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Aquatic Farming License Study  
Report to the Legislature  
Minnesota Session Laws 2002, Chap 376, Sec. 17

January 14, 2003

Minnesota Department of Natural Resources  
Division of Fisheries

## Aquatic Farming License Study January 14, 2003

### Summary

The 2002 Legislature mandated (Minnesota Session Laws 2002, Chap 376, Sec. 17) that the Department of Natural Resources (DNR) report, by January 15, 2003, on the leasing of lakes by private aquaculture licensees and assess seven different topics that were outlined in the bill's language. This document outlines the DNR's findings and incorporates information from various outreach efforts, existing policy, and laws. The DNR sought input by sending out a survey to licensed aquatic farm and private hatchery operators. Eighteen of 182 licensees responded to the survey. The DNR also used draft recommendations from a "Fish In Wetlands Workgroup", which consisted of industry conservation organizations, and agency representatives. This group met from the fall of 1999 through July of 2001. The following are the key points addressed in the report.

\* The DNR licensed a total of 172 aquatic farms and hatcheries to use 1,864 water bodies (42,798 acres) and 40 buildings from March 1, 2002 – February 29, 2003.

\* The current five-year license with annual renewal appears to be adequate for the industry and from an agency perspective. This system ensures the ability for businesses to start or expand if necessary. A change in the license duration might require the industry to shift from public to private waters, which would constitute a major capital investment.

\* The current fee structure does not cover the Department's costs for administering this program or address the amount of water being licensed. A fee structure based on the type of operation and the number of acres being utilized should be explored.

\* Few licensees have chosen to use public waters for rearing brood fish. Because licensees may currently compete for leases with private landowners, it would appear that a formal bidding process is not needed.

\* Notification to individual landowners would be time consuming and logistically difficult. At a minimum, a public notice in the local newspaper before any new water bodies are licensed or transfers of water bodies are approved should be implemented.

\* There are no current aquaculture activities that should require a person to obtain lease agreements from every landowner prior to getting an aquaculture license. A licensee should continue to be required, after licensing, to have complete access control or permission/agreement from all landowners to operate an aeration system and to use piscicides. To help reduce future conflicts, requiring complete access control or permission after licensing for broodstock lakes or waters containing harvestable size fish should be considered.

\* Landowners should be able to access materials that outline their rights, aquaculture practices, guidelines dealing with aeration and the use of piscicides, answers to the most asked questions, and contacts from the industry and DNR that can provide additional information or specifics for a water body as needed.

## Background

Minnesota's shallow lake and wetland resources are utilized by both the private sector and the Department of Natural Resources (DNR) to raise fish. Fish produced by the DNR are used to improve fishing opportunities. The fish are public property and stocked in public waters having angler access. Fish produced by the private sector are considered "private aquatic life" and are typically sold to other states or the general public for stocking, food, pets, or other consumer products.

The raising of fish in Minnesota is done either intensively or extensively. Intensive culture includes the rearing of fish in artificial water bodies, containers, or buildings. This method of culture can require substantial capital investment, staff time to operate, and proper disposal of wastewater. Intensive culture is generally a preferred method when dealing with exotics and non-indigenous fish. The DNR uses intensive (hatcheries) culture practices to rear catfish, trout, and salmon. The private sector also raises trout, sturgeon, and tilapia utilizing intensive culture techniques.

Extensive culture includes rearing fish in natural water bodies, primarily wetlands and small lakes. This method is fairly low cost since "mother nature" is used as the caretaker. The DNR uses extensive culture practices to rear walleye and muskie fingerlings. The private sector uses this method primarily for broodstock and rearing walleye, minnows and suckers.

The addition of fish to wetlands and shallow lakes can be controversial. These basins often have high ecological value for waterfowl and other aquatic wildlife. The ecological relationships are complex and variable depending on the species and density of fish and the individual characteristics of the basin. The DNR is in the process of completing an initial study on the impact of rearing walleye fingerlings in wetlands.

To use a water body for aquaculture purposes, both the DNR and industry must obtain legal access to the water body. The laws governing access are found in Minnesota Statutes (M. S.) section 103A.201. Legal access is usually gained on waters without a public access by entering into a lease agreement with a person who owns land on the shoreline. The person with the best access is usually approached first. The amount of compensation is negotiated with the landowner and a lease is generally signed. There may be competition for access. If the licensee loses legal access, M. S. 17.4984 subd. 2 (b) allows the commissioner of natural resources to approve the transfer of the water body to another licensee.

Once legal access is obtained, a person may apply to the DNR for a license to use the water body for aquaculture. M. S. 17.4984 subdivision 2 provides direction to the DNR for inspection and licensing of a water body for aquatic farm or private hatchery use. Using this criterion and input from other DNR disciplines, the DNR may approve or deny the use of the water body for aquaculture. For water bodies that have never been licensed, the DNR will conduct an inspection of the waters, which may include test netting.

As noted earlier, DNR also uses wetlands and shallow lakes for extensive rearing purposes. Each spring, leased or public accesses are used to stock walleye fry in these water bodies. In the fall, accesses are used for several days to harvest fingerlings for the stocking of lakes and streams statewide. Fish not caught during the fall harvest remain in the water body. These fish may survive through the winter, be lost through winterkill, or taken by angling. Water bodies are most productive when they winterkill, so that there are no fish to prey on fry stocked the following spring.

The private hatchery operators utilize the water bodies in a similar fashion. However, they may also feed or fertilize to increase growth rates. They may also aerate the water bodies in the winter to ensure that their "private aquatic life" is carried over into the next year to be raised to broodstock size, sold as larger fish, or to take advantage of certain markets.

Legislative Item-by-Item Report

**Item 1. "the number of waters of the state that are licensed aquatic farms or private fish hatcheries and subject to one individual"**

M. S. section 17.4983, subdivision 6 (b), states: "waters of the state may not be licensed for aquaculture use to more than one licensee." It should be noted that those individuals licensed to harvest minnows, turtles, crayfish, and mussels are not required to have approved water bodies listed on their license and may harvest on a water body approved for use by an aquatic farm or private fish hatchery licensee if legal access is obtained.

In license year 2002 (March 1 2002-February 29, 2003), the DNR licensed 172 aquatic farm and private hatcheries to use 1,864 water bodies (42,798 acres) and 40 buildings. There are 512 artificial water bodies (524 acres) and 1,352 natural water bodies (42,273 acres) approved for use by the private sector.

Licensed aquaculture water bodies 1996-2002

| Year | Number | Acres  |
|------|--------|--------|
| 1996 | 1,843  | 44,299 |
| 1997 | 1,760  | 39,898 |
| 1998 | 1,855  | 40,627 |
| 1999 | 1,898  | 41,748 |
| 2000 | 1,942  | 42,075 |
| 2001 | 1,977  | 42,815 |
| 2002 | 1,864  | 42,798 |

The number of natural water bodies used by a private aquaculture licensee ranges from 1 to 80. The average number of water bodies per licensee is 16 with an average water body size of 31 acres. Eighteen of the licensees control 67 percent of the 42,798 acres approved for use.

| No. of Water bodies | No. of Licensees |
|---------------------|------------------|
| 01-25               | 65               |
| 26-50               | 11               |
| 51 or more          | 7                |

**Item 2. "what the proper length of time is for an aquatic farm or private fish hatchery license"**

M. S. section 17.4984, subd. 1 (c) states that: "licenses are valid for five years and are transferable upon notification to the commissioner" and M. S. section 97C.211, subd. 1 states that: "A private fish hatchery license is valid for five years but must be renewed annually."

Licensees indicated in the survey that the five-year period gives them adequate time to identify whether or not a water body is suitable for aquaculture purposes. They also noted

that many financial institutions are more willing to approve loans and invest in these operations when they can document at least a five-year obligation. The industry also felt that a license and associated water body lists should be automatically renewed unless the DNR could show cause that, "there was an identified and documented problem that occurred as an outcome of private aquaculture activities." This also was the policy that the industry supported for the annual renewal of water bodies. The DNR's annual monitoring and review of new water bodies and those already approved is based on current statutory guidelines (M. S. 17.4988 subd. 1 and M. S. 97C.211, subd. 1).

A major shift from this license regime could force the industry to shift from public to private waters to ensure a certain amount of water to meet their production needs and establish a stable level of income on which to base their business on for future years. Such a shift would require substantial capital investment for many of the operations since they might need to acquire land to build the necessary water bodies or facilities.

### **Item 3. "fee structure for private aquaculture licenses"**

The current fee structure for private aquaculture licenses is found in M. S. section 97A.475, subd. 29, and M. S. 17.4988. The annual license fee for aquatic farm or private hatchery operations for sales greater than \$200 is \$70 and for sales less than \$200 is \$35. An operation doing less than \$200 in sales is considered to be a "hobby" type grower. The current license fees, however, do not cover the costs for administering this program or address the amount of water being licensed.

A number of different fee structure changes could be considered by the Legislature. Some of the options suggested included fees based on the amount of sales, the amount of water utilized, and the types of activities and operations. The majority of the licensee's felt that the current structure should be maintained. A few responses did, however, indicate that one option to explore was having a base fee and then assessing additional fees based on the number of water bodies or acres licensed above that base.

As identified earlier in the text, eighteen licensees control almost 70% of the licensed waters. Currently, those with only a couple of acres of water licensed and sales over \$200 pay the same \$70 license fee as those with hundreds of acres and sales over \$200. Implementing a fee structure with a base fee and then additional fees based on the amount of waters licensed is a more balanced approach to accommodate different sizes of operations and to compensate the state for the use of those resources. It may also discourage private growers from licensing waters they may not use and provide opportunities for other people to raise fish. A progressive fee-based structure could be formulated based on the number of acres licensed and whether the water bodies licensed were artificial or natural water bodies.

If such a fee structure was adopted by the legislature, the current acre requirement for licensees who wish to receive sucker eggs should also be reviewed. Currently, a licensee must have 1.5 acres of water approved on their license to purchase one quart of sucker eggs from the DNR.

Another consideration that should be made is the fee for initial water body inspections (\$50.) The type of review required to determine the suitability of a water body for private aquaculture purposes includes: assessing fish populations to determine if any fish of significant public value are present, connections to other public waters, considering

aeration, location in flood plain, and the types and kinds of fish to be approved for rearing in that water body. Currently, the fee does not cover the cost of these reviews.

**Item 4. “whether there should be a competitive process for licensing ponds for rearing brood fish”**

Few private aquaculture licensees have chosen to use public waters as broodstock lakes. The DNR currently only knows of two public waters that are utilized for private broodstock. These two, however, did result in legislation due to conflicts with landowners, licensees, and the public gaining access to these water bodies.

To some extent, there is a competitive process currently in place because licensees may compete for leases with private landowners. In recent years, the competition has resulted in higher lease fees being paid by both the DNR and licensees to gain legal access to private waters. At this time, it doesn't appear that there is a need for any additional competitive process due to the low number of broodstock lakes.

Broodstock lakes and those water bodies with harvestable fish create the most controversy when the general public can gain legal access for angling purposes. The licensee has a substantial investment in raising the fish to a larger size and anglers can easily deplete the stock. It is in the licensee's best interest to acquire complete riparian control of these water bodies to eliminate conflicts with other landowners, limit public access, and to protect their “private aquatic life.” The DNR has often recommended this to the licensees. We also have recommended that they avoid applying for waterbodies that have the potential to have public access.

**Item 5. “when landowners around the licensed water should be notified for comment prior to any private aquaculture license being granted”**

Currently, there is no requirement to contact every landowner. Such a requirement would be very time consuming and logistically difficult, because many water bodies that are used for rearing fish have multiple landowners, absentee landowners, or a constant turnover of landowners.

The concept of landowner notification is found in other regulated wetland activities, recommendations of the Division of Fish and Wildlife's 1993 Aquaculture Committee and the 1999 Division guidelines for fish rearing in wetlands. The Fish In Wetlands Workgroup also discussed the concept that all landowners should be notified. This issue has many viewpoints on how it should be accomplished and has associated workload effects. At a minimum, a public notice in the local newspaper before any new water bodies are licensed or transfers of water bodies are approved should be considered while additional discussions take place on the best avenue for initially informing the landowners. However, once the contact has been made the landowner or the realtor when selling the property should ensure that the new landowners are aware that the water body is being utilized for aquaculture purposes and who should be contacted for more information.

It is important for both the State and the industry that this notification not be viewed as giving the landowners authorization to approve or deny water bodies for rearing fish. Instead, any landowner concerns should be considered advisory in nature and taken under consideration during the review period.

**Item 6. “in which cases waters licensed for private aquaculture should require lease agreements by all landowners surrounding the lake before licensing”**

The Department could not identify any aquaculture activities, at this time, which should require a person to get leases from all landowners prior to receiving an aquaculture license. A licensee must, however, have complete access control that could be in the form of ownership, lease agreements, or permission from all landowners to aerate a water body or use piscicides. These requirements can be found in M. S. sections 17.4983, 17.4984, and M. S. 97C.051 and are obtained after licensing but before the activity can take place.

As mentioned in Item 4, broodstock lakes and those water bodies with harvestable fish create the most controversy when the general public can gain legal access for angling purposes. The licensee has a substantial investment in raising the fish to a larger size and anglers can easily deplete the stock. It is in the licensee’s best interest to acquire complete riparian control of these water bodies to eliminate conflicts with other landowners, limit public access, and to protect their “private aquatic life.”

Note: If a landowner doesn’t give approval for aeration under the aquatic farm provision, the licensee may apply for a DNR aeration permit that would allow the licensee to operate a system that did not affect the water around that landowner’s property (M. S. section 17.4984).

**Item 7. “what information landowners should be given before licensing about potential changes in the ecosystem of the lake”**

Changes in a lakes’ ecosystem is a complex issue with conflicting viewpoints and are related to many factors other than just aquaculture practices. This information is best handled on a case-by-case basis with opportunity for dialogue that incorporates the views of all interested parties.

At a minimum, landowners should be able to access materials that outline their rights, aquaculture practices, guidelines dealing with aeration and the use of piscicides, answers to the most asked questions concerning aquaculture practices, and contacts from the industry and DNR that can provide additional information or specifics on a certain water body as needed. General information concerning water quality and habitat issues could also be available. An example might be the DNR’s “Waters Edge” brochure.

Conclusion

Rearing fish in public waters has created user conflicts and many questions about ecological impacts; using public waters; and the landowner’s, public’s, and licensee’s rights on waters licensed for aquaculture activities. In general, the current system appears to be adequate and should be maintained. That is not to say that minor adjustments should not be considered to reduce user conflicts and provide better direction to the industry, DNR, and landowners.