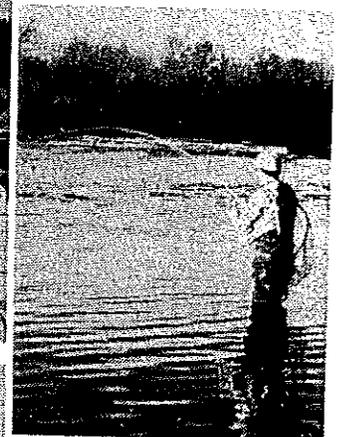
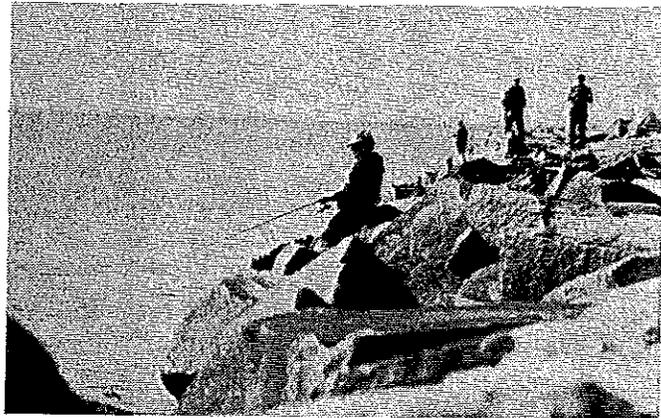


EXPENDITURES OF GREAT LAKES SALMON AND TROUT STAMP REVENUES, 1985-86

By Douglas Welch



Administrative
Report No. 26

Bureau of Fish
Management
Department of
Natural Resources
Madison, Wisconsin
December, 1987



Beginning in 1982, every angler who fished for salmon and trout on Wisconsin's Great Lakes waters was required to purchase a Great Lakes Salmon and Trout Stamp. Revenues from stamp sales was designated by Wisconsin Statute to be used for rearing, stocking, and evaluation of salmon and trout in the Wisconsin waters of Lakes Michigan and Superior and their tributaries, or must be related to the administration of those funds. A six-year plan for use of stamp sale revenues was published in 1983 and a cost use summary of the first two years of stamp sale revenues was published in 1984.

Beginning in 1984, anglers who purchased one-day licenses were exempt from purchase of a stamp. To compensate for the loss of revenues resulting from this exemption, a portion of one-day license revenues was allocated to the salmon stamp account. As a result, total revenues accrued annually in the salmon stamp account have remained relatively stable in spite of a decline in stamp sales since 1984. Sales of 1984 stamps totaled 239,971 and sales of 1985 stamps totaled 229,893, down from sales of 279,552 of 1983 stamps. Total revenues from stamp and one-day license sales during the period July 1, 1984 to June 30, 1985 (FY85) were \$828,056.92 and during the period July 1, 1985 to June 30, 1986 (FY86) were \$806,680.51.

This is a summary report of stamp revenue use for FY85 and FY86 and includes estimated costs (allotments), and actual costs (expenditures) for each DNR District and their respective projects. All costs associated with travel, special services, supplies, permanent property, and limited term employee salaries are included. Projects are categorized as either facility developments or program operations (activities). Permanent employee salaries and fringe benefits are charged against separate allotments within each district as employees engage in approved projects. Fringe benefit expenses for permanent and limited term employees were \$59,249.42 in FY85 and \$67,411.88 in FY86 from respective allotments of \$77,275.00 and \$70,600.00. The closing cash balance at the end of FY86 was \$406,319.42.

NORTHWEST DISTRICT

Permanent employee salaries in the Lake Superior Work Unit were \$17,772.76 in FY85 and \$25,263.99 in FY86 from respective allotments of \$26,600.00 and \$25,200.00.

Facility Development

1. Bayfield Trout Hatchery Renovation.

Costs of improvements to the hatchery were \$1,749.20 in FY85 and \$42,245.69 in FY86 from respective allotments of \$33,976.56 and \$104,364.36. Two new brood stock raceways and associated piping were installed. A pole shed over the

raceways was also constructed. A cold storage fish foods facility was completed. This hatchery produced lake trout, splake, brook trout, and rainbow trout for stocking in Lake Superior.

2. Osceola Trout Hatchery and Brood Stock Station Renovation.

Costs for renovating the hatchery water collection system were \$958.81 in FY85 and \$25,840.00 in FY86 from respective allotments of \$29,916.00 and \$28,957.19. Rearing and incubation tanks were raised to increase pitch and facilitate cleaning and feeding efforts. As a result of these activities, water flow was increased and egg development was enhanced. This hatchery provided Shasta strain rainbow trout eggs used in the Lake Michigan stocking program.

3. Brule River Fish Ladder.

Construction costs for the Brule River fish ladder in FY85 were \$59,398.35 from an allotment of \$59,400.00 and in FY86 were \$250,937.00 from allotments totalling \$248,000.00. The Great Lakes Fishery Commission reimbursed \$721.00 of these construction costs in FY85 and \$100,000.00 in FY86. Engineering costs for fish ladder design were \$13,881.00 in FY86 from an allotment of \$16,000.00. This facility allows upstream migration of adult trout and salmon while blocking lamprey migration to spawning areas, thereby maintaining a quality sport fishery in the upper Brule River and reducing lamprey predation in Lake Superior.

Operations (Activities)

1. Lake Trout Egg Stocking and Assessment.

Astro-turf bundles containing fertilized Marquette Hatchery strain lake trout eggs were stocked on Devils Island Shoal in Lake Superior at a cost of \$11,670.54 in FY85 from an allotment of \$12,909.00. Egg hatching and fry escapement from these stocked eggs was 52.9%. Devils Island Shoal and Eagle Island Shoal were stocked using wild Gull Island Shoal and domestic Iron River Hatchery eggs in FY86 at a cost of \$3,219.36 from an allotment of \$5,265.00. Hatching and escapement was 80% at Devils Island Shoal and 76% at Eagle Island Shoal.

2. Stock Lake Trout Yearlings and Evaluate.

Spring assessment activities in the Apostle Islands area of Lake Superior included microtagging, morpholine imprinting, and stocking. Costs in FY85 were \$26,622.51 and in FY86 were \$23,348.05 from allotments of \$19,965.00 and \$12,542.49. Native fish composed 35% and 49% of all lake trout collected during 1985 and 1986 assessments. Total

annual mortality of stocked lake trout was 75.8% in 1985 and 74.4% in 1986.

3. Stocked and Native Lake Trout Spawning Assessment.

Fall spawning assessments cost \$21,599.73 in FY85 and \$12,560.22 in FY86 from allotments of \$25,626.00 and \$7,349.00. Fall spawning populations at Gull Island Shoal were estimated at 26,696 in FY85 and 23,625 in FY86. Native lake trout composed 81.5% of the catch in FY85 and 88.7% of the catch in FY86. Egg collections totaled 524,800 for the Bayfield Hatchery rearing program and 820,800 for use in astro-turf bundles.

4. Lake Superior Salmonid Creel Census.

Annual creel survey costs were \$22,561.14 in FY85 and \$27,387.19 in FY86 from allotments of \$35,234.00 and \$30,480.00. Anglers on Lake Superior and its tributary streams spent nearly 490,000 hours to catch nearly 62,000 trout and salmon in 1985. These data are essential to the continued proper management of the Lake Superior sport fishery.

5. Collection of Wild Trout Eggs for Hatchery Production.

Costs for collecting and fertilizing wild rainbow and brown trout eggs for subsequent rearing, stocking, and evaluation were \$4,904.63 in FY85 from an allotment of \$6,790.00.

6. Stock Trout and Salmon and Evaluate.

Costs of \$10,728.07 in FY85 from an allotment of \$11,711.86 were required for stocking of trout and salmon and to monitor the impact of coho salmon on recruitment and production of brown and rainbow trout in Lake Superior tributary streams. Preliminary results indicate that naturalized coho salmon have had little or no impact on these other naturalized species.

7. Identification of Stream Trout Populations that Require Stocking.

Fishery surveys on major Lake Superior tributaries in FY85 and FY86 cost \$13,185.64 and \$1,806.45 from respective allotments of \$13,331.00 and \$11,233.00. Representative sites on each tributary were selected for stocking trout and salmon and conducting future surveys.

8. Brule River Management Plan.

Costs for conducting creel and fishery surveys on the Brule River and its tributaries were \$20,403.82 in FY85 and \$16,353.32 in FY86 from allotments of \$20,650.00 and

\$40,635.00. The creel survey provided estimates of angler effort and catch on the entire 50-mile length of the Brule River and its tributaries. Anglers spent an average of 119,070 hours annually to harvest between 7,000 and 10,000 trout and salmon. The number of adult trout and salmon that swam through the lamprey barrier fish ladder were also counted. This information is crucial to the proper management of the sport fishery on the Brule River.

9. Evaluate Lake Trout Survival.

Costs of finclipping, microtagging, and stocking fingerling and yearling lake trout in Lake Superior totalled \$12,728.31 from a \$8,734.00 allotment in FY86. Future evaluations will determine which life stage survives best in Lake Superior.

10. Hormonal Injection and Evaluation of Wild Lake Trout.

The University of Wisconsin at Milwaukee was contracted to research possible earlier spawning of wild female lake trout by hormone injection at a cost of \$8,972.61 from an allotment of \$10,133.00 in FY86. If this technique proves successful, egg collecting activities on Lake Superior could be greatly improved.

SOUTHEAST DISTRICT

Permanent employee salaries at Kettle Moraine Springs Hatchery and in the Lake Michigan Work Unit were \$15,660.64 in FY85 and \$24,803.12 in FY86 from respective allotments of \$22,900.00 and \$23,700.00.

Facility Development

1. Kettle Moraine Springs Salmon and Trout Hatchery.

Installation of the water collection system for the new raceways and renovation of the water collection line serving hatchery building number 1 was completed in FY85 at a cost of \$4,501.19 from a \$8,334.19 allotment. Costs of constructing a new 40-foot by 70-foot hatchery building and 240 linear feet of 6-foot wide by 4-foot deep raceways were \$179,709.02 in FY85 and \$6,768.64 in FY86 from allotments of \$215,000.00 and \$35,290.98. Twenty-four 6-foot diameter round receiving tanks and aeration equipment were purchased, and internal water pipes were installed for \$2,675.77 from a \$11,069.60 allotment in FY85 and \$0 from a \$8,393.83 allotment in FY86. Costs to replace 10 earthen ponds with an additional 700 linear feet of raceway and associated water supply lines were \$2,912.00 in FY85 and \$75,477.60 in FY86 from \$185,100.00 and \$193,188.00. Another primary settling pond was also built. These improvements will

facilitate production of steelhead trout and coho salmon for stocking in Lake Michigan.

2. Sheboygan River Coho Salmon Facility.

Preliminary engineering and site investigation work for development of a broodstock collection and smolt release facility on the Sheboygan River cost \$991.49 from a \$10,000.00 allotment in FY85 and \$1,059.90 in FY86. The Federal Anadromous Fish Conservation Act provided \$1,338.54 of these amounts, reimbursed in FY86.

Operations (Activities)

1. Lake Michigan Salmonid Creel Census.

The annual Lake Michigan creel survey cost \$29,999.78 in FY85 and \$43,025.62 in FY86 from allotments of \$38,572.00 and \$51,591.00. Harbors, launch sites, piers, shore sites, and stream fisheries were surveyed along the Lake Michigan shoreline from Sheboygan County south. Information was also collected from approximately 20,000 trout and salmon caught during fishing contests. Data collected are combined with those from the Lake Michigan District to provide the complete estimate of sport fishing harvest in Lake Michigan.

2. Salmonid Collection for PCB Analysis.

Collection of trout and salmon from the waters of Lake Michigan for contaminant analysis cost \$2,618.68 in FY85 from an allotment of \$1,611.06 and \$486.57 in FY86 from an allotment of \$454.00. Collection of different species and sizes throughout the season was used to define patterns of contaminant distribution.

3. Kettle Moraine Springs Salmon and Trout Hatchery Operations.

Costs of operating the hatchery included fish production, fin clipping, fish distribution, limited term employee salaries, materials, fish food, system maintenance, and supplies. Total costs of these activities in FY85 were \$73,339.21 from an allotment of \$88,247.80 and in FY86 were \$68,885.17 from an allotment of \$115,291.38.

4. Stock Lake Trout and Evaluate.

Lake Michigan fall spawning assessments and monitoring of commercial fishermen cost \$27,217.86 in FY85 and \$22,679.05 in FY86 from allotments of \$39,591.00 and \$36,365.40. Commercial chub and perch fishermen's incidental catch of trout and salmon was evaluated and led to a regulation change requiring low profile gill nets. This change resulted in a threefold reduction in the incidental catch of lake trout. Fall spawning assessments on and near major

southern Lake Michigan reefs have shown definite homing to certain reefs by lake trout. The southern Lake Michigan lake trout spawning population is currently composed of 9 to 11 age classes.

5. Coho Salmon Brood Stock Selection.

Collection of eggs from mature fall run coho salmon cost \$1,767.63 in FY85 and \$198.87 in FY86 from allotments of \$13,902.00 and \$1,894.00. Future plans aim to provide disease free eggs for selection of earlier running coho salmon.

6. Assess Brown Trout Stocking Strategies.

Stocking 246,334 fingerling and 172,925 yearling brown trout cost \$10,163.17 in FY86 from an allotment of \$8,318.00. Two-thirds of these stocked fish were identified using 20 different fin clips and were distributed among the ports of Sheboygan, Port Washington, Milwaukee, Racine, and Kenosha. Future evaluations of returning adults will help determine the best stocking sizes and sites for establishing an efficient brown trout stocking program.

7. Stock Rainbow Trout and Evaluate.

Skamania, Chamber's Creek, and Shasta strain steelhead (rainbow) trout were stocked in the Root and Sheboygan Rivers in 1986 as part of a lakewide evaluation to determine the future source of brood stock for Lake Michigan stocking. Fin-clipping of all fish stocked cost \$7,293.06 in FY86 from a \$9,000.00 allotment. Costs for development of a plan for management of steelhead trout in Lake Michigan and for conducting preliminary surveys for returning adults stocked in the Root River in 1984 were \$6,400.46 in FY86 from allotments totalling \$4,102.00. A portable pipe wier was constructed from funds donated by Salmon Unlimited of Wisconsin at Racine and was installed in the Root River in an attempt to capture returning adults.

8. Determine Movement of Coded Wire Tagged Chinook Salmon.

Salmon head collection activities and distribution of informational posters cost \$184.50 from a FY86 allotment of \$1,809.00. Information collected from tagged chinook is used to determine movement patterns, growth rates, and mortality rates that will help to formulate future management and stocking strategies.

LAKE MICHIGAN DISTRICT

Permanent employee salaries in the Lake Michigan Work Unit were

\$39,063.08 in FY85 and \$8,463.35 in FY86 from allotments of \$8,500.00 and \$8,500.00.

Facility Development

1. Strawberry Creek Salmon Rearing and Weir Pond Renovation.

Test drilling for a new well in FY85 failed to yield an adequate water supply and was abandoned. New water diversion gates were installed. A new portable aerator was purchased and used beginning in FY86. Total costs in FY85 and FY86 were \$42,060.87 and \$1,545.94 from allotments of \$44,013.61 and \$1,904.65. This facility provides all the chinook salmon eggs that are hatched and reared in our hatcheries for subsequent stocking in Wisconsin waters of Lakes Michigan and Superior. These eggs are also provided to other states and to the U.S. Fish and Wildlife Service.

2. Manitowoc Salmon Rearing Pond Renovation.

The channel connecting the rearing pond to the Little Manitowoc River was dredged and the earthen pond was improved in FY85 at a total cost of \$15,233.88 from an allotment of \$12,277.59. Installation of concrete walls and a gravel-rock bottom was also initiated. These renovations will facilitate the cleaning of the pond as well as the survival and release of young salmon to Lake Michigan.

3. Oconto River Trout Fishery Development.

Oconto River trout fishery development activities cost \$28,011.53 in FY85 and \$26,822.93 in FY86 from respective allotments of \$36,078.00 and \$45,266.47. Of these costs, the Federal Anadromous Fish Conservation Act provided \$16,492.37 in FY85 and \$15,717.22 in FY86 from allotments of \$25,398.00 and \$25,199.52. Summer run Skamania steelhead were stocked as yearlings in the river during March and April. Spring electrofishing surveys showed that smolt migration is largely completed by the end of May. Data from additional summer and fall surveys will be used to evaluate other steelhead strains and develop a fishery management plan for the river. Two possible sites for a collection facility and smolt release pond on the river are presently being considered.

Operations (Activities)

1. Salmon Pond Rearing.

Costs for pond preparation, fingerling rearing, egg taking, pond guarding, and adult monitoring at the Kewaunee, Two Rivers, Manitowoc, and Strawberry Creek imprinting ponds totalled \$12,985.06 in FY85 and \$18,631.58 in FY86 from respective allotments of \$21,993.40 and \$21,686.90.

2. Wild Rose Hatchery Great Lakes Operations.

Costs for production and distribution of salmon and trout were \$19,893.53 in FY85 and \$768.24 in FY86 from respective allotments of \$35,390.00 and \$17,381.00.

3. Chinook Salmon Stocking Evaluation.

The distribution of chinook salmon stocking and movement of stocked fish is being evaluated by examining recoveries of micro-tagged fish stocked at Marinette, Strawberry Creek, Sheboygan, and Racine in 1982-84. The method of stocking chinook salmon is being evaluated by examining recoveries of micro-tagged fish stocked in pond, river, and shore sites of the East Twin and Kewaunee River systems in 1986-87. The rate of return to Strawberry Creek is being evaluated by examining recoveries of micro-tagged fish stocked there annually. There were 989 tag recoveries in 1985 and 587 in 1986, of which 529 in 1985 and 269 in 1986 were recovered from Strawberry Creek. Costs in FY85 were \$10,786.53 and in FY86 were \$26,078.76 from respective allotments of \$20,750.00 and \$24,788.00. These efforts will help to better manage and allocate stocking efforts of chinook salmon in Lake Michigan.

4. Lake Michigan Salmonid Creel Census.

Costs of the Lake Michigan salmonid creel survey were \$35,525.96 in FY85 and \$39,682.95 in FY86 from allotments of \$47,886.00 and \$39,586.00. Pier, shore, boat ramp, and stream fisheries were surveyed along the Lake Michigan shoreline from Manitowoc County north, and along the Green Bay shoreline from Door County to Marinette. Lake Michigan District data are combined with Southeast District data to provide the entire sport fishery harvest from the Illinois border to Marinette. Sport catch and effort estimates reveal that anglers spend about 3.65 million hours annually to harvest about 628,000 salmon and trout from Wisconsin's waters of Lake Michigan. This information is essential in guiding stocking efforts, changing regulations, and planning management activities for the greatest salmonid sport fishery in the world!

5. Stock Brook Trout and Evaluate.

Stocking and evaluating wild Nipigon brook trout cost \$8,693.65 in FY85 and \$6,616.75 in FY86 from allotments of \$11,477.00 and \$8,600.00. Numbers stocked in FY85 totalled 16,000, all at Baileys Harbor, and in FY86 were 14,000 at Baileys Harbor, 35,000 near the Kewaunee River and 5,000 near Whitefish Bay Creek. Preliminary data from fishery surveys and angler returns have revealed better survival of wild Nipigon fish over domestic strain fish through their

third year of life. Trophy Nipigon brook trout weighing 6 to 8 pounds have been caught by anglers.

6. Stock Lake Trout and Evaluate.

Lake trout population and spawning assessment costs totalled \$21,356.29 in FY85 and \$21,323.38 in FY86 from allotments of \$20,223.00 and \$33,610.00. Contracted spring pound net sets caught 10,700 lake trout in FY85 and 5,100 in FY86. These fish were tagged and released. Information gathered is used in efforts to re-establish a naturally reproducing lake trout population in Lake Michigan.

7. Stock Splake and Evaluate.

Costs for finclipping and stocking splake in Green Bay to establish a winter sport fishery were \$3,403.22 in FY85 and \$244.28 in FY86 from respective allotments of \$8,281.00 and \$6,145.00. Total numbers stocked in FY85 were 14,000 fingerlings and 19,000 yearlings and in FY86 were 35,000 fingerlings and 20,000 yearlings. Yearlings stocked at larger sizes than fingerlings composed 84.7% of the adults caught, whereas yearlings stocked at similar sizes to fingerlings composed 72.7% of the adults caught. Yearlings stocked at small sizes showed poor survival. About 50% of the sport catch of splake occurs in April and these fish average 1.3 pounds at 15 inches of length, 3.5 pounds at 20 inches, 7.5 pounds at 25 inches, and 14 pounds at 30 inches.

8. Evaluate Salmonid Mortality in Alewife Commercial Trawls.

Commercial trawlers were monitored for trout and salmon mortality during FY85 at a cost of \$6,662.99 and during FY86 at a cost of \$9,201.15, from respective allotments of \$9,857.00 and \$6,894.00. Trawlers annually harvest millions of pounds of alewives, smelt and chubs for processing as fish meal. During their operations, trout and salmon are caught as a low percentage of the total catch and are returned to the water alive. Tagging of these incidentally caught trout and salmon will help to determine the rate of survival of these fish following their release.

9. Initiate Salmon Program in Manitowoc River Watershed.

The removal of the Manitowoc Rapids dam on the Manitowoc River provided access to an additional 40 miles of the Manitowoc and Branch Rivers for Lake Michigan trout and salmon. An assessment of the suitability of the Manitowoc River watershed for anadromous species was initiated in FY86 at a cost of \$2,502.17 from an allotment of \$1,803.00. A continuous recording thermograph was installed in the Branch River to provide important temperature and flow data.

10. Evaluate Harvest of Sterile Chinook Salmon.

Sterile chinook salmon were tagged and stocked at Marinette, Strawberry Creek, Sheboygan, and Racine in FY86 to provide a trophy fishery on Lake Michigan in the future. Initial costs for evaluating angler returns of these fish in FY86 were \$815.08 from an allotment of \$7,169.00.

SOUTHERN DISTRICT

Permanent employee salaries at Lake Mills Hatchery were \$20,949.76 in FY85 and \$22,170.56 in FY86 from allotments of \$21,000.00 and \$21,000.00.

Facility Development

1. Lake Mills Trout Hatchery Development.

Metal piping was replaced with PVC pipe for supplying well water and pond C was relined with rock to facilitate the use of discharge water in the hatchery. Total costs were \$29,603.80 in FY85 and \$528.05 in FY86 from respective allotments of \$23,819.93 and \$3,023.34. This hatchery produces up to 400,000 coho salmon annually for stocking in Lake Michigan.

2. Nevin Trout Hatchery Renovation.

Hatchery improvements in FY85 and FY86 included drilling a new well, dredging the waste settling pond, extending an existing culvert, placing rock rip-rap in rearing ponds, and installing rotary screens in the rearing ponds. Total costs in FY85 were \$18,771.16 and in FY86 were \$737.09 from allotments of \$19,126.82 and \$6,299.07. Brook, brown, and rainbow trout were raised at this hatchery for stocking in Lake Michigan.

Operations (Activities)

1. Lake Mills Salmon Hatchery Operations.

Operational expenses for rearing coho salmon in FY85 were \$28,454.22 and in FY86 were \$28,138.92 from allotments of \$41,172.00 and \$40,774.00.

NORTH CENTRAL DISTRICT

Facility Development

1. Langlade Trout Rearing Station Renovation.

Construction of 3 rearing ponds, associated rip-rapping, bank reinforcement with clay, and bottom reinforcement with rock and gravel cost \$44,618.23 in FY85 and \$19,920.97 in FY86 from respective allotments of \$39,352.00 and \$19,870.00. The construction of a 550-foot long, 8-foot high chain link security fence to protect brown trout broodstock cost \$9,101.34 in FY86 from a \$12,000.00 allotment. These improvements have enhanced production of brown trout for stocking in Lake Michigan.

2. - Thunder River Trout Rearing Station Renovation.

Installation of a pipe line from the brown trout rearing facilities to the pollution control ponds was completed in FY85 at a cost of \$1,501.38 from an allotment of \$7,204.32. There were no expenses in FY86 from an allotment of \$5,702.96.

3. Lakewood Trout Hatchery Renovation.

Costs associated with the construction of a cold storage shed were \$155.24 in FY85 from an allotment of \$14,064.23. There were no expenses in FY86 from a \$13,908.99 allotment.

Operations (Activities)

1. Thunder River Trout Rearing Station Operations.

Production costs for rearing brown trout were \$3,390.65 in FY85 and \$8,114.28 in FY86 from respective allotments of \$7,275.00 and \$11,102.00.

2. Lakewood Trout Hatchery Operations.

Production costs for rearing brook and rainbow trout in FY86 were \$4,226.00 from an allotment of \$4,500.00.

3. Langlade Trout Rearing Station Operations.

Production costs for rearing brown trout in FY86 were \$5,132.00 from an allotment of \$5,800.00.

CENTRAL OFFICE

Operations (Activities)

1. Salmon Stamp Administration.

A contracted pound net set for Lake Michigan lake trout assessment cost \$5,000.00 in FY85 from an identical allotment. A proposed contract to rear additional coho salmon for stocking in Lake Michigan in FY85 was cancelled due to insufficient egg availability after making a

\$50,000.00 allotment. A cooperative research contract to sterilize chinook salmon for stocking in Lake Michigan cost \$13,189.44 from a \$14,256.47 allotment in FY85 and \$25,508.13 from a \$65,972.00 allotment in FY86. A contracted research evaluation of Brule River brown and rainbow trout genetics cost \$6,991.00 in FY85 from a \$27,000.00 allotment and \$2,999.00 in FY86 from a \$19,991.00 allotment. Stamp judging and printing cost \$7,132.40 in FY85 from a \$7,092.00 allotment and \$6,871.00 in FY86 from a \$14,942.00 allotment. Costs for a limited term employee to tabulate creel survey data and write reports were \$7,292.68 in FY86. Total costs of all these projects were \$32,312.84 in FY85 and \$42,670.81 in FY86 from allotments totalling \$103,348.47 and \$109,452.00.

2. Salmon and Trout Contaminant Analysis.

The annual contaminant monitoring program on Lakes Superior and Michigan cost \$3,314.85 in FY85 from an allotment of \$9,204.00. An expanded monitoring program in FY86 to identify more detailed geographic and seasonal patterns of contaminant levels present in different species and sizes of trout and salmon in Lake Michigan cost \$55,301.44 from an allotment of \$60,410.00.

Substantial progress in the management of trout and salmon in the Wisconsin waters of Lakes Michigan and Superior was accomplished during the program years 1985 and 1986 as a direct result of funds made available by the sale of Great Lakes Salmon and Trout Stamps. These funds were essential to the maintenance and improvement of developmental and operational projects aimed at producing trout and salmon for legions of anglers, and increasing Wisconsin's knowledge of those species. Future revenues from stamp sales will continue to sustain a management program that produces a sport fishery along Wisconsin's Great Lakes shores that is second to none!

Companion reports:

Krueger, Charles C. 1983. Expenditure plan for Great Lakes salmon and trout stamp revenues, 1983-88. Administrative Report No. 18, Fish Management Bureau, Department of Natural Resources, Madison, WI 21 pp.

Hansen, Michael J. 1984. Costs of Great Lakes salmon and trout stamp revenues, 1983-84. Administrative Report No. 22, Fish Management Bureau, Department of Natural Resources, Madison, WI 18 pp.

TABLE 1. Allotments and expenditures¹ of Great Lakes Salmon and Trout Stamp revenues for facility developments and program operations in Wisconsin, 1985-1986.

District/Type*	1985		1986	
	Allotments	Expenditures	Allotments	Expenditures
Northwest				
developments	123,292.56	61,385.36	297,321.55	232,903.69
operations	170,176.86	149,448.84	151,571.49	131,639.50
total	<u>293,469.42</u>	<u>210,834.20</u>	<u>448,893.04</u>	<u>364,543.19</u>
Southeast				
developments	429,503.79	190,789.47	236,872.81	81,967.60
operations	204,823.86	150,603.80	252,524.78	184,119.59
total	<u>634,327.65</u>	<u>341,393.27</u>	<u>489,397.59</u>	<u>266,087.19</u>
Lake Michigan				
developments	66,971.20	68,813.91	21,971.60	12,651.65
operations	184,357.40	158,370.31	176,162.90	134,327.69
total	<u>251,328.60</u>	<u>227,184.22</u>	<u>198,134.50</u>	<u>146,979.34</u>
Southern				
developments	42,946.75	48,374.96	9,322.41	1,265.14
operations	62,172.00	49,403.98	61,774.00	50,309.48
total	<u>105,118.75</u>	<u>97,778.94</u>	<u>71,096.41</u>	<u>51,574.62</u>
North Central				
developments	60,620.57	46,274.85	51,481.95	29,022.31
operations	7,275.00	3,390.65	21,402.00	17,472.28
total	<u>67,895.57</u>	<u>49,665.50</u>	<u>72,883.95</u>	<u>46,494.59</u>
Central Office	112,552.47	35,627.69	169,862.00	97,972.25
Fringe benefits	77,275.00	59,249.42	70,600.00	67,411.88
Grand Total	1,541,967.46	1,021,733.24	1,520,867.49	1,041,063.06
Beginning cash balance		834,378.29		640,701.97
Revenues		828,056.92		806,680.51
Balance-end of FY		640,701.97		406,319.42

¹ Expenditures in this report do not include encumbrances. Unspent encumbrances at the end of one fiscal year are carried over to the next fiscal year as a carryover allotment. These cash carryovers are unavailable for new project allotments in the new year. These amounts were \$76,355.03 in FY85 and \$161,025.81 in FY86, resulting in unencumbered year-end cash balances of \$564,346.94 in FY85 and \$245,293.61 in FY86.

ADDENDUM
Michael J. Hansen
Great Lakes Sport Fishery Specialist
October 1, 1987

Expenditures in the 1983-84 summary report included monies both spent and encumbered in those two years. However, monies that are encumbered in one fiscal year may not be liquidated (spent) until the next fiscal year. Thus, some activities would be double accounted by this system, giving the appearance that the Department spent more for some activities than was necessary. In order to prevent this double accounting of unliquidated encumbrances, the Department adds these amounts back into the beginning cash balance for the following year. Such unliquidated encumbrances totalled \$44,021.02 in FY83 and \$69,070.34 in FY84.

The expenditure summary presented in my earlier report, thus, was misleading, though it accurately reflected the bookkeeping methods used by the Department. In order to more accurately portray expenditures of your stamp revenues, therefore, encumbrances were not included in expenditures in the 1985-86 report prepared by Doug Welch. Additionally, I have prepared an amendment to the 1983-84 expenditure report that excludes encumbrances from the expenditure totals. Expenditure summaries in both reports, then, accurately portray stamp monies actually spent in years presented. Changes to my earlier report follow. Descriptions of how monies were spent remain unchanged.

NORTHWEST DISTRICT

Facility Development

1. Bayfield Trout Hatchery Renovation.

Costs in FY84 were \$11,561.94 from allotments totalling \$24,800.00.

Operations (Activities)

2. Stock Lake Trout Yearlings and Evaluate.

Costs in FY84 were \$18,976.63 out of a \$16,000.00 allotment.

3. Stocked and Native Lake Trout Spawning Assessment.

Costs in FY84 were \$9,850.19 out of a \$10,500.00 allotment.

4. Lake Superior Salmonid Creel Census.

Costs for the Lake Superior creel census in FY83 were \$10,100.71 from an \$18,375.00 allotment.

6. Stock Trout and Salmon and Evaluate.

Costs in FY84 were \$7,579.30 from a \$14,000.00 allotment.

SOUTHEAST DISTRICT

Operations (Activities)

1. Lake Michigan Salmonid Creel Census.

Costs for the creel census in FY84 were \$30,674.47 from a \$35,250.00 allotment. Costs for the harbor survey in FY83 were \$10,350.72 from a \$14,350.00 allotment and in FY84 were \$556.95 from a \$115.00 allotment.

3. Salmonid Collection for PCB Analysis.

Costs in FY84 were \$852.30 from a \$1,500.00 allotment.

4. Kettle Moraine Springs Salmon and Trout Hatchery Operations.

Costs in FY83 were \$23,515.12 from a \$33,500.00 allotment and in FY84 were \$55,158.61 from a \$58,768.42 allotment.

5. Stock Lake Trout and Evaluate.

Costs in FY84 were \$25,805.45 from a \$34,300.00 allotment.

LAKE MICHIGAN DISTRICT

Facility Development

1. Strawberry Creek Salmon Rearing and Weir Pond Renovation.

Costs in FY84 were \$20,318.94 from allotments totalling \$60,402.84.

Operations (Activities)

1. Salmon Pond Rearing.

Costs in FY84 were \$15,352.38 from a \$17,200.00 allotment.

4. Lake Michigan Salmonid Creel Census.

Costs in FY84 were \$35,736.62 from a \$35,100.00 allotment.

6. Stock Lake Trout and Evaluate.

Costs of assessment activities in FY84 were \$12,672.56 from a \$11,500.00 allotment. Costs of the contracted pound net in FY84 were \$137.13 from a \$3,700.00 allotment. Remaining costs of the

pound net (\$18,381.34) were charged to allotments (\$22,800.00) from Federal Coastal Zone Management funds.

SOUTHERN DISTRICT

Facility Development

1. Nevin Trout Hatchery Renovation.

Costs in FY83 were \$5,208.01 from allotments totalling \$42,000.00 and in FY84 were \$29,165.17 from allotments totalling \$48,291.99.

2. Lake Mills Trout Hatchery Development.

Costs in FY84 were \$10,372.07 from a \$10,000.00 allotment.

BUREAU OF FISH MANAGEMENT

Operations (Activities)

1. Salmon Stamp Administration.

Costs in FY83 were \$37,789.00 from allotments totalling \$45,950.00 and in FY84 were \$16,976.64 from allotments totalling \$16,749.60.

2. Salmon and Trout Contaminant Analysis.

Costs in FY83 were \$4,014.70 from a \$24,000.00 allotment.

4. Chinook Salmon Sterilization Feasibility Study.

Costs in FY84 were \$3,484.53 from a \$20,655.00 allotment.

TABLE 1. Allotments and expenditures¹ of Great Lakes Salmon and Trout Stamp revenues for facility developments and program operations in Wisconsin, 1983-1984.

District/Type*	1983		1984	
	Allotments	Expenditures	Allotments	Expenditures
Northwest				
developments	12,575.41	2,575.41	46,300.00	18,824.64
operations	<u>36,165.00</u>	<u>22,629.51</u>	<u>151,750.00</u>	<u>108,705.28</u>
total	48,740.41	25,204.92	198,050.00	127,529.92
Southeast				
developments	112,932.13	78,012.13	37,920.00	39,973.07
operations	<u>75,173.00</u>	<u>52,670.44</u>	<u>151,433.42</u>	<u>141,338.70</u>
total	188,105.13	130,682.57	189,353.42	181,311.77
Lake Michigan				
developments	61,864.18	45,311.34	72,967.84	22,524.17
operations	<u>35,596.00</u>	<u>16,724.51</u>	<u>128,842.00</u>	<u>100,573.80</u>
total	97,460.18	62,035.85	201,809.84	123,097.97
Southern				
developments	42,000.00	5,208.01	58,291.99	39,537.24
operations	<u>16,700.00</u>	<u>5,846.71</u>	<u>61,624.00</u>	<u>58,681.74</u>
total	58,700.00	11,054.72	119,915.99	98,218.98
North Central				
developments	-	-	62,915.00	2,294.43
operations	<u>41,100.00</u>	<u>28,956.16</u>	<u>6,800.00</u>	-
total	41,100.00	28,956.16	69,715.00	2,294.43
Central Office	69,950.00	41,803.70	65,054.60	44,252.47
Fringe benefits	19,700.00	12,212.97	55,600.00	54,860.28
Grand Total	523,755.72	311,950.89	899,498.85	631,565.82
Beginning cash balance		0	618,660.76	
Revenues	930,611.65		847,283.35	
Balance-end of FY	618,660.76		834,378.29	

¹ Expenditures in this report do not include encumbrances. Unspent encumbrances at the end of one fiscal year are carried over to the next fiscal year as a carryover allotment. These cash carryovers are unavailable for new project allotments in the new year. These amounts were \$44,021.02 in FY83 and \$69,070.34 in FY84, resulting in unencumbered year-end cash balances of \$574,639.74 in FY83 and \$765,307.95 in FY84.