposure to diseases and stress from handling.

Fishing contests typically fall into either a live-release format or kill format. In a live-release contest the intent is to release fish alive after the contest weigh-in, with the expectation that the fish will survive. Fish that are dead or appear unlikely to survive may not be released; it is illegal to wantonly waste a wild or protected animal (Minnesota Statutes, section 97A.031). Some contests are operated as kill tournaments with no expectation of releasing fish. A kill format is typically used when a tournament organizer believes the probability of fish surviving is poor or when the conditions are such that survival is expected to be low. These fish are either given back to the participants or the organizer makes arrangements to gift the fish.

Subpart 1. The proposed language is a technical change because it is the old language of part 6212.2500, subpart 4, that was moved to this new part. This language is needed to ensure the safety of participants and other users of the waterbody. It is reasonable because it does not change the limitations that fishing contest organizers are used to following when setting up their contests.

Subpart 2. The proposed language describes mandatory equipment that will provide a healthy environment when holding live fish in boats and tanks during live-release contests and weigh-ins. Basic equipment required includes: functional fresh water pumps or circulation systems that assist in the removal of toxic ammonia and add oxygen. These proposed rules are necessary to minimize physiological stress and improve survival of released fish. Live-wells and holding tanks capable of maintaining good water quality are essential for live-release tournaments (Gilliland et al. 2002) to limit undue mortality of released fish. These minimum requirements are reasonable because they are consistent with standard practices for hauling fish as preformed by fish management agencies and follow standard recommendations as practiced by many fishing contest organizers and participants (Gilliland et al. 2002). Most boat manufacturers produce boats with built-in live wells that meet these equipment requirements.

Subpart 3.

Item A. The proposed language is a technical change because it is the old language of 6212.2500 subpart 2 that was moved to this part. This language is necessary to prevent tagging and marking of fish to limit potential interference with fisheries research or management programs. This language is reasonable because it is consistent with previous practices.

Item B. The proposed language denies a permit for contests that promote or allow the insertion of a needle into a fish’s gas bladder, a practice also known as fizzing. Fizzing is used to artificially deflate gas from a distended swim bladder. A distended swim bladder can occur when

a fish is hooked in relatively deep water and quickly brought to the surface. Rapid depressurization can cause harm to fish including hemorrhaging, gas embolisms, inability to submerge, and other physiological affects that result in death (Kerr 2001). Fizzing, if done properly, can offset some of these effects and allow the fish to return to deeper water. Proponents of fizzing recommend that tournament organizers and anglers should be trained and become proficient with the technique so it can be administered as quickly as possible. Fizzing is typically used in live release tournaments, where the intent is to release fish alive with the expectation that they will survive. Some angling magazines and tournament organizations prescribe routine fizzing of fish caught from deep water, which can lead to indiscriminate use and possibly lead to fish tissue damage and the spread of disease. This language is necessary to protect the health of the fish being released. Research has shown that there are other risks and documented fatal injuries associated with fizzing, including punctures to the kidney's and other vital organs and increased fungal infections (Kerr 2001). Fizzing may increase the chance of spreading bacterial and viral diseases among fish (Ling Shen, DNR pathologist, personal comm.) due to using a common needle to fizz fish, and due to puncture wounds. While some states allow fizzing by fishing contests, in a survey of 41 states, Kerr and Kamke (2003) report that most (73%) states do not allow fizzing at tournaments due to concerns for fish health. It's reasonable to not allow this practice due to the lack of sufficient evidence that fizzing results in better survival and those benefits outweigh the risks.

Item C. The proposed language denies a permit when the contest starting procedures could result in unsafe boating. This language is needed to ensure the safety of contest participants. The agency has heard reports of three near misses and had numerous complaints from other users. This language would be applied to contest applications where unsafe conditions would result. Some examples include situations where a relatively large number of boats located in a small area are given a signal to start or take-off at once or when a number of boats will travel through a narrow or confined area shortly after start up. The language is reasonable, because contest organizers can adjust their procedures to ensure safety. Such adjustments might include moving the start location to a larger area of a lake or setting a fixed time to begin fishing while allowing participants to travel at a leisurely speed to their desired location.

Item D. The proposed language is the old language from part 6212.2500, subpart 12, except that "fish management" was added. This addition is needed to prevent a fishing contest from compromising data collected for fisheries management purposes. The previous language was limited to research data, however fisheries managers routinely collect data that is used to write a lake management plan or evaluate a management action such as special or experimental regulations and stocking strategies. Some examples of collecting data include: fish tagging studies that are used to calculate population estimates; creel surveys that are used to estimate angling pressure, catch and harvest; and netting and electrofishing surveys to evaluate fish population changes. Compromising data collection has the potential to skew results and lead to a poor management decision. The language is reasonable because in most cases the fishing contest can be rescheduled for a different day or a different lake that is close by.

Item E. This proposed language combines the old language in part 6212.2500, subpart 5, and subpart 13. This combined language is a technical change that is needed to ensure safety of contest participants. This language is reasonable because it is consistent with previous practices.

Subpart 4.

Item A. The proposed language clarifies that the commissioner can place conditions on a permit to protect the resources. These changes are needed to clarify the conditions and specific criteria the commissioner shall consider. Conditions on permits are needed to ensure that fish have the greatest chance of survival and are a reasonable restriction needed to protect fish. Rather than simply denying a permit, these proposed changes provide flexibility with tournament organizers when planning their events and provide safety for the contest participants. The proposed conditions that the DNR may include on permits include:

Subitem 1. Seasonal and daily restrictions may be specified to protect fish habitat.

Examples include restricting boating in or near rice beds in late summer (criteria: subpart B, subitem 3), or restricting live-release contests when pathogens known to be detrimental to survival to released fish are present in contest waters (criteria: subpart B, subitem 5).

Subitem 2. Geographic restrictions may be specified to protect spawning areas or important nursery areas or important habitat, to ensure safety of contest participants, or to identify appropriate sites for releasing fish (criteria: subpart B, subitems 3, 6). An example would be restricting a spring panfish contest from a known muskellunge spawning area.

Subitem 3. Fish holding equipment may be specified to protect fish. Specific types of equipment are needed to ensure the likelihood of survival (criteria: subpart B, subitem 4). An example is a type of fish-landing net, referred to as cradle, used by many anglers to temporarily hold muskellunge. This is a common practice by anglers during muskellunge tournaments.

Subitem 4. Daily and possession limits may be modified to allow, for example, contests acting in cooperation with a DNR research project to collect fish from waters with limited possession limits (criteria: subpart B, subitems 1, 4). Alternatively, decreased limits may be required to limit the mortality expected on waters managed for limited harvest, such as managed trout waters (criteria: subpart B, subitem 4), or on waters experiencing extreme warm temperatures that otherwise would be expected to result in increased fish mortality (criteria: subpart B, subitem 5), or on waters that are part of a research study (criteria: subpart B, subitems 2, 7).

Subitem 5. Contest length may be specified to restrict the hours of the contest during high use periods to minimize conflicts with other lake users that might result in unsafe boating for contest participants (criteria: subpart B, subitems 6, 7).

Subitem 6. Treatments, decontamination, and management practices to prevent the spread of pathogens and invasive species might be specified to prevent the spread of an infectious disease or invasive species. This is necessary to limit fish mortality and to protect habitat (criteria: subpart B, subitems 3, 5, 8, 9, 10). An example would be a condition requiring participants to disinfect boat livewells following a contest held in infested waters. This is reasonable to prevent the spread of disease, limit fish mortality, or to protect habitat.

Subitem 7. This proposed language is the old language in part 6212.2500, subpart 11. This language is needed to limit mortality of fish caught in a catch and release contest. It is reasonable to limit mortality of fish caught in a catch and release contest to prevent wonton waste.

Subitem 8: The proposed language allows the commissioner to set conditions for handling and transport of fish. An example may be to limit the amount of time fish are held before being returned to the water. Another example may be to require specific measures

for handling individual fish and groups of fish during a weigh in process. This language is necessary in order to incorporate best management practices into permit conditions that increase the likelihood of fish survival. The language is reasonable in that the Department along with contest organizers are identifying these best management practices for fish handling and transport and so organizers will be asked to practice existing best management practices.

Item B. The proposed language provides specific criteria that the commissioner shall consider when making a decision on the type and extent of conditions to include when issuing a permit. Previously it was not clear to permit applicants what criteria would be used. The criteria outlined in subitems 1 through 10 describe the type of situations or circumstances that would lead to specific permit conditions that are reasonable to protect wild animals. The proposed criteria will ensure that the activities allowed through a permit do not damage the resource or are detrimental to the species, that the activities help to improve management or understanding of that species, and that the activity does not interfere with existing studies regarding that species or its management.

This language is reasonable because it clarifies the criteria that will be used and allows contest applicants to know these prior to their application. It is necessary and reasonable to identify the purposes, decision-making criteria, and restrictions for these permits so the public is aware of why these permits are issued and to help the DNR be more consistent in the issuance or denial of these permits.

Subpart 5. The proposed language allows the commissioner to deny a contest permit if the contest organizer cannot prevent the transport of invasive species or pathogens as a result of contest activities. Transportation of water from waters designated as infested by the commissioner is illegal without a permit (Minnesota Statutes, chapter 84D, and Minnesota Rules, chapter 6216). To ensure compliance, it is necessary and reasonable to require participants at a minimum to either exchange water or treat the water prior to movement. The proposed language is necessary to prevent the transport of invasive species or pathogens and to ensure that contest organizers obtain the required permit when necessary. The language is reasonable because it is consistent with current laws for getting a permit to transport waters from infested waters which is required by statute.

Subpart 6.

Item A. The proposed language establishes conditions when live release of fish will not be allowed for a fishing contest. Restrictions are needed to minimize wanton waste of fish that die after release due to stress and injuries associated with contest operation coupled with environmental conditions that exist during the contest.

Subitem 1. The additional stress of handling and holding fish in the presence of poor water temperature and quality conditions and fish pathogens greatly increases the likelihood of delayed mortality. Previous experience on the Mississippi River with a contest involving largemouth bass resulted in a high rate of delayed mortality. It was

determined that largemouth bass virus coupled with high water temperature led to this high mortality. The proposed language is needed to prohibit fish from being released where water quality conditions or presence of fish pathogens may lead to undue mortality of released fish. The presence of pathogens and or anticipated water quality conditions may at times require restrictions above and beyond the specific subitems (2) and (3). This provision is reasonable to prevent wonton waste of live-release tournament caught fish, to protect fish and fish populations, and reflect current practice.

Subitem 2. The proposed language explicitly prohibits live release contests for muskellunge, sturgeon, or trout and salmon that use centralized weigh-ins or other formats that do not follow the definition of immediate release as defined in Minnesota Statutes, section 97A.015, subd. 26c. Muskie, like walleye, prefer cool water temperatures. Muskie are relatively rare, and managed for trophy size with a majority of lakes now having a minimum size limit of 48 inches. The large size that muskie grow to - muskie over 40 pounds are caught every year in Minnesota – makes them especially susceptible to stress and high mortality due to prolonged handling time and travel in live wells.

The only sturgeon fisheries in Minnesota are on the Rainy River / Lake of the Woods system and on Lake St. Croix and parts of the St. Croix River. Sturgeons are a long-lived species, and females require over 20 years to mature. Over-fishing and habitat degradation in the 19th and 20th centuries decimated sturgeon stocks. To aid in restoration and maintenance plans, sturgeon are managed with highly restrictive regulations limiting harvest to one per year during relatively short angling seasons. *Sturgeons also reach very large size that is not accommodated by the standard boat livewell dimensions. Consequently, the livewells are not adequate to keep fish of this size alive for transport to a weigh-in.* The additional handling time and transport adds stress to fish caught in fishing contests.

Trout and trout habitat are intensively managed and costly to the state. Trout require cold water for survival and are poor candidates for the additional stress of weigh-ins.

The proposed language is needed to minimize mortality of these species, which are intensively managed for their trophy potential. Prohibiting transport of these species is needed due to the intensive management efforts required to maintain their fisheries, their susceptibility to stress and high mortality and to prevent wonton waste. This proposal is reasonable because it is consistent with current practice and is supported by the angling groups and organizations that target these species.

Subitem 3. Walleye are a popular contest species, second only to bass in targeted fishing contests conducted in Minnesota. The proposed language would prohibit live-release walleye contests in Minnesota in summer based on water temperature found across two geographical zones. Walleye are a cool-water species that are less tolerant of confinement in live wells in warm, summer water temperatures compared to thermally more tolerant species such as bass. Our experiences with handling walleye in culture operations and during fish sampling assessments has shown survival of walleye in confinement decreases as water temperatures rise above a range of about 65° to 70° F. Above that range, walleye mortality increases substantially.

Studies on fish mortality from catch and release contests have shown that delayed mortality is considerably higher than immediate mortality (i.e. fish brought dead to the

weigh-in). Delayed mortality occurs when seemingly healthy fish are released back to contest waters, and die within one to five days after the contest.

Scientific literature concerning survival of tournament-caught walleye has shown survival to be inversely related to water temperature. Minnesota, along with several other states, teamed with the FLW walleye tournament organization during 2006 and 2007 in a joint study of walleye mortality in contests that occurred throughout the temperature range experienced by tournaments in the northern tier states (Vondracek and Fulton 2008, report in progress). They report that total mortality of walleye and sauger measured at 14 contests increased sharply when water temperatures were above 61° F, while high mortality occurred at temperatures above 66° F. Data and reports from other live-release walleye contests concur with their results. Post-release mortality of walleye following a three-day tournament conducted in late May on Lake Mille Lacs, Minnesota when water temperature was 55° to 58° F ranged from 5.7 to 47.1% (Goeman 1991). Tournaments conducted in Wisconsin have shown mortality rates as high as 80% that were associated with temperatures above 68° F (Hoffman et al. 1996). During a July tournament in North Dakota, tournament organizers reported nearly 100% mortality of walleye (Charlie Moore, Professional Walleye Trail, personal comm.). Additionally, results of laboratory experiments on tournament-related mortality generally concur with field observations that water temperature greatly affects survival of tournament caught walleye. Laboratory experiments on walleye under simulated tournament conditions for various water temperatures showed survival decreased when temperature exceeded 66° F, reaching 0% survival at 75.2° F (Loomis, J.H., 2008, report in review).

Because research and field observations showed tournament related mortality of walleye increased significantly when water temperatures reached the 60° to 70° F range, we chose 70° F as a reasonable limit for allowing live-release walleye tournaments. Two geographical zones, based on water temperature data obtained from DNR lake surveys, delineated the approximate period that water temperature typically reached and maintained 70° F and higher. The southern portion of the state is affected from Memorial Day to Labor Day and the northern portion of the state is affected from June 14 to Labor Day. These same zones have been used since 2001 as part of DNR-Fisheries policy limiting walleye live-release contests.

The proposed language is needed to reduce wanton waste of live-release, tournament-caught walleye, sauger, and their hybrids due to high mortality associated with water temperature. The proposed language is reasonable because it will minimize the wanton waste of fish while allowing permitted fishing contests to continue operating. The criteria and zones were established based on the best available information and studies, and are consistent with existing practices.

Item B. The proposed language establishes conditions when live release of fish will not be allowed following an off-site weigh-in. These restrictions are needed to minimize wanton waste of fish that die after release due to stress and injuries associated with contest operation coupled with environmental conditions that exist during the contest.

Subitem 1. The proposed language specifies that fish must be returned to contest waters within two and ½ hours from the time they leave contest water. By definition, off-site weigh-ins are conducted away from tournament waters and require the participant

to trailer their boat to a central location, often miles from contest waters. Once at the weigh-in location the contestants pull a trailered boat to a weigh-in stage, where fish are transported in containers to the stage for the weigh-in. Once all competitors have weighed their fish, the contest organizer will transport the fish back to contest waters. Arbitrarily limiting the distance traveled doesn't really get at the essential issue for fish survival; that is, how long are fish held away from contest water. Even with the best equipment, the inability to refresh water during extended trailering and weigh-in times can quickly degrade water quality. This proposal sets a maximum limit of two and ½ hours for the contest to complete the entire off-site weigh-in process, including over-the-road trailer time and the weigh-in procedures. The proposed language is needed to limit mortality of fish released live following a contest with an off-site weigh-in. The proposed two and ½ hour limit is reasonable based on the agencies observations at recently permitted off-site contests in Minnesota.

Subitem 2. The proposed language specifies that if 100 or more fish must be returned to contest waters that no live release of fish will be allowed. Because there is limited information regarding post release mortality of fish following off-site weigh-ins, the agency reviewed past practices to select the number of 100 fish that may be brought to an off-site weigh-in. The proposed language is needed to limit mortality of fish released live following a contest with an off-site weigh-in. The proposed limit is reasonable because recent permits granted for live-release off-site weigh-ins in Minnesota have usually involved a small number of boats, often 10 or less, resulting in a relatively small number of fish that were transported to the off-site location. We believe that this restriction will not unduly restrict contest organizers from conducting off-site weigh-ins, which can still be used for showing fish and marketing sponsor's products.

Subitem 3. The proposed language would prohibit the release of northern pike, after an off-site weigh-in. The proposed language would prohibit fishing contests that use centralized weigh-ins or other formats that do not follow the definition of immediate release as defined in Minnesota Statutes, section 97A.015, subdivision 26c. Northern pike, like walleye, prefer cool water temperatures. Northern pike are distributed over a wide range of Minnesota waters with over 100 lakes managed with restrictive size limits designed to maintain or increase the number of large fish. Their large size, reaching over 20 pounds, make these species especially susceptible to stress and high mortality due to over-the-road travel in live wells. The proposed language is needed to minimize mortality and wonton waste of this species due to their susceptibility to stress and high mortality. This proposal is reasonable because it is consistent with current practice and is supported by the angling groups and organizations that target these species.

Subitem 4. The proposed language would ban live-release of bass following off-site weigh-ins during July and August. This change will encourage on-site weigh-ins to improve bass survival. Like other cold-blooded species, the metabolism of bass increases with increasing water temperature. Bass experience an average of 28% mortality at live-release contests (Wilde 1998). Though not directly measured in scientific studies, mortality of bass subjected to the additional stress of being transported to an off-site location for a weigh-in is likely higher due to the additional time involved with transporting fish and subsequent water quality issues related to over-land travel. For example, the BASS Classic, a large contest held annually in the southern US, utilizes an off-site format

for its national championship. Despite using the best boat technology and weigh-in procedures, the classic has experienced near 100% mortality at recent contests held in summer (Vern Wagner, MN BASS Conservation Director). These contests were conducted in July, often when high water temperatures are coupled with long distances between contest waters and the location of weigh-ins. The Bass Classic is now held in winter to avoid high water temperatures and increase bass survival. Additionally, largemouth bass virus (LMBV) is now present in some Minnesota waters and can lead to mortality of bass subjected to high water temperatures. The water temperature of Minnesota lakes and streams peak in July and August. The proposed language is needed to reduce wanton waste of tournament-caught bass that are released alive after a weigh-in since these fish have a poor chance of surviving. This proposal is reasonable since it only bans the release of fish following an off-site weigh-in during the warmest months. Under the proposed rules, fishing contests can still hold off-site weigh-ins during July and August, but they will not be allowed to release the fish. The proposed language still allows live release for on-site weigh-ins, which combined with proper equipment and handling procedures gives bass the best chance of surviving. These restrictions are reasonable because they are based on the best information available, and allow contest organizers to make a choice about format they will use without preventing the contest from taking place.

Item C. The proposed language allows the commissioner to exempt contests on the Canadian border waters from the requirements in Subp 6. subitems B2 and B4 that have operated for many years under the previous rules. The rationale for the exemption are: similar contests are allowed directly across the lake in Ontario waters; and that water temperatures in the Canadian border waters are more favorable to fish survival in comparison with inland Minnesota. The language goes on to set criteria for maintaining eligibility under this exemption that would sunset if the contest were to change substantially from the historical format in either size or location, or if it were not held in consecutive years. This language is needed to keep the expected level of mortality due to operation of the off-site weigh-in from growing over time and to “grandfather” in an existing contest that would be in conflict with Subp. 6, subitems B2 and B4 and not be permitted in its current format. This proposed exemption is reasonable as it balances the desire of the contest’s organizers to accommodate their historical format with our desire to avoid this contest from growing substantially or proliferating new contests along the Canadian border. Additionally, there have been no issues with this contest to date.

6212.2600 POSSESSION OF FISH

Subpart 3. Authority to hold and release fish. Items a-f. The proposed language lists environmental conditions or management considerations, which if present following a live-release contest, may require the permittee to transport contest fish back to specified areas of contest waters, rather than to release fish at the weigh-in location. The scientific literature concerning dispersal of fish following live-release fishing contests is relatively extensive. Wilde (2003) reports that on average only 14% of largemouth bass and 32% of smallmouth bass returned to their sites of capture following contests. Although less is specifically known regarding dispersal for other species, we assume their behavior is similar to bass. The conditions described in items A-F are needed to provide fish the best chance of surviving or to accommodate specific management considerations. The language is reasonable to ensure the best survival and distribution of fish and are based on the

best available science at the time of this proposal. These conditions reflect current and accepted practices.

Item A. Redistribution of fish may be required when water quality at the weigh-in location or intended release site is poor and would result in undue mortality. A shallow bay with high water temperature and poor oxygen levels is a typical example. Water quality must be sufficient for fish to recuperate following the rigors associated with confinement and contest operation. Water quality standards for fish are widely modeled around a 5 ppm oxygen level. Rapid water currents may interfere with recuperation and therefore trigger a new release location. This language is needed to minimize fish mortality following release and can be reasonably accommodated by organizers. The language is reasonable because some tournaments already either use contestants and their boats to redistribute fish, while others make use of special release boats that have large fish-holding tanks.

Item B. Barriers to fish movement may be present in contest waters preventing or inhibiting natural mixing and dispersal. Examples are man-made barriers such as dams navigated by contest participants in boats, or narrows or constrictions in lake morphometry that would inhibit natural dispersal of released fish. This language is needed to ensure that contest fish have direct access back to preferred habitat or home range to aid in their survival. The language is reasonable because tournament organizers can either restrict contest waters to areas that fish can reasonably navigate, or redistribute fish as described in Item A.

Item C. Walleye and muskellunge stocks in Minnesota have been differentiated into strains based on genetic markers. Genetic differences exhibited by races of fish are known to occur. For example, walleye populations in a given water body sometimes show distinct preferences to spawn in either river or lake habitat, often returning to the same location in successive years to spawn (Colby et al. 1979). This language is needed for cases where genetic strains are known to exist in contest waters that may be different from fish near the weigh-in location, and management objectives may be compromised by the mixing of different genetic strains of fish. The language is reasonable because organizers can accommodate management concerns by restricting contest waters, or by keeping different strains separate during the weigh-in and redistributing fish as required.

Item D. The distance that fish are transported by anglers to the weigh-in may trigger the need for transportation back to home ranges, which is an area that fish seasonally inhabit. Habitat near weigh-in waters may not be favorable for the species of fish in the contest. For example, largemouth bass prefer shallow habitat favorable for aquatic plants, and a weigh-in located on a steep, rocky shoreline would not meet habitat requirements preferred by largemouth bass. It is reasonable to require fish be returned to habitat favored by the species to sustain the population. Fish that are moved long distances from a favored habitat to a weigh-in location lacking suitable habitat may result in poor survival. As an example, bass that would have to travel an expanse of open water to reach their preferred home range found along a shoreline opposite from the weigh-in location. Wilde (2003) reports that 51% of largemouth bass and 26% of smallmouth bass dispersed less than one mile from their release sites. This language is needed and reasonable to conserve fish populations and to avoid local depletion of fish stocks for recreational anglers due to contest activity.

Item E. Depletion of local stocks can occur if contest participants target certain areas. In the absence of a redistribution plan, some preferred habitats might not contain the number of fish present prior to contest activities. Contests that cover large distances and result in moving fish well

beyond their home range may also require redistribution. Requiring contest organizers to redistribute fish is a needed and reasonable accommodation to avoid depletion of localized fish stocks due to contest activities

Item F. Release of contest fish that would result in the spread of diseases or invasive species may be restricted. For example, largemouth bass virus is spread by direct contact between or by contact with water exposed to diseased fish, conditions that occur in live-release contests. Release sites may be limited to areas where the fish were caught or areas known to harbor the same disease of concern. This language is needed to prevent the spread of infectious diseases to protect fish, and is a reasonable restriction to ensure conservation of fish stocks.

Subpart 4. Gifting and donating fish. The proposed language allows tournament organizers to collect and possess multiple individual limits of contest fish for donation to a nonprofit organization or charitable institution. Contest participants are not always able to properly store or consume their individual limit of fish, choosing instead to donate them. Minnesota Rules 6230.1500 provides a legal means for a donor to transfer wild animals by gift but is limited to one possession limit per recipient. This language is needed to facilitate easier transfer of legally harvested fish from either natural mortalities or a kill tournament to an authorized representative of the nonprofit organization or charitable institution that is receiving the fish, rather than requiring individual tournament participants to transport and donate their fish. The proposed language is needed to allow such transfers to legally happen and are a reasonable accommodation to facilitate a legal transfer in a more efficient process.

6212.2700 CONTEST OPERATION

Subpart 1. This section covers access use at state-owned access sites. The language being proposed is to limit parking by contest participants to no more than 50% of access capacity at state-owned access sites unless a parking plan is approved. State-owned sites receive federal funds administered through the Division of Trails and Waterways and as such are subject to federal policies and rules regarding access use. United States Fish and Wildlife federal code (USFWS 2006) allows for state agencies to determine what commercial activities may be allowed on access sites as long as the activities do not interfere with the fulfillment of the grant objectives for sportfish restoration. Federal aid officials have determined that contests are a commercial activity; consequently, use of access sites by contest participants falls under the commercial use limitation.

We have been advised by the Twin Cities office of the US Fish and Wildlife Service, Office of Federal Aid (Jeff Gosse, letter dated 4-27-1998), that limiting contest use of parking spaces to 50% would meet the federal requirements. Additionally, the language proposes that a parking plan be submitted with the application, detailing where and how parking will be accommodated. The contest applicant may request an exemption to the 50% limit if the access administrator determines that the contest isn't likely to interfere with other recreational users. This may occur at times of the year when recreational boating is limited, such as late fall, or for locations in remote areas where it is unlikely the non-tournament public would require 50% or more of the parking spaces. It is reasonable to limit parking and use of access sites so that contests do not usurp use of state-administered access sites by non-tournament boaters, and to satisfy federal requirements. It is reasonable to make a parking plan accommodation so that the 50% limit doesn't serve to unnecessarily restrict contests from using them when reasonable. The language is needed to ensure that the DNR can continue to receive federal aid reimbursements for our access sites and it is

reasonable because this limited has been incorporated into contest permits as a Fisheries policy since about 1998 and can be waived with an approved parking plan.

Subpart 3. The proposed language is a technical change that replaces the term exotic species with the new term invasive species. This is needed and reasonable so that the terms in this rule are consistent with the statutory definitions now found in Minnesota Statutes, section 84D.01, subdivision 9A. The addition of “related equipment” is needed and reasonable to be consistent with the current statutory language in Minnesota Statutes, section 84D.05, subd 8.

RepealerSummary

6212.2500 Permit Conditions. This language repeals the entire section. It is necessary and reasonable to repeal these laws since they are being reorganized and modified in a new section of law.

CONCLUSION

Based on the foregoing, the proposed rules are both needed and reasonable.

March 9, 2012

/s/ Tom Landwehr, Commissioner

NON-PUBLISHED REFERENCES CITED IN THE STATEMENT OF NEED AND REASONABLENESS

Benjamin, R. Wisconsin Dept. Natural Resources, LaCrosse, personal communication.

Moore, Charlie. In-Fishermen, Professional Walleye Trail Tournaments, Brainerd, MN, personal communication.

Wagner, V. Minnesota Bass Federation, Minneapolis, Minnesota, personal communication.

PUBLISHED REFERENCES CITED IN THE STATEMENT OF NEED AND REASONABLENESS

Aasplund, T.A., and C.M. Cook. 1997. Effects of motorboats on submerged aquatic macrophytes. *Lake and Reservoir Management*. Vol. 13. pp. 1-12.

Gilliland, G., H. Schramm, and B. Shupp. 2002. *Keeping Bass Alive: A guidebook for anglers and tournament organizers*. ESPN Productions, Inc/B.A.S.S, Montgomery, Alabama.

Goeman, T. 1991. Walleye mortality during a live-release tournament on Mille Lacs, Minnesota. *North American Journal of Fisheries Management* 11:57-61.

Grant, E.C., D.P. Philipp, K.R. Inendino, and T.L. Goldberg. Effects of temperature on the susceptibility of largemouth bass to largemouth bass virus. *Journal of Aquatic Animal Health* 15(3): 215-220.

Hatch, J.T.; D.P. Siems, K.A. Schmidt, J.C. Underhill, R.A. Bellig and R.A. Baker. Unpublished 1999. *A New Distributional Checklist of Minnesota Fishes, With Comments on Classification, Historical Occurrence, and Conservation Status*.

Hill, T.K., and E.W. Shell. 1975. Some effects of a sanctuary on an exploited fish population. *Transaction of the American Fisheries Society* 104:441-445.

Hoffman, G., D.W. Coble, R.V. Frie, F.A. Copes, R.M. Bruch, and K.K. Kamke. 1996. Walleye and sauger mortality associated with live-release tournaments on the Lake Winnebago chain. *North American Journal of Fisheries Management* 16(2): 364-370.

Inland Fisheries Management in North America. 1993. Publisher American Fisheries Society.

Kerr, S. and K. Kamke. 2003. Competitive fishing in North America: A survey of Canadian and U.S. jurisdictions. *Fisheries* 28(3): 26-31.

Lathrop, R.C. 2002. Stocking piscivores to improve fishing and water quality: a synthesis of the Lake Mendota biomanipulation project. *Freshwater Biology*, 47, 2410-2424.

Mehner, T., J.O. Benndorf, P. Kasprzak, and R. Koschel. 2002. Biomanipulation of lake ecosystems: successful applications and expanding complexity in the underlying science. *Freshwater Biology*, 47, 2453-2465.

Plumb, J.A.; John M. Grizzle and W.A. Rogers. 1988. Survival of caught and released largemouth bass after containment in live wells. *North American Journal of Fish Management* 8(3): 325-328.

Schramm, H.L., Jr., J Grizzle, L Hanson, and G. Gilliland. 2004. Improving survival of tournament-caught bass and the effects of tournament handling on largemouth bass virus. Completion Report,

USFWS 2006. Allowable commercial activities and related facilities on federal assistance lands. Part 522, chapter 22, federal assistance program guidance, division of federal assistance.

Wilde, G. 1998. Tournament-associated mortality in black bass. *Fisheries* 23(10): 12-22.

Wilde, G. 2003. Dispersal of tournament-caught black bass. *Fisheries* 28(7): 10-17.