Wisconsin Walleye Initiative
Regulatory Review & Recommendations Study
November 15, 2013

A report to the Wisconsin Legislature as required by

2013 Wisconsin Act 20

Respectfully submitted,

Matt Mowry 11/14/13

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EXECUTIVE SUMMARY

Nonstatutory provisions of 2013 Wisconsin Act 20 (the 2013-15 biennial budget) required Department of Natural Resources (DNR) and Department of Agriculture, Trade and Consumer Protection to conduct a study of the statutes and administrative rules applicable to fish farms for the purpose of assessing their needs. This requirement was part of a larger effort to improve the state's walleye fisheries through increase stocking that has become known as the Wisconsin Walleye Initiative. This regulations study is more encompassing than stocking walleyes and includes comments from all Wisconsin aquaculture sectors: bait, food, game fish, aquaponics and recreation.

Wisconsin regulatory agencies (DNR and DATCP) have been and will continue to work with the aquaculture industry on legislation and agency wide procedures to reduce barriers to private fish farm growth in Wisconsin. These changes will support the growth of agriculture in general, which will enable the private fish farms to play a significant role in stocking greater numbers of large fingerling walleyes in the future.

Many changes have already been implemented, or are being drafted and vetted with the industry. Some changes suggested by the industry would cause additional costs, complications or have environmental impacts

This report includes the recent improvements and recommendations for future changes that will support private fish farm growth in Wisconsin. This report also includes agency responses to requested changes that are not recommended for future implementation.

Recent Changes in Place

- Wetlands Bill, 2011 Wisconsin Act 118 - February 29, 2012
- Aquaculture Bill, 2011 Wisconsin Act 207 – April 16, 2012
- On-Line Nonnative Fish Importation Application and General Permit
- Wisconsin Walleye Initiative – May 22, 2013
- Establishment of Public/Private Partnership committee to the Wisconsin Aquaculture Industry Advisory Council (October 2012)
- Simplified Sucker and Unmet Needs cooperative agreements (2012 and 2013)
- Increased funding for contract purchases and infrastructure improvements
- One year of continued funding for UW Extension aquaculture specialists
- Ongoing study of Private Fish Farm Capacity for Stocking Fish
- Fish Eggs & Fingerlings now available for Public Waters Stocking Projects
- Fish Genetic Policy Posted on DNR's Website

- General permit for a landscape pond already exists for fish rearing with no setback distances
- Established statewide wetland guidance for all DNR staff who process permits (2013)
- Effective August 1, 2012, DATCP amended rules for streamlining fish health certificates. The rule now requires a valid health certificate accompany only fish or fish eggs of a species found to be susceptible to VHS moving from a type 3 - fish farm.

Changes in Progress

- Pending Chapter 30 Legislation: Public Hearing Timeline Clarification Bill: Public notice starts date of publication
- Reclassify Mosquito Fish as "established nonnative fish species"
- Public/private partnership to support lake sturgeon management
- Feasibility Study for Hatchery Stamp
- Revise 2014 stocking quotas by January & Future Quotas by end of December
- Eliminate the record keeping requirements for sales of farm-raised fish or fish eggs sold directly to a consumer for bait or food under ch. ATCP 10, Wis. Adm. Code.

Proposed Future Changes

- Workshop on Genetic Policies and Water Regulations & Zoning at future Wisconsin Aquaculture Association (WAA) conference
- Adopt wastewater effluent limitations guidelines for facilities under 100,000 pound threshold
- Reduce number of parameters required to be monitored as part of the wastewater permit application process
- DNR commits to develop guidance by July 1, 2014, which would outline how a Best Management Practices (BMPs) plan can be used to eliminate technology based effluent limits TBELs.
- Modify wastewater discharge application to allow applicants to report quarterly usage rates of additives, which will assist DNR staff in determining the number and need of Whole Effluent Toxicity (WET) testing
- DNR staff will continue to work with each water use sector to address unique concerns and to streamline Great Lakes Compact-related water use registration, reporting, and permitting requirements.
- DATCP will re-evaluate their internal policy on licensing mobile food processing units and verify its applicability for fish processing.

Both agencies are committed to work with the aquaculture industry to support the growth of private fish farms in Wisconsin.

ABSTRACT
The Wisconsin Walleye Initiative (WWI) was developed by the Department of Natural Resources (DNR) Administration and the Governor's office and funded by the Legislature to dramatically increase the number of walleyes in state walleye waters by expanding production of

large fingerling walleye at state, private and tribal fish hatcheries for stocking in waters accessible to the public.

To better define the role that private aquaculture can play in future stockings of Wisconsin's waters, DNR partnered with the Department of Agriculture Trade Consumer Protection (DATCP) and the University of Wisconsin Extension (UWEx) to study barriers to private fish farm growth in Wisconsin and to characterize private aquaculture's capacity to play a significant role in stocking greater numbers of large fingerling walleyes. The study was required by the Legislature as part of the Wisconsin Walleye Initiative. This regulations study is more encompassing than stocking walleyes and includes comments from all Wisconsin aquaculture sectors: bait, food, game fish, aquaponics and recreation.

This report outlines:

1. The Wisconsin statutes and rules for private fish farms,
2. The purpose and need for these statutes and rules,
3. Barriers created or perceived by these requirements,
4. Agency response to the barrier concerns, and
5. Agency recommendations for additional streamlining the administration of these statutes and rules.

BACKGROUND

Walleye have always been a very important game fish species in Wisconsin from both cultural and economic perspectives. The Department of Natural Resources and Gov. Scott Walker developed the initiative and the Legislature included funding in the 2013-2015 Biennial Budget for DNR to produce and buy larger walleye for stocking in waters where stocking can improve walleye fishing opportunities. It is expected that private fish farms will play a key role in this effort and potentially in enhanced stocking efforts for other species in the future.

The Wisconsin statutes and rules for private fish farms include requirements from both the DNR and DATCP. "Environmental Permits for Wisconsin Fish Farms" PUB-FH-059 2013"
A summary of DNR & DATCP regulations include:

- *Natural Water body Permits* - Section 29.733, Wis. Stats., & ch. NR 19, Wis. Adm. Code.
- *Waterway Permits* – Chapter 30, Wis. Stats.
- *Dam Permits* – Chapter 31, Wis. Stats.
- *Wetland Permits* – Section 281.36, Wis. Stats.
- *WPDES Discharge Permits* – Chapters 281 and 283, Wis. Stats.
- *Water Use Registration and Permits* – Section 281.346, Wis. Stats., and chs. NR 856 & NR 860, Wis. Adm. Code.
- *High Capacity Well Approvals* – Chapters 280 and 281, Wis. Stats., & chs. NR 812 and 820, Wis. Adm. Code.
- *Invasive Species* – Chapter NR 40, Wis. Adm. Code.

- *Great Lakes Compact (GLC)* - Section 4.2.1 of the Compact and Article 304.1 of the Agreement
- *Importation of Non-Native Fish* - Section 29.735, Wis. Stats.
- *Fish Health Certificates (DATCP)* - Section 95.60 (3), Wis. Stats., & s. ATCP 10.65, Wis. Admin. Code.
- *Farm Registration (DATCP)* - Chapters 93 & 95, Wis. Stats., & s. ATCP 10.61, Wis. Adm. Code.
- *Record Keeping Requirements (DATCP)* - Section 95.60 (4), Wis. Stats., & s. ATCP 10.61 (10) Wis. Adm. Code.
- *Food Processing (DATCP)* – chs. *ATCP 70 & 75, Wis. Adm. Code, Wisconsin Food Code*

METHODS

Industry fish farmers were gathered during two listening sessions; August 29 and September 4, 2013 in Madison and Wisconsin Rapids, respectively. The listening sessions were aimed at getting feedback from industry operators on current DNR and DATCP regulations.

The listening sessions were conducted by the University of Wisconsin-Extension Aquaculture Outreach program on behalf of DNR and DATCP.

People who could not attend the listening sessions were asked to send comments regarding aquaculture regulations to Ron Johnson, UW-Extension aquaculture outreach specialist, 400 Hill Ave., Star Prairie, WI, 54026 or at ron.johnson@ces.uwex.edu. Comments were accepted through September 20, 2013.

Input from the sessions was used by the two agencies to complete a study of statutes and rules applicable to fish farms, which includes an assessment of the need for any regulations, reducing overlaps and streamlining procedures.

STUDY FINDINGS

A general listening session comment paragraph on agency activities is included after each agency heading in the paragraphs below. Detailed listening session comments can be found in Attachment I – "October 4, 2013: Report of Aquaculture Rules and Regulations Listening Sessions and Comment Period by Ron Johnson and Jim Held, University of Wisconsin Aquaculture Outreach Specialists."

The regulations are summarized after the general comments, organized under sections titled:

- The purpose and need for these statutes and rules,
- Barriers created or perceived by these requirements,
- Agency response to the barrier concerns, and

- Agency recommendations for additional streamlining the administration of these statutes and rules.

Appendices attached to the report include:

- Appendix I - October 4, 2013: "Report of Aquaculture Rules and Regulations Listening Sessions and Comment Period"

There are two related reports also being prepared by DNR and DATCP with input from external stakeholders that could affect the aquaculture industry through regulation or funding changes. We recommend that these reports also be consulted when considering changes to regulations affecting the industry. The November 15, 2013, "Viability of Creating a "Fish Hatchery Stamp" - Report to the Wisconsin Legislature as required by 2013 Wisconsin Act 20" and "White Paper: Lake Sturgeon Options for Private Aquaculture in Wisconsin" are being prepared and submitted to the Legislature separately. A brief description is included in the General Comments & Concerns Section below.

DNR RULES AND STATUTORY REQUIREMENTS

General Comments & Concerns

Definitions

One area of concern that the respondents noted was the inconsistent manner in which both aquaculture and water are defined. Section 91.01 (2), Wis. Stats., defines aquaculture as agriculture and as such it should be treated like other forms of agriculture. Water dependency, usage, consumption and ownership have varied definitions depending on the statue cited. This is particularly true of the Great Lakes Compact that includes an unusually broad definition for the ownership and usage of water (see section on Great Lakes Compact).

Participant Request:

Define aquaculture as agriculture in all Wisconsin statutes, and note that aquaculture is a water dependent agricultural activity, which needs alternative definitions for water use and consumption suitable to a water based agricultural activity.

Agency Response:

Different sections of statute have different definitions. There could be major implications for policies and programs, if an unconditional and absolute change was made. Both agencies would need to do a comprehensive analysis of how the change would affect each statute and the programs connected to the statute.

Competition

Industry representatives indicated that they felt the DNR was unfairly competing with private fish farmers to supply fish for resource enhancement. Furthermore, participants felt that individuals or factions within the DNR view the private industry as rogue operations whose activity should be blocked at every opportunity.

Participant Request:
Better public/private working relationship.

Agency Response:
Following an October 24, 2012 workshop involving Wisconsin government, university and aquaculture industry representatives, a committee to improve partnerships and communications among workshop participants was formed. Under this umbrella, DNR, Wisconsin Aquaculture Association and University of Wisconsin Extension are cooperating on a pilot project to better integrate public and private resources for stocking of state waters. Many recommendations of that pilot were integrated into the FY13-15 budget bill including increased funding for contract purchases and infrastructure improvements, one year of continued funding for UW Extension aquaculture specialists, a study of private fish farm capacity for stocking fish, a study of regulatory streamlining options, and a study of the feasibility of a fish hatchery stamp as a long term revenue source for both state and private stocking of state waters.

Participant Request:
Allow DNR eggs and fingerlings to be sold to private fish farms.

Agency Response:
A recommendation from the DNR that was included in the FY13-15 budget bill was to allow the Department to sell walleye eggs and fingerlings at cost as part of a contract for stocking of state waters. That should allow the Department to work with other producers to provide the correct genetic strains or address other brood stock availability issues. If this effort proves successful, the Department would recommend that this be expanded to all species for which contract purchases are made.

Participant Request:
DNR should not solicit extra monies for fish equipment or projects.

Agency Response:
The Department does not accept donations or gifts to raise or stock fish for any specific water bodies. Any donations or gifts made to the propagation program come with the understanding that any extra fish produced will be used statewide or regionally to meet stocking needs specified on its annual stocking plan. If a lake association or other local group wants to ensure that their lake is stocked, their only option is to obtain the fish from a private source.

Participant Request:
The state should provide monetary support of increased forage production and supply to private farms as well as State hatcheries.

Agency Response:
Forage minnows in Wisconsin are sold to anglers for use as bait, to fish farmers (including the DNR) to feed game fish being raised for stocking or food production, and occasionally for stocking. In Wisconsin, minnows are either raised in ponds or harvested from the wild. Currently demand for minnows far exceeds the supply which means that many minnows sold here are imported from Arkansas, Minnesota or the Dakotas where larger scale pond production

or the availability of large winterkill or marsh natural water bodies ensures a large supply and often a lower cost due to the scale of production. Having more capacity for minnow production in Wisconsin is desirable because it would reduce the risk of movement of fish diseases or invasive species, and could eventually lead to lower costs. At this point there is no state funding that has been made available to specifically increase forage production. However the FY13-15 budget provided $626,000 in FY14 and $1.8 million in FY15 for increase production of walleyes by various Wisconsin producers and a large proportion of this money will be used for forage minnow purchases from private vendors. We are hopeful that this increase in available funding will indirectly spur investment in and development of additional minnow production capacity here in Wisconsin.

Permit Process

A variety of permitting problems were cited by the participants. The permitting process time frames are too long and complex; not any one specific rule but the cumulative effect and complexity of all the rules combined. This topic was considered to be a critical factor limiting new business investments and industry expansion.

Participant Request:
Public notices should start on date of publication not on date the affidavit has been received and acknowledged by DNR.

Agency Response:
Legislation to address this request has been proposed.

Participant Request:
Fish farms that improve water quality should be given "credit" for improvement.

Agency Response:
Additional information from the participants should be provided before a response can be drafted.

Participant Request:
Stocking permits – fish produced in-state should have priority (if available).

Agency Response:
In 2012, the DNR approved 446 permits for private stockings of state waters so this is a significant source of potential business for private fish farms. The DNR rarely receives competing stocking permits for the same water body, so it is not clear that there is a need for prioritization criteria for permit reviews. The applicant typically selects the producer from which they intend to purchase fish. The DNR does review private stocking permits to ensure that the correct genetic strain is being used if applicable for that situation. A requirement for a particular genetic strain should actually favor local producers who have better access to appropriate brood sources. However strains are determined by watershed connectivity which can at times cross state boundaries (the upper Mississippi River watershed for example), so there may still be situations where a more appropriate strain may be from a producer in another state. Most permits do not have any genetic strain constraints so the applicant is free to choose among available producers. In the absence of any biological reason to require a particular genetic

strain, it is not clear what legal standard we could use to require applicants to purchase fish produced in Wisconsin and whether such a requirement would violate federal free trade regulations.

Participant Request:
Permit fees should be reduced or eliminated, and bait shops that only sell farm-raised bait and pet shops should only need fish health certificates and receipts.

Agency Response:
Per s. 29.509 (6), Wis. Stats, DNR bait dealer licenses are not required for selling farm-raised bait.

Contracting
Contracts with the State (particularly the sucker and walleye co-op agreements) were viewed as too complex and one-sided to the extent that many private producers no longer have an interest in participating. Unfortunately this history of apparent one-sidedness may impact the industry's participation in the new Walleye Initiative expansion grant and purchase programs.

Participant Request:
Fish farmers request simplified cooperative programs.

Agency Response:
A certain level of accountability and detail will always be inherent in doing business with the DNR due to state contracting laws and public scrutiny of state programs. Past contracts relating to fish production were further complicated by a law which did not allow the state to sell or transfer any public fish to private interests. Because of this it was necessary to require records that fully accounted for the status of these public resources until final disposition of the contract or agreement.

DNR agrees that the contracting process should be kept as simple and streamlined as possible. It is not within the scope of DNR authorities to review or change state contracting law which would be needed to eliminate contract provisions relating to indemnification, nondiscrimination, required insurance or similar assurance mechanism. As discussed at the March 8, 2012 Wisconsin Aquaculture Industry Advisory Council meeting, the DNR did simplify the sucker and unmet needs cooperative agreements for 2012 and 2013 to the extent possible under the above constraints particularly in reducing the data collection and reporting requirements for the fish during the rearing period. It is possible that these changes still do not meet industry expectations, but the DNR cannot recommend any further changes to these cooperative agreement contracting standards and still comply with state contracting law and responsibilities entrusted to DNR for managing public resources.

DNR believes the process and paperwork for the new Walleye Initiative contracts will be greatly simplified because they are straightforward purchases. There will be some standard contract provisions associated with larger contracts issued through the normal request for bids process, but smaller purchases may also be done under the "simplified bid" process which has minimal paperwork. Also, the issue of tracking status of state owned fish is eliminated as the DNR can

now transfer ownership of fingerlings or eggs through a sales transaction at the onset of the rearing process.

Participant Request:
Contracts and quotes (unmet needs) should be made available by November so producers can plan for next growing season.

Agency Response:
DNR agrees that sufficient lead time is needed for all producers to plan for the next growing season. The DNR expects to have the 2014 walleye contracting request for bids available in late January. DNR is also reviewing and revising our walleye stocking strategy process which may allow establishing standing quotas for longer term planning, or have individual water quotas available even earlier. DNR also expects to offer the option of longer term contracting which may offer a longer planning horizon for producers.

State Bids
Wisconsin's aquaculture industry is in competition with out-of-state suppliers that do not follow the same (environmental, water quality, etc.) rules.

Participant Request:
Priority should be given to in-state producers and not based solely on lowest price.

Agency Response:
DNR agrees that increasing capacity of private producers here in Wisconsin will ultimately increase biosecurity by minimizing the movement of disease or invasive species into the state, and reduce costs by making fish available from closer sources. However, DNR is bound by current state purchasing laws and cannot simply grant priority to any particular group of producers. We do believe that in state producers do enjoy several competitive advantages:

- The FY13-15 budget bill provided $2 million for a grant program to improve the capacity to produce walleyes in Wisconsin and those grants are available only to Wisconsin producers. Grantees are required to sell fish to the DNR for a minimum of three years which will obligate a significant amount of the new contract purchase funding to Wisconsin producers.
- DNR often specifies a specific genetic strain for stocking quotas. Although strains follow watershed connectivity boundaries rather than state boundaries, generally in state producers have much better access to the appropriate broodstock sources than do more distant producers.

Genetics
This topic was viewed as extremely frustrating to the private producers. The consensus among respondents was that whenever a fish manager wants to deny a stocking permit they pull out the "genetics card" and say "we only want lake xyz-derived fish to be stocked here" even in circumstances where there is no genetic policy established (bluegill) and/or previous stocking (by DNR or private producers) has already impacted the genetic integrity of the population.

Participant Request:
The participants requested the DNR review and clearly define statewide genetic policies.

Agency Response:
Stocking the proper genetic strain is extremely important to protect the long term health of the fishery in the stocked waters. There are situations where genetic strain is not an issue, but in most Wisconsin stockings – particularly in waters with drainage connections to river systems or other waters – we try to use a genetic strain that is reasonably similar to the native fish. The statewide policy has been evolving since major statewide surveys of fish genetics were completed in the late 1990s. The overall policy was documented in a publicly available reports in 1999 (http://dnr.wi.gov/topic/fishing/documents/publications/stockrep.pdf) and 2010 (http://dnr.wi.gov/topic/fishing/documents/publications/StockingstrategyreportSeptember2010.pdf) and is implemented on a water specific basis by the local fisheries biologist through stocking quota requests and reviews of private stocking permits. The policy applies to all species (including bluegills) and supersedes any policies that might have driven previous stocking decisions. Effects of stockings on the genetic integrity of a population are likely to have a cumulative effect over time, so repeating past mistakes only compounds the problem.

Because of the importance of the genetic policy to maintaining Wisconsin's fisheries, DNR needs to work more closely with other producers to make available the brood sources needed to produce the correct genetic strains. Being able to sell at cost walleye eggs, fry or fingerlings as newly authorized in the FY13-15 budget bill, should allow DNR to eliminate this as a constraint for walleye producers. If this proves successful, DNR recommends that the Legislature extend this authorization for other species.

DNR also recommends working with Wisconsin Aquaculture Association (WAA) to hold a genetics workshop for producers. That would help everyone better understand the policies and jointly develop ways to fully meet Wisconsin's stocking needs with the proper genetic strains.

Participant Request:
Propose and obtain concurrence on eDNA – standards and protocols, before use as a regulatory tool.

Agency Response:
DNR has not proposed using environmental DNA (eDNA) testing as a regulatory tool. It would be beneficial however for DNR and the industry to work together to evaluate the use of eDNA as a sampling tool to help better understand the prevalence and movement of diseases and aquatic invasive species. DNR has proposed a cooperative project to collect eDNA samples from loads of bait minnows being shipped into Wisconsin from areas where Asian Carp are found to determine if these species are contaminating these shipments and, if necessary, establish and evaluate best management practices to minimize the risk of their introduction.

Stocking Quotas

Industry representatives indicated that a review of stocking quotas based on the best available science must be conducted.

Participant Request:

Stocking quota caps need to be addressed differently for water bodies with naturally reproducing populations versus put-and-take (no significant natural reproduction) water bodies. Higher stocking quotas in the put-and-take water bodies will help the angling experience.

Agency Response:

DNR is currently conducting a review of its stocking policies including collecting feedback from the public. It is anticipated that any revisions will be presented to the Natural Resources Board in December, 2013 which will allow time to revise 2014 stocking quotas by January and give producers time to plan their spring production activities. Current stocking policies already differentiate between naturally reproducing and stocked waters, but it is a good idea to look at having different stocking rates or caps as an option. DNR's experience to date is that there is a point of diminishing returns on stocking rates, but there is no good information on what that is for stockings of larger fingerlings. As part of the Walleye Initiative expanded stocking of larger walleye fingerlings, DNR is conducting a production level evaluation of different stocking rates. If DNR finds that higher stocking rates lead to higher populations and better fishing, DNR plans to adjust recommended rates accordingly.

Participant Request:

DNR should look at ways that do not compete with industry; such as: concentrate on strain specific watersheds; let the industry provide "unspecified" fish strains.

Agency Response:

Implementation of the new Walleye Initiative is a tremendous opportunity to increase and optimize production capacity among Wisconsin walleye producers. Working through the infrastructure grant and stocking contracting processes over the next few years should clarify the best roles for all of the producers. There should be minimal competition between DNR and the private sector as the demand for stocking larger fingerling walleyes will continue to exceed the supply even with the expanded funding.

DNR suggests it may be premature to conclude that the best role for private fish farms is to raise "unspecified" strain fish. These fish can come from more distant producers who otherwise would not have economical access to brood sources of genetic strains required for stocking in Wisconsin. Also given that DNR can now provide eggs, fry or fingerlings of the appropriate genetic source, private fish farmers may be willing to raise additional genetic strains that are needed but beyond DNR hatchery capacity.

Fish Hatchery Stamp

The comprehensive study of Wisconsin's hatchery system, by HDR Engineering Inc. of Springfield, Ill. in December 2011, cataloged funding alternatives used by other states to address infrastructure improvements and longer term hatchery operating costs. Their primary recommendation was establish a fish hatchery stamp in which "stamp funds would be ear-

marked money that could only be used for fish hatchery/propagation infrastructure construction, improvements and system operation including stocking and all related fish propagation operations."

Participant Request:
Pass hatchery stamp so state can purchase directly from industry.

Agency Response:
In addition to the aquaculture regulations study, 2013 Wisconsin Act 20 also required DNR and DATCP to "conduct a study of the viability of creating a fish hatchery stamp that could be issued to holders of licenses under chapter 29 of the statutes that authorize fishing for sport" and provide it to the Legislature by November 15, 2013. Conceptually there are no insurmountable barriers to creating a fish hatchery stamp or other form of fishing license surcharge with a dedicated purpose of funding hatchery improvements and operations to increase the stocking of fish and improve fishing in Wisconsin waters. Like other fishing and hunting licenses and stamps, the fish hatchery stamp would have to be created in statute.

<u>Co-operative Lake Sturgeon Restoration Efforts</u>
Sturgeon restoration efforts funded by public and special interest monies have yielded significant benefits for the sturgeon populations of Wisconsin. Given current economic realities, these investments in our aquatic resources may become limited and challenged by the magnitude of increased responsibilities and reduced budgets.

Participant Request:
Allow private aquaculture in Wisconsin to possess rear and sell lake sturgeon (and parts) for caviar and meat as well as maintain a broodstock repository and attraction for aqua-tourism.

Agency Response:
DNR is preparing a White Paper entitled: Lake Sturgeon Options for Private Aquaculture in Wisconsin" for Lt Governor Rebecca Kleefisch.

A short summary on the White Paper follows:

Wisconsin waters contain some of the largest self-sustaining populations of lake sturgeon (Acipenser fulvenscens) in the world, which are Wisconsin's largest and longest-lived fish. These slow growing giants date back 150 million years to the age of the dinosaurs and are an important part of Wisconsin's cultural and fishing heritage. Worldwide there are 25 sturgeon species, eight of which are found in North America. IUCN data indicates 85% of sturgeon species worldwide are at risk of extinction. While wild sturgeon harvest has collapsed from a high of over 32,000 tons in 1975 to 682 tons in 2009, farm raised sturgeon globally has risen from 100 tons in 1985 to 32,000 tons in 2009 (Dudley 2005, Williot 2011). In the USA, three states (Florida, Idaho, and California) have significant sturgeon aquaculture production while Georgia and Hawaii are developing sturgeon industries. Aquaculture is increasingly fulfilling the demand for meat and caviar, and according to Steffens (2008) aquaculture is of decisive importance for the conservation and restoration of sturgeon populations.

Wisconsin's lake sturgeon population has been regulated since the late 1800s with aquaculture playing a role in restoration efforts since 1980 through stocking of fish reared primarily at the Wild Rose Hatchery and the University of Wisconsin-Milwaukee School of Freshwater Science. Wisconsin law however, prohibits the private possession and selling of lake sturgeon (s. 29.503 (3), s. 29.736 (2) (a) 3, and s. 95.60 (6)).

This White Paper is a special report prepared at the request of Lt Governor Rebecca Kleefisch by University of Wisconsin Extension and the Department of Natural Resources with input from lake sturgeon interests statewide including private aquaculturalists, sturgeon conservation groups, and the UW Milwaukee School of Freshwater Science. As of October 31, 2013 the report was in final stages of agency and public review. In addition to background information on lake sturgeon life history and management, the report includes a discussion of potential benefits of a private industry lake sturgeon program, and recommendations for how such a program could be legally created and work, and how it could potentially complement the state's sturgeon management and restoration program.

Environmental Regulations Coordination

Participants Requested:
All environmental related fish farm activities be moved to DATCP ARM Division.

Agency Response:
Environmental oversight and regulations have been delegated to the DNR by Statute and Federal law. There are other solutions for cross-agency coordination and streamlining.

INDIVIDUAL DNR REQUIREMENTS

NR19 Natural Water body Permits

Purpose & Need
NR 19 Natural Water body Permits are needed to protect the integrity of the natural water body and habitat.

This permit was first required in January 2000 by new laws (Section 29.733, Wis. Stats., and ch. NR 19, Wis. Adm. Code). The DNR is responsible for permitting the use of natural bodies of water as fish farms. Natural bodies of water that are permitted under: Section 30.19, Wis. Stats. - Dredging, grading, or enlarging, Section 30.195 (a), Wis. Stats. - Changing a stream course, or Section 31.04, Wis. Stats. - Dams are exempt from a Natural Water body permit requirement.

See the Natural Water body Permits for Fish Farms factsheet for more information (PUB-FH-060 2013).

New “initial” fish farms are required to be freeze-out ponds and have insignificant public interest. A non-refundable application fee of $500 is required and the permit has no expiration date.

Barriers Created
The concerns are setbacks, definition of water or “natural water,” declaring water private on registered fish farms and the differences and allowable activities between those that have NR 19 and/or Chapter 30 and 31 permits. The participants felt these three rules are complex, somewhat overlapping and very restrictive.

The participants requested:

- Review these rules in the context of importance of aquaculture to the state and simplify and/or combine the rule’s requirements,
- Rewrite code to allow structure maintenance and integrity of ponds or raceways activities to be done without applying for new permits and facing public notices,
- Enforce NR 19 uniformly across the state,
- Allow exemption to “freeze out” ponds to new trout facilities in areas of artesian flow, and
- Change NR 19.90 wording from natural bodies of water to navigable bodies of water which would eliminate the need for most of the NR 19 rules.

Agency Response
Revision of the Chapter 30 rules and DNR guidance documents has provided the DNR staff a concise method of reviewing and implementing the overlapping rules.

Existing code allows structure maintenance and raceway activities to be done without applying for new permits; as long as no expansion activities have taken place.

Existing Wisconsin Statutes define some private fish farms as private waters.

Changing NR 19.90 from natural bodies of water to navigable bodies of water would narrow the waters of the state that would require a natural waterbody permit. This could potentially impact water resources that are considered non-navigable (wetlands, non-navigable tributaries to trout streams and Great Lakes, etc.). Recent changes to Wisconsin Wetland and High Cap Well regulations need to be given time to resolve water use balances, before additional changes can be considered.

Agency Recommendations for Streamlining
The Department recommends holding a workshop on the new Natural Water Body guidance documents at the next WAA conference.

Chapter 30 Permits

Purpose & Need
Chapter 30 Permits are needed to ensure changes in public waterways are implemented in a fashion, which protects human health and the environment.

Chapter 30 Permits include: Added structures, withdrawals, enlargements and dredging.

Section 30.12, Wis. Stats. Structure Permit: You may need a structure permit if you plan to construct a structure below the ordinary high water mark of a public waterway (i.e. a waterway determined to be navigable under this statute). This would include intake structures, culverts, bridges, and most shore protection practices (rip-rap, bio-logs, etc.).

Section 30.18, Wis. Stats. Withdrawal Permit: All withdrawals from any stream or lake for purposes of agriculture or irrigation are required to be authorized by the DNR. Currently, for the purposes of this statute, aquaculture is not defined as agriculture and therefore a permit is required only if the withdrawal results in an average loss of 3.09 cubic feet per second during any 30-day period, or if a water level has been set on the stream or lake that you are withdrawing from.

Section 30.19, Wis. Stats. Enlargements, Ponds and Grading: This section of the statutes requires permits for four activities:

1) Ponds without outlets constructed within 500 feet of a public waterway require a permit. These ponds are private ponds unless prescribed public by a condition of these permits.

2) All ponds with open or closed (i.e. piped) outlets that connect with navigable waterways, regardless of the distance to a public waterway, require a pond permit. These ponds are private ponds unless prescribed public by a condition of the permit.

3) All ponds connected to navigable waterways by a navigable channel or any enlargement of any public waterway requires a permit. These ponds and enlargements are public waters and require a public notice and an environmental assessment (EA).

4) Any grading in excess of 10,000 square feet on the bank of a public waterway requires a grading permit only if no storm water permit or local shore land zoning permit is needed or the grading activity is within a municipal boundary. A public notice is required for these types of permits.

Section 30.20, Wis. Stats. Dredging: Permits are required to dredge or "remove bed material" from both public and non-navigable streams and from all lakes. Permits are not required for maintenance dredging to permitted dimensions of ponds considered private under Section 30.19 Wis. Stats.

<u>Barriers Created</u>
Participants felt the setback rules are too restrictive. They felt that 500 feet from navigable waters prohibits farmers from constructing ponds. Participants were also concerned about the length of time needed to obtain Chapter 30 and 31 permits.

Participants Requested:
- Setbacks of 20 feet from navigable waters, and
- Issue Chapter 30 and 31 permits in shortened timeframe

Agency Response
The 500 feet from navigable waters refers not to a setback requirement, but to the distance from the ordinary high water mark of a navigable waterway where the Department regulates the construction of ponds that are not connected enlargements. Any pond proposed to be constructed within 500 feet of a navigable stream requires either a general or an individual permit. Only regulating ponds within 20 feet of a public waterway would ignore the potential negative impacts to the resource of ponds constructed between 20 and 500 feet of public waterways.

Agency Recommendations for Streamlining
A general permit for a landscape pond already exists that allows for construction of a pond for fish rearing with no setback as long as the pond is not connected to the navigable waterway, is not in a wetland or floodplain and the applicant has a fish stocking permit. This permit has a 30 day approval timeline.

Chapter 31 Dam Permits

Purpose & Need
Chapter 31 Dams Construction Permits are needed to ensure that the dam constructions protect human health and the environment.

Permits are required to construct dams or impoundments on all waterways in Wisconsin. Small dam plan approvals may be obtained for dams constructed on non-navigable streams under Section 31.33 Wis. Stats. Dams on public waterways require extensive permitting under Section 31.06 Wis. Stats.

Barriers Created
No barriers have been created by the Chapter 31 Dam Permits.

Agency Response
None

Agency Recommendations for Streamlining
No Agency recommendations for streamlining Chapter 31 Dam Permits.

Chapter 281.36 Wetland Permits

Purpose & Need
Wetland permits are required to ensure that wetland water quality and quantity in a watershed basin is managed in a way to protect human health and the environment.

Wetland Permits: Depending on the type of project a wetland general permit or individual permit will be required if any impacts to wetlands are proposed (Section 281.36 Wis. Stats.). If a

wetland permit is required, the project will have to meet all of the eligibility standards and permit conditions that are applicable to the wetland permit that is required. Wetland compensatory mitigation is required for all wetland individual permits. A wetland general or individual permit issued by the DNR constitutes water quality certification as required by the Army Corps of Engineers 404 wetland permits for federal wetlands.

Barriers Created

The participant concerns regarding wetlands are the difference between the rules for cropland farmers and aquaculture, as well as mitigation procedures and ratcheting of rules when wetlands are created with the building of ponds.

Participants Requested:

- If wetlands are created, there should be no mitigation required for existing farms,
- Create a statewide uniformly enforced or consistently defined wetlands policy,
- Do not penalize farmers when they create wetlands around ponds, and
- Establish exemptions for created wetlands on your own property.

Agency Response

State statute only requires wetland compensatory mitigation for wetlands that are proposed to be filled, not created. Rules should and will be implemented the same for all types of farming in Wisconsin. The Department drafted and approved wetland permit guidance in 2013, which will be use consistently by all Department staff that process wetland permits.

Agency Recommendations for Streamlining

The Department staff could offer a workshop at next WAA Conference highlighting statewide guidance on wetland permit processing.

WPDES Discharge Permits

Purpose & Need

WPDES Permits are needed to effectively manage the wastewater discharges to Wisconsin surface water and groundwater. The permits provide discharge limits and sampling requirements that ensure human health and the environment are protected.

WPDES Discharge Permit: The Wisconsin Pollutant Discharge Elimination System (WPDES) is a federally mandated program and required under Chapters 281 and 283 Wis. Stats. At the current time, the law requires the DNR to issue discharge permits for concentrated aquatic animal production (CAAP) facilities. CAAP facility means a hatchery, fish farm, or other facility which meets the following criteria.

Cold water fish species

- Discharge at least 30 days per year and produce 20,000 pounds or more of aquatic animals per year , or
- Discharge at least 30 days per year and feed more than 5,000 pounds of food during the calendar month of maximum feeding

Warm water fish species

- Discharge at least 30 days per year (Note: This does not apply to closed ponds which discharge only during periods of excess runoff) and produce 100,000 pounds or more of aquatic animals per year

WPDES permits may be required for a hatchery, fish farm, or other facility that do not meet the CAAP criteria listed above but are determined to be significant pollutant contributors. The type and amount of discharge and the quality of the receiving water determine discharge monitoring requirements.

Barriers Created

Although 2011 Wisconsin Act 207 repealed the fees associated with the WPDES discharge permits ,the participants felt there still was a need for: the development of a general permit for aquaculture, a reduction in the amount of testing required for permits and developing more applicable discharge limits for parameters such as phosphorus and chloride.

They are concerned that point source dischargers bear the entire burden for a watershed while agriculture runoff is not required to reduce their load by the same amounts. Large aqua-businesses will not locate to Wisconsin (see above) due to the stringent and complex layers of regulations.

There is a disconnect between what is or may be required and what is communicated to prospective business people; the complexity of each watershed having different water quality requirements, makes locating a new business very tough– especially when competing with other neighboring states. It's the layers and complexity of rules that discourages aquaculture endeavors.

Participants Requested:

- Wisconsin should accept Best Management Practices instead of limit-based permits,
- History of compliance and water quality results should reduce the amount of testing once the facility has established a track record. Tests that result in no detectable levels should be waived or only occasionally included for future testing,
- General Permit to farms that have already had a WPDES permit for a 5 year cycle,
- Provide new fish farm proposals with a feasible method to deal with phosphorus and chloride discharge limits, and provide incentives to assist with these phosphorus and chloride discharge issues.

Agency Response

The DNR has conducted a comprehensive analysis; including vetting the General Permit (GP) proposal with USEPA, to determine the feasibility of a GP for CAAP facilities.

Both USEPA and DNR staff have concluded that the complexity of a GP makes it impractical. An alternative plan will stream line the WPDES permit application process. The alternative plan will reduce the number of parameters required to be monitored, allow applicants to report quarterly usage rates of additives, and establish guidance to substitute Best Management Practices (BMP) Plans for Technical Based Effluent Limits (TBELs).

The Department is committed to finalizing this alternative plan by July 1, 2014. This alternative plan will be better for the industry in many ways as outlined in the following paragraphs under "Agency Recommendations for Streamlining".

Industry leaders and operators are of the opinion that a GP would have less stringent discharge limitations and monitoring requirements. Contrary to this position, under a GP, facilities operating efficiently and discharging high-quality effluent would be required to monitor for additional parameters and monitor more frequently than what may be required in an Individual Permit (IP).

A GP sets monitoring requirements and effluent limitations that are based on a minimal level of monitoring. In order to capture all CAAP facilities under a GP, monitoring requirements would need to be set at the most stringent level. Therefore, facilities currently meeting water quality standards under their IP may be burdened with additional requirements under the coverage of a GP.

The DNR is required and will set water quality-based effluent limitations (WQBELs) with monitoring requirements to protect water quality of the receiving water body. The DNR sets water quality standards only to the level necessary to meet the designated uses of the receiving water body. Designated uses, in accordance with s. NR 102.04 Wis. Adm. Code, for Wisconsin Surface Waters include:

1. Fish and Other Aquatic Life Uses
2. Recreational Use
3. Public Health and Welfare Use
4. Wildlife Use

All surface waters are further subdivided and belong in one of the following fish and other aquatic life subcategories:

1. Cold water communities

2. Warm water sport fish communities
3. Warm water forage fish communities
4. Limited forage fish communities
5. Limited aquatic life

Designated uses for Wisconsin surface waters are based on designated use attainability. In other words, WQBELs are included in WPDES permits based on the designated uses of the receiving water body. This further complicates the development of a GP for CAAP facilities as the designated uses of the receiving water bodies for these discharges are site-specific.

Clarification of Chloride Limits

Chloride is a significant issue and expensive to treat. Chronic effluent limitations are dependent upon the quality and quantity of the receiving water body. Limits are site specific. The following Wisconsin Administrative Codes are used to set chloride effluent limitations:

Chapter NR 105 Wis. Adm. Code - Surface Water Quality and Secondary Values for Toxic Substances
Acute Toxicity Criteria = 757 µg/L
Chronic Toxicity Criteria = 395 µg/L

Chapter NR 106.06(3) Wis. Adm. Code - Limitations Based on Acute Toxicity
Water quality based effluent limitations shall equal the final acute value = 1,514 µg/L

Chapter NR 106.06(4) Wis. Adm. Code - Limitations Based on Chronic Toxicity
Water quality based effluent limitation shall be calculated using the conservation of mass equation.

Chapter NR 106 Subchapter VII Wis. Adm. Code – Effluent Limitations for Chloride Discharges
Management options

Agency Recommendations for Streamlining

On June 30, 2004, the U.S. Environmental Protection Agency (USEPA) completed regulations under the Clean Water Act establishing effluent limitations guidelines (ELGs) and new source performance standards for the concentrated aquatic animal production (CAAP) point source category. The ELGs require management practices and record-keeping activities, rather than numerical discharge limitations. The ELGs were promulgated on August 23, 2004 in 40 CFR 451. The requirements in 40 CFR 451.11 can be found in the USEPA Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category.
http://water.epa.gov/scitech/wastetech/guide/aquaculture/guidance_index.cfm

Large WPDES Facilities

2011 Wisconsin Act 207 was enacted on April 2, 2012. Section 15 of 2011 Wisconsin Act 207 created 283.31 (5m) Wis. Stats. , which states:

> 283.31 (5m) PERMITS FOR CERTAIN CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITIES
> The Department shall include permits issued under this section for concentrated aquatic animal production facilities described in 40 CFR 451.10 requirements that are based on, and are not more stringent than, the requirements in 40 CFR 451.11.

http://www.gpo.gov/fdsys/granule/CFR-2010-title40-vol29/CFR-2010-title40-vol29-part451/content-detail.html

40 CFR 451.10 applies to the discharge of pollutants from a CAAP facility that produces 100,000 pounds or more per year of aquatic animals in a flow-through or recirculating system. The following Wisconsin CAAP facilities exceed the production threshold of 100,000 pounds or more per year and whose WPDES permits will include the requirements in 40 CFR 451.11 in upcoming reissuances:

1. Rushing Waters Fisheries, Inc.
2. Iron River National Fish Hatchery
3. Wild Rose Fish Hatchery

Smaller WPDES Permitted CAAP Facilities

In order to reduce regulatory burdens associated with reporting and monitoring, the WDNR intends to adopt a voluntary approach similar to the ELGs for CAAP facilities whose production is under the 100,000 pound threshold. This approach will reduce monitoring and eliminate technology-based effluent limitations (TBELs).

Eligibility for reduction in monitoring will be based on a demonstration of excellent historical performance by facilities subject to WPDES permit requirements. Facilities can demonstrate this historical performance through both compliance and enforcement history and a demonstrated ability to consistently reduce pollutants in their discharge below the levels necessary to meet existing permit requirements. Facilities will also be expected to maintain these performance levels to continue to receive the reductions. Reducing burdens in this manner will also provide incentives for voluntary reductions of pollutant discharges through such means as reuse and recycling.

Eligibility for the elimination of TBELs will be based on the development and implementation of a Best Management Practices (BMPs) plan. A BMP plan is a description of the standard operating procedures and actions required to control solids, store materials, maintain the aquatic animal containment structures, perform record-keeping, train employees, closely monitor feeding, collect and dispose of waste, address transport or harvest discharge, and remove dead aquatic animals.

The WQ Bureau will develop guidance by July 1, 2014 that will direct permittees on the process of implementing a BMP plan that can be used to eliminate technology based effluent limitations. Guidance describing specific details of BMPs exists in several excellent documents (below) and will not be reproduced as part of the streamlining efforts.

1. Piper, Robert G. ET AL. (1982) *Fish Hatchery Management*, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C.
2. U.S. Environmental Protection Agency (2004) *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, Engineering and Analysis Division, Washington, D.C.
3. Malison, J. A. and Hartleb, C.F. (2005) *Best Management Practices for Aquaculture in Wisconsin and the Great Lakes Region*, Sea Grant Institute, University of Wisconsin.

While the goal of applying the ELGs to all CAAP facilities in Wisconsin is to reduce the burdens associated with reporting and monitoring, the WDNR will continue to require some minimal level of monitoring in order to characterize facilities discharge of those parameters with TBELs replaced by the BMPs even when their permits do not include numeric TBELs.

The DNR is required and will set WQBELs with monitoring requirements to protect water quality of the receiving water body. Monitoring frequencies for parameters with WQBELs will be the lowest allowable by EPA guidance. An effective BMP approach could reduce levels of pollutants normally regulated as WQBELs to below thresholds that would trigger the need for limits (no reasonable potential). In that case, limits for those substances could be removed from permits and monitoring could likewise be reduced.

Application Process for WPDES Permitted CAAP Facilities

In order to reduce regulatory burdens associated with applying for a WPDES permit, the DNR intends to streamline the application process by reducing the number of parameters required to be monitored as part of the application process. The application will also be modified to allow applicants to report quarterly usage rates of additives. This information will assist DNR staff in determining the number and need of Whole Effluent Toxicity (WET) testing. The determination for WET testing requirements will also be streamlined by reducing the total points for the

Discharge Category from 15 to 10. This reduction will result in fewer WET test requirements for some CAAP facilities.

Chloride Effluent Limits

The Department will work with the industry to find options of reducing chloride use and discharges. A review of other industrial wastewater practices can be done to collect feasible reduction and discharge options.

Water Use Registration & Reporting and Water Use Permits

Purpose & Need
Water Use Registration & Reporting and Water Use Permits are required to collect water use information to support water resource management throughout the state and to prevent adverse environmental effects associated with Great Lakes Basin withdrawals. New or existing fish farms with the capacity to withdraw water—from surface water and/or groundwater—in an amount averaging 100,000 gallons per day or more in any 30-day period must register with the DNR. A withdrawal is the taking or redirection of water from its natural course (surface water or groundwater), making it unavailable for other purposes, even if only temporarily. Persons with registered withdrawals must annually report their monthly water use to the Department (Section 281.346 Wis. Stats., NR 856, Wis. Adm. Code).

Fish farms that are located in the Great Lakes Basin, and that withdraw water in quantities that average 100,000 gallons per day or more in any 30-day period need to apply for a Water Use Permit (s. 281.346(4m) Wis. Stats., NR 860, Wis. Adm. Code).

Barriers Created
No barriers have been created by Water Use Registration & Reporting.

Agency Response
None

Agency Recommendations for Streamlining
No Agency recommendations for streamlining Water Use Restriction Registration & Reporting.

High Capacity Well Approvals

Purpose & Need
High Capacity Well Approvals help manage and balance the water supplies needed for human and environmental needs in each watershed basin.

Wells with a combined withdrawal capacity of 70 gallons per minute (≈ 100,000 gallons per day) on a property need to obtain a high capacity well approval from the DNR.

Specific well design requirements are also required (See Section 280 and 281 Wis. Stats. and Chapters NR 812 and 820, Wis. Adm. Code).

Barriers Created
No barriers have been created by the High Capacity Well Approval Process.

Agency Response
None

Agency Recommendations for Streamlining
No Agency recommendations for streamlining the High Capacity Well Approval Process.

Invasive Species

Purpose & Need
The invasive species rule (NR 40, Wis. Adm. Code) makes it illegal to possess, transport, transfer, or introduce certain invasive species in Wisconsin without a permit. Everyone is responsible to comply with these regulations. The rules are aimed at preventing new invasive species from getting to Wisconsin, and enabling quick action to control or eradicate those here but not yet established.

Barriers Created
The participants are concerned with the validity of mosquito fish on the prohibited list, since there has been natural expansion of mosquito fish into Wisconsin. The Best Management Practices for mosquito fish may not give protection for federal prosecution under the Lacey Act. There is increased cost of doing business, because mosquito fish are listed.

Participants Requested:
- Mosquito fish should be reclassified as a native species and taken off the NR 40, Wis. Adm. Code listing,
- Delist all non-native fish species as invasive, if the species would not survive in the wild (temperature, marine etc.), and
- Remove VHS NR 40, Wis. Adm. Code and regulate entirely under DATCP.

Agency Response
Mosquito fish must continue to remain within NR 40, Wis. Adm. Code. When introduced outside their native range, they can cause great damage to native communities. The World Conservation Union considers the western mosquito fish to be one of the 100 worst invasive species. Mosquito fish consume the eggs and larvae of native fishes and amphibians, compete with native fishes for food, depress populations of native invertebrates, and directly harass and displace small native fish.

NR 40, Wis. Adm. Code already includes a classification called, “nonviable nonnative fish species.” Those species may be possessed, transported, and transferred (bought, sold, given away). The only restriction on the use of these species is that they must be held in “safe facilities”, which means containers that are never connected to a water of the state, are not subject to flooding, and are not open ponds.

NR 40, Wis. Adm. Code is currently being revised and updated. One change, described above, will re-classify mosquito fish. A second change of interest to fish farmers would make it possible for the DNR to permit fish farms to experiment with viable genetically modified non-native fish, where "genetically modified" means modified permanently and heritably using recombinant nucleic acid techniques.

Agency Recommendations for Streamlining

The DNR is currently revising NR 40 to re-classify mosquito fish. Under the revised rule, mosquito fish would no longer be classified as "prohibited", but would be classified as "established nonnative fish species." That means that incidental possession of mosquito fish in bait shipments can be explicitly permitted either by individual permit or under a general permit. This limited relaxation of restrictions on possession of this species would allow bait importers to operate freely, while not adding significant risks of spreading mosquito fish to waters where they are not already present.

Great Lakes Compact (GLC)

Purpose and Need

The Great Lakes Compact (GLC) requires that states develop water management programs that protect, conserve, restore, and improve water resources in the Great Lakes Basin, and the DNR promulgated NR 850, 852, 856 and 860 Wis. Adm. Code to support implementation of the Great Lakes Compact in Wisconsin and promote water conservation throughout the state.

The registration of aquaculture facilities in Wisconsin (NR 856, Wis. Adm. Code) requires the registration of properties that have the capacity to withdraw 100,000 gallons of water per day or more, and the collection of annual withdrawal data from these properties.

Most of the aquaculture operations registered with the DNR Water Use Program are high capacity well properties, and would be required to annually report their high capacity well withdrawals regardless of Great Lakes Compact related requirements.

Additionally, there may be other aquaculture facilities with the capacity to withdraw 100,000 gallons of water per day from surface water that are not yet registered with the Department and therefore not in compliance with s. 281.346, Stats., and NR 856, Wis. Adm. Code.

Currently, DNR staff work with each water use sector to address unique concerns and to streamline Great Lakes Compact-related water use registration, reporting, and permitting requirements. Water use reporting data complements other DNR regulatory, monitoring, and resource management programs throughout the state.

There is not a clear distinction between the aquaculture industry's water use and water use by other industries.

Water Use Registration and Reporting

In 2013, out of approximately 2500 aquaculture operations registered with the DATCP, there are 39 facilities (or 1.5%) registered with the DNR. Once a property is registered, the owner is required to annually report monthly withdrawals and submit fees based on the reported withdrawal.

Water Use Fees and Aquaculture

Water use base fees are applied to all registered water users across the state at the same rate. Each property is assessed an annual base fee of $125. Additional fees apply to properties in the Great Lakes basin that withdraw over 50 million gallons of water per year. Great Lakes basin-related fees are based on water withdrawals; however, water reused at a facility is not used in calculating the water use fee, and DNR staff work to ensure that property owners are not overcharged.

In order to limit any adverse financial impact of water use fees on "small business" (as defined in s. 227.114 (1), Wis. Stats.), a small business fee "cap" related to Great Lakes basin fees was set in NR 850.04(4). The annual Great Lakes basin water use fee for a small business, including aquaculture operations, cannot exceed $1,000. Businesses not qualifying as a "small business" under the s. 227.114 (1), Wis. Stats definition are subject to an annual Great Lakes basin fee cap of $9,500. Six small businesses are registered in the DNR's water use database, of which, 5 are aquaculture facilities.

In total, private aquaculture was assessed $8453.00 in water use fees for 2012; DNR aquaculture facilities were assessed $15,120.00 in water use fees. In 2013, the following water use fees were administered to aquaculture facilities based on those reporting 2012 withdrawal data:

Total Aquaculture Fees Statewide to 39 facilities*	Total Base Fees Statewide, to 18 DNR aquaculture facilities	Great Lakes Fees to Aquaculture-7 facilities*	Great Lakes Fees to 8 DNR aquaculture facilities
$4,875	$2,250	$3,578	$12,870

*Does not include DNR owned facilities or properties

Water Use fee revenues are used to:

- Maintain a statewide water resources inventory of water use and availability;
- Document water use through registration and reporting requirements;
- Monitor groundwater and surface water quantity;
- Implement the Great Lakes Compact through water use permitting and regulating diversion of Great Lakes Basin water;
- Help communities plan water supply needs; and
- Build a statewide water conservation and efficiency program.

Barriers Created

The participant concerns with GLC are: fees, definitions including waters of the state, use, taking, diversion, consumptive use, and reuse of water. They felt that the interpretation and administration of the Compact are not in line with the intent of the legislation.

The participants felt that if the intent of the GLC was water conservation and to prevent diversion of water out of the basin then the Administrative Codes dealing with aquaculture need to be revisited and revised; several farms are considering closure or selling their property, reducing fish farm capacity in the state.

Of further concern to the industry is the future expansion of these overly broad definitions, restrictive interpretations and excessive administrative fees beyond the Great Lakes Basin to the rest of the state. It should be noted that other signature states of the GLC like Minnesota, Michigan, Pennsylvania and Ohio do not charge fees to fish farms for their "use" of water.

Agency Response

The participant Requests and Responses are paired under this section.

Participants Requested:

Reduce and or eliminate usage fees; no fees or reports should be required to reuse water on a fish farm.

Agency Response:

The above statements all refer to being exempt from water use registration, reporting and fees. Water use base fees are assessed to all registered water users across the state at the same rate. Each property is assessed an annual base fee of $125. Great Lakes basin-specific fees are based on reported water withdrawals and "reuse" of water is not used in calculating the Great Lakes basin fee.

Participants Requested:

Legislation to change the referenced statute in GLC from Section 281, Wis. Stats to Section 283, Wis. Stats, which will allow many private ponds to be exempt from GLC.

Agency Response:

"Waters of the State" as defined in Section 281.03(18) includes those portions of Lake Michigan and Lake Superior within the boundaries of the state, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private within this state or its jurisdiction. This definition has been in use for several decades and includes waters such as ponds on private property. Changing this definition would have broad impacts on the registration of ponds such as those used for golf course and agricultural irrigation, cranberry production, aggregate material mining and reservoirs for thermoelectric power production. Changing the statutory definition would preclude the state from collecting water use information beneficial for managing water resources and would have impacts beyond the water use registration and reporting programs.

Participants Requested:
Do not consider collection of rain and snowmelt as "taking" water from the State. Private ponds that do not take water from offsite or groundwater for filling and do not have any diversion or consumptive use should be exempt from the GLC regardless of the definition of waters of the state.

Agency Response:
If the property owner does not have a water supply system with the capacity to withdraw water from a private pond at rates that equate to 100,000 gallons per day or more, the property owner is not required to register, report or pay fees because of the Great Lakes Compact.

Participants Requested:
Private pond water used within the pond (aeration, circulation, closed-loop recirculation) should be exempt from the rule if the water has been previously counted or exempted for the purposes of the GLC when entering the pond. A farmer should not have to pay for returning the water to the basin.

Agency Response:
Great Lakes basin-related fees are based on water withdrawals; however, water reused at a facility is not used in calculating the water use fee, and DNR staff work to ensure that property owners are not overcharged.

Participants Requested:
Trout farmers using artesian water where they do not pump or divert water outside of the Great Lakes Basin, and do not consume water or prevent it from downstream use should not be regulated under the GLC.

Agency Response:
Artesian or flowing wells that produce water at the rate of 70 gallons per minute (~100,000 gallons per day) or greater are considered high capacity wells (see State of Wisconsin v. Matthew Romeo). The DNR has consistently interpreted statutes regarding well and spring source approvals to include pumped wells, flowing wells and/or spring house sources. These sources must be registered and report water use if water is withdrawn at rates of 100,000 gallons per day. Compact regulations apply uniformly throughout all water use sectors regardless of the type of water source or mechanism for withdrawal.

Participants Requested:
Recirculation equipment used in closed loop fish farms does not divert water out of the basin nor result in consumptive use and therefore its use should not be regulated under the GLC.

Agency Response:
Great Lakes Compact –based water use program requirements apply to water use systems (e.g. wells or surface water intakes) with the capacity to withdraw an average of 100,000 gallons of water per day in any 30-day period. Although withdrawers must report consumptive use, the capacity to withdraw water and the withdrawal itself trigger the regulation, not the consumptive use. Additionally, water reused at a facility is not used in calculating the water use fee.

Agency Recommendations for Streamlining
DNR staff will continue to work with each water use sector to address unique concerns and to streamline Great Lakes Compact-related water use registration, reporting, and permitting requirements.

Importation of Nonnative Fish

Purpose & Need
Importation of Nonnative Fish permitting and documentation is needed to ensure the health of Wisconsin fish and natural habitat.

To import nonnative fish or fish eggs for the purpose of rearing in a fish farm, under s. 29.735, Wis. Stats., requires the Nonnative Fish Importation Application and General Permit. The general permit was created in 2011 and only allows the import of fish species defined by s. NR 40.02 (30), Wis. Adm. Code, as "nonnative fish species in the aquaculture industry." Those species are arctic char, Atlantic salmon, brown trout, chinook salmon, coho salmon, rainbow trout, pink salmon, redear sunfish, tiger trout, and tilapia (Tilapia spp).

DNR determines if a species is nonnative and if the general permit or other authorization is required to import fish. A fish health certificate must also be mailed to DATCP to meet the health requirements for any fish imported into the state.

Barriers Created
No barriers have been created by Importation Permitting.

Agency Response
None

Agency Recommendations for Streamlining
No Agency recommendations for streamlining Importation Permitting.

DATCP RULES AND STATUTORY REQUIREMENTS

General Comments and Concerns

In the past three years changes in the Statutes and Administrative Codes for fish health have reduced the level and complexity of regulatory oversight especially for intrastate movement of fish.

In general, the industry representatives indicated support for the activities of DATCP, and appreciation for the opportunities to provide input and the response of DATCP to industry concerns.

INDIVIDUAL DATCP REQUIREMENTS

Fish Import Permits

Purpose & Need
Fish import permits are issued by DATCP for fish that originate in the wild or fish that are imported directly into the wild in Wisconsin. DATCP issues less than five fish import permits per year.

Under s. 95.60, Wis. Stats, and s. 10.62, Wis. Adm. Code, no person may bring any fish or fish eggs into this state for the purpose of introduction into the waters of the state, or use as bait or of rearing in a fish farm without an annual (import) permit issued by DATCP.

2011 Wisconsin Act 207, created one exception to this requirement. A person bringing fish or fish eggs from a fish farm in another state to a fish farm in this state is not required to have an import permit if that person has a valid fish health certificate.

Barriers Created
No barriers have been created by the fish import permit requirement.

Agency Recommendations for Streamlining
No changes are recommended at this time.

Fish Health Certificates

Purpose & Need
Fish health certificates provide an assessment of the health of fish at the time of inspection. It attests to the absence of signs of infectious and contagious diseases and the absence of specific fish pathogens.

Section 95.60 (3), Wis. Stats., allows DATCP to promulgate rules, applicable to persons who operate fish farms that require evidence of fish health.

ATCP 10.65, Wis. Adm. Code, requires a fish health certificate for the following:

- Registering as a type 1 or type 2 fish farm after being previously registered as a type 3 fish farm if the registrant does not choose to remove all fish and fish eggs from the fish farm and disinfect the fish farm.
- Importing fish into Wisconsin.
- Introducing fish into waters of the state.

- Moving live fish or fish eggs that are susceptible to viral hemorrhagic septicemia (VHS) from a type 3 fish farm to any other location in the state – except for the following:
    - Live fish or fish eggs moved between type 3 fish farms by the same fish farm operator, if the operator keeps a complete record of the movement.
    - Fish or fish eggs moved to a food processing plant, retail food establishment or restaurant for processing or direct sale to consumers as long as certain requirements are met. (See ATCP 10.64(3)(b), Wis. Adm. Code for these requirements)
    - Live fish or fish eggs shipped to a specific location for direct sale to consumers as food provided certain requirements are met. (See ATCP 10.64(3) (c), Wis. Admin. Code for these requirements)
- Distributing for use as bait any fish or fish eggs susceptible to VHS from a bait dealer licensed under s. 29.509, Wis. Stats.
- Moving *any* fish or fish eggs between *any* of the registered fish farms that have 2 or more fish farms at a single location. **Note:** DATCP has introduced rule modifications under CHR 13-058 to require a health certificate accompany *only* fish or fish eggs susceptible to VHS moving from a type 3 fish farm to *any* location in the state. [See s. ATCP 10.61 (5m)(b)].

Barriers Created

There still appears to be some confusion on the circumstances under which a Fish Health Certificate (FHC) is required.

Agency Response

DATCP has streamlined rules to, in general, only require a fish health certificate when introducing fish into waters of the state, moving fish susceptible to VHS, and importing fish into Wisconsin. See s. ATCP 10.65, Wis. Adm. Code, for more information.

Streamlining began effective August 1, 2012, when DATCP amended rules to require a valid fish health certificate accompany only fish or fish eggs of a species found to be susceptible to VHS moving from a type 3 fish farm. Previously, the rule required a valid health certificate accompany *any* fish or fish eggs moved between *any* registered fish farm. The new rule provisions have resulted in a 43% decrease in the number of fish health certificates needed by Wisconsin fish farmers.

Further, the Department is in the process of modifying rules to clarify when a valid health certificate must accompany any fish and fish eggs moved from a fish farm that has registered two or more fish farms at a single location. The proposed rule will require a valid health certificate accompany only fish or fish eggs of a species found to be susceptible to VHS, moving from a type 3 fish farm.

Agency Recommendations for Streamlining

Due to recent rule changes reducing the need to have a fish health certificate when moving fish, there is no need for additional streamlining at this time. The department will continue to inform fish farms about fish health certificates through emails, phone calls, field staff visits, and web site.

Fish Disease Testing Protocol

Purpose & Need
The department has adopted national (USDA and AFS-FHS Blue Book) and international standards (the OIE Manual and Code) relating to disease testing protocols for fish. It is important to adhere to these standards so that everyone is testing at the same approved, acceptable manner.

Barriers Created
Participants Requested:

- Allowing the use of iodine protocol (egg disinfectant) would help open up Lake Michigan for sucker eggs (co-ops) & allow iodine protocol when moving eggs between type 2 and 3 farms, and
- Adopt shorter VHS cell culture test (2 weeks) for intrastate movement.

Agency Response
DATCP rules do not require VHS testing for white sucker fish/eggs because they are not susceptible to the disease. There is no approved method for administering iodine disinfection that has shown to limit the spread of disease. It is not a method approved by the USDA and, therefore, cannot be allowed in Wisconsin's rule. If a method is approved by the USDA, the method will be incorporated into administrative rule.

Also, the Division of Animal Health follows the standards established in the Inspection Section of the AFS-FHS Blue Book and the OIE Manual and Code that regulate the VHS culture test. According to those standards, two weeks is insufficient time to complete a VHS cell culture test. Therefore, the division cannot approve the shorter time period suggested.

Agency Recommendations for Streamlining
If a fish disease testing protocol method is approved by the USDA, AFS-FHS Blue Book and the OIE Manual and Code, the method will be incorporated into administrative rule.

Farm Registration

Purpose & Need
Fish farm registrations are necessary so the department knows where fish farms are located in the state and allows the department to communicate with them in regards to legal requirements related to fish health. Additionally, in the event of a disease outbreak, the department can trace where fish may have been shipped to and purchased from and where the disease may have spread.

Under s. 95.60 (3m), Wis. Stats., a person who operates a fish farm is required to annually register the fish farm with the department.

Section ATCP 10.61 (1), Wis. Adm. Code, specifies that fish farm registration is required for an individual to hold live fish or fish eggs owned by another person or to hatch fish eggs or hold or

rear live fish for: sale or distribution, stocking into state waters, fishing, use as bait or fertilizer, use as food for humans or animals, education, demonstration or research.

Section ATCP 10.61 (2), Wis. Adm. Code, allows some exemptions from having to register as a fish farm.

Section ATCP 10.61 (3), Wis. Adm. Code, specifies fish farm types 1, 2 or 3.

Barriers Created
Evaluate the need for Type 3 farm classification if VHS is not as virulent as was once thought.

Agency Response
VHS has been found only in the wild. Type 3 fish farms stock fish from the wild. Therefore, type 3 fish farms present a higher risk of disease compared to other fish farms that do not receive fish from the wild.

Agency Recommendations for Streamlining
If over time, the risk of disease in wild fish is reduced, the Division of Animal Health will reevaluate the need to have type 3 fish farms.

Record Keeping Requirements

Purpose & Need
Record keeping helps the state define the extent of a disease outbreak. It allows the department to trace where fish affected by disease may have been shipped to and purchased from and where the disease may have spread.

Section 95.60 (4) (c), Wis. Stats., requires fish farmers to keep records on *purchases, sales and production* of fish and fish eggs and any other records required by DATCP.

Section 95.60 (4) (d), Wis. Stats., exempts a fish farmer from keeping records of *sales to an individual buying the fish for personal use*.

Section ATCP 10.61 (10) (a), Wis. Adm. Code, requires fish farmers (including bait shops) to keep records for 5 years related to live fish or fish eggs that are *received*. (See s. ATCP 10.61(10) (a), Wis. Adm. Code, for specific record keeping requirements).

Section ATCP 10.61 (10) (c), Wis. Adm. Code, requires fish farmers to keep records on *sales and delivery* of fish and fish eggs. (See s. ATCP 10.61(10) (c), Wis. Adm. Code, for specific record keeping requirements).

Section ATCP 10.61 (10) (d), Wis. Adm. Code, *currently* requires fish farmers *selling to consumers for food* to keep records on those sales (See s. 10.61 (10) (d), Wis. Adm. Code, for specific record keeping requirements). **Note:** DATCP has introduced rule modifications under CHR 13-058 to remove these record keeping requirements.

Section ATCP 10.61 (10) (e), Wis. Adm. Code, currently requires fish farmers *selling fish or fish eggs for bait* to keep records on those sales (See s. ATCP 10.61 (10) (e), Wis. Adm. Code, for specific record keeping requirements). **Note:** DATCP has introduced rule modifications under CHR 13-058 to remove these record keeping requirements.

Barriers Created
No barriers have been created by the fish farm record keeping requirements.

Agency Response
None

Agency Recommendations for Streamlining
No Agency recommendations for streamlining fish farm record keeping requirements have been requested.

FOOD PROCESSING RULES AND STATUTORY REQUIREMENTS

Purpose & Need
Wisconsin has one of the nation's largest food processing industries. The Food Safety Division licenses, regulates and inspects over 2,000 food processing and storage facilities including fish processing facilities. The food processing regulations are required to ensure a safe, wholesome and secure food supply.

The U.S. Food and Drug Administration, as well as the Wisconsin Department of Agriculture, Trade and Consumer Protection, have mandated that all processors of fish and fish products who wholesale these products must conduct all processing under a Hazard Analysis Critical Control Point system, known as HACCP and pronounced "hassup."

There are minimum training requirements and/or HACCP experience criteria to be met, and DATCP along with the University of Wisconsin and FDA will continue to provide this educational opportunity for Wisconsin processors whenever possible.

Lastly, all Wisconsin processors of fish or fish products must hold a Food Processing Plant or Retail Food Establishment license. Broadly speaking, a Food Processing Plant is issued to an establishment selling foods at wholesale, while a Retail Food Establishment license is issued to an establishment selling foods at that site to consumers. The license fees are based on the annual dollar volume of product processes and range from $40 to $550. Processing includes scaling, skinning, filleting, grinding, breading, cooking, and smoking, but it does not include heading and eviscerating conducted on a harvest vessel.

Barriers Created
Food processing regulations –the same food codes are inspected by various entities depending on where in the state you are located (DATCP staff, county or city personnel, contracted employees) which is confusing and the rules are not uniformly applied or understood.

Participants Requested:

- Uniformly apply food processing regulations Statewide.
- Change in statutes and/or codes to allow mobile fish processing units.

Agency Response

DATCP has an existing internal policy on mobile food processing units, which will be re-evaluated for its applicability to fish processing. The concern about non-uniformity in food processing regulations statewide stems from the fact that different regulations apply to fish processors, depending on what is done after processing. A restaurant or retail food establishment receiving fish or an establishment that processes fish for retail sale is under ATCP 75 and the Wisconsin Food Code. HACCP training and implementation of the HACCP system are not required because the federal seafood HACCP regulations exempt establishments that are processing fish for retail sale. An establishment processing fish for wholesale is under ATCP 70 and therefore must operate a HACCP system. Because there are more links in the distribution chain after the wholesaling of fish than after the retail sale of fish, the extra measure of safety afforded by operation of a HACCP system is considered necessary for fish processing conducted in a Food Processing Plant.

Agency Recommendations for Streamlining

DATCP will re-evaluate their internal policy on licensing mobile food processing units and verify its applicability for fish processing.

SUMMARY OF AGENCY RECOMMENDATIONS FOR ADDITIONAL STREAMLINING

Based on the findings of this study, the following additional streamlining actions are summarized:

NR19 Natural Water body Permits

- Section 29.733 Wis. Stats & DNR Chapter NR19, Wis. Adm. Code

None

Chapter 30 Waterway Permits

– Chapter 30, Wis. Stats.

None

Chapter 31 Dam Permits

– Chapter 31, Wis. Stats.

None

Water Quality Wetland Permits

– Section 281.36 Wis. Stats.

- Hold a workshop at next WAA Conference; highlighting new statewide guidance on wetland permit processing.

WPDES Discharge Permits
– Sections 281 and 283 Wis. Stats.

- Adopt wastewater effluent limitations guidelines for facilities under 100,000 pound threshold.
- Reduce number of parameters required to be monitored as part of the wastewater permit application process.
- DNR commits to develop guidance by July 1, 2014, which would outline how a Best Management Practices (BMPs) plan can be used to eliminate technology, based effluent limits TBELs.

- Modify wastewater discharge application to allow applicants to report quarterly usage rates of additives, which will assist DNR staff in determining the number and need of Whole Effluent Toxicity (WET) testing.

Water Use Registration and Permits
– Section 281.346 Wis. Stats. and DNR 856 & NR 860, Wis. Adm. Code

None

High Capacity Well Approvals
– Sections 280 and 281 Wis. Stats. & DNR 812 and 820, Wis. Adm. Code

None

Invasive Species
- DNR NR 40 Wis. Adm. Code

- The DNR is currently revising NR 40 to re-classify mosquito fish. Under the revised rule, mosquito fish would no longer be classified as "prohibited", but would be classified as "established nonnative fish species." That means that incidental possession of mosquito fish in bait shipments can be explicitly permitted either by individual permit or under a general permit.

Great Lakes Compact (GLC)

- Section 4.2.1 of the Compact and Article 304.1 of the Agreement

- DNR staff will continue to work with each water use sector to address unique concerns and to streamline Great Lakes Compact-related water use registration, reporting, and permitting requirements.

Importation of Non-Native Fish
-Section 29.735 Wis. Stats.

None

Fish Import Permits (DATCP)
- Section 95.60, Wis. Stats. & s. ATCP 10.62, Wis. Admin. Code

None

Fish Health Certificates (DATCP)
- Section 95.60(3), Wis. Stats. & s. ATCP 10.65, Wis. Adm. Code

None

Farm Registration (DATCP)
- Chapters 93 & 95, Wis. Stats. & s. ATCP 10.61 Wis. Adm. Code

- If over time, the risk of disease in wild fish is reduced, the Division of Animal Health will reevaluate the need to have type 3 fish farms.

Record Keeping Requirements (DATCP)
- Section 95.60(4), Wis. Stats. & s. ATCP 10.61(10) Wis. Adm. Code

None

Food Processing (DATCP)
-ATCP 70 & 75, Wis. Adm. Code, Wisconsin Food Code and seafood HACCP

- DATCP will re-evaluate their internal policy on licensing mobile food processing units and verify its applicability for fish processing.

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LITERATURE CITED

Environmental Permits for Wisconsin Fish Farms (PUB-FH-059 2013)
Natural Water body Permits for Fish Farms Factsheet (PUB-FH-060 2013)
Fish Farming in Wisconsin What You Need to Know – DATCP Publication February 2013

GLOSSARY OF TERMS

Connects with a Navigable Waterway: means any artificial water attached by means of enlargement or by a natural or artificial drainage course, or an open or closed conduit, any of which tend to confine and direct flow in to the existing navigable waterway (NR 343.03(3)

Dredging: means any part of the process of the removal of material from the beds of waterways and the transport of the material to a disposal site (NR 347 Wis. Adm. Code).

Freeze-out pond: means a natural, self-contained body of water in which freezing or anoxic conditions prevent the body of water from naturally sustaining a fish population at least twice every 5 years (s. 29.001(29) Wis. Stats.).

Natural Body of Water (Natural Waterbody): means any spring, stream, pond, lake or wetland that was historically present in a natural state but may have been physically altered over time.

Ordinary High-Water Mark (OHWM): means the point on the banks or shore up to which the presence and action of water is so continuous as to have a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristics (NR 320.03(12) Wis. Adm. Code).

Public Waterway: means any waterway declared navigable under s. 30.10 Wis. Stats. In order to protect public rights in these waters, permits are required to modify or alter these waterways.

Unconnected Pond: means any waterway that does not have an open or closed outlet that discharges to another water body. WPDES: This acronym stands for Wisconsin Pollutant Discharge Elimination System. This permitting system is a federally mandated program that requires the DNR to issue WPDES to develop Water Quality Standards (see NR 102-106 and 217 Wis. Adm. Code) for the discharge of regulated fish farms.

Withdrawal: means the taking of water from surface water or groundwater, including the taking of surface water or groundwater for the purpose of bottling the water under s. 281.346(1) (z) Wis. Stats.

WPDES: This acronym stands for Wisconsin Pollutant Discharge Elimination System. This permitting system is a federally mandated program that requires the DNR to issue WPDES to develop Water Quality Standards (see NR 102-106 and 217 Wis. Adm. Code) for the discharge of regulated fish farms.

APPENDIX I

Report of Aquaculture Rules and Regulations Listening Sessions and Comment Period
October 4, 2013
By Ron Johnson and Jim Held, University of Wisconsin Aquaculture Outreach Specialists

The following are comments, suggestions and concerns relevant to factors that restrict the expansion of the aquaculture industry in Wisconsin in Response to the Legislature's Request for a report on this topic. Members of the Wisconsin aquaculture industry expressed these viewpoints during two listening sessions conducted on August 29th in Madison and September 3rd in Wisconsin Rapids along with communications that were received through September 20th.

Comments have been sorted into categories and in some cases edited for clarity, focus, or to summarize discussions. Wording in italics at the beginning of each section is meant to be an overview and to capture the essence and dialogue of the meetings.

The industry sees great potential for business expansion in Wisconsin and recognizes that this expansion must be accomplished in an environmentally responsible manner using sustainable practices.

The industry recognizes the advantages of working with the State Natural Resource Department through current programs such as the Wisconsin Walleye Initiative as well as potential future opportunities including a hatchery stamp and co-operative lake sturgeon restoration efforts.

The industry is skeptical because of historical efforts such as the 1997 Poff Report, 1997 Legislative Audit Summary, 1999 Blue Ribbon Task Force, 2000 Sturgeon Report and 2001 Legislative Council Information Memorandum all have made recommendations that point out the burden of excessive regulations and suggest better public/private relationships and programs without appreciable impact to the growth of the industry.

It is hoped that this report will be the foundation for tangible change and cooperation that will embrace the aquaculture industry as a vital segment of Wisconsin agriculture, provide a platform for comprehensive regulatory policy change and in doing so help strengthen Wisconsin's agricultural productivity and recreational fisheries.

DATCP

General

In the past three years changes in the Statutes and Administrative Codes for fish health have reduced the level and complexity of regulatory oversight especially for intrastate movement of fish. In general, the industry representatives indicated support for the activities of DATCP, and appreciation for the opportunities to provide input and the Response of the Department to industry concerns. There still appears to be some confusion on the circumstances under which a Fish Health Certificate (FHC) is required.

Specific Concerns

- Food processing regulations –the same food codes are inspected by various entities depending on where in the state you are located (DATCP staff, county or city personnel, contracted employees) which is confusing and the rules are not uniformly applied or understood.
- There is a great need for a change in statutes and/or codes to allow mobile fish processing units, this is especially restricting new aquaponic facilities and smaller farms that would like to sell processed fish at farmers markets or on the farm.
- Allowing the use of iodine protocol (egg disinfectant) would help open up Lake Michigan for sucker eggs (co-ops).
- Allow iodine protocol when moving eggs between type 2 and 3 farms.
- Adopt shorter VHS cell culture test (2 weeks) for intrastate movement.
- Evaluate the need for Type 3 farm classification if VHS is not as virulent as was once thought.
- Move all environmental related fish farm activities to DATCP ARM division.

DNR

General

One area of concern that the respondents noted was the inconsistent manner in which both aquaculture and water are defined. Statute 91.01 (2) defines aquaculture as agriculture and as such it should be treated like other forms of agriculture. Water dependency, usage, consumption and ownership have varied definitions depending on the statue cited. This is particularly true of the Great Lakes Compact that includes an unusually broad definition for the ownership and usage of water (see section on Great Lakes Compact).

Specifics

Definitions

- Define aquaculture as agriculture in all Wisconsin statutes -Lower Wisconsin River statute 30.40 is different and does not include aquaculture. While s. 30.40 itself does not necessarily limit aquaculture expansion, referencing the s. 30.40 definition of agriculture in other legislation expands the exclusion of aquaculture as agriculture to the detriment of the industry.
- Define Aquaculture as a water dependent agricultural activity– define water use and consumption so it doesn't put fish farmers out of business

Competition

Industry representatives indicated that they felt the DNR was unfairly competing with private fish farmers to supply fish for resource enhancement. Furthermore, participants felt that

individuals or factions within the DNR view the private industry as rogue operations whose activity should be blocked at every opportunity. While this may be more of a problem of perception, specific examples of seemingly purposeful acts raise suspicions and undermine relationships.

- Need better public/private working relationship – instead of competition.
- Pass hatchery stamp so state can purchase directly from industry (expand to non-walleye species).
- Lake sturgeon-changes in legislation to allow possession and sale will help expand industry and provide opportunity for partnership with DNR.
- DNR should not compete with private industry- e.g. DNR issued stocking permit to lake association, lake association ordered fish from private producer, DNR then filled the stocking Request with surplus fish and cancelled stocking permit resulting in a multiple thousand dollar loss of business for the farmer. This has happened with bass, trout, perch, and walleye.
- Fishing clubs and or lake associations raise money to purchase fish from the private sector for stocking– DNR supplies fish and lobbies for donations (of that money) to support special projects or equipment. DNR already has State funds to pay for their projects; they shouldn't be soliciting "extra" monies that should be supporting Wisconsin businesses.
- Competition with DNR on forage purchases- expanded Requests for forage by DNR to support advanced walleye fingerling production caused a shortage of available minnows and increased costs to the private producers.

Permitting

A variety of permitting problems were cited by the participants. This topic was considered to be a critical factor limiting new business investments and industry expansion.

- Permitting process time frames too long and complex.
- Public notices need to start on date of publication not on date the affidavit has been received and acknowledged by DNR– this practice lengthens the process by as much as 2 weeks and results in costly delays for new investments and expansion projects.
- Fish farms that improve water quality need to give "credit" for improvement. There should be no ratcheting-up of regulatory criteria as a result of improving the stream (or area surrounding ponds).
- Acknowledge the net results of reducing solids and phosphorus to receiving waters as compared to agriculture land runoff caused by the previous land usage. Regulators only seem to be interested in what the fish farm expansion is putting in the water, not the overall (improved) water quality of the receiving stream caused by the expansion.
- Stocking permits – fish produced in-state should have priority (if available).

- Economics of fish farming – amount of rules and regulations are increasing cost of doing business compared to crop agriculture.
- Accumulated fees of all needed permits is very costly for aquaculture/aquaponics compared to conventional farming and fish farming in other states; the industry is treated as if they are not welcome in Wisconsin, investors are going elsewhere.
- Bait shops that only sell farm-raised bait and pet shops should not be required to have a bait license, should only need FHC and receipts.
- Not any one specific rule but the cumulative effect and complexity of all the rules combined. Cited the example of the enormity of rules to open or start a non-discharge aquaponics facility (see appendix I).
- In several instances DNR staff has advised farmers not to seek legal counsel and not to involve their legislators when the permitting process has reached an impasse.

Contracting

Contracts with the State (particularly the sucker and walleye co-op agreements) were viewed as too complex and one-sided to the extent that many private producers no longer have an interest in participating. Unfortunately this history of apparent one-sidedness may impact the industry's participation in the new Walleye Initiative expansion grant and purchase programs.

- Cooperative programs too complex, too many requirements, all in favor of state instead of equal burdens. So complex, farmers are not participating – needs participation to work
- Contracts and quotes (unmet needs) should be made available by November so producers can plan for next growing season.

State Bids

Wisconsin's aquaculture industry is in competition with out-of-state suppliers that do not follow same (environmental, water quality, etc. rules). Priority should be given to in-state producers and not based solely on lowest price

Genetics

This topic was viewed as extremely frustrating to the private producers. The consensus among respondents was that whenever a fish manager wants to deny a stocking permit they pull out the "genetics card" and say "we only want lake xyz-derived fish to be stocked here" even in circumstances where there is no genetic policy established (bluegill) and/or previous stocking (by DNR or private producers) has already impacted the genetic integrity of the population.

- Genetic policy– change in supervisors (DNR) changes policy. (What previous supervisor allowed, next doesn't allow). A strain that has been stocked (under previous permitted activity) and are reproducing, are no longer allowed and a different strain is now

accepted. Historical stocking activities should be considered when purporting the genetic purity of a population (strain).

- Review of genetic policies– need to be clearly defined, uniformly applied across the state and proven necessary.
- eDNA – standards and protocols need to be in general acceptance before used as a regulatory tool

Stocking quotas

Industry representatives indicated that a review of stocking quotas based on the best available science be conducted.

- Stocking quota caps need to be addressed– good for water bodies with naturally reproducing populations but possibly not for put-and-take (no significant natural reproduction) designated waters. Higher stocking quotas will help the angling experience.
- Currently DNR stocking of fish has first priority – look at ways that do not compete with industry (concentrate on strain specific watersheds; let the industry provide "unspecified" fish strains).

WPDES

Although Wisconsin Act 207, 2011 repealed the fees associated with the WPDES discharge permits there is still concern with the development of a general permit for aquaculture (time frame), amount of testing required and specific limits such as phosphorus and chloride. There is concern that point source dischargers bear the entire burden for a watershed while agriculture runoff is not required to reduce their load by the same amounts. Large aqua-businesses will not locate to Wisconsin (see above) due to the stringent and complex layers of regulations. There is a disconnect between what is or may be required and what is communicated to prospective business people; the complexity of each watershed having different water quality requirements, makes locating a new business very tough– especially when competing with other neighboring states. It's the layers and complexity of rules that discourages aquaculture endeavors.

- Federal Clean Water Act – Wisconsin should accept BMP's instead of limit-based permits.
- Amount (frequency) of testing is an economic burden; history of compliance and water quality results should reduce the amount of testing once the facility has established a track record. Tests that result in no detectable levels should be waived or only occasionally included for future testing.
- WPDES and the General Permit- The DNR has agreed to issue a GP to farms that have already had a WPDES permit for a 5 year cycle. This would decrease testing and better establish the permit to match the facility based on the 5 years of data collected. The

problem is that nothing has happened and discussions have stopped. No new money will invest without these answers and firms are wondering about the future.

- TMDL on the Rock River watershed tied to Phosphorus. We will have to reduce Phosphorus discharge by 75%, even though it is not even a limit on our WPDES permit,
- The problem. They are basing 100% of the phosphorus in the Rock River on point source WPDES permit holders. The major contributor is dairies and agriculture runoff. So we are being overly regulated and the level they want us to hit is so extremely low that it may not be obtainable.

One farm trying to locate in Wisconsin using a Recirculated Aquaculture System (RAS) system had the following road blocks:

Point-source discharge limitations

a. The stringent discharge regulations that Wisconsin enforces have caused a huge burden on the location and the overall construction of my facility even when utilizing the most technically advanced waste-water treatment technologies available today.

i. Phosphorus and Chloride discharge concentrations are among the lowest in the country (business was told 1500 mg/l for chloride) and most difficult to accomplish.

ii. The actual discharge concentration limits are not spelled out and can vary greatly between different watersheds.

1. There are no standard discharge limits for the different stream classifications and therefore it has been very time consuming to find property suitable for a fish farm on a stream or river that has reasonable discharge limit criteria

2. This has made the process of finding a site expensive and frustrating

3. I, with help from the WDNR, have determined that there is one stretch of river (<40 miles) in the entire west side of Wisconsin that will permit my discharge

4. Once the small portion of the river has been determined as a potential location of the facility, many other factors of large investments such as land price, 3-phase power, and natural gas lines etc. come into play and make the business venture uneconomical

5. The entire project has been halted because of the tiny portion of the state that will permit the point-source discharge

iii. Phosphorus discharge limits are < 1 mg/l on nearly all of the watersheds in Wisconsin

1. In order to achieve this, we would have to invest nearly 30% of the original capital cost into a separate waste-water treatment plant

iv. Salt treatment is a simple and safe solution to fighting stress and disease for fish

1. I can avoid using pesticides, herbicides, and antibiotics by using salt treatments although chloride limitations make that option impossible

b. Future discharge limitations

i. The future of Wisconsin's discharge regulations is not certain

1. I have heard multiple sources from the WDNR state that the Phosphorus limits are going to continue to go down

a. Is a Phosphorus discharge of <.1 mg/l feasible or even possible with today's technology?

2. Will TMDL's or Phosphorus trading really make it easier for any new business to discharge?

Incentives

There are very little incentives offered by the state to assist with these issues

- If we are willing to invest in a state-of-the-art waste-water treatment plant, there should be some flexibility with the agencies knowing that these technologies are the future and many if not most of the existing companies with discharge permits are not being held to the same standards.

Wetlands

The concerns regarding wetlands are the difference between the rules for cropland farmers and aquaculture, as well as mitigation procedures and ratcheting of rules when wetlands are created with the building of ponds.

- If wetlands are created, there should be no mitigation required for existing farms
- Rules are extremely restrictive for onsite mitigation
- Confusion on wetlands and obtaining permits– not uniformly enforced or consistently defined
- Farmers penalized – ratcheting up requirements when ponds create wetlands around pond; unable to do improvements – land was previously crop agriculture
- In created wetland, farmer subjected to natural wetland rules – should be exemptions for created wetlands on your own property

NR 19, Chapter 30 and 31 permits

The concerns are setbacks, definition of water or "natural water", declaring water private on registered fish farms and the differences and allowable activities between those that have NR 19 and/or Chapter 30 and 31 permits. The three rules are complex, somewhat overlapping and very restrictive. The state needs to review these rules in the context of importance of aquaculture to the state and can these rules be simplified and/or combined.

- NR 19 needs to be revaluated – farmers cannot maintain structures and integrity of ponds or raceways without applying for new permits and facing public notices, the water needs to be declared private.
- DATCP registered fish farms – water should be declared private.
- NR 19 not uniformly enforced across the state.
- S. 30.19 enlargements, ponds, grading – under no. 1 – the 500-foot requirement should be changed to 20 feet. Conventional farmers don't need permits.
- Setback rules are too restrictive – suggest 20 feet same as crop farms (ponds reduce pollution compared to cropland). Set back of 500 feet from navigable waters prohibits farmers from constructing ponds.
- Over-regulated compared to croplands.
- S. 30.19 needs to be redone, because even on 40 acres with an agriculture ditch running diagonally across the property there is not room enough to build a pond with a 500-foot setback.
- NR 19.90 Restricting new fish farms to only "freeze out" ponds is prohibitive and restricts any new trout facilities – there are locations in the state that were not grandfathered in 1998 that have artesian flow which could be used for aquaculture but because they are not "freeze out" ponds cannot permitted.

NR 19.90 wording should be changed from natural bodies of water to navigable bodies of water which would eliminate the need for most of the NR 19 rules. The Natural Water Body Administrative Code has hampered the growth of the industry and is not necessary – the rule only collects money for the department, is confusing and is a duplication of DATCP's fish farm registration.

Length of time to obtain chapter 30 and 31 permits can be years, not months, and uncertainly of outcome has created problems – several farms have sold their property for use other than fish farming. There needs to be an overhaul of these rules to prevent loss of capacity let alone expansion.

DNR NR 40

Concerns are the validity of mosquito fish on the prohibited list (natural expansion of mosquito fish into Wisconsin), the increased cost of doing business because mosquito fish are listed, and listing of all non-native fish species as invasive. The BMP for mosquito fish may not give protection for federal prosecution under the Lacey Act.

Mosquito fish should be reclassified as a native species and taken off the NR -40 listing.

Managing for no mosquito fish adds 40% to cost of pinhead forage.

Mosquito management adds 30% to cost of out of state bait; mosquito fish must be hand sorted.

If mosquito fish were removed from prohibited list forage in state could be purchased and or raised more economically.

Listing of all non-native fish species as invasive restricts many potential aquaculture species, many of which would not survive (temperature, marine etc.). Fish is the only vertebrate class in NR 40 where all non-native species are invasive – this is unduly restrictive and is a direct barrier to growing aquaculture.

VHS is not an invasive species – it is a virus and it should be removed from NR -40 and the virus and disease regulations should be entirely under DATCP.

Great Lakes Compact (GLC)

The concerns with GLC are fees, definitions including waters of the state, use, taking, diversion, consumptive use, and reuse of water. Interpretation and administration of the Compact are not in line with the intent of the legislation. If the intent of the GLC was water conservation and to prevent diversion of water out of the basin then the Administrative Codes dealing with aquaculture need to be revisited and revised; several farms are considering closure or selling their property, reducing fish farm capacity in the state. Of further concern to the industry is the future expansion of these overly broad definitions, restrictive interpretations and excessive administrative fees beyond the Great Lakes Basin to the rest of the state. It should be noted that other signature states of the GLC like Minnesota, Michigan, Pennsylvania and Ohio do not charge fees to fish farms for their “use” of water.

Reduce and or eliminate usage fees - $1,000 cap plus $125 registration still a hardship on small private fish farms. No fees or reports should be required to reuse water on a fish farm. The GLC is supposed to promote water conservation not penalize farmers who conserve water.

If legislation would change the referenced statute in GLC from s.281 to s.283, many private ponds could be exempt. Of particular importance are private ponds that do not have any

consumptive use nor contribute to any diversion from the Basin. Regulations of private ponds that do not exhibit these criteria are unintended consequences of the rule.

In the rule, the WDNR considers collection of rain and snowmelt as "taking" water. Private pond owners have no problem with considering the act of "taking" to mean bringing water onsite from an outside source such as pumping from rivers, streams, drainage ditches etc. where the source is offsite and the pumping is to provide water onsite. But to say that collecting rain and snowmelt is "taking" waters of the state was never identified as the intent of the rule.

Private ponds that do not take water from offsite or groundwater for filling and do not have any diversion or consumptive use should be exempt from the GLC regardless of the definition of waters of the state.

Private pond water used within the pond (aeration, circulation, closed-loop recirculation) should be exempt from the rule if the water has been previously counted or exempted for the purposes of the GLC when entering the pond. A farmer should not have to pay for returning the water to the basin.

Trout farmers using artesian water where they do not pump or divert water outside of the Great Lakes Basin, and do not consume water or prevent it from downstream use should not be regulated under the GLC.

Recirculation equipment used in closed loop fish farms does not divert water out of the basin nor result in consumptive use and therefore its use should not be regulated under the GLC.

Appendix (I)

Listing of permits, inspections and agencies that are needed to open and maintain a land based non-discharge aquaponic facilities:

County

County Building Department: building and electrical inspections and permits during construction

- County Zoning Department: rezoning of property required
- County Fire Inspector: fire inspection of greenhouse and buildings, periodic

WI Department of Financial Institutions

- Corporate filings (on startup and annual filing and fee)

WI Dept. of Revenue

- Income tax (quarterly filing and taxes)
- Sales tax (annual filing and taxes)
- Resale (filings for our resale account and any customer who is tax exempt)

DATCP and DNR

- Fish Farm Permit (annual filing and fee)
- Fish Import Permit (annual filing)
- Fish Health Certificate (annual filing)
- WI Premises Registration
- Retail Food Establishment License (annual filing and fee)

Dept. of Health

- Tri County Health Consortium – enforcement for DATCP and Health Dept. – inspects freezer to ensure it is proper temp (charges for inspection)
- Determination on whether or not we are “processing” when we package whole heads of lettuce

Federal

- Lacey Act
- Dept. of Ag: Premises Registration
- IRS - Federal income tax (quarterly filing)
- USDA
- FDA

Employees

State

- Dept. of Workforce Development
- New Hire report for each new employee
- "Separation notice" for any previous employee who files for unemployment
- WI Unemployment Insurance (bi-annual, I think, and fees)
- WI tax withholding (quarterly filing and taxes)

Federal

- FICA - Employers Federal Quarterly Return (quarterly filing and taxes

Additional

Listing of additional permits, inspections and agencies that may be needed to open and maintain aquaculture facility that may construct ponds or raceways, have a discharge or uses "water of the state":

- NR 19 – use of natural bodies of water as fish farm ($50 for renewal, $500 for non-refundable application)
- Chapter 30 – Waterway Permits
- 30.12 Structure permit – culvert or intake structure
- 30.18 Withdrawal permit - if withdrawal of 3.09 cubic feet per second during any 30 day period
- 30.19 Enlargements, Ponds and Grading – ponds without outlets within 500 feet of a public waterway; ponds with outlets that connect to navigable waterways; ponds connected to navigable waterways by a navigable channel (require public notice and environmental assessment); grading in excess of 10,000 square feet on bank of public waterway
- 30.20 Dredging – permit required remove bed material from both public and non-navigable streams and from all lakes
- Chapter 31 – Dams Construction
- 31.33 Small Dams – to construct dams or impoundments on all waterways including non-navigable steams
- Wetland Permits – for any impact to wetlands (s.281.36) – need to meet all eligibility standards and permit conditions that are applicable to wetlands with either a general or individual permit and must meet water quality certification as required by Army Corps of Engineers 404 wetland permits. [Industry has had difficulties with determination of what

constitutes a wetland, and ratcheting up requirements after ponds have been built because wetland plants are present when improvements are needed]

- Water Use Registration and Permits – $125 if you plan to withdrawal water, withdrawal is taking or redirection of water from its natural course, even if temporarily. If in Great Lake Basin additional permits if you withdraw an average of 100,000 gallons (70 gallons per minute) per day or more in 30 day period (capped at $1,000 for small businesses)
- High Capacity Well Permits – Needed if well or withdrawal on your property has a combined withdrawal capacity of 70 gallons per minute – reporting requirements also required
- WPDES Discharge Permits – Federal mandated program if production levels greater than 20,000 pounds of Coldwater fish, 100,000 pounds of warm water fish or feeds more than 5,000 pounds of feed per year. [Fees were eliminated in 2012 but permit and testing is still required, DNR is working on general permit for industry but that has not happened yet]
- Import Permit – required for all non-native (Wisconsin) fish species