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Joint Committee for Review of
Administrative Rules

Joint Committee on Audit

Joint Committee on Information
Policy and Technology

Senate Committee on Workforce Development, Forestry, Mining, and Revenue

May 29, 2013

9:00 am – 400 SE State Capitol

Testimony on SB 134 by Senator Cowles

I want to speak briefly on Senate Bill 134 relating to a state sea lamprey control program. In the 1930's the parasitic sea lamprey invaded the upper Great Lakes from the Atlantic Ocean and began to prey upon lake trout which were already decreasing in number due to over harvesting. Sea lampreys have no natural predators in the Great Lakes, so their population size increased at an epidemic rate. The increasing numbers of sea lamprey fed heavily on the lake trout and destroyed the surviving populations in Lake Michigan.

The disappearance of the lake trout in Lake Michigan was very dramatic. In 1944, the annual commercial catch of lake trout in Lake Michigan was over 6,000,000 pounds. By 1954, the total annual commercial catch had dropped to a mere 34 pounds and lake trout the population was basically extinct in Lake Michigan by 1956.

The loss of lake trout helped initiate the Great Lakes rehabilitation program. The first phase of this program consisted of attempting to control the sea lamprey, which met with little success until the chemical TFM was found to selectively kill sea lamprey larvae in streams without harming other aquatic life. The continued chemical control of sea lamprey is still needed today to manage populations but is funded by federal monies that have been decreasing recently.

According to the U.S. Fish and Wildlife Service, adult lamprey populations have increased again in 2012. Recent data from the Great Lakes Fishery's Commission indicates that wounding rates (host trout with current or healed wounds) for lake trout in Lake Michigan is greater than the target number and increasing. In addition, the abundance of larger trout appears to be declining. Analysis of wounding rate data in Michigan waters shows that mortality associated with sea lamprey attacks exceeds the mortality caused by the fishery. According to the Fishery's Commission, increased sea lamprey induced mortality in the northern portion of Lake Michigan has set lake trout

restoration efforts back by at least a decade.

With Federal budgets tightening, it is imperative that Wisconsin begin to fill a gap that decreased federal funds have left. Senate Bill 134 creates an opportunity for the state to supplement the federal funding on sea lamprey control. This bill does not suggest replacing the federal program or conducting work that would be in conflict with the federal program. Quite to the contrary, state funding will be utilized to provide follow-up chemical treatments on Wisconsin tributaries. It is well known that treating a stream in two consecutive years will increase the overall larvae kill in the stream.

In addition, the bill provides the state match for federal monies to improve a lamprey barrier on the Kewaunee River and construct a lamprey barrier on the Nemadji River in Lake Superior. Both barrier projects would bring a 65 percent cost share from the federal government and both projects have been recommended by the Great Lakes Fishery's Commission as supplemental activities that Wisconsin could undertake to increase the control of sea lamprey in the state (see attachment 1, Great Lakes Fisheries Commission Recommendations for the Application of Additional Funds for Sea Lamprey Control in Wisconsin Waters, January 14, 2013).

Senate Bill 134 would also provide funding for increased survey work on additional streams and tributaries to identify new areas of infestation at an earlier rate. This early detection will provide an opportunity for more rapid response before sea lamprey reach the adult phase and begin predation on lake trout.

While the funding for this initiative would be supported by the Great Lakes Trout and Salmon Stamp which has caused some concern, decreasing the amount of predator lamprey in the Great Lakes will ultimately increase the lake trout populations. It is the adult lake trout population which supports the states world class commercial and recreational fishery and supplements the state's tourism economy. Overall, water-related outdoor recreational activities in the entire Great Lakes Basin are valued at \$15 billion annually, of which sport fishing activities contribute \$4 billion.

Thank you for consideration of this bill and I will take any questions you may have at this time.

Attachment 1 to Testimony for Senate Bill 134

Great Lakes Fishery's Commission Recommendations for the Application of Additional Funds for Sea Lamprey Control in Wisconsin Waters January 14, 2013

Overview

The Great Lakes Fishery Commission (commission) implements a program to control the invasive sea lamprey throughout the Great Lakes basin. Nevertheless, the commission is funding-limited to apply all needed sea lamprey control actions and therefore must rank actions according to need. If additional funds for sea lamprey control were supplied by the State of Wisconsin, unfunded sea lamprey control actions identified within the state boundaries could be implemented to further enhance sea lamprey control and the rehabilitation of Great Lakes fish populations. This document outlines sea lamprey control actions and estimated costs outside of the commission's base control program that could be implemented if additional funds from the State of Wisconsin are allocated for sea lamprey control.

Sea Lamprey Barriers and Traps

The State of Wisconsin could build on existing commission-funded sea lamprey control effort by funding construction of sea lamprey barriers and traps on streams within Wisconsin waters. Possible projects include the Kewaunee River (Lake Michigan tributary), and the Nemadji and Bad rivers (Lake Superior tributaries; locations of tributaries shown in Figure 1). All sea lamprey barrier and trap projects could be cost-share projects with the U.S Army Corps of Engineers under the Great Lakes Fishery and Ecosystem Restoration program, which requires a 35% cost share from the non-federal project sponsor (Wisconsin Department of Natural Resources in this case).

Kewaunee River

The Buzz Besadny Anadromous Fish Facility and low head dam on the Kewaunee River was constructed in 1990 and consists of a low head barrier with a bypass channel to supply water to the facility and attract spawning fish for egg collection. Prior to 1990, there was an old dam located at the site. Sea lamprey larvae were first discovered in the Kewaunee River in 1967 and upstream of the original dam in 1972. Since construction of the low head dam in 1990, spawning has occurred upstream in all but a few years. Nevertheless, larval densities have historically been low and the river has only been treated 2 times, once in 1975 and then again in 2007. In 2007, only Casco Creek was treated.

The barrier has a 4x1-foot notch located two feet from the west bank designed to assist downstream passage of smolts during low water periods. This notch is a likely route for upstream escapement of sea lampreys during the spring migration. The notch can be sealed with a stop log, but is open during most of the spring because the stop logs are difficult to install during high water.

Additional funding for sea lamprey control, if provided by the State of Wisconsin, could be used at this site to eliminate sea lamprey escapement upstream of the dam (and subsequent escapement of parasitic offspring to Lake Michigan where they would feed on fish) and to capture sea lampreys at the site before they can

reproduce and to help generate sea lamprey population estimates for Lake Michigan. Refurbishing this barrier is a permanent solution to an ongoing problem for sea lamprey control and a more attractive and cost-feasible option than conducting expensive lampricide treatments (at least \$15,000 per treatment) every 4 years.

Suggested barrier modifications include:

- 1) Install a gate for downstream smolt passage (estimated cost **\$50,000**).
- 2) Construction of a permanent sea lamprey trap to remove lampreys from the stream (estimated cost **\$50,000**).
- 3) Complete hydraulic and hydrologic study to determine frequency of water inundation and feasibility of raising barrier crest height (estimated cost **\$20,000**).

Total Project Estimate: **\$120,000**

Nemadji River

The Nemadji River is located near Superior, WI and is treated with lampricide to control sea lampreys about every 4 years at a cost of \$180,000 per treatment. This system is difficult to treat with lampricides because of challenging flow conditions and physical characteristics that restrict access by treatment crews causing less than ideal treatment effectiveness. Sea lampreys surviving lampricide treatments (residuals) contribute to the parasitic population that feeds on fish in Lake Superior.

Additional funding for sea lamprey control, if provided by the State of Wisconsin, could be used at this site to build a barrier that would reduce treatment cost and the number of residual sea lampreys escaping to Lake Superior and damaging fish. The estimated reduction in treatment costs would be about \$70,000 every four years (some lampricide treatment would still need to be applied below the barrier). Potential barrier locations would be between Hwy 35 and the MN/WI border; State Hwy 35 is downstream of most of the sea lamprey infestation, but Dedham Road also looks like a suitable barrier location regarding topography. Projects similar to this have cost about **\$750,000**. There is a risk that after spending considerable time and some money, the project could be deemed unfeasible for a variety of reasons (e.g., endangered species, real estate, local objections, hydrology).

Total Project Estimate: **\$750,000**

Bad River

The Bad River is located near Ashland, WI and is routinely treated with lampricide to control sea lampreys about every 2.5 years at a cost of \$250,000. This system is also difficult to treat because of flow and access conditions, with surviving residual sea lampreys contributing to the parasitic population in Lake Superior and damaging fish.

The Bad River Band of Chippewa Indians has been reluctant to allow lampricide application on their land and would like to see increased use of alternative controls. A barrier has been proposed for the site, although an effort in the early 2000s was discontinued because of objections to its location. The current tribal council may be more conducive to a barrier if sited properly, but challenges may still be encountered. Nevertheless, the

U.S. Army Corps of Engineers has initiated a new review, several potential sites are being considered, and a preliminary restoration plan has been developed.

Additional funding for sea lamprey control, if provided by the State of Wisconsin, could be used to build a barrier on the Bad River system and reduce treatment cost and residual lampreys in the river. The estimated reduction in treatment cost would be about \$140,000 every 2.5 years (some lampricide treatment would still need to be applied below the barrier). Potential barrier locations would be near the Elmhoist Bridge crossing on the mainstream, at a railroad crossing upstream from Elmhoist Bridge near the Potato River junction, or on the Marengo River just upstream of the junction with the mainstream. Similar projects have cost approximately **\$1,500,000** for a barrier on a tributary and **\$4,000,000** on the mainstream.

Total Project Estimate: between **\$1,500,000** and **4,000,000** depending on location.

Lampricide Treatments and Surveys

The State of Wisconsin could build on existing commission-funded sea lamprey control effort by funding a second consecutive lampricide treatment of sea lamprey-producing streams within Wisconsin waters (Figure 2). Consecutive lampricide treatments are intended to remove sea lampreys that survive the first treatment. These “residual” larval sea lampreys are believed to be the major contributor to the parasitic populations in the Great Lakes. Annual cost estimates for consecutive treatments are provided in the Table 1. Available funds beyond those required for consecutive treatments could be put towards a single treatment of tributaries that are marginal sea lamprey producers. These streams, such as Hibbards and Three Mile creeks, are treated less frequently within the commission-funded program because low infestations result in a comparatively less valuable treatment when considering cost per kill across the entire Great Lakes basin. Lampricide treatment costs for all currently infested streams in Wisconsin waters are listed in Table 1 and are based on 2013 dollars and lampricide needs. Lampricide treatments could be selected a la carte based on need and available funding.

All infested streams in Wisconsin waters have been treated at least once since 2007 with the exception of Whitefish Bay Creek and the Sioux River. The Cranberry River will be treated for the first time during 2013, after re-infestation was first discovered during 2010.

Additional funds, if provided by the State of Wisconsin, could also be put towards searching for new sea lamprey-producing streams or lentic areas (inland lakes or areas near the mouths of tributaries) that have historically been uninfested and are therefore surveyed less frequently. Historically positive streams that are not included in the attached spreadsheet have been surveyed for sea lampreys within the past five years but none have been found (includes Little and Ahnapee rivers, and Pensaukee, Ephraim, and Bear creeks). The Fox River was recently surveyed for sea lamprey larvae but none were found. Since 2007, five Lake Superior and 17 Lake Michigan tributaries have been investigated for sea lamprey production and only one, the Sioux River in Lake Superior, was positive. That small population continues to be monitored.

Increased effort to investigate Wisconsin tributaries for sea lamprey production that have not been recently surveyed would be a one-time cost of **\$60,000**. This would allow for stream or lentic surveys in 40 Lake Superior tributaries and 80 Lake Michigan tributaries.

Total Project Estimate for Lampricide Treatments (see Table 1 for detail): **\$1,525,742**

Total Project Estimate for Larval Sea Lamprey Surveys: **\$60,000**

SUMMARY

Sea Lamprey Barriers and Traps

Kewaunee River (Lake Michigan)	\$120,000
Nemadji River (Lake Superior)	\$750,000
Bad River (Lake Superior)	up to \$4,000,000

Lampricide Treatments and Surveys

Lampricide Treatments	up to \$1,525,742
Larval Sea Lamprey Surveys	\$60,000

TOTAL

up to \$6,455,742

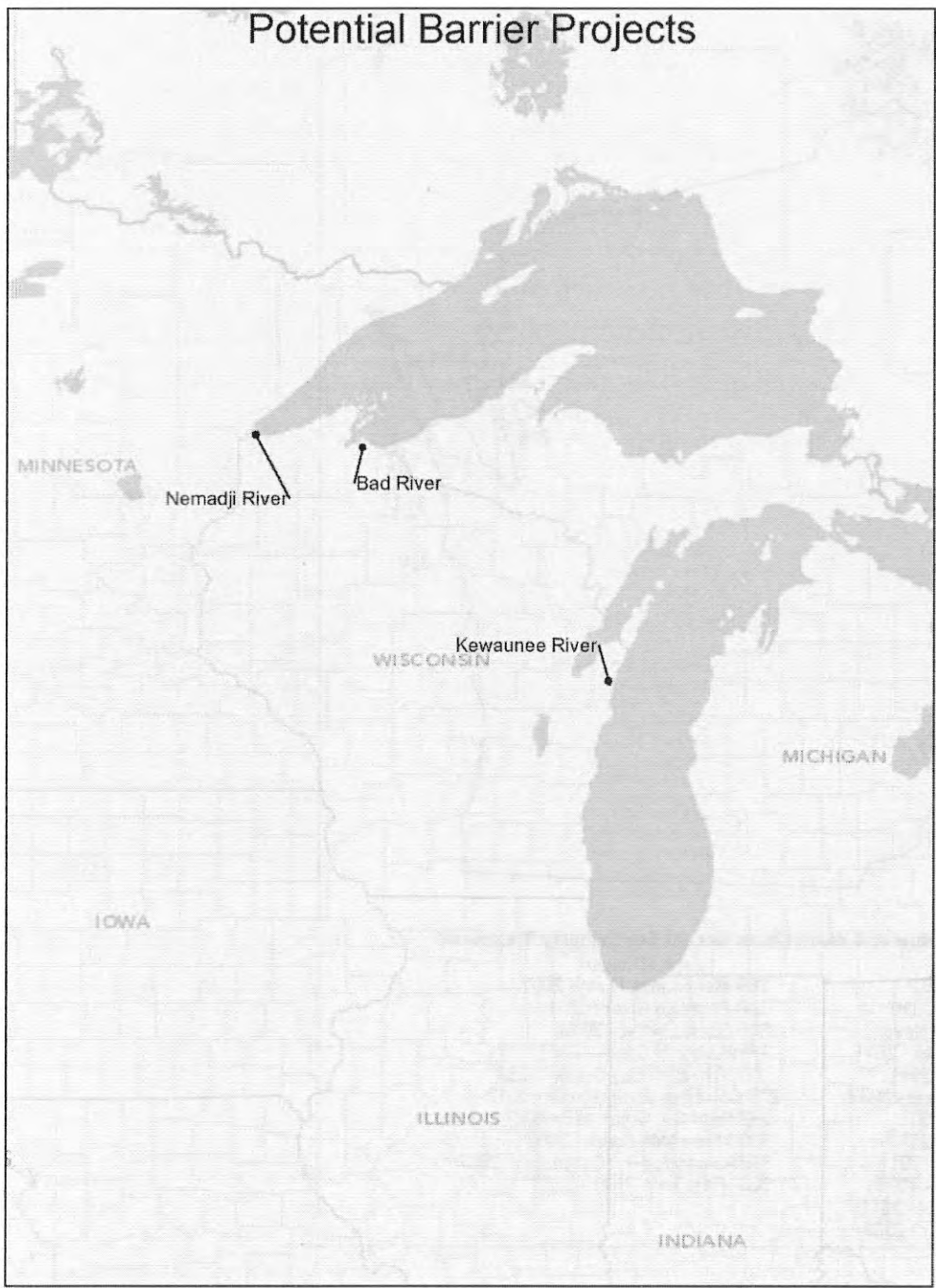


Figure 1. Location of proposed sea lamprey barrier and trap projects in Wisconsin.

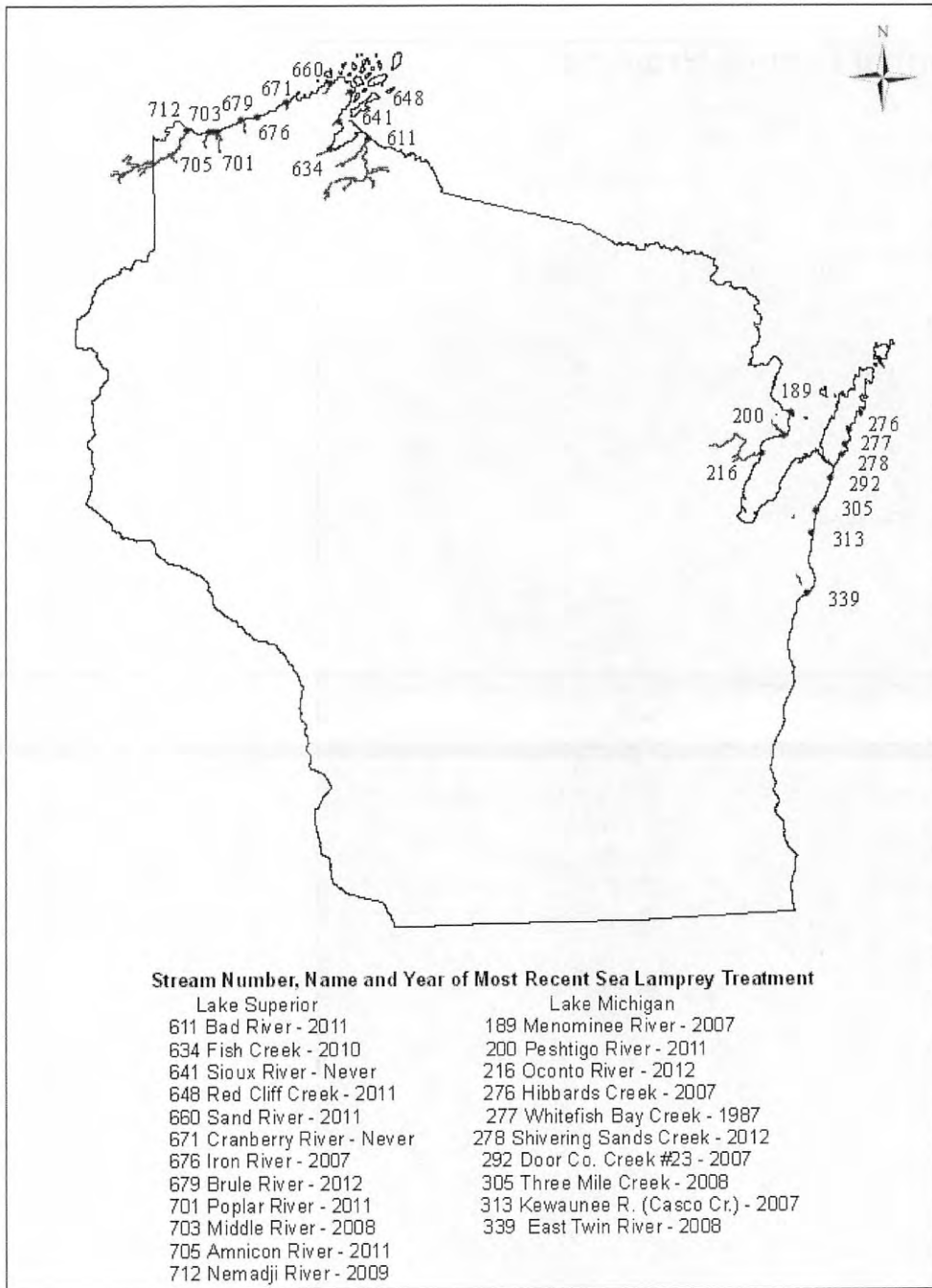


Figure 2. State of Wisconsin Sea Lamprey-Infested Tributaries.

Table 1. The following table describes cost and kill for all streams listed below, including intermittent producers.

Year of Funding	Cost for State Funded Treatments	Cost for Associated Assessment	Total Cost	Staff Days for State Funded Treatments	Estimated Number of Larvae Killed
2013	\$96,500	\$9,200	\$105,040	70	15,161
2014	\$498,500	\$10,000	\$508,500	398	46,180
2015	\$491,696	\$9,640	\$501,336	274	88,326
2016	\$405,465	\$4,600	\$410,065	268	25,023

Consistent producers - first treatment paid for by GLFC, second treatment paid for by State of WI.

Lake	Stream Number	Tributary	Year of last treatment	Expected Year of Next Treatment	Year of State funded treatment	Treatment Cost	Staff Days	Estimated Larvae Killed by Second Treatment
Superior	611	Bad River*	2011	2014	2015	\$263,315	165	79,981
Superior	634	Fish Creek	2010	2014	2015	\$53,559	38.5	5,352
Superior	649	Red Cliff Creek*	2011	2015	2016	\$34,386	33	924
Superior	660	Sand River	2011	2015	2016	\$50,542	45.5	3,709
Superior	671	Cranberry River	Never	2013	2014	\$52,308	48	279
Superior	676	Iron River	2007	2013	2014	\$24,863	12	755
Superior	679	Brule River (Down from barrier)	2012	2015	2016	\$65,482	34	15,205
Superior	701	Poplar River	2011	2015	2016	\$45,042	42	2,327
Superior	703	Middle River	2008	2013	2014	\$20,486	13	2,029
Superior	705	Amnicon River	2012	2013	2013	\$42,634	34	14,701
Superior	712	Nemadji River	2009	2013	2014	\$235,614	190	42,668
Michigan	200	Peshigo River	2011	2014	2015	\$150,960	59	2,683
Michigan	216	Oconto River	2012	2015	2016	\$210,014	113	2,858

*Portions of streams on tribal lands.

Inconsistent Producers - single treatment paid for by State

Lake	Stream Number	Tributary	Year of last treatment	Year of State funded treatment	Treatment Cost	Staff Days	Estimated Larvae Killed
Superior	641	Sioux River	Never	2014	\$27,318	24	173
Michigan	189	Menominee River	2007	2015	\$11,848	1	279
Michigan	276	Hibbards Creek	2007	2013			
					\$44,578	35.9	398
Michigan	277	Whitefish Bay Creek	1987	2014	\$32,858	25.6	26
Michigan	278	Shivering Sands Creek	2012	2015	\$12,013	10	31
Michigan	292	Door County #23	2007	2014	\$18,259	17	4
Michigan	305	Three Mile Creek	2008	2014	\$21,714	20	48
Michigan	313	Kewaunee River (Casco Cr.)	2007	2013	\$9,349	8	62
Michigan	339	East Twin River	2008	2014	\$65,080	48	199

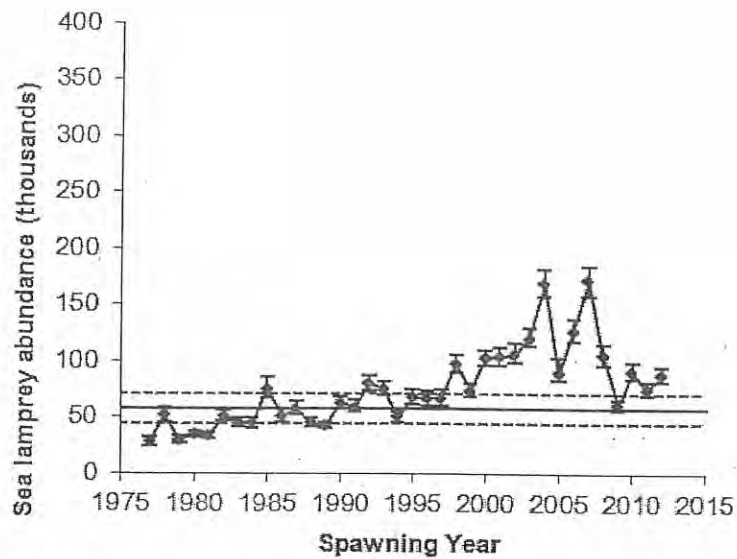


Figure 5. Annual lake-wide population estimates of adult sea lampreys in Lake Michigan, 1980-2012 with 95% confidence intervals (vertical error bars). Target level is indicated by the solid horizontal line with 95% confidence intervals (dashed horizontal lines).

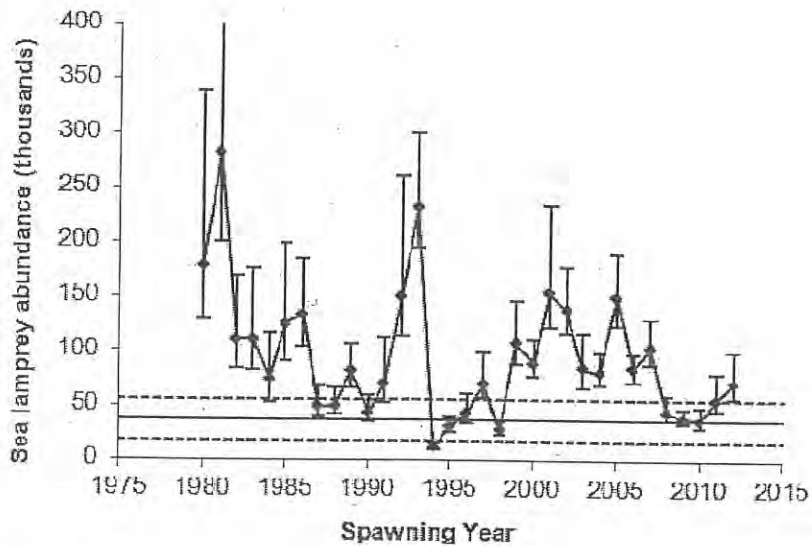


Figure 5. Annual lake-wide population estimates of adult sea lampreys in Lake Superior, 1980 – 2012 with 95% confidence intervals (vertical error bars). Target level is indicated by the solid horizontal line with 95% confidence intervals (dashed horizontal lines).

May 26, 2013

Senator Cowles

RE: Improved Sea Lamprey Control

I offer this letter in support of your legislative initiative to bolster Wisconsin's efforts at controlling Sea Lamprey populations in Lake Michigan and Superior. The Sea Lamprey is one of the earliest aquatic invasive species in the Great Lakes, with significant economic impact on our commercial fishing industry, and adverse impact on the fish population dynamics in the Great Lakes. Given the importance of Sea Lamprey control, and the value of using state funds to leverage federal funds for this purpose, I suggest the legislation also consider new sources of state funds, from fishing license fees, or other sources. Please let me know how I can provide further support to your effort.



Paul Schumacher
Chair, Wisconsin Invasive Species Council

CC: Senator Frank Lasee
Rep. Garey Bies
Charles Henriksen - WCFA
Dennis Hickey – GLFC Advisor
Robert Wakeman – WI Aquatic Invasive Species Coordinator

2013 SENATE BILL 134
Sea Lamprey Control in the Great Lakes

Wisconsin Department of Natural Resources Comments
May 29, 2013

Wisconsin's Great Lakes Trout and Salmon program would not succeed without a sustained program of sea lamprey control. Under terms of the bi-national Convention on Great Lakes Fisheries, the control of sea lamprey is the responsibility of the Great Lakes Fishery Commission, which spends approximately \$22,000,000 annually in this work. The sea lamprey control program has been successful in reducing sea lamprey abundance to levels that allow salmon and trout to thrive. But there are still lamprey preying on salmon and trout.

Senate Bill 134 would authorize the expenditure of up to \$564,500 of Salmon Stamp revenues to supplement the Great Lakes Fishery Commission's sea lamprey control program. This funding, specified in SB 134, was identified by Great Lakes Fishery Commission staff as helping to address gaps in the current sea lamprey control program.

The Salmon Stamp was created 30 years ago to provide a reliable source of funding to sustain Wisconsin's Great Lakes trout and salmon program. Revenues from the sale of Salmon Stamps are combined with a portion of revenues from the sale of two-day Great Lakes licenses and Patron Licenses to form the Salmon Stamp account. Currently, revenues to the Salmon Stamp account must be spent to "supplement and enhance the existing trout and salmon rearing and stocking program for outlying waters".

In Fiscal Year 2012, \$1,719,930 was spent from the Salmon Stamp account. This was matched with \$1,468,171 from other Segregated Fund sources to cover the \$3,188,101 total cost of Wisconsin's Great Lakes trout and salmon program. This program has been a great success. Anglers devote approximately 3,000,000 hours to the pursuit of salmon and trout in Wisconsin waters of the Great Lakes, spending in excess of \$200,000,000 annually, and harvesting several hundred thousand chinook salmon, coho salmon, steelhead, brown trout, and lake trout each year.



Wisconsin Commercial Fisheries Association

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920-421-1640

To; Senate Committee on Workforce Development, Forestry, Mining and Revenue 5/29/13

Re; SB 134 Sea Lamprey Control

We are greatly encouraged by this initiative to ramp up lamprey control in Wisconsin.

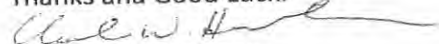
It has been painfully obvious to those of us who live on and around the water that lamprey have made a comeback. Since the change in management strategies by the states through the Great Lakes Fisheries Commission there has been an obvious and persistent increase in our observation of lamprey and lamprey wounding over the last several years.

Whitefish are less favored by lamprey and managed to survive when Lake Trout became extinct in Lake Michigan but we are regularly seeing lamprey predation on them. Also our chub stocks which are growth stunted and stressed by the invasive mussels are also at risk from lamprey. As beleaguered as the commercial fishery is and with all that we lost in the original lamprey outbreak we implore you to move this legislation forward.

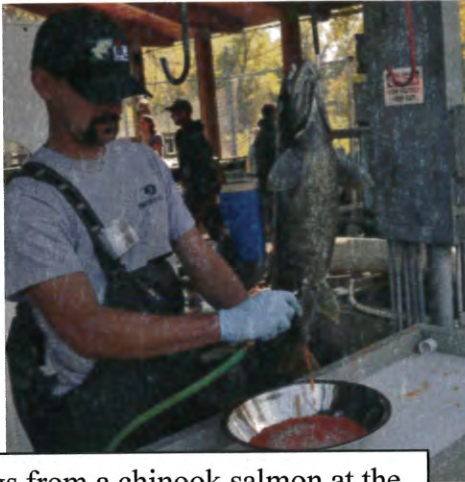
One concern that I would be remiss to not mention is that as we ensure increased survival of predators we need to be mindful of the carrying capacity of the lakes, particularly Lake Michigan. The forage base has finite limits. While non-native Salmon and re-introduced trout are reproducing we have seen our natural whitefish also eating forage fish (alewife and gobies) because of the mussels impact on their food of choice. While we have great faith in Mother Nature to provide some balance we do not want to collapse our valuable ecosystem by overplanting. Our advice would be to reduce fish planting even further and proceed with caution.

The idea that we should not use money that is being saved for a possible hatchery that is not even identified yet so we can plant more fish rather than using a small portion of it to save fish we have already planted does not make sense. I was a longtime member of the Governor's Council on Invasive Species and believe that the one invader we have under control should not be forgotten. Wisconsin should be a proactive leader on this issue.

Thanks and Good Luck.


Charles W Henriksen

Great Lakes Trout and Salmon Stamp Revenue and Expenditures Report Fiscal Years 2007-2012



Eggs from a chinook salmon at the Root River Spawning Facility



Eggs being fertilized at the Besadny Anadromous Fisheries Facility



Brown trout collected for artificial spawning



Administrative Report 72
Wisconsin Department of Natural Resources



Bureau of Fisheries Management & Habitat Protection
Madison, Wisconsin
December 2012

Our Mission:

To protect and enhance our natural resources:
our air, land and water;
our wildlife, fish and forests
and the ecosystems that surround them.

To provide a clean, sustainable environment
and a full range of outdoor opportunities.

To insure the right of all Wisconsin citizens
to use and enjoy these resources
in their work and leisure.

To work with people
so that we understand their views
and can carry out their will.

And in this partnership with our citizens,
consider the future
and those who will follow us.



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Program Background

Creation of the Trout and Salmon Stamp Program

In the early 1980s, the loss of federal funding for non-native trout and salmon stocking prompted the creation of Wisconsin's Great Lakes Trout and Salmon Stamp Program. The Wisconsin Department of Natural Resources (DNR) faced the prospect of large reductions in the Great Lakes stocking program, including the elimination of coho salmon stocking. Concerned Great Lakes anglers initiated and promoted the legislation that created the Great Lakes Trout and Salmon Stamp (commonly referred to as the Salmon Stamp). Since 1982, every angler fishing for salmon or trout in the Wisconsin waters of the Great Lakes has been required to purchase a Salmon Stamp in addition to a fishing license. Revenues from the sale of Salmon Stamps help support the DNR trout and salmon rearing and stocking program for the Great Lakes.

Guidelines for the use of Great Lakes Salmon & Trout Stamp revenues

Wisconsin statutes stipulate, "The Department shall expend the receipts from the sale of Great Lakes Trout and Salmon Stamps to supplement and enhance the existing trout and salmon rearing and stocking program for outlying waters and to administer this section." The expenditures are (1) species limited to salmon and trout only, (2) geographically limited to the Wisconsin waters of Lakes Michigan and Superior and their tributaries, and (3) program limited to the rearing and stocking program. Projects funded by stamp monies must meet these three requirements or be related to the administration of these monies.

Species requirement

Great Lakes Trout and Salmon Stamp revenues may only be used for projects that pertain to salmonine species. These species include Pacific salmon (coho, chinook), trout (rainbow [steelhead], brown) and chars (brook trout, splake and lake trout). Stamp money may not be used for projects specifically directed toward warm or cool water fishes such as percids, esocids, and centrarchids.

Geographical requirement

Projects that use stamp revenues must be geographically focused on the Great Lakes watershed. Specifically, the geographical scope of these projects may include tributaries accessible to Great Lakes salmon and trout, as well as Lakes Michigan and Superior themselves. Projects that pertain to trout waters other than the Great Lakes (e.g., Great Lakes tributaries inaccessible to Great Lakes salmon and trout, inland trout streams and lakes) may not use Salmon Stamp money.

Program requirement

Projects funded with Salmon Stamp money must also relate specifically to the Great Lakes stocking program. Activities within the stocking program may be categorized as evaluation and research or propagation activities (including facility developments). Examples of evaluation and research activities include lake-wide creel surveys, species and strain evaluations (tagging and marking studies), development of management plans (annual stocking plans, species plans, long-term plans) and annual propagation planning. Propagation activities include hatchery operation costs (electricity, labor, fish food, waders, etc.), acquisition of fertilized eggs, egg incubation, fish rearing and transportation of fish to stocking sites. Propagation activities also include the purchase, maintenance, and repair of the physical facilities that support the stocking program. Those facilities include raceways, rearing ponds, hatchery grounds,

generators, pumps, water supply systems, vehicles, aerators, automatic fish feeders, land, engineering plans, and incubators.

Sources of revenue for the Salmon Stamp Account

The Salmon Stamp account pays for about half of the total Great Lakes trout and salmon program. As summarized in Table 3, fishing license fees and other sources also support the program.

All receipts from the sale of Salmon Stamps are placed in the DNR Fish & Wildlife Segregated Account and reserved for eligible Salmon Stamp activities. These funds are referred to as the Salmon Stamp account. Interest earned on these funds accrue to the Fish & Wildlife Segregated Account. Some revenues from the sales of patron licenses, two-day sport fishing licenses and collector stamps also contribute to the account. The price of each license to the consumer includes the base price of the license plus a fee that goes to the vendor. The vendor's fee is \$0.75 for the two-day license and the patron card; it is \$0.25 for the Salmon Stamp. Revenue and expenditure figures in this report exclude the vendors' fees.

Funding for the Salmon Stamp account has changed over time. It was established in 1982 with a price of \$3.00. In 1984, the Wisconsin State Legislature approved a \$6.00 one-day fishing license for the Great Lakes. This inexpensive license allowed anglers to spend one day fishing for trout and salmon on the Great Lakes without being required to buy an annual Great Lakes Trout and Salmon Stamp. To prevent a sharp reduction in funding for the salmon and trout program, one-half of the revenues from the license supported Great Lakes salmon and trout projects.

In 1988, the Legislature changed the one-day license by allowing inland fishing. Revenues from the new one-day license were split among Great Lakes salmon projects, inland trout habitat projects, and general fisheries work. In 1992, the Legislature replaced the one-day license with a \$7.25 two-day license, valid for the Great Lakes only, and in 1997, the two-day license fee was increased to \$9.25. One-half of those revenues are placed in the Salmon Stamp account. Also in 1992, the Salmon Stamp fee was increased from \$3.00 to \$7.00. In 2004 the Salmon Stamp fee was increased to \$10.00 and the two-day license fee was increased to \$14.00.

Until recently the Salmon Stamp account also received \$1.83 from every Patron License sold. In recent years the allocation from each Patron License has exceeded \$3.00, totaling \$198,933 in fiscal year 2006, \$186,506 in fiscal year 2007, \$183,925 in fiscal year 2008, \$171,443 in fiscal year 2009, \$158,851 in fiscal year 2010 (with an additional \$7,985 allocated retroactively for fiscal years 2006-2009), \$152,914 in fiscal year 2011, and \$149,544 in fiscal year 2012. Patron license revenue not deposited to dedicated stamp accounts is deposited to the larger fish and wildlife account and spent for a wide variety of conservation purposes—including enhancement of salmon rearing and stocking programs. Collectors can purchase souvenir Salmon Stamps from previous years. All revenues from these sales contribute to the Salmon Stamp account.

Summary Tables

Table 1. Salmon Stamp account revenues and expenditures in fiscal years 2007-2012. Expenditures for individual projects include supplies and limited-term employee (LTE) wages. Combined expenditures for LTE overhead costs and fringe benefits are shown in a separate line. Individual projects are described briefly in the body of this report. Permanent staff positions made possible by Salmon Stamp include two fisheries technicians on Lake Michigan, a fisheries biologist and a fisheries technician on Lake Superior, and a fisheries technician at the Kettle Moraine Springs State Fish Hatchery. Note that \$2,246,555 allocated for Wild Rose Hatchery development in 2005 and 2008 was refunded to the Department by the Department of Administration in 2010.

	2007	2008	2009	2010	2011	2012
Beginning Cash Balance	1,892,612	2,205,083	408,106	750,718	3,142,558	3,068,697
Revenues	1,819,807	1,846,803	1,795,005	1,785,900	1,685,224	1,835,864
Stamp sales	1,294,674	1,309,600	1,288,649	1,307,505	1,243,274	1,393,021
Two-day license sales	337,629	352,161	331,197	310,644	288,489	293,288
Patron license sales	186,506	183,925	171,443	166,846	152,914	149,544
Collector fee	997	1,080	1,670	880	547	10
Refunds and corrections	0	37	2,046	35	0	0
Refund of money allocated for Wild Rose	0	0	0	2,246,555	0	0
Total Available Funds	3,712,419	4,051,886	2,203,147	4,783,221	4,827,782	4,904,561
Expenditures	1,507,336	3,643,780	1,452,393	1,640,615	1,759,085	1,719,930
<u>Lake Michigan Projects</u>						
Seeforellen brown trout (FHCB)	1,505	3,268	1,457	2,506	3,184	8,156
Feral broodstock mgmt. (FHCC)	1,084	2,488	0	0	1,249	2,574
Lake Michigan creel survey (FHCR)	121,577	121,710	110,592	128,670	115,178	110,953
Creel survey data analysis (FHIC)	13,268	12,824	10,525	11,654	11,955	14,027
Habitat on Oconto River (FHCD)	36	0	1,772	0	0	0
Broodstock eval. (FHHZ, FHSE, FHIZ)	20,563	21,876	12,621	14,761	26,100	24,292
Steelhead fin clipping (FHKV)	17,120	21,524	18,176	16,322	20,799	21,894
Nearshore rainbow (FHNL)	1,797	2,340	169	1,628	0	705
Lake trout restoration (FHCA)	13,543	24,500	16,572	16,780	13,940	17,713
G.L. Assessment Boat (FHNS)	0	0	0	0	179,829	21,653
<u>Lake Superior Projects</u>						
Sea lamprey barriers (FHCI)	21,544	21,906	19,730	20,063	22,229	17,763
Lake Superior creel survey (FHFE)	34,672	34,681	0	22,949	24,764	37,566
Coaster brook trout mgmt. (FHIB)	5,644	5,584	0	5,628	5,809	4,044
Tributary management plan (FHSC)	1,869	2,706	2,654	2,166	2,027	2,054
Lake trout restoration (FHCA)	57,023	38,971	40,178	33,884	33,743	40,547
<u>Propagation</u>						
Basic hatchery services (FHBS)	57,284	73,090	60,136	85,545	103,738	70,219
Salmon and trout prod. (FHBW)	540,055	621,405	640,184	705,752	638,408	732,359
Salmon and trout distr. (FHBZ)	2,647	16,270	7,427	8,448	9,976	9,782
Weir operations (FHCX)	132,494	127,604	112,142	117,552	113,275	99,923
Hatchery maint. (FHIJ, HDYH, HDYR)	53,747	0	0	53,870	1530	55,974
Off station propagation (FHJG)	3,117	2,716	4,089	2,884	4,603	2,783
Operate annex at KMSSFH (FHME)	30,871	11,369	30,204	14,932	20,113	20,984
Wild Rose SFH development	0	2,100,000	0	0	0	0
<u>Other</u>						
Salmon stamp adm. costs (FHNB)	1,982	1,955	2,061	1,808	0	0
Permanent salaries and fringe benefits	258,064	275,141	276,223	223,740	221,078	215,550
Overhead and LTE fringe benefits	115,832	99,853	85,479	149,076	185,557	188,418
Closing Cash Balance	2,205,083	408,106	750,718	3,142,558	3,068,697	3,184,631

Table 2. License-year sales of cards, licenses, and stamps supporting the Great Lakes Trout and Salmon Stamp account from the inception of the program.

	Patron Cards	Two-day licenses	One-day licenses	Great Lakes Trout and Salmon Stamps
1982			27,586	245,890
1983			34,783	279,552
1984	217		35,282	239,971
1985	265		34,312	237,571
1986	286		46,569	226,243
1987	366		45,023	224,283
1988	449		83,615	208,811
1989	567		88,431	175,314
1990	713		84,526	151,769
1991	1,024		83,566	139,715
1992	2,847	45,884		113,442
1993	12,243	43,769		109,566
1994	24,566	43,514		111,208
1995	34,927	40,644		109,569
1996	43,915	40,570		109,866
1997	50,036	41,827		111,227
1998	54,011	41,223		113,809
1999	67,221	40,601		111,741
2000	77,443	38,052		114,926
2001	81,340	51,943		116,453
2002	81,934	44,248		123,994
2003	81,112	44,351		122,653
2004	74,822	41,016		126,894
2005	70,410	44,995		129,744
2006	60,778	49,204		129,240
2007	57,516	53,420		136,978
2008	56,096	48,670		130,766
2009	51,757	48,953		133,281
2010	47,762	43,967		131,841
2011	45,873	39,780		126,804

Table 3. Total expenditures from all sources for work described in this report. The first row is taken directly from Table 1. The Segregated Fund receives money from the sale of a variety of fish and wildlife licenses and stamps. The second row shows expenditures from the Segregated Fund, excluding Salmon Stamp expenditures reported in Table 1. General Purpose Revenues are from income and other taxes. Great Lakes Surcharges are a portion of fines levied for certain violations related to Great Lakes fish.

	2007	2008	2009	2010	2011	2012
Salmon Stamp	1,507,336	3,643,780	1,452,393	1,640,615	1,759,085	1,719,930
Other Segregated Fund Revenues	1,575,397	1,572,321	1,625,729	1,619,817	1,595,153	1,468,171
General Purpose Revenues	0	0	0	2,026	0	0
Great Lakes Surcharges	0	0	44,801	0	0	0
TOTAL	3,084,740	5,218,109	3,124,932	3,264,468	3,354,238	3,188,101

Lake Michigan Evaluation and Research Activities

Assessment of Seeforellen brown trout (FHCB)

Contact: Tammie Paoli, Fisheries Biologist, Peshtigo

This project has five components: 1) annual clipping of 31,000 Seeforellen yearling brown trout that will get stocked through the ice in Feb/March each year; 2) annual electroshocking surveys in the lower Menominee River to evaluate fall runs of salmonids; 3) collecting and analyzing biological data from the M&M Great Lakes Sportfishing Club's annual fishing derby, 4) assisting in salmonid stocking, such as recording water temperatures to better coordinate stocking location and timing, drilling holes in the ice to stock fish through, and assisting truck drivers onsite during stocking events, and 5) purchase of tanks and fuel required for the RV Coregonus to stock fish offshore.

Feral steelhead broodstock management (FHCC)

Contact: Nick Legler, Fisheries Biologist, Green Bay

The annual steelhead assessment project was initiated in 1992 at the Besadny Anadromous Fisheries Facility (BAFF) to (1) assess the return of the three steelhead strains to BAFF and (2) collect basic biological information on each strain. During fiscal years 2011-2013 the steelhead biologist and technician continued the ongoing steelhead project. All data are entered into the Lake Michigan database system and proofed. An annual report is completed by the following spring.

Lake Michigan creel surveys - data collection (FHCR)

Contact: Brad Eggold, Fisheries Supervisor, Milwaukee

We conduct an annual contact creel survey to estimate the harvest of salmon and trout. Creel clerks visit fishing locations to count anglers and trailers, to interview anglers, and to measure and examine a sample of the catch from March through October. Each year the clerks visit over 150 ramp, pier, shore, or stream sites (not counting multiple locations on individual streams), conduct approximately 13,000 interviews, make approximately 10,000 angler or trailer counts, and measure and examine for clips approximately 3,000 salmon and trout. Clerks also count and collect registration numbers for all moored fishing boats on Lake Michigan and Green Bay and monitor fishing contests from Kenosha to Marinette, collecting biological information on harvested fish including coded-wire tags and vertebral samples for OTC-marked fish. The data are analyzed as part of a separately-funded project (see below).

Lake Michigan creel surveys – analysis (FHIC)

Contact: Brad Eggold, Fisheries Supervisor, Milwaukee

Data from a postal survey of moored boats, reports submitted by charter captains, and the Lake Michigan creel survey are analyzed to estimate fishing effort, catch rates, total harvest, and size of fish harvested. Data are also used to evaluate the effectiveness of stocking strategies and to guide the geographic distribution of stocking. The creel survey design is continuously evaluated so

maximum effort is directed at sites and times anglers are present. The work includes the following elements: 1) Continue to refine survey design of Lake Michigan Creel Survey, moored boat survey and charter boat survey. 2) Refine data analyses programs and create new programs to handle specific requests. 3) Supervise data collections, entry and editing of data to insure compliance with #1 above. 4) Surveillance of creel clerks to insure quality of data. 5) Analyze and summarize data collected during surveys. 6) Provide annual summaries and reports to Lake Michigan biologists for inclusion in assessment surveys. 7) Report on annual and long term trends in the Lake Michigan sport fishery. Creel survey reports are available at <http://dnr.wi.gov/topic/Fishing/lakemichigan/FishManagementReports.html>).

Oconto River habitat improvement (FHCD)

Contact: Tammie Paoli, Fisheries Biologist, Peshtigo

In partnership with local chapters of Trout Unlimited and other groups, DNR has enhanced habitat for trout and salmon by installing two artificial islands and placing hundreds of boulders in a 1000 foot section of the lower Oconto River. The purpose of this project was to evaluate the impact of the habitat improvements. This project was concluded in 2009.

Broodstock management & evaluation (FHHZ, FHSE, FHIZ)

Contact: Brad Eggold, Fisheries Supervisor, Milwaukee (regarding coho, chinook and steelhead management at the Root River Steelhead Facility)

Nick Legler, Fisheries Biologist, Sturgeon Bay (regarding coho, chinook, and steelhead management at the Besadny and Strawberry Creek Facilities)

Each year salmon and trout are stocked in many Lake Michigan locations (for detailed information about stocking numbers and locations see http://infotrek.er.usgs.gov/wdnr_public/). Those stocked in Strawberry Creek, the Kewaunee River, and the Root River sustain the salmon and trout program in Lake Michigan. When fish return to those rivers as adults to spawn, eggs are collected and fertilized for the hatcheries to raise. This project is an assessment of biological characteristics of the stocked fingerlings and yearlings, and of the mature adults. Annual data collected includes: length, weight, age, sex, and fin clip. Various lots of chinook, coho and steelhead are marked with fin clips or tags prior to stocking to evaluate the performance of different strains or to assess alternative rearing strategies and disease treatments. Long-term trends indicate whether the desired characteristics of size, health, time of spawning run and survival are achieved. Health assessments are performed on coho, chinook and steelhead brood fish to detect early signs of disease and to provide baseline data on fish health.

The Strawberry Creek Weir (SCW) is the primary site for the collection of mature chinook salmon. The C. D. "Buzz" Besadny Anadromous Fisheries Facility (BAFF), on the Kewaunee River, is used to assess the return of three steelhead strains, collect adult coho salmon, and serves as a backup facility for collection of chinook salmon. The Root River Steelhead Facility is used to collect spawning adult coho salmon and steelhead, and serves as a backup facility for capture of mature chinook salmon. At SCW and BAFF, surplus eggs and eggs unsuitable for hatchery production are sold under contract to a bait dealer with the proceeds returned to the Wisconsin general fund.

Because of the importance of adequate forage, we have in some years participated in inter-jurisdictional cooperative studies of the abundance of alewife, smelt, and chubs using acoustical

equipment mounted on the Research Vessel Coregonus and the Research Vessel Gaylord Nelson. Data are provided to the US Geological Survey to assist in producing a lake-wide forage estimate.

In 2011 a small project was initiated to assess natural reproduction by salmon or trout in Southeast Wisconsin streams. Using backpack or stream shocking based on wadable stream protocol, five streams, including Willow, Sauk, Sucker and Pigeon Creeks, and the Pike River were sampled. Each location was sampled once per week for 4 weeks in July in 2011 and 2012. Thermistors were deployed to monitor yearly stream temperature. Fish collected were identified to species, measured, and a fin will be snipped to allow estimation of the population size. Fish not saved as voucher specimens were returned to the stream.

Annual reports are available on the DNR's Lake Michigan fishery web page at <http://dnr.wi.gov/topic/Fishing/lakemichigan/FishManagementReports.html>. They can also be obtained from Brad Eggold for all species returning to the Root River Steelhead Facility, from Nick Legler for all species returning to the Besadny and Strawberry Creek Facilities.

Finclip Rainbow Trout (FHKV)

Contact: Andrew Hron, Operations Supervisor, Kettle Moraine Springs State Fish Hatchery

This project supports the fin clipping of rainbow trout, both steelhead and non-migratory strains stocked to provide a nearshore fishery. The marks allow us to identify separate strains for propagation and to assess returns to the spawning weirs.

Nearshore stocking of rainbow trout (FHNL)

Contact: Nick Legler, Fisheries Biologist, Sturgeon Bay

There is a strong public demand for nearshore fishing opportunities on Lake Michigan. Nearshore fishing opportunities for Lake Michigan trout and salmon declined after the late 1980's because of changes in species or strains stocked, reduction in the Lake Michigan forage base or perhaps from clearer water making trout and salmon more difficult to catch. With reduced yellow perch abundance and salmon and trout moving farther offshore, anglers requested the Wisconsin DNR to evaluate the stocking of rainbow trout to increase nearshore fishing opportunities. Assessment funding through this project has been minimal in recent years, but during 2009-2012 over 300,000 yearling Arlee strain rainbow trout were stocked in this project.

Lake trout restoration & management (FHCA)

Contact: David Boyarski, Fisheries Biologist, Sturgeon Bay

The lake trout restoration and management program focuses on assessing trends in the fraction of lake trout with sea lamprey wounds and scars, assessing trends in the abundance of mature spawning lake trout in the mid-lake reef complex (MLRC), and providing information for an annual lake-wide lake trout survey conducted by state, federal, and tribal agencies. Sea lamprey data are provided to the Great Lakes Fishery Commission, which has responsibility for sea lamprey control in the Great Lakes. Fall lake trout assessments are conducted in the MLRC to assess the buildup of mature spawning lake trout. We have identified 16 sexually mature age groups ranging from age 7

to age 22. The MLRC has the highest abundance of sexually mature lake trout in Lake Michigan. This level of abundance compares favorably with levels in other Great Lakes regions where natural reproduction has been documented. In addition, DNR personnel cooperate with early life history investigations within the MLRC being conducted with the UW-Milwaukee Great Lakes Water Institute and the University of Michigan.

Great Lakes Assessment Boat (FHNS)

Contact: Scott Hansen, Fisheries Biologist, Sturgeon Bay

In 2011 the Department retired the RV Barney Devine after more than 70 years of service on Lake Michigan, replacing it with the RV Coregonus at a cost of \$2,058,895. Most of that cost is being paid for from the Fish and Wildlife Account with license fee revenues, but \$500,000 is being provided from the Great Lakes Trout and Salmon Stamp account. Current salmon and trout projects using the Coregonus include lake trout restoration (FHCA) and stocking of brown trout (FHCB).

Permanent employee salaries - Lake Michigan

Permanent employee salaries are for Fisheries Technicians at the Great Lakes Research Facility. They work on lake trout assessments, manage operations at the Root River Steelhead Facility, conduct surveys and evaluations, collect data, and manage databases.

For more information on the Lake Michigan fishery visit:
<http://dnr.wi.gov/topic/Fishing/lakemichigan/FishManagementReports.html>

Lake Superior Evaluation and Research Activities

Brule River lamprey barrier operation (FHCI)

Contact: Paul Piszczek, Fisheries Biologist, Superior

The Great Lakes Fishery Commission has primary responsibility for the control of sea lamprey in the Great Lakes, but states take responsibility for maintenance of some barriers. Lamprey barriers are one element, along with lampricides and trapping, in the control program. The goal of this project is to efficiently operate and maintain Wisconsin's three lamprey barriers on the Middle, Bois Brule, and Iron Rivers. These barriers block the upstream spawning migration of sea lamprey limiting reproduction to the downstream portion of the stream. The Brule River barrier also provides a valuable tool to fisheries biologists by giving them the ability to monitor trout and salmon runs with a time-lapse video monitoring system as they pass an underwater observation window. General maintenance was performed on the access roads at the Brule and Iron River barriers. Salmon Stamp funds were also used to purchase two new time-lapse video recorders which replaced older less reliable models at the Brule facility. For additional information about the Brule barrier and fish passage go to <http://dnr.wi.gov/topic/fishing/lakesuperior> and look under "Fishing the Brule"

Creel survey & index sampling (FHFE)

Contact: Jared Myers, Fisheries Biologist, Bayfield

Annual creel surveys are conducted at all major ports on Lake Superior to monitor sport harvest of salmon and trout. Creel clerks randomly check anglers at boat landings throughout the year. When combined with information about commercial and charter harvests, the creel data helps to estimate population size, evaluate and develop stocking strategies and decide how to best manage the Lake Superior fishery. Index sampling with graded mesh gill nets during the summer monitors long term trends in the fish community of Lake Superior. These surveys also measure the success of other Lake Superior fishery management projects, including the Brule River sea lamprey barrier and the lake trout rehabilitation program. Interactions between anadromous species and other species are also monitored throughout Wisconsin waters of Lake Superior. Diet and age data collected from trout and salmon provide a look at long-term, lake-wide trends. For survey and sampling results, visit <http://dnr.wi.gov/topic/fishing/lakesuperior/>.

Brook trout management plan for Wisconsin's Lake Superior basin (FHIB)

Contact: Paul Piszczek, Fisheries Biologist, Superior

Brook trout were the only known species originally inhabiting coldwater tributaries flowing into Wisconsin's Lake Superior. Early visitors reported abundant stream populations and a unique group of brook trout they called rock trout (coaster), which were caught along the rocky shoreline of Lake Superior's Bayfield Peninsula and seasonally in streams when they ascended to spawn. They were also commonly found utilizing the downstream portions of streams during the summer months as a refuge from warming lake temperatures. Many different factors led to brook trout decline, most notably stream habitat destruction resulting from early logging practices in the late 1800s and early 1900s. Today, brook trout populations are very small in comparison to the years prior to the late 1800s. This project has funded Wisconsin's activities on the Brook Trout Subcommittee of the Great Lakes Fishery Commission leading to the development of a lake-wide rehabilitation plan to improve brook trout abundance.

Wisconsin's "Lake Superior Basin Brook Trout Plan", a joint effort by the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service was completed in 2005. This plan describes the life history, threats, and management of brook trout in Wisconsin's portion of the Lake Superior basin and its tributaries and also outlines objectives and tactics necessary to accomplish the goal of rehabilitation and protection of the depleted stock. Primary objectives include; improve sustaining brook trout populations and their habitat within the Basin and attempt to establish several populations that exhibit life history diversity (both stream resident and migratory 'coaster' life history). Three streams were selected to conduct particular strategies, the Bois Brule, Bark and Whittlesey Creek.

See <http://dnr.wi.gov/topic/fishing/lakesuperior/cbrktrout.html> for additional information about the brook trout management and restoration. The WDNR/USFWS joint brook trout plan can be found at <http://dnr.wi.gov/topic/fishing/documents/lakesuperior/LakeSupBrookTroutPlan2005.pdf>.

Lake Superior tributaries management plan (FHSC)

Contact: Paul Piszczek, Fisheries Biologist, Superior

This project supports management initiatives in the Lake Superior clay plain tributaries. Individual activities include support for

- fisheries management of the South Shore Fish and Wildlife Area (acquisition and riparian property mgt. project on five of the coldwater trout tributaries) and the Bois Brule river (angling regulation evaluation, and support of the Brule River Sport Club and Brule River Preservation habitat initiatives),
- beaver control on 117 miles of critical stream thread,
- the Non-point Source Pollution Abatement Strategies Technical Steering Group/ Lake Superior Basin Partnership Team (vision statement - to develop an understanding of the erosion processes that impact waterways and to identify management strategies that promote healthy watershed conditions in the Wisconsin Lake Superior Basin) and others (Sioux River Watershed Council, Bad River Watershed Council, Whittlesey Creek Wildlife Refuge, the Chequamegon National Forest, Bayfield County, Red Cliff and Bad River bands of the Lake Superior Ojibwa),
- individual landowners in land management strategies to protect and enhance coldwater tributary habitat and to continue wild-strain stocking evaluation of naturalized salmonids.

Lake Trout restoration & management (FHCA)

Contact: Jared Myers, Fisheries Biologist, Bayfield

Lake Superior lake trout restoration and management addresses two critical factors regulating lake trout populations: harvest levels and sea lamprey-related fish mortality. The controls on harvest include constraints on commercial and sport fishing. Wild lake trout abundance has increased steadily due to these regulations. In the Ashland-Bayfield area, approximately 34% of the lake trout harvested in 1985 were wild fish. By 2006, the percentage had risen to over 90%. Consequently stocking in the Apostle Islands area has been discontinued. Sea lamprey related fish mortality, however, still remains an obstacle to complete rehabilitation.

This project covers the cost associated with the spring and fall lake trout assessments and evaluates the long-term trends in the lake trout population including distribution, abundance, growth, and mortality rates. Data collected from these assessments and commercial and sport harvest are incorporated into computer models that help determine safe harvest levels for lake trout.

Permanent employee salaries - Lake Superior

Permanent employee salaries are for a Fisheries Biologist and a Fisheries Technician on Lake Superior. The Fisheries Biologist conducts evaluations and research to support the fish stocking program for the Lake Superior watershed. The primary responsibilities of the Fisheries Technician are to conduct creel surveys and to monitor the harvest of lake trout by commercial fishers.

For more information on the Lake Superior fishery visit:

<http://dnr.wi.gov/topic/fishing/lakesuperior>

Propagation Activities

Basic hatchery services (FHBS)

Contact: Darren Miller, Fisheries Team Supervisor, Les Voigt State Fish Hatchery.
Andrew Hron, Operations Supervisor, Kettle Moraine Springs State Fish Hatchery
Steve Fajfer, Operations Supervisor, Wild Rose State Fish Hatchery

Funds expended in this project area cover basic operating services not directly associated with fish rearing at Les Voigt, Kettle Moraine Springs, Thunder River, and Lake Mills State Fish Hatcheries. Expenses include facilities and grounds maintenance; operational expenses such as telephone, electricity and heat; staff travel costs; supplies; computer equipment and costs associated with conducting public educational events and tours.

General maintenance and safety upgrades were performed at all of the hatcheries. Grounds were landscaped including removal of trees for safety and aesthetic reasons.

Coldwater production (FHBW)

Contact: Alfred Kaas, Statewide Fish Propagation Coordinator, Madison

This project covers production costs associated with fish rearing at hatcheries and rearing stations and is separate from basic hatchery services. Typical costs include fish food, electricity, pond and raceway maintenance and aerators to provide increased oxygen levels and reduce the ice cover. In 2007 the Department provided \$20,000 of Salmon Stamp revenues to the Michigan DNR on a one time basis to enhance their production of yearling cohos for stocking in 2008. This was matched by \$48,000 raised by fishing clubs. Table 4 summarizes all Great Lakes salmon and trout production during 2007-2012.

Coldwater distribution (FHBZ)

Contact: Alfred Kaas, Statewide Fish Propagation Coordinator, Madison.

Salmon Stamp funds are used to inventory, load, and deliver fish for to designated sites. Costs include equipment disinfection and maintenance.

Operate anadromous fisheries facilities (FHCX)

The Besadny Anadromous Fisheries Facility, the Root River Steelhead Facility, and the Strawberry Creek Weir are key to Wisconsin's salmon and trout stocking programs. Salmon Stamp funds are used to collect broodstock and eggs for fertilization, as well as maintain/operate the facilities. Public education and tours are also supported by Salmon Stamp funds.

Besadny Anadromous Fisheries Facility

Contact: Neal Rosenberg, Field Operations Team Supervisor, Crivitz

Each year eggs are collected for propagation from adult anadromous trout and salmon. Steelhead are trapped in late spring and summer and chinook and coho salmon are trapped in the fall. The Besadny Facility allows the general public to safely observe at a very close distance the harvesting of eggs and other related spawning activities. There are guided as well as self-guided tours available year round.

Root River Steelhead Facility

Contact: John Komassa, Southeast Hatchery Group Leader, Fitchburg

Funding from the Salmon Stamp is used to maintain and operate the Root River Steelhead Facility in Racine from mid February to early May and mid July to mid November. The Root River facility traps adult trout and salmon for propagation. More than two dozen educational/informational tours are conducted each year. DNR personnel also assisted the fish health program with spawning chinook salmon as part of a long-term study of bacterial kidney disease.

Strawberry Creek Weir

Contact: Neal Rosenberg, Field Operations Team Supervisor, Crivitz

This facility in Door County is the primary chinook salmon spawning facility in Wisconsin. In recent years, low natural flow rates at the facility have required the installation of a pump and pipeline to supply water from the Sturgeon Bay ship canal to the facility. Salmon Stamp funds have supported the installation and maintenance of this pumping system.

Hatchery renovation and maintenance (FHIJ, HDYH, HDYR)

Contact: Darren Miller, Fisheries Team Supervisor, Les Voigt Hatchery

Funding covers general maintenance and upkeep of hatchery facilities. Funds have been used for repair of a walk-in freezer at Les Voigt. During the fiscal year 2006 and fiscal year 2007 this project has funded the disinfection and inspection of two wells at Lake Mills State Fish Hatchery. At Lake Mills State Fish Hatchery funds have been used to erect an improved predator barrier around the raceway and pond rearing area, and to purchase a pond harvest seine and chemicals to control aquatic vegetation in the over wintering coho salmon pond. In fiscal year 2011 roof repair work was completed at Kettle Moraine State Fish Hatchery.

Off-station coho and steelhead propagation activities (FHJG)

Contact: Andrew Hron, Operations Supervisor, Kettle Moraine Springs State Fish Hatchery

This project covers special activities related to the propagation of coho salmon and rainbow trout (including steelhead strains). It includes funding for collection at the spawning weirs of coho salmon and steelhead eggs, the collection of adult Skamania broodstock, and other off-station activities.

Operate annex facility at Kettle Moraine Springs State Fish Hatchery (FHME)

Contact: Andrew Hron, Operations Supervisor, Kettle Moraine Springs State Fish Hatchery

Chinook salmon and steelhead are spawned, hatched, and reared at the annex facility of the Kettle Moraine Springs State Fish Hatchery. These fish are transferred to other hatchery facilities for final rearing and stocking.

Wild Rose SFH development

Contact: Alfred Kaas, Statewide Fish Propagation Coordinator, Madison.

Salmon stamp funds were allocated in 2005 and 2008 for renovation of the Wild Rose State Fish Hatchery. In 2010 those funds were refunded to the Department by the Department of Administration, so they will remain available for hatchery renovations elsewhere in the state.

Permanent employee salaries in the propagation system

Permanent employee salaries are for one Fisheries Technician at the Kettle Moraine Springs Hatchery whose primary duties are incubating coho eggs and propagating and rearing steelhead.

Program Administration

Print stamps and prepare expenditure reports

Contact: Bill Horns, Great Lakes Fisheries Specialist, Madison

This project covers costs associated with the judging and printing of the Great Lakes Trout and Salmon Stamp and preparing the Great Lakes Trout and Salmon Stamp expenditure report.

Table 4. Production summary. Lake trout stocked by the USFWS in Lake Michigan are not included. For all species except chinook salmon, fingerlings are stocked in the fall after one year of hatchery rearing and yearlings are stocked the following spring after 18 months of hatchery rearing. Chinooks are stocked as spring fingerlings after only one winter of hatchery rearing. Rainbow trout include both steelhead and non-migratory strains.

	Lake Michigan			Lake Superior		
	fingerling	yearling	LM total	fingerling	yearling	LS total
2007 lake trout				141,113	94,815	235,928
brown trout	420,470	591,507	1,011,977	97,709	124,532	222,241
chinook salmon	1,112,562		1,112,562	203,322		203,322
coho salmon	288,071	354,994	643,065			
rainbow trout	193,509	552,995	746,504			
splake	44,272		44,272	93,294	45,854	139,148
2008 brown trout	345,195	619,642	964,837			
chinook salmon	725,572		725,572			
coho salmon	129,416	153,494	282,910			
rainbow trout	143,230	399,413	542,643			
splake				138,750		138,750
2009 lake trout					103,871	103,871
brown trout	405,986	528,434	934,420	37,419	83,945	121,364
chinook salmon	952,804		952,804			
coho salmon		344,471	344,471			
rainbow trout	231,561	425,828	657,389			
splake				90,665		90,665
2010 brook trout		40,546	40,546			
lake trout					93,613	93,613
brown trout	177,068	558,298	735,366		94,367	94,367
chinook salmon	1,233,922		1,233,922			
coho salmon	11,665	333,770	345,435			
rainbow trout		445,135	445,135			
2011 lake trout					145,675	145,675
brown trout	127,598	577,006	596,104		42,302	42,302
chinook salmon	1,127,444		1,127,444			
coho salmon		433,196	433,196			
rainbow trout		427,693	427,693			
2012 lake trout					82,601	82,601
brown trout	111,638	556,632	668,270		114,487	114,487
chinook salmon	1,175,213		1,175,213			
coho salmon		542,192	542,192			
rainbow trout		398,520	398,520			

Contact List

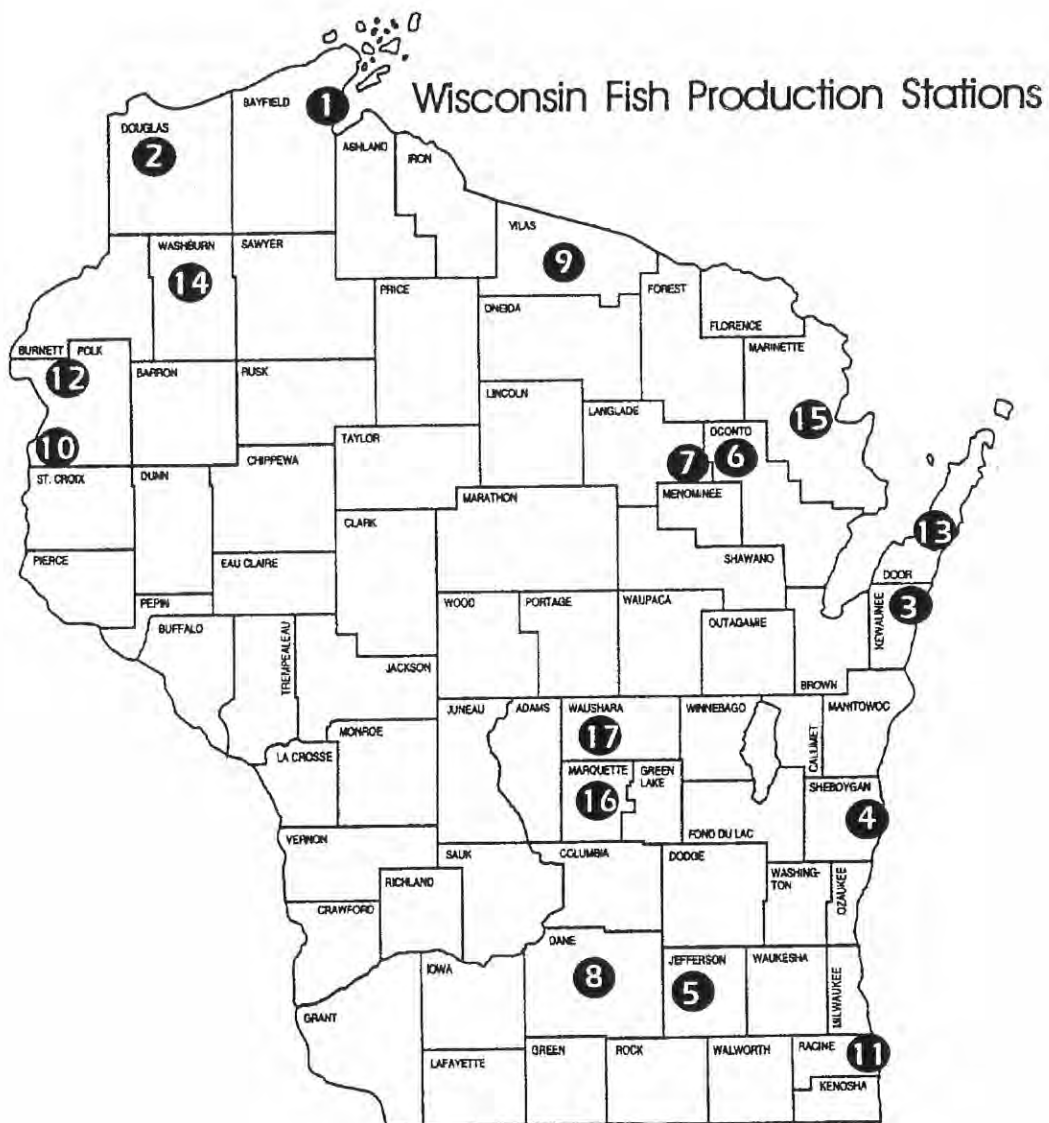
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Direct your suggestions for improving this report to

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For more information on Great Lakes fishing and many other subjects, visit the DNR Web site.

<http://www.dnr.wi.gov>



Wisconsin Fish Production Stations

<u>Facilities</u>	<u>Phone</u>	<u>Type of Fish Production</u>
1 Voigt (Bayfield) SFH	(715) 779-4021	Coldwater
2 Brule rearing station	(715) 372-4820	Coldwater
3 Besadny Anadromous Fisheries Facility	(920) 388-1025	Coldwater
4 Kettle Moraine Springs SFH	(920) 528-8825	Coldwater
5 Lake Mills SFH	(920) 648-8012	Coldwater, Cool/warm water
6 Lakewood rearing station – CLOSED	(715) 276-6066	Coldwater
7 Langlade rearing station – CLOSED	(715) 882-8757	Coldwater
8 Nevin SFH	(608) 275-3246	Coldwater
9 Oehmcke (Woodruff) SFH	(715) 356-5211	Cool/warm water
10 Osceola SFH	(715) 294-2525	Coldwater
11 Root River Spawning Facility	(414) 638-0134	Coldwater
12 St Croix Falls SFH	(715) 483-3535	Coldwater
13 Strawberry Creek Weir	(920) 746-2860	Coldwater
14 Thompson (Spooer) SFH	(715) 635-4147	Cool/warm water
15 Thunder River rearing station	(715) 757-3541	Coldwater
16 Westfield SFH (closed)	(608) 296-2343	Coldwater
17 Wild Rose SFH	(920) 622-3527	Coldwater, Cool/warm water