Expenditures of Inland Waters Trout Stamp Revenues

Administrative Report # 46

By Bob Topel

Wisconsin Department of Natural Resources
Bureau of Fisheries Management & Habitat Protection
Madison, Wisconsin
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Inland Waters Trout

Stamp Revenues

Fiscal Years 1998 – 2001

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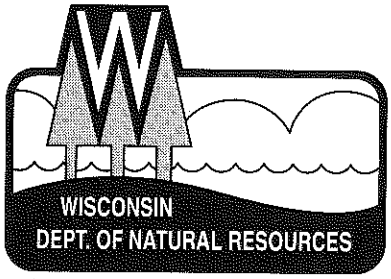

Mission Statement

To protect and enhance our natural resources:
our air, land and water;
our wildlife, fish and forests
and the ecosystems that sustain all life.
To provide a healthy, sustainable environment
and a full range of outdoor opportunities.
To ensure the right of all people
to use and enjoy these resources
in their work and leisure.
To work with people
to understand each other's views
and to carry out the public will.
And in this partnership
consider the future
and generations to follow.

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BACKGROUND OF THE INLAND WATERS TROUT STAMP PROGRAM

Creation of the Inland Waters Trout Stamp Program

The inland waters trout stamp program was created in 1977 to provide additional funding for improving trout habitat. The Wisconsin Department of Natural Resources has a long history of successful trout stream habitat management. Work began with the federal work programs in the 1930's, and improved as more successful methods were developed over the history of the program. Only limited work could be accomplished due to inconsistent funding until the trout stamp program began in 1977. We are now envied by other states because of the amount and dedication of the trout stamp funds for habitat improvement.

The number of trout stamps sold has varied from 108,000 (during the drought of 1990) to 195,000 during 1981. About 130,000 stamps have been sold annually over the last 10 years. DNR managers, biologists, and technicians have used the money to improve an average of 25 miles of stream and 1 spring pond per year. This has resulted in about 550 miles of stream improved out of a total of 9,600 miles of trout stream in Wisconsin. It is important to note that, most of the DNR personnel working on trout habitat projects are not paid by trout stamp funds, therefore a significant amount of non-trout stamp dollars support trout habitat work.

Research and management evaluations have proven the positive results of stream improvement. Numerous DNR Technical Bulletins and Research Reports document increased numbers and size of trout in improved areas. Many anglers seek out streams with habitat work, knowing that good fishing will likely be found there.

In the past decade, the Department has expanded the use of trout stamp money to other aspects of trout stream habitat management. Since 1992, these funds have included maintenance of habitat improvements, which is vital to insuring the long-term benefits of habitat work. Trout population surveys were added as a viable use in 1998. Surveys are very important for planning habitat improvement projects and evaluating the results of funded projects on improving trout populations. With your continued support, these funds will provide for increased trout fishing opportunities and increased quality of trout habitat into the future.

Guidelines for the use of Inland Waters Trout Stamp revenues

Wisconsin state statue 29.191(4)(e) states: "The Department shall expend the receipts from the sale under this subsection of inland waters trout stamps on improving and maintaining trout habitat in inland trout waters, conducting trout surveys in inland trout waters and administering this subsection.[1]" In addition to applying to trout species, these statues define the geographic and program requirements of the Inland Waters Trout Stamp Program.

[1] Wisconsin Statutes and Annotations 1997-98 Updated through 1999 Wis. Act 7. State of Wisconsin, Madison WI.

Geographical Requirement

Projects that use trout stamp revenues must be geographically focused on Wisconsin's inland trout waters. These revenues may not be used on portions of Great Lakes tributaries that are only accessible to anadromous trout and salmon.

Program Requirement

Projects funded by Inland Waters Trout Stamp money must specifically relate to trout habitat management (improving and maintaining habitat) or to conduct trout surveys.

Habitat management encompasses activities such as maintaining trout streams, improving existing streams and restoring streams capable of sustaining trout populations. Beaver control projects may be funded as part of habitat management. The purchase of equipment to conduct this work is authorized.

Surveys authorized must be limited to trout surveys in inland waters. Surveys funded to date include those designed to plan and evaluate habitat improvement projects, wild trout stocking, trout genetics, and regulations.

**A deepened channel with additional cover –
the result of a habitat development project on the Waupaca River**

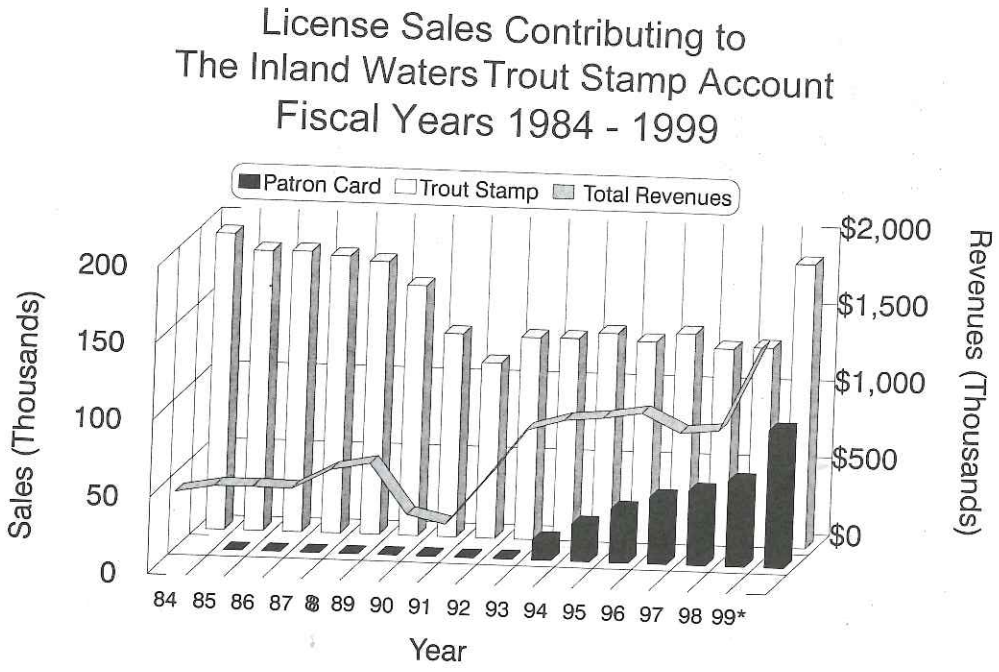
Sources of Revenue for the Inland Trout Stamp Account

All receipts from the sale of Inland Waters Trout Stamps are placed in the Inland Waters Trout Stamp Account. However, Inland Waters Trout Stamp revenues are not the only source of funds for the Inland Waters Stamp account. Some revenues from the sales of patron licenses and collector stamps also contribute. 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 $.75 for the patron license and $.25 for the Inland Waters Trout Stamp. Calculations and references in this report exclude vendor's fees.

Currently the cost of each Inland Waters Trout Stamp is $7.00 and the share of the Patron License fee that the Inland Trout Stamp account receives is $3.73 (this figure varies slightly from year to year).

In addition, collectors can purchase souvenir Inland Waters Trout Stamps from previous years. All revenues from these sales contribute to the Inland Trout Stamp account. License sales that contribute to the Inland Waters Trout Stamp Account are shown graphically below and in a tabular presentation on page 6.

General fishing license fees, federal Sport Fishing Restoration (SFR) funding and donations also support the inland trout program.



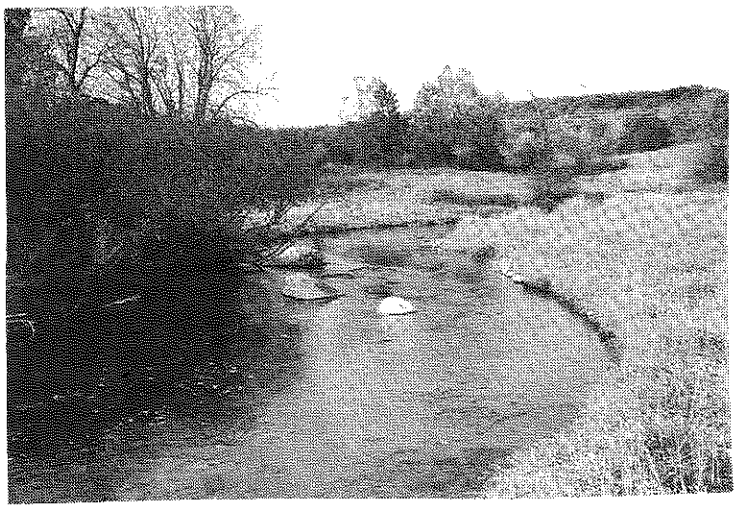
* - A one-year spike in sales occurred in FY99 due to implementation of the Automated License Issuance System (ALIS)

READER'S GUIDE

This report summarizes *planned* expenditures of Inland Waters Trout Stamp (IWTS) revenues for fiscal years 1998, 1999, 2000 and 2001 as well as the total *actual* expenditures, from all funding sources, for fiscal years 1998 and 1999. (The fiscal year runs from July 1 of one year through June 30 of the next.) In many cases, actual expenditures exceed Inland Waters Trout Stamp contributions since other fishing license revenues and federal funds also support this program. Descriptions are presented for each IWTS project however, current accounting procedures do not allow tracking of actual expenses down to the project level in most cases. Each project is categorized as Habitat Improvement Activities, Research Studies and Surveys, or Inland Waters Trout Stamp program administration (the cost of producing the IWTS and this report). (Note: Within each category, projects are listed in alphabetical order by county.) Costs associated with travel, special services, supplies, program overhead, limited term employee (LTE) salaries and permanent salaries (which are directly funded by IWTS funds) are eligible for Inland Waters Trout Stamp funding and are included in planned expenditures for each year. "Total Actual Expenditure" figures in Table 1 and the "Total Program Expenditures (all funding sources)" for individual category/project descriptions include all Inland Waters Trout Stamp funds as well as other fishing license revenues and federal funds supporting these programs. Generally, the difference is attributable to permanent salaries not covered by IWTS money. While permanent employee salaries paid by IWTS funds are described in this report for each category and LTE salaries are described by project, fringe benefits for both are summarized only in Table 1 on page 10. Beginning in the FY 2000-2001 biennium, funding for allocable expenses (a prorated amount of additional fees to the fisheries program for annual leave, compensatory time and routine office/administrative costs) will appear in the Inland Waters Trout Stamp budget to acknowledge the amount of IWTS revenues that support this activity. Where "Funding Status" is shown, there will be an indication as to whether funding for the indicated program was completed in the 98-99 biennium, begins in the 00-01 biennium or continues through both.

For those projects in which organizations outside of the DNR were partners in the project activity, that organization is identified.

This is the first published report on expenditures of Inland Waters Trout Stamp revenue. A similar report is planned for each succeeding biennium.



Boulders placed midstream add diversity of habitat to the undercut bank on the right.

It is important to the Wisconsin Department of Natural Resources that you find this report useful. To better meet this goal, direct your suggestions for improving this report to:

Attn.: Larry Claggett, Coldwater Fisheries Ecologist

Wisconsin Department of Natural Resources
Bureau of Fisheries Management and Habitat Protection
PO Box 7921
101 South Webster Street
Madison, Wisconsin 53707
Phone: (608) 267-9658 or (608) 266-1877
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For more information on trout fishing and many other subjects, visit the DNR Website at:

http://www.dnr.state.wi.us/

Find the ***Fish Wisconsin*** page by clicking on

"Outdoor Activities"

and then

"Fishing"

Thank you for your interest and feedback.

License Sales Contribution to Inland Waters Trout Stamp Account

Year	Patron Cards	Trout Stamps	Total Revenues
1984		192,510	$503,337
1985	218	181,960	$548,513
1986	264	182,354	$550,349
1987	398	180,096	$544,367
1988	254	177,138	$674,422
1989	449	162,447	$723,358
1990	756	131,910	$401,174
1991	539	113,640	$346,440
1992	847	131,008	$647,594
1993	13,486	131,308	$971,516
1994	24,757	135,425	$1,044,839
1995	34,942	130,701	$1,066,710
1996	43,370	136,687	$1,107,057
1997	48,368	127,840	$986,760
1998	55,579	129,385	$1,008,113
1999*	89,114	184,526	$1,553,033

* A one-year spike in sales occurred in FY99 due to implementation of the Automated License Issuance System (ALIS)

CONTACT LIST

If you have any questions concerning specific projects in this report, please contact the personnel listed by phone or e-mail with the specific project of interest.

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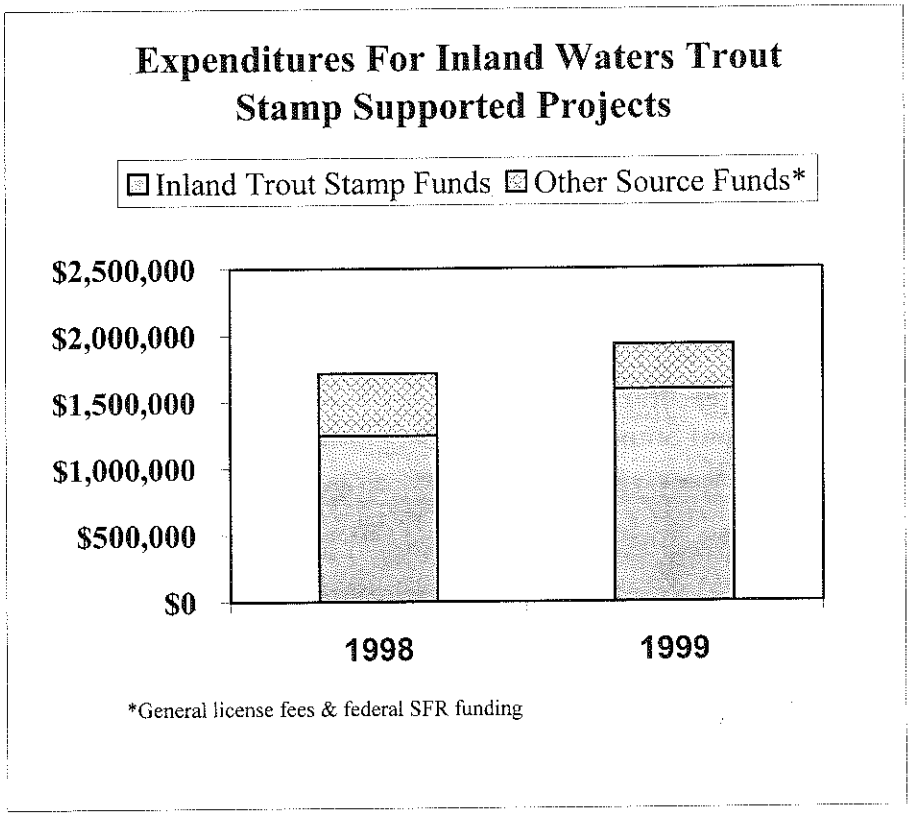
Table 1 Expenditures of Inland Waters Trout Stamp revenues in fiscal years 1998-2001

Planned Expenditures	FY98	FY99	FY00	FY01
Habitat Improvement	$1,524,257	$1,568943	$1,002,585	$991,905
Research Studies and Surveys	$94,134	$137,947	$99,216	$73,608
Inland Waters Trout Stamp Program Administration	$6,000	$6,000	$21,200	$6,000
Permanent Salaries	$239,681	$247,700	$252,654	$259,476
Fringe Benefits	$138,321	$147,331	$127,233	$132,037
Allocable Expenses	N/A	N/A	$60,742	$60,742
Total Planned Expenditures of Inland Waters Trout Stamp Revenues	**$2,002,393**	**$2,107,921**	**$1,563,903**	**$1,523,768**
Actual Expenditures of Inland Waters Trout Stamp Revenues	**$1,246,142**	**$1,593,646**	**N/A**	**N/A**
Total Actual Expenditures for Inland Waters Trout Stamp Supported Projects (All Funding Sources)	**$1,716,143**	**$1,929,838**	**N/A**	**N/A**

Table 2 Annual Inland Waters Trout Stamp account activities, fiscal years 1998-2001.

	FY98	FY99	FY00	FY01
Beginning cash balance	$1,611,188	$1,373,159	$1,332,546	$1,019,389[3]
Revenues	$1,008,113	$1,553,033[2]	$1,088,100[3]	$1,088,100[3]
Total available funds	$2,619,301	$2,926,192	$2,420,646[3]	$2,107,489[3]
Total expenditures	$1,246,142	$1,593,646	$1,401,257[3]	$1,343,533[3]
Cash balance	$1,373,159	$1,332,546	$1,019,389[3]	$763,956[3]



[2]A one-year spike in revenue occurred in FY 99 because of DNR conversion to the Automated License Issuance System (ALIS). Under the new system, revenues reach the DNR immediately; under the previous collection system there was a delay in transmission of revenues to DNR.
[3]Estimated Figures

HABITAT IMPROVEMENT

Trout Habitat Maintenance

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$121,313	$107,767	$124,959	$95,663
Total Program Expenditures (all funding sources)	$144,603	$179,806	N/A	N/A

Past trout stream enhancement projects require routine inspection and upkeep. This work takes many forms, varying by stream and the nature of the improvements made. In addition to replacing and repairing lunkers and other cover structures, habitat maintenance can include instream debris removal, replacement of riprap and fill where needed, and maintaining desired stream bank vegetation. A description of activities by project in this area follows.

Big Roche A Cri Creek – Adams Co. **Contact: Jack Zimmermann**
Funding Status: Ongoing
Big Roche A Cri Creek had intensive habitat work done in 1980-82. This project updated that work by adding fill behind structures and filter fabric. Deflectors were repaired and the area seeded.

White River – Bayfield Co. **Contact: Dennis Scholl**
Funding Status: Complete
A segment of the White River within the White River Fishery Area, a very high quality Class I trout stream, was experiencing severe erosion in an steep, intermittent drainage area. A silt fence was installed along approximately 450 feet of stream and the area re-sloped, shaped, seeded and mulched.

Jennings Creek – Columbia Co. **Contact: Tim Larson**
Funding Status: Begins in 2000
Jennings Creek is a Class II trout stream. Over time, water from the creek has cut channels into a nearby drainage ditch, allowing water to drain from the creek and into the ditch therefore harming the habitat. This project was planned to place dikes at the channel cuts to prevent water from leaving the stream and therefore stabilizing the habitat. A berm was constructed in winter of 1999, but unfortunately, it failed. Now, the plan is to relocate 400' of stream away from the drainage ditch area during the winter of 2000.

Grant/Platte/Pecatonica Basin – Iowa, Richland, Lafayette Co. **Contact: Gene Van Dyck**
Funding Status: Complete
This project removed beaver dams, brush and trees from approximately 2/3 miles of stream. Work was done on the following streams: Otter Creek in Iowa County, Willow and Ash Creeks in Richland County and Steiner Creek in Lafayette County.

Black/Buffalo/Trempealeau Rivers – Jackson, Trempealeau, Buffalo Co.
Contact: Dan Hatleli
Funding Status: Ongoing
Maintenance work on the South Fork of the Buffalo River (1998) was not completed because the fisheries crew was involved in cleanup activities at the Sand Creek Integrated Ecosystem Management (IEM) project and Merrick Park. A severe windstorm that was accompanied by heavy rains did considerable damage to both these areas in July 1998. Funding on this project continues into the next biennium.

La Crosse/Bad Axe Streams – La Crosse, Crawford, Monroe Co. **Contact: Mike Leonard**
Funding Status: Begins 2000
This project includes generic habitat maintenance activity, which responds to damage caused by flash flooding on several streams in the region. Streams receiving work included: Timber Coulee, Bohemian Valley, Coon, Hornby Dutch and Mormon Coulee Creeks.

Waupee Creek/South Branch Oconto River – Marinette Co. **Contact: Russell Heizer**
Funding Status: Begins 2000 **Partners: Trout Unlimited, US Forrest Service**
The focus of this project is the installation of brush bundles to narrow and deepen the stream channels on both Waupee Creek (3,200 feet) and the First South Branch of the Oconto River (3,500 feet). Work was conducted on both project sites during the summer of 1999 and will continue through the 1999 - 2001 biennium.

Half log placed instream for trout cover and riprap placed on outer bank to prevent bank erosion.

Upper Green Bay Basin – Marinette & Oconto Co. **Contact: Cliff Sebero**
Funding Status: Ongoing **Partners: Trout Unlimited**
Work in the Upper Green Bay Basin consists of cleaning out ½ logs, maintaining stream bank vegetation and riprap on bank covers, and redredging sediment traps. Work activities on instream habitat devices are conducted in the spring, after snowmelt and runoff, and in the fall after completion of the summer habitat construction work. Redredging of sediment basins takes place in early fall, before the spawning run and/or during winter to minimize ground disturbance in lowland areas.

Chafee Creek /White River – Marquette Co. **Contact: David Bartz**
Funding Status: Ongoing
Many trout streams in Marquette County are in need of brushing to remove stream side vegetation and improve trout habitat. The majority of these streams have not been brushed in the last twenty years. A small investment in this management tool will greatly enhance the trout resource. A total of

5,300' was brushed on Chaffee Creek and an additional 537' was brushed along the White River during the past biennium. Work continues.

South Fork Main Creek – Rusk Co. **Contact: James Lealos**
Funding Status: Ongoing **Partners: Rusk County Wildlife Restoration Assoc.**
Work was completed on approximately ½ mile of stream bed. Old, deteriorated boom covers were removed and replaced with new modular lunker-cover structures. Workers built and rebuilt current deflectors with rock, narrowed the stream with rock and brush bundles, and did some strategic stream side woody brush control. Staff also had to contend with the stream flowing through a dairy cattle feedlot/pasture situation, which meant constructing a total of about 1 mile of 4-strand fence with electric wire and one cattle/equipment crossing in addition to removing approximately ½- ¾ mile of old deteriorated fence. In July and August 1999, efforts continued downstream from the work noted above, repairing or replacing deteriorating boom covers, adding current deflectors, narrowing the stream and adding boulder retards, as well as some minor fence repair and old fence removal. The high water/flooding conditions of the summer of 1999 saw the work hold up remarkable well, with little repair work necessary. DNR staff conducted several tours last summer for the news media, and involved the local conservation club and several school classes in the project as well. At least four 15-16 inch brook trout were caught from the creek in the past year!

Price Creek – Sawyer Co. **Contact: Frank Pratt**
Funding Status: Complete
This project provided the necessary budget and manpower to complete work on Price Creek in the Flambeau River State Forest that was started in June of 1997. This is a continuation of several years of previous work on the same stream and completed the maintenance of trout habitat structures on the entire original project length.

St. Croix Basin — Washburn Co. **Contact: Larry Damman**
Funding Status: Begins 2000
Trout habitat maintenance has been an ongoing activity throughout the St. Croix Basin for the past 19 years. This project area will continue that work. It involves stream bank brushing, easement fencing and habitat structure repair.

Scuppernong River – Waukesha Co. **Contact: Susan Beyler**
Funding Status: Begins 2000
Maintenance work will begin on ¼ mile of the South Branch of the Scuppernong River in late 2000 and continue into 2001. Beaver dams and other obstructions will be removed. In addition, boom covers and riprap will be install as needed to replace existing habitat structures. Seeding and vegetation restoration is also planned.

Upper Fox River Basin – Waushara Co. **Contact: Al Niebur**

Funding Status: Complete

Trout stream habitat improvement work on streams of the Upper Fox River Basin dates back to the early 1950's. In addition, several reaches of stream have been extensively brushed to stabilize channels associated with meadow-type habitat. This project completed routine inspection and maintenance of several past habitat improvement projects in the Upper Fox River Basin and prioritized future maintenance. Specific maintenance activities included:

- Inspection of past structure and brushing projects on the Chaffee Creek, Wedde Creek, West Branch White River, White River, Little Pine Creek, and Lunch Creek
- Brush management on approximately 2,000 feet of the Chaffee Creek, 4,000 feet of the Soules Creek, and 4,000 feet on the West Branch White River
- Repair of approximately 8 overhead bank structures, addition of mid-channel boulders, and seeding and/or vegetation restoration on West Branch White River

Future projects identified during inspection include: structure repair/replacement in the Mecan River and West Branch White River and brushing on the Lunch and Little Pine Creeks.

Upper Wisconsin Basin **Contact: Steven AveLallemant**

Funding Status: Ongoing

Eleven miles of extensive habitat structures were inspected and repaired during the past biennium. In addition, two small culverts were replaced on unnamed spring creeks feeding the Prairie River. In the coming biennium, this project covers a walk through of all past habitat projects to identify maintenance needs and then complete the work for the entire basin which includes both Woodruff and Antigo fisheries projects. Some projects require no maintenance, some a little, but no major overhauls are envisioned.

Wolf River Basin **Contact: Al Niebur**

Funding Status: Complete

As with the Upper Fox Basin project shown above, this project completed routine inspection and maintenance of several past habitat improvement projects in the Wolf River Basin and prioritized future maintenance. Specific maintenance activities included:

- Inspection of past structure and brushing projects on the Pine River, Willow Creek, Davis Creek, Humphrey Creek, Little Silver Creek, Peterson Creek, Waupaca River, Radley Creek, Murray Creek, Whitcomb Creek, and Spaulding Creek
- Brush management on approximately 8,000 feet of the Whitcomb Creek, 3,000 feet of the Spaulding Creek, and 1,000 feet on the Willow Creek
- Repair of structures damaged by spring flooding and addition of several hundred mid-channel boulders in the Whitcomb Creek

Future projects identified during inspection include: structure repair/replacement in the Spaulding Creek and brushing on Spaulding Creek and Whitcomb Creek.

Trout Habitat Development

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$1,037,709	$1,244,493	$711,199	$732,342
Total Program Expenditures (all funding sources)	$1,081,394	$1,355,035	N/A	N/A

Habitat development projects in this section of the report encompass a wide range of activities intended to improve streams that support trout population. These streams generally have not had projects in the past and thus are not in the maintenance category above.

Campbell Creek – Adams Co. **Contact: Jack Zimmermann**
Funding Status: Complete
This project added hiding cover and scoured the bottom sediments on one mile of trout stream. the native trout population is expected to expand. Fishability and the native trout population should improve. The work also included brushing, adding deflectors, closing braid channels and seeding.

Fordham Creek – Adams Co. **Contact: Jack Zimmermann**
Funding Status: Complete
This work involved installation of boom covers and current deflectors, removing brush, maintaining old structures and seeding some new structures.

Engle Creek – Barron Co. **Contact: Richard Cornelius**
Funding Status: Begins 2000
Planning and mapping for this project were done in 1999. In the next biennium, 1 bank cover, 1 brush mat, 1 log revetment and 2 rock wing deflectors will be installed. Additional habitat improvement work on this stream is in the planning stages.

Silver Creek – Barron Co. **Contact: Richard Cornelius**
Funding Status: Begins 2000
Planning and mapping for this instream habitat improvement project began in 1999. In 2000 & 2001, 2 brush mats, 10 rock or log wing deflectors and 1 bank cover will be installed.

Yellow River – Barron Co. **Contact: Richard Cornelius**
Funding Status: Begins 2000
This project is intended to improve habitat in a high quality brook and brown trout stream. In addition to planning and mapping, some limited brushing was done in 1999. During the next biennium, limited stream bank brushing will be done as well as installation of 40 feet of riprap, 4-5 log wing deflectors and 2 log wing deflector-brush mat combinations.

Iron River – Bayfield Co. **Contact: Dennis Scholl**
Funding Status: Complete
This was a habitat improvement project on the upper portion of the Iron River. The project involved constructing a series of current deflectors, channel constrictors, and boom covers to flush out a large accumulated sand bed load. Results so far are good, with gravel areas now exposed and deep holes scoured out.

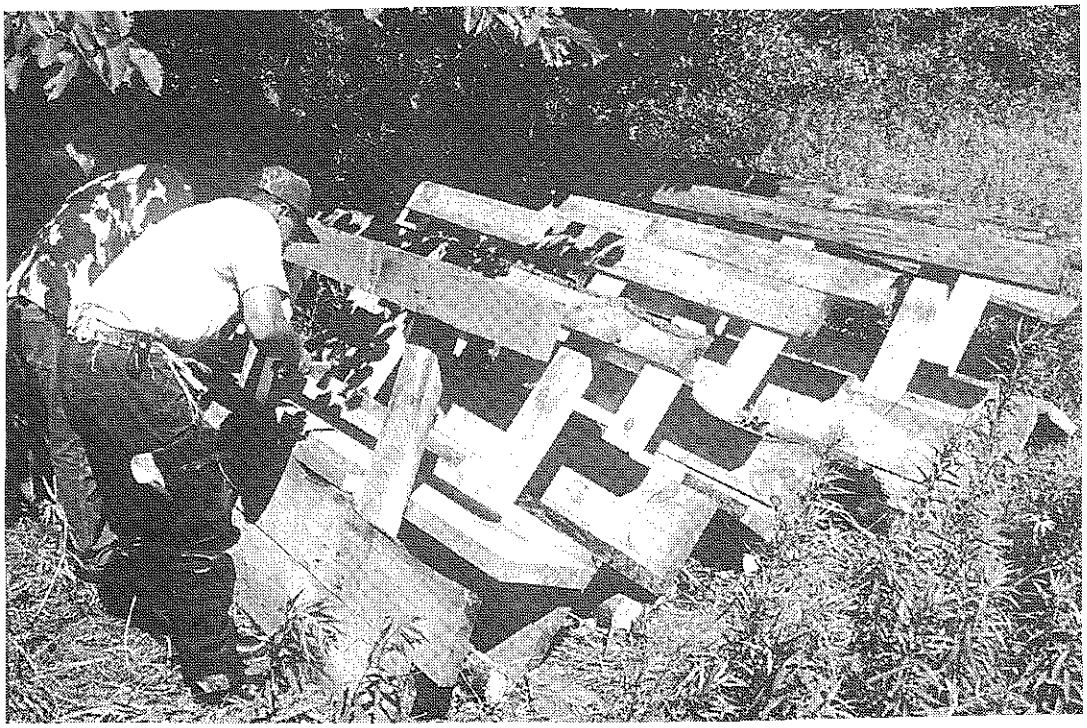
Johnson Springs – Bayfield Co. **Contact: Skip Sommerfeldt**
Funding Status: Complete
An old outlet structure on Johnson Springs in Bayfield County was basically non-functional as it was very prone to beaver clogs, was in bad need of repair and leaked. A whistle tube structure was purchased and the US Forest Service was contracted to install it. The project was completed in June 1998.

Schultz Springs, Namekagon River – Bayfield Co. **Contact: Frank Pratt**
Funding Status: Begins 2000 **Partners: U.S. Park Service**

This project is meant to restore some semblance of the original, free-flowing conditions of streams that were impounded for a private fish hatchery. The first year will involve studying and mapping the specific restoration work to be done. The work in the second year will involve the actual construction consisting of installation of whole tree deflectors and, where needed, rock deflectors, revetments, bank covers and brush bundles. To date, the ponds have been mapped. Work will progress as funds become available.

20 Mile Creek – Bayfield Co. **Contact: Skip Sommerfeldt**
Funding Status: Complete

20 Mile Creek is a Class I trout stream. The fishery consists primarily of native brook trout. In 1985, a project that installed approximately 28 habitat improvement structures on a 700-foot stretch of the creek was completed. The structures included cover logs, channel constrictors, whole log covers, deflectors, wedge dams and tip deflectors. Since 1985 there have been numerous floods that have resulted in the majority of the structures being blown out or buried. This project proposes to restore much of the habitat improvement area to its original condition. The first portion of the work was completed in July 1998. DNR contracted the US Forest Service (USFS) to do the habitat restoration work on a stretch of the stream in a former research project area. Numerous exposed safety hazards were removed (re-bar and geo-web) and all hand repair work was completed. Some heavy machinery-type work remains to be done by USFS. However, the 2nd portion of the project was not completed due to time/manpower constraints on the part of the USFS. No work is planned for years 2000-01, but a final restoration project proposal will be resubmitted when Forest Service gets their work done.



Newly constructed skyhook covers being stored for future placement.

Dogtown & Engle Creeks – Burnett, Baron Co. **Contact: Larry Damman**
Funding Status: Complete
Both of these fisheries are Class I brook trout streams which will benefit from habitat improvement projects. In particular, there was a lack of cover for larger trout, which the installation of bank covers and wing deflectors improved. The work was done at specific sites on a 1 mile stretch of Dogtown Creek, and a 1,500-foot stretch of Engle Creek. Both streams were mapped to determine where instream structures should be located. Bank covers, wing deflectors and brush mats were utilized to create more hiding cover for trout. Stream bank brushing will increase the stream's productivity and fishability.

Duncan Creek – Chippewa Co. **Contact: Joe Kurz**
Funding Status: Complete **Partners: Trout Unlimited, Wisconsin Conservation Corps**
This effort improved 1,630 feet of a Class I trout stream. It included installation of 748 feet of bank covers. An additional 2,000 feet of habitat improvements needs to be done as a continuation of this project and will be addressed in a future funding proposal.

Eau Claire Projects – Chippewa/St. Croix Co. **Contact: Jim Holzer**
Funding Status: Begins 2000
This is a brushing project planned for the winter of 1999-2000 on Duncan Creek and the Kinninickinnic River.

Elk Creek – Chippewa Co. **Contact: Jim Holzer**
Funding Status: Begins 2000
Part of the work on Elk Creek under this project has been completed. Bank grading and brush removal have been done in preparation for 1,100 feet of habitat development work planned for the spring of 2000.

Rush & Kinnickinnic Rivers/Elk Creek – Chippewa Co. **Contact: Jim Holzer**
Funding Status: Completed
Because of hiring delays, there was not time in the planned work season to set up these three new projects for the Rush River, Kinnickinnic River and Elk Creek. It was subsequently agreed to substitute project streams and finish work on existing projects. These projects include:

- 18 Mile Creek at Colfax: Finished riprapping and re-creating the last 1,000 feet of stream in the project area. Thirty boom structures and four grade controls were installed.
- Duncan Creek: Purchased and hauled rock for habitat work that was done after July 1, 1999.

Plum Creek – Crawford Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: Prairie Rod & Gun Club**
The workplan for this project includes stream restoration -- 1,800 feet of which is already completed. Thirty-two lunkers have been installed. More work is planned for the summer of 2000.

Sugar Creek – Crawford Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: Prairie Rod & Gun Club**
The bed of Sugar Creek, in the area addressed by this project, consists mainly of sand. Plans call for improving the bed with gravel as well as improving cover areas. Previous work on another portion of the creek increased the trout population by over 1000%. So far, 2,200 cubic yards of riprap have been stockpiled along the bank. 28 lunker structures have been constructed. Instream work will be done in the summer of 2000.

Black Earth Creek – Dane Co. **Contact: Scot Stewart**
Funding Status: Ongoing **Partners: Trout Unlimited and Dane County LCD**
Three thousand feet of Black Earth Creek, including work on the Danz property, will be improved under this project. Eroding stream banks will be stabilized and cover restored. Delays in obtaining priority watershed agreements have moved the work to the summer of 2000.

Deer Creek – Dane Co. **Contact: Scot Stewart**
Funding Status: Begins 2000
Partners: Trout Unlimited, Dane County Conservation League, Deer Creek Sportman's Club, and Dane County LCD.
Deer Creek is one of two upstream tributaries of Mt. Vernon Creek that is a Class I trout stream. Work done in FY00 will stabilize eroding stream banks, install riprap and over 300 lunkers as well as seed and mulch the effected area. In total 21,250 feet of steam will be improved.

Manley Creek – Dane Co. **Contact: Tim Larson**
Funding Status: Ongoing
This project continued the trout habitat improvement work on 3/8 mile of Manley Creek that was started in June of 1997. Upstream "V" deflectors and bank revetment structures were installed to create more deep-water areas and overhead cover. Also badly eroded stream bank areas were stabilized. In winter 2000, plans call for brushing 1 mile of the stream work zone and stockpiling materials for 40 lunker structures at the stream bank sites. During summer of 2000 and 2001, WCC crews will install the structures.

Reroute Story Creek – Dane Co. **Contact: Douglas Lubke**
Funding Status: Complete
Stream flow in Storey Creek just downstream from Bellbrook Rd. was diverted from the western drainage ditch back into the original channel in mid-February 1999. After heavy rain, the restored channel appeared quite stable with very little damage done to the banks due to high water. The water level in the stream remains high most of the spring. The vegetation continues to grow thickly and stabilizes the banks quite well. An electrofishing survey was conducted in May 1999 that included the project area. Although trout densities were low in the restored channel, adult and juvenile brook and brown trout were found in the area. It was noted during the fish survey that the flow of water from the stream to the ditches had subsided as the water level in the stream returned to normal. In general, the stream bottom was soft and silty. There was some firm substrate in a few areas under the silt, but most of the bottom was softer than the upstream and downstream sections of the channel. In late June, equipment was brought in to place earth plugs in both the eastern and western ditches. Four plugs were placed in each ditch for the purpose of retarding the flow of ground and surface water from the stream toward the ditches. As of July 1, 1999 Trout Stamp funding for this project is ending. Forty-five 8-foot cover structures have been built and installation is planned for a later date. This work should be done, as overhead cover is the biggest limiting factor for trout in the stream. A year or more may be necessary for the banks and bottom of the restored channel to stabilize.

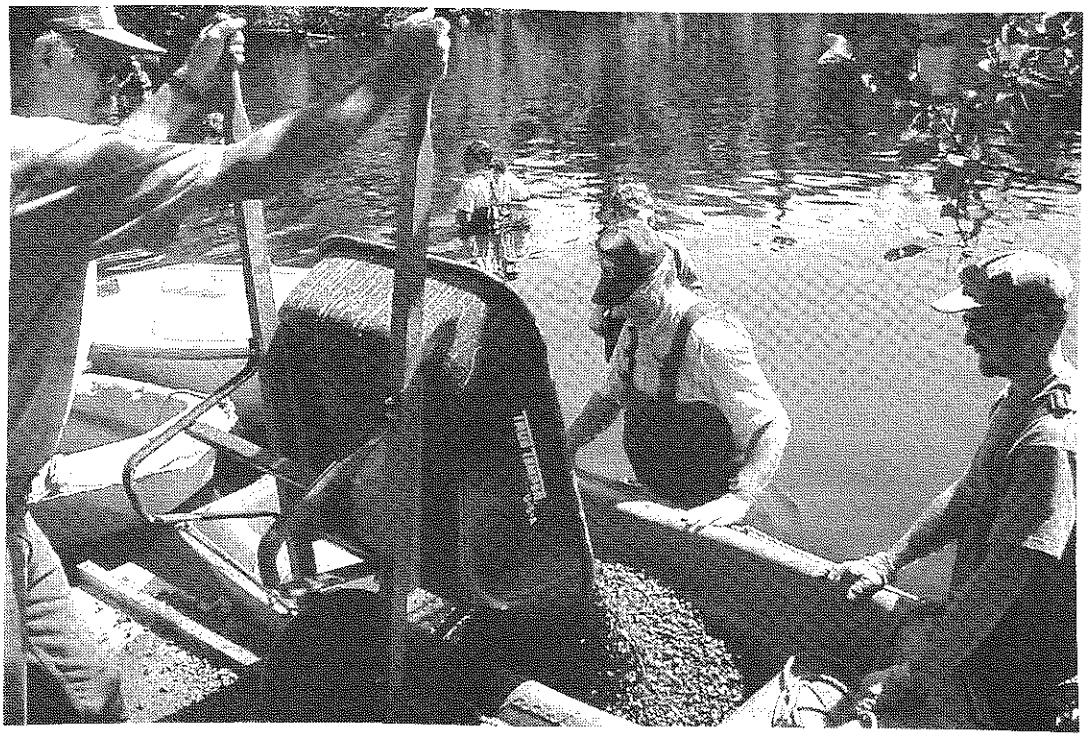
Token Creek – Dane Co. **Contact: Scot Stewart**
Funding Status: Ongoing
Partners: Town of Windsor, Trout Unlimited, Dane County Conservation League, Token Creek Watershed Ass., Dane County LCD, and Dane County Natural Heritage Assn.
This project will create four miles of Class I trout water instead of a shallow millpond with a historic rough fish problem. Token Creek Millpond Dam will be removed in the fall and winter of 1999-2000. Temperature monitoring and fish sampling was done in FY99. One-half the coring is completed to locate the channel. Work will continue into the biennium to restore the stream channel to its original meander pattern.

Gill & Irish Creek – Dodge Co. **Contact: James Congdon**
Funding Status: Complete
These creeks are two of the three trout streams in Dodge County and have the best potential to support a trout fishery but are significantly impacted by non-point source pollution. The objective of this

project was to inventory the resources in the watershed and develop partnerships with agencies and local interest groups to improve and protect those resources. This included: an inventory of soil cropping and erosion problems; conducting a fishery survey; monitoring water quality; and gaining landowner support for trout habitat improvement measures. A 39-acre permanent easement has been purchased on Irish Creek and it is intended to buy more. Additional funding for this project is under review. If approved, it will be used to purchase additional easements and to fund improved land management practices including "no-till" and buffer areas.

Bois Brule River – Douglas Co. **Contact: Dennis Pratt**
Funding Status: Ongoing **Partners: Brule River Sportsmen's Club**

The Bois Brule River in Douglas County is one of the more famous trout streams in Wisconsin. The watershed makes up about a quarter of all naturally reproducing anadromous (lake run) tributary trout mileage in the state. In the upper half of the river the quantity and quality of spawning areas available for trout is in short supply and degraded condition. This portion of the stream has extremely high water quality and is one of the most stable flow reaches in the Lake Superior basin. The trout population is impaired by the lack of available spawning habitat. Work activities include site planning, water regulation permit, work planning, public involvement (club volunteer work weekends), directing Department crews, moving spawning substrate to the river, placing material instream, monitoring salmonid use and adjusting design to improve spawning success.



Volunteers from the Brule River Sportsmen's Club adding spawning gravel to the Brule River.

During the 1998 season, five major spawning sites that are heavily used by both fall and spring spawning salmonids were restored. In 1999, four spawning areas that had been degraded by beaver impoundment on the East Fork of the Brule were restored, two small tributary brook trout spawning areas were improved by adding gravel and two mainstream restoration sites that had been started in the 1998 season were completed. Also, during three Saturday "workdays", volunteers from the Brule River Sportsmen's Club added over 100 tons of gravel at eleven locations to restore major mainstream brook trout spawning areas. Overall, this project has restored in excess of fifty spawning areas. Individual spawning area improvements vary in size from small gravel additions of less than a cubic yard to some larger sites where in excess of 60 cubic yards were added.

Bois Brule River Large Wood Debris – Douglas Co. **Contact: Dennis Pratt**
Funding Status: Ongoing
Partners: Trout and Salmon Foundation, Brule Preservation, Inc. and Brule Sportsmen's Club
During the logging history in Wisconsin's Lake Superior Basin, rivers including the Brule were used to transport the logs downstream to Lake Superior where they were grouped in rafts and towed to area sawmills. Any trees or logs that would slow this process were cleared from the channel. The resultant cut of the trees along the stream and removal of instream logs destroyed very important habitat for trout. This project will add this type of habitat (termed by biologists as large woody cover) back to a portion of the Upper Brule. Varying types of structures were placed in the stream and evaluated as to the success in creating trout habitat. It is expected that the successful techniques and the experience gained will be applied to other portions of the stream by clubs and landowners in the future.

During the summer of 1998 approximately 100 structures were added to the stream. Season-long high water during 1999 did not allow evaluation of the structures placed in 1998 and also delayed construction of additional habitat improvements until the 2000 season.

Colfax/18 Mile Creek – Dunn Co. **Contact: Heath Benike**
Funding Status: Complete **Partners: Village of Colfax, Trout Unlimited**
Restoration of 18-Mile Creek was chosen as the Lower Chippewa River Basin water team's Integrated Ecosystem Management (IEM) project. The project consisted of removing an old milldam and restoring 3,200 feet of the previously impounded stream into a native brook trout fishery and coldwater fish community. The Village of Colfax, Trout Unlimited and the Department joined in a partnership to accomplish the following:

- Approximately 10,000 cubic yards of sediment were dredged and redistributed on site, 6,400 feet of the restored stream's banks were re-sloped and stabilized, 98 boom cover structures were installed,
- 14 rock-plunges/grade control structures were incorporated to provide pool cover and prevent head cutting,
- 120 boulder retards were installed to provide mid-channel feeding and resting areas,

After the physical restoration had occurred, 285 wild adult brook trout and 300 wild juvenile brook trout were introduced into the project area before the fall spawning season. Within one year, brook trout abundance has increased by 200% and, for the first time ever, brook trout fingerlings have been documented in the project area.

Elvoy Creek – Forest Co. **Contact: David Blum**
Funding Status: Beginning 2000
The objectives of this project are to enhance/restore the natural stream meander of Elvoy Creek as well as increase the depth and cover for brook and brown trout. It builds on work done in 1986. Boulder retards and whole log covers will be installed for trout cover. A population estimate of trout in the stream was completed in 1999. The balance of the work will be done during the coming biennium.

Black/Buffalo/Trempealeau Rivers – Jackson Co. **Contact: Dan Hatleli**
Funding Status: Ongoing **Partners: Trout Unlimited**
A fish management crew began a trout habitat improvement project in the North Fork of the Buffalo River. The project involves installation of jetted structures for trout cover, and riprapping of banks for stabilization. A parking area was also constructed near the site. Work continues.

Trout Habitat Improvement – Juneau Co. **Contact: Jack Zimmermann**
Funding Status: Complete
An aggressive Stewardship Easement program in Juneau Co. is resulting in a large amount of trout stream frontage coming under DNR control. This project allowed DNR to respond to the needs of these properties by both correcting habitat problems and demonstrating the commitment of the state to the water resource. This will begin the restoration of valuable coldwater streams and encourage other landowners to join in the easement program. Fencing, cattle crossings and deflectors were installed. Seeding work was done to complete the project.

Besadny Fish & Wildlife Area – Kewaunee Co. **Contact: Steve Hogler**
Funding Status: Begins 2000
The Little Scarboro is a tributary of the Kewaunee River. Most of the lower sections of it are found within the C.D. "Buzz" Besadny Fish and Wildlife Area. Surveys in the early 1970's indicated a strong population of native brook trout in the river. A survey in 1998 indicates only a remnant population of brook trout remains. The survey further indicated that steelhead and coho salmon from Lake Michigan are the dominant salmonids of the system. These Lake Michigan fish now inhabitant the best areas of the stream while brook trout have been reduced in number and displaced to less favorable locations. This project proposes to: 1) brush the stream banks and selectively cut trees to improve stream production by allowing greater sunlight penetration, 2) remove a limited amount of large woody vegetation found in the river to help redefine the stream channel, 3) erect a self-cleaning steel bar barrier to prevent upstream movement of Lake Michigan salmonids and, if needed, 4) remove non-native smolts from upstream of the barrier. Work will be done from October 1999 through spring 2000. In future years other projects will be submitted to improve instream trout habitat by constructing bank cover, reducing non-point source pollution (sand) by construction of detention ponds, further brushing to improve angler access and further improving access by replacing a sub-standard bridge.

Mormon Coulee Creek – La Crosse Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: Trout Unlimited, Shelby Township**
Work is planned for three areas on Mormon Coulee Creek. A stretch of the upper portion was improved in 1998 & 1999 (1,230 feet of stream with 44 lunkers installed). In the middle portion, 800 feet have been improved with 12 lunkers installed. A downstream portion will receive attention in the summer of 2000. More work is planned for all three segments.

Holgot Springs – Langlade Co. **Contact: Peter Segerson**
Funding Status: Begins 2000
Holgot Springs, a part of the Woods Flowage, will be dredged to remove deposits of silt and organic sediments. This will allow for increased trout productivity and carrying capacity.

Wolf River Landing – Langlade Co. **Contact: Peter Segerson**
Funding Status: Begins 2000 **Partners: Wolf River Trout Unlimited**
This project will narrow and deepen the Wolf River between Big & Little Sheen Rapids. Construction was accomplished in 1999 with seeding and planting of aquatic plants planned for 2000.

East Branch Eau Claire River – Langlade Co. **Contact: Peter Segerson**
Funding Status: Begins 2000
Partners: Antigo Trout Unlimited & Northwooods Sportsman's Club
This project will narrow and deepen the stream channel of the East Branch of the Eau Claire River. Boom covers were installed on a ¼ mile stretch of stream in 1999. Work on another ¼ mile stretch is planned for the summer of 2000.

Prairie River – Lincoln Co. **Contact: Peter Segerson**
Funding Status: Begins 2000 **Partners: Trout Unlimited**
Segments of the Prairie River stream channel will be narrowed and deepened under this project. Overhead cover will be increased by constructing skyhook boom covers and half-logs. A ¾ mile

stretch of the river was completed in the summer of 1999 that included boom cover and boulder installation as well as deeping the channel. Work on a ½ mile stretch is planned for summer 2000. Prefabrication of the boom covers and project mapping will be done in the fall of 1999.

DNR staff installing skyhook covers on the Tomorrow River

Ward Dam – Lincoln Co. **Contact: Peter Segerson**
Funding Status: Begins 2000 **Partners: Trout Unlimited**
This project will monitor the removal of the Ward Dam including erosion and temperature changes. Though the decision to remove the dam is being appealed, drawdown of the flowage has begun. Some erosion control may occur in the fall of 1999. Planning habitat structures and work will be done in the spring of 2000 after run-off.

Plover River – Marathon Co. **Contact: Alan Hauber**
Funding Status: Begins 2000
This work began with restoration of about 5/8 mile of trout habitat in 1999. The channel was narrowed and deepened. Half logs have been placed in the stream for cover. An additional 5/8 mile is planned for restoration in 2000.

Upper Middle Inlet Creek – Marinette Co. **Contact: Cliff Sebero**
Funding Status: Ongoing **Partner: Trout Unlimited**
Traditionally, bank covers have been constructed using oak or pine wood. Lumber provides excellent framework for habitat devices, but does wear over a period of time. This project involved installing two prototype structures made of type 2, high-density plastic from recycled milk jugs. After installation, these prototypes were back-filled with fieldstone, sodded, seeded and mulched. They have a combined length of approximately 170 feet. Annual shocking surveys and periodic inspections are planned to monitor the results of this project in order to determine the use of such structures in the future.

Coles Valley Creek – Monroe Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: Monroe County**
Work on this project was done in cooperation with the Monroe County Land Conservation Department in 1999. Approximately 3,600 feet of stream were improved and 94 lunkers installed. This project was delayed due to the requirement of an archeological survey. This disrupted Monroe County's schedule and that of the contractors they hired. More work is scheduled for summer 2000.

Ft. McCoy Streams – Monroe Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: Ft. McCoy**
Three streams (Silvers Creek, Tarr Creek and the La Crosse River) on Ft. McCoy are being improved in a cooperative project between the state and Ft. McCoy. Trout Stamp funds helped to purchase materials and provide technical assistance. So far, approximately 2,400 feet of stream have been improved including the installation of 92 lunker structures. More work is planned for the summer of 2000.

Leon Creek – Monroe Co. **Contact: Mike Leonard**
Funding Status: Begins 2000
Stream restoration work has not been done in the past on Leon Creek. This project addresses that need. A machinery crossing has been constructed to allow access for equipment in the winter of 1999-2000 in order for trees to be removed and riprap stocked along the stream banks. Instream work is planned for the summer of 2000. Although the requirement for an archeological survey delayed the installation of the machinery crossing by over 2 months, this project is on schedule.

Sand Creek IEM Project – Monroe, Jackson Co. **Contact: Ed Bourget**
Funding Status: Complete **Partners: Trout Unlimited, Ft. McCoy Youth Program**
The Sand Creek Integrated Ecosystem Management (IEM) project is located on 710 acres of land in Monroe and Jackson Counties. It is estimated that approximately 1½ mile of Sand Creek traverses this property. Sand Creek is classified as a Class I brook trout stream containing naturally reproducing trout. The associated uplands are comprised of old growth timber and agricultural fields. Sand Creek channel was braided due to beaver activity in the area and fallen trees into the stream directing flow into the banks causing erosion and breaching of the stream channel. The goal was to remove obstructions in the stream and to construct in stream sandbag structures in order to contain water flow in a single channel. This would help scour and deepen the channel as well as provide habitat for existing native trout. Scouring of the channel should also expose adequate bed material (rock and gravel) to provide spawning areas for trout. Trout habitat improvements covered under this project include installing over 50 instream structures to confine the channel and create habitat. An ancillary benefit was the construction of a parking lot to facilitate public use of the entire Sand Creek area.

South Branch Oconto River – Oconto Co. **Contact: Cliff Sebero**
Funding Status: Ongoing
Partners: US Forest Service, Menominee Indian Tribe, Trout Unlimited
During the 2000-2001 biennium, a stretch of the South Branch between Wisher Lake Road and the USFS Seed Orchard will receive attention. Plans include improving the stream channel, which has widened and become shallow due to past beaver activity, with suitable cover for trout. During the fall and winter of 1999-2000 boulders will be brought in and a sand trap installed at one end of the project area. Thalweg restoration will begin in 2000 and the stream deepened. The natural meander of the stream will be restored and boulders placed in the stream along with inverted tree stumps and log pilings to create resting pools and overhead cover. In all, 2,400 feet of stream channel will be improved and deepened by 1½ to 2 feet. The width will be decreased from 40 feet to 20-25 feet.

Cady Creek – Pierce Co. **Contact: Jim Holzer**
Funding Status: Begins 2000
Work on this project involved the completion of 2,760 feet of habitat improvements on Cady Creek. Both banks were riprapped and 650 feet of boom covers were jetted into the stream. Two cattle crossings were built and three grade controls were installed. An archeological survey was also

completed. The remaining funding from this project was used to complete habitat work on Duncan Creek. Both banks were riprapped on 1,405 feet of stream. Thirty-seven lunker structures were installed.

Rush River - Lower Chippewa Basin – Pierce Co. **Contact: Marty Engel**
Funding Status: Complete
Partners: Eau Galle Rush River Sports Club, Ellsworth Rod & Gun Club and the Town of Salem.

The Rush River is an outstanding Class II brook, brown and rainbow trout stream located in Pierce County. Quality fishing opportunities have resulted in extremely heavy fishing pressure throughout the year. Many segments of the Rush River suffer from severe bank erosion, sedimentation and poor habitat; many of these areas are suitable for stream restoration or improvement. In cooperation with the Township of Salem, Eau Galle Rush River Sportsmen's Club and the Ellsworth Rod & Gun Club, three habitat improvement projects and one minor repair project were completed on the Rush River during the 1997 and 1998 field seasons.

- The Salem Tract: Obtained a county conservation and fishing easement and improved 500 ft of trout stream in conjunction with a town road repair project along the river. Installed 18 lunker structures, 30 boulder retards and riprapped the toe of a highly erodable bank. Approximately 1,000 ft of riprap was used to improve trout habitat.
- The Brenner Track: Obtained a county conservation and fishing easement, reduced bank erosion, stream sedimentation, and extensively improved 1,700ft of trout habitat. Installed one grade control structure, 44 lunker structures and 150 boulder retards. Used approximately 1,000 yd. of riprap to repair 1,900 ft of bank erosion. All banks were sloped, seeded and mulched.
- The Crawford Track: Obtained a county conservation and fishing easement, reduced bank erosion, stream sedimentation, and extensively improved 900 ft. of trout habitat. Installed 17 lunker structures, 4 root wads and 30 boulder retards. Used approximately 1,000 yd. of riprap to repair bank erosion on 600 ft of bank. All banks were sloped, seeded and mulched.

Trimbelle River, Lower Chippewa Basin – Pierce Co. **Contact: Marty Engel**
Funding Status: Complete

The Trimbelle River is a popular Class II brown trout stream located in Pierce County. Fishing pressure on this stream is steadily increasing. The Trimbelle River suffers from severe bank erosion, heavy sedimentation and poor habitat. Past habitat projects have been highly successful. During this biennium Department staff completed two small instream habitat improvement projects and some light maintenance work on the Trimbelle River.

- The Kearns Tract: Obtained a county conservation and fishing easement, reduced bank erosion, stream sedimentation and improved 500ft of trout habitat. Installed seven lunker structures, 12 root wads and 30 boulder retards. Repaired 300 ft of eroded bank with 500 yd. of riprap.
- The Bongiovonni Tract: Obtained a county conservation and fishing easement, reduced bank erosion, and improved 450 ft of trout habitat. Approximately 450 ft of steep highly erodable stream bank was riprapped with extra large jumbled riprap to reduce stream sedimentation and improve trout habitat. All banks were sloped, seeded and mulched. Minor repairs were made to past instream habitat improvement projects and cattle crossings.

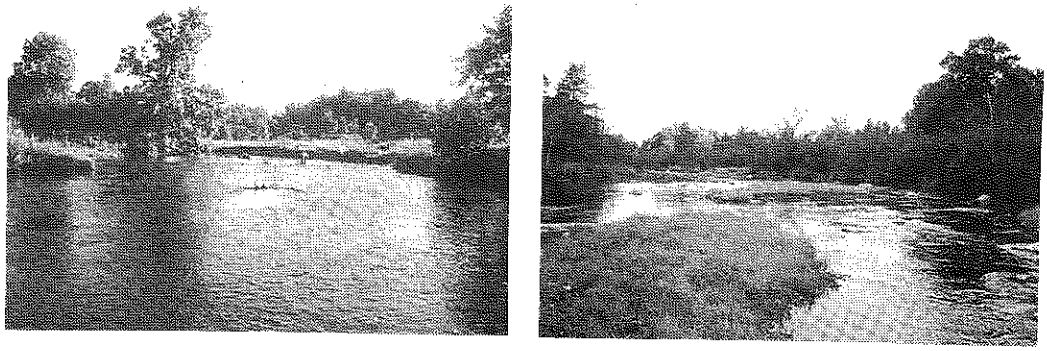
Clam River – Polk Co. **Contact: Richard Cornelius**
Funding Status: Begins 2000

Habitat improvement planning and mapping were underway in this stream in 1999. During 2000-2001, limited stream bank brushing will be done. In addition, one bank cover and one large brush mat will be repaired. Finally, one new log or rock wing deflector will be constructed.

Flume Creek – Portage Co. **Contact: Jack Zimmermann**

Funding Status: Complete

Like the work on Campbell Creek, this project improved three miles of trout stream. With the addition of hiding cover and upgrading the bottom sediments, the native trout population is expected to expand and fishability will be improved. The work included brushing, adding deflectors, closing braided channels and seeding.



Waupaca/Tomorrow River before and after habitat improvement work consisting of bank covers and mid-channel boulder deflectors

Waupaca/Tomorrow River – Portage, Waupaca Co. **Contact: Al Niebur**

Funding Status: Begins 2000

Partners: Trout Unlimited, private landowners, County Land Commissions

The Waupaca/Tomorrow River is one of the more popular trout fisheries in Central Wisconsin. It is a large Class I and II trout stream that flows through parts of Portage and Waupaca counties. The fishery consists primarily of brown trout, however, brook trout (especially in the headwaters and tributaries) and rainbow trout are present. In 1998, the Central Wisconsin Regional Committee of Trout Unlimited chose the Waupaca/Tomorrow River watershed as a focus for their conservation efforts. One of their main objectives was to obtain stream bank conservation easements along the riparian corridor. These easements would protect the stream from development, provide access for anglers, and allow for restoration of degraded trout habitat.

Early in 1999, three contiguous Trout Unlimited easements were obtained on the Waupaca/Tomorrow River. Due to a history of cattle pasturing and logging, the stream channel within this particular easement was extremely wide and shallow with very little cover for trout. Electrofishing surveys indicated a below average trout population with some natural reproduction. The stream was mapped and a habitat plan was developed to improve habitat complexity by increasing channel depth and overhead cover. Instream habitat restoration techniques were developed.

Approximately 4,000 feet of habitat restoration work was completed by the end of 1999. Techniques included the construction of seven large skyhook boom covers and lunkers (800 feet), wing deflectors, riffles, braided channel (islands), over-wintering pools and placement of several hundred mid-channel boulders, rootwáds, and half-logs. In addition, livestock exclusion fences were constructed where needed. Trout Unlimited held six different weekend workdays to construct livestock exclusion fence, install half logs, and build habitat structures.

Grant/Platte/West Lake Wisconsin – Richland, Grant Co. **Contact: Gene Van Dyck**
Funding Status: Complete

Many stream banks in Richland and Grant Counties are eroded and do not provide adequate cover for trout and other species of fish. These streams were surveyed for trout habitat needs. During the 1998-99 biennium, the following work was accomplished. Approximately ½ mile of Willow Creek was cleared of undesirable trees with trouble areas marked for future work. Intensive instream habitat work was completed on four hundred feet of Doc Smith and Castle Rock streams. Planning and initial implementation of instream habitat work was completed for 1.26 miles of Ash Creek. Additionally, planning work was done for habitat development on 1 mile of Mill Creek. Future funding in order to continue these programs is being pursued.

Kinnickinnic River – St. Croix, Co. **Contact: Marty Engel**
Funding Status: Begins 2000 **Partners: Trout Unlimited**

The Kinnickinnic River is an outstanding Class I brown trout stream in St. Croix County. Many segments of the Kinnickinnic are over grown with brush and habitat quality is declining. Over the last several years, the Kia-TU-Wish Chapter of Trout Unlimited has assisted Department staff with brush removal and restoration efforts. Many areas have been restored by brushing alone, however several areas will require additional instream habitat work. From September 2000 to June 2001, habitat improvement work is planned on the Kinnickinnic River to restore 1,680 feet of stream at two sites as well as the construction of a low-water block. Project plans call for the installation of approximately 30 boom covers, 100 boulder retards and 24 root wads or whole tree covers. About 1,500 yards of riprap will be placed and 1,020 feet of bank tapered, seeded and mulched.

Embarrass River – Shawno Co. **Contact: Dean Schoenike**
Funding Status: Ongoing **Partners: ShawPaca Trout Unlimited**

During the summer of 1999, approximately 1,300 feet of stream of the South Branch of the Embarrass was narrowed, deepened and the natural meander was reestablished. Boulders, wing deflectors and about 300 feet of skyhook boom covers were place throughout the stream sections. In the fall/winter of 1999/2000, an excavator will be use to construct current deflectors, install boom covers, place boulder retards and natural log tangles as well as narrow & deepen the main channel.

West Branch Shioc River – Shawno Co. **Contact: Ross Langhurst**
Funding Status: Ongoing **Partners: Trout Unlimited, Bonduel High School**

The headwaters of West Branch of the Shioc River are located at the north end of the Village of Bonduel. The entire stream in Bonduel is a Class I brook trout stream, the only one in a 20-mile radius. The history of the West Branch of the Shioc is one of gross abuse and misuse. Most of the stream flowing through private lands has been ditched and straightened and the steam has been subjected to a great deal of pollution. By improving water quality, the remaining brook trout population can be preserved and trout water actually expanded for several miles downstream. This project involves monitoring and studying the stream which includes: surveys of water quality, instream habitat surveys using Department accepted procedures and standards, index of biotic integrity, response of native brook trout population, and the response of the local community to our efforts.

Onion River – Sheboygan Co. **Contact: John Nelson**
Funding Status: Begins 2000 **Partners: Trout Unlimited**

Lunker structures have been placed in 584 feet of the Onion under this project. Additionally rock has been placed in a previously pastured area. In the future, two earthen dams and one concrete dam will be removed on an unnamed tributary in the headwaters of the Onion River. Land must be acquired and then this portion of the project will move forward in the coming biennium.

Coon Creek – Vernon Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: Villages of Coon Valley and Chaseburg**

A cooperative project with the Village of Coon Valley and the Department of Transportation expanded the accessible fishing area in Coon Valley. Approximately 400 feet of stream was improved with 8 lunker structures installed. In addition, the base for 1,900 feet of trail and accessible

fishing pads was installed along with necessary landscaping. The Village will pave the trail and pads with grant money from DOT. Further down stream, work was performed on a cooperative project with the Village of Chaseburg. Twenty-eight lunkers were installed and 750 feet on one side of Coon Creek were improved. A fishing trail for the physically challenged was also constructed. Work will continue on the other side of Coon Creek in 2000.

Hasley Creek – Vernon Co. **Contact: Mike Leonard**
Funding Status: Begins 2000
Hasley Creek has not had habitat development work in the past. The project has been delayed because an archeological survey was required. After the survey process was completed and approval for the work was granted, scheduling conflicts did not allow work in 1999. Plans are to install an access road and machinery crossing with the incorporation of a Hewitt ramp (to prevent habitat degradation) and improve habitat by installing lunker structures. Though the project is behind schedule, the work will be completed.

Steams in Vernon Co. **Contact: Dave Vetrano**
Funding Status: Complete
This project developed habitat in several streams in Vernon County. In each case, riprap was installed and the stream beds reshaped. The streams with the number of feet improved are as follows: North Fork Bad Axe (4,050'), Reads Creek (2,700'), Billings Creek (7,282'), West Fork Kickapoo (1,500'), South Fork Bad Axe (1,143'), and Harrison Creek (2,000').

West Fork Kickapoo River – Vernon Co. **Contact: Mike Leonard**
Funding Status: Begins 2000 **Partners: West Fork Sportsmen's Club, Trout Unlimited, Federation of Fly Fishers, DRIFT Fly Tiers, Forest City Gear and Wahl Clipper**
The importance of the trout fishery on the West Fork Kickapoo River cannot be over emphasized. Past improvement work has resulted in a fishery that attracts anglers from all parts of the state and continues to grow in national popularity. This project is a continuation of previous work. In 1999, 4 lunkers were installed and 350 feet of stream improved. More work is planned for 2000.

Bluff Creek – Walworth Co. **Contact: Doug Welch**
Funding Status: Ongoing **Partners: Southeastern Wisconsin Chapter of Trout Unlimited**
During the 1998-1999 biennium, trout habitat improvement work was completed on 700 feet of Bluff Creek stream. Six boom covers were installed and 837 tons of rock were placed in the stream to narrow the channel and increase current velocity. Disturbed land adjacent to the stream was graded, topsoiled, seeded, and mulched. Split rail cedar fencing was installed to protect the stream bank from vehicular traffic. The effect of this project was immediate. Increased current velocity washed sediment and nuisance vegetation downstream. Stream narrowing and boom cover habitat resulted in a 58% increase in brown trout abundance and an increase of over 100% in the presence of brown trout over the minimum size limit of 12 inches. Additional work included leasing, mowing, and brushing an access road to the stream. Work underway for the 2000-2001 biennium includes: mapping, staking, brushing, and installing lunker structures and rock along 1,000 feet of stream. Trout Unlimited has spent several weekends helping with this project.

Godfrey Creek – Washburn Co. **Contact: Larry Damman**
Funding Status: Begins 2000 **Partners: Washburn County**
Godfrey Creek is a Class I native brook trout stream. It is small and lacks deep pools and bank cover so few fish have the habitat necessary to reach a desirable size for anglers. Beaver dams (now mostly abandoned) have also degraded some areas. The work to be done involves low-intensity improvement of over 3 miles of stream thread. After mapping the specific sites, wing deflectors of rock or log, brush bundles and boom covers will be installed.

South Fork of Bean Brook – Washburn Co. **Contact: Larry Damman**
Funding Status: Begins 2000
This project will attempt to restore a reproduction area degraded by beaver activity. Instream structures, several wing deflectors, brush bundles, one large boom cover and a 50'-long enhanced spawning area will be developed on the South Fork of Bean Brook.

Little Pine River – Waushara Co. **Contact: Al Niebur**
Funding Status: Begins 2000 **Partners: Trout Unlimited**
The Little Pine Creek, a Class I trout stream, is a major tributary to the Mecan River. This project involves trout habitat enhancement activities on several hundred feet of stream. Thus far, Trout Unlimited has held several volunteer work days to construct brush bundles and two jetted overhead bank covers. Work will continue in 2000.

Little Wolf River – Waupaca Co. **Contact: Al Niebur**
Funding Status: Begins 2000
The Little Wolf River is a Class I and II trout stream in northern Waupaca County. It is fairly unique since it is one of the largest trout rivers in the area and its trout population consists primarily of native brook trout. Many reaches in this river have extremely wide and shallow channels that offer very little habitat for trout. This project proposes to enhance channel depth and complexity by construction of large boulder wing deflectors, lateral scour pools, and placement of mid-channel boulders, trees, root-wads, and half logs on approximately 2,000 feet of river channel. One of the major objectives is to improve over-wintering habitat for larger brook trout. Work will begin in summer of 2000.

Pine River – Washara Co. **Contact: Al Niebur**
Funding Status: Begins 2000
The Pine River is a Class I brown trout stream. Trout habitat in lower reaches of the Pine River has been degraded over time due to a combination of beaver activity and loss of bank stability from tipped over trees. Large amounts of sediment have filled in valuable habitat and the stream channel is now very wide and shallow. Under this project, DNR proposes to:

- Improve bank stability and later scour pool habitat by riprapping select outside bends with large boulders
- Construct two large sediment traps to capture excessive sediment deposits that have filled in existing habitat
- Redirect woody debris obstructions that impair good channel scour
- Install mid-channel boulders
- Cut large mature leaning trees on the edge of the stream bank to curb channel widening

Work is being planned for the summer of 2000 and should impact approximately 4,000 feet of stream.

Wolf River Basin – Waushara, Portage, Waupaca Co. **Contact: Al Niebur**
Funding Status: Complete

Cedar Springs

The Cedar Springs Creek is a Class I brook trout stream located in the lower Willow Creek watershed, Waushara County. This stream is one of only 5 streams in Waushara County that supports a pure allopathic brook trout population. The headwaters of this stream have excellent spawning and adult rearing areas for trout however, in 1992, a tornado damaged much of the riparian corridor. Many large trees were uprooted along stream banks causing severe widening of the channel and erosion of the banks. The eroding banks caused a large influx of sand to cover spawning gravel and fill in downstream pools. Trout stream population surveys conducted during 1996 and 1997 in this reach indicated very low numbers of adult trout and almost a complete absence of young of these year (YOY) trout. The stream was mapped and a habitat restoration plan was developed to restore

brook trout spawning area and adult cover. Habitat work included construction of overhead bank covers and intensive brush bundling to restore stream channel integrity.

During the summer of 1997, approximately 1,500 feet of intensive habitat restoration was completed in the Cedar Springs Creek. Habitat work included construction of jetted overhead bank covers, wing deflectors, and placement of mid-channel boulders. Brush-bundling was done two thousand feet downstream of the main project to restore channel width and collect sediment from prior disturbed areas. Trout population surveys conducted in 1998 and 1999 indicate improved spawning with large numbers of YOY present. In addition, adult trout (4.0-9.5 inches) numbers increased 39%.

Waupaca River

The Waupaca River is a Class II trout river located in the lower Wolf River watershed, Portage and Waupaca Counties. This river is one of the larger trout waters of Central Wisconsin and supports good populations of trophy sized brown trout and has some remnant populations of brook trout. In 1995, a project was undertaken to restore/enhance approximately 4,200 feet of river channel that was severely degraded from past agricultural practices. In this reach, the channel was extremely wide and shallow with little or no mid-channel habitat for trout. Electrofishing surveys indicated very low numbers of adult trout and very low recruitment. Other reaches of this same river support excellent numbers of trout and it was felt that this reach had immense potential for habitat restoration. A plan was developed to improve habitat complexity by increasing channel depth and overhead cover. Approximately 3,700 feet of habitat restoration was completed in the first year. Techniques included the construction of skyhook boom covers, wing deflectors, riffles, braided channel (islands), and over-wintering pools as well as the placement of several hundred mid-channel boulders, rootwads, and half-logs. In 1997, a project was initiated to finish up the last 500 feet of the original project. Installation of two sets of lunker structures, 100 mid-channel boulders, and construction of 500 feet of braided channel were completed. Since completion of the original project, large trout (>15 inches) have increased 80% and YOY abundance has increased as much as 300%.

Murray Creek

The Murray Creek is a Class I brown and brook trout stream located in the Radley Creek Watershed, Waupaca County. Trout population surveys indicated very poor cover for adult trout. This project was designed to improve habitat for larger trout through construction of overhead bank covers, mid-channel cover, and sediment traps to collect excessive sand deposits. In 1998, workers completed 4,500 feet of intensive habitat enhancement work including construction of 30 overhead bank covers, brush bundles, mid-channel boulders, log clusters, and sediment traps. Particular attention was involved in maintaining native riparian wetland plants. Trout population surveys indicated a 30% increase in trout greater 9 inches. Monitoring will continue.

Upper Fox River Basin – Waushara Co. **Contact: Al Niebur**
Funding Status: Complete
Partners: White River Endowment Group, City of Wautoma, Wautoma Schools

The White River is a Class I trout stream that supports natural populations of brown, brook, and rainbow trout. Historically, this river has been very popular among trout fisherman and has always produced large numbers of trout. Part of the White River flows through downtown and residential parts of Wautoma however, most of the habitat in this section is extremely degraded. In 1997, the partnered with the White River Endowment Group (civic organization in Wautoma), City of Wautoma, Wautoma Schools, and several private landowners to develop a city park with an educational walking trail and fishing pier. The Department's primary role was to enhance trout habitat in the White River that flowed adjacent to the walking trail and park. In addition, some technical assistance was provided to develop a fishing pier that allowed easy access to the habitat work. Instream habitat work included construction of 5 overhead bank cover/wing deflectors, placement of mid-channel boulders, riprap banks, and establishment of native wetland plants in the backwater and riparian areas. Electrofishing surveys indicated an immediate response to the habitat work with the presence of many brown trout.

West Branch White River – Washara Co. **Contact: Al Niebur**
Funding Status: Begins 2000
The West Branch White River is a major trout-spawning tributary in the White River Basin. This stream supports naturally reproducing populations of brown, rainbow and brook trout. It is perhaps the largest self-sustaining rainbow trout fishery in Central Wisconsin. This project will impact approximately 2,000 feet of stream through the construction of overhead bank covers and placement of mid-channel boulders. Work will begin in early summer of 2000.

South Branch Little Wolf River – Waupaca Co. **Contact: Al Niebur**
Funding Status: Begins 2000 **Partners: Boy Scouts, Trout Unlimited, Conservation Club**
The South Branch Little Wolf River is a Class II trout stream in the Wolf River watershed. Most of this river is considered a seasonal trout fishery with trout inhabiting the better habitat during the cooler months of fall, winter, and spring. It serves as an important over-wintering area for large adult brown trout that reside in Trout/Nace Creek and Peterson Creek. Some reaches of this river have severely degraded stream channels that are extremely wide and shallow and provide little to no cover for adult trout. This project proposes to increase channel depth and habitat complexity by: 1) creating deeper lateral scour pools and wing deflectors, 2) installing overhead bank covers, and 3) placing mid-channel boulders, root-wads, and half logs. Work on this project is planned for 2000 in cooperation with several groups (Boy Scouts, Trout Unlimited, Conservation Club, and others) from the Iola area. The community has a strong interest in seeing this project completed and several volunteer workdays are being planned.

Witcomb River – Waupaca Co. **Contact: Al Niebur**
Funding Status: Begins 2000 **Partners: Trout Unlimited**
Whitcomb Creek is a Class I brook trout stream located in the Little Wolf River Watershed. This project will be used to assist Trout Unlimited with a habitat restoration project on a reach of stream severely degraded by beavers. Thus far, Trout Unlimited volunteers have constructed 4 overhead bank covers, several brush bundle wings, and have brushed several hundred feet of stream channel.

Upper Wisconsin Basin **Contact: Steven AveLallemant**
Funding Status: Ongoing
Beaver dams and cattle grazing have damaged several streams in the Basin. These projects were done during the last biennium:

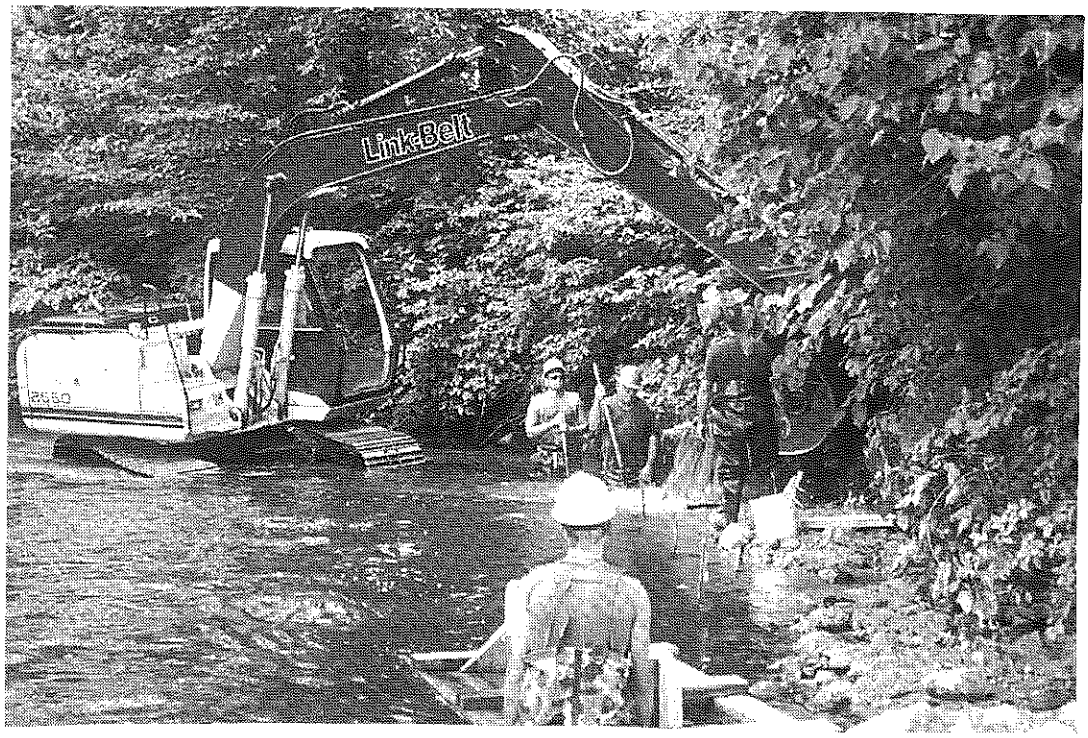
- An intensive 2,300 foot instream channel reconstruction in an old beaver meadow on Elvoy Creek, Forest Co.,
- 3,800 feet of intensive instream channel work (meanders and boulder placement plus a few boom covers) on the Prairie River, Lincoln Co.,
- Dredged Margraff Springs,
- Intensive instream project on Wolf River, Langlade Co.

During 2000 an intensive instream project on Brule Creek, Forest Co. is planned. Work planned on the Elvoy log dam has not been completed.

Trout Habitat Equipment Purchases

Year	FY98	FY99
Planned IWTS Expenditure	$196,680	$27,017
Total Program Expenditures (all funding sources)	$126,546	$28,946

Projects in this area provide funds to maintain existing DNR specialized equipment and, where necessary, lease or purchase new equipment for trout habitat improvement. This equipment is assigned to DNR activities on a regional basis, but can be used on projects throughout the state. Types of specialized equipment purchased during this biennium are: PUG all-terrain vehicles for hauling rock to stream development projects, boats for stream shocking, Bobcat loaders, small excavators, a cutter head unit for a backhoe for brushing work and a 6-wheel "Gator" all-terrain vehicle.



A variety of specialized heavy equipment is used on habitat improvement projects. Here backhoe is used to install boom covers.

Beaver Control

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$168,555	$189,666	$166,700	$163,900
Total Program Expenditures (all funding sources)	$128,169	$162,086	N/A	N/A

Beaver control work is needed to manage ecosystems in favor of trout in the absence of large predators and because of past forestry practices. It is imperative that beaver control activities be continued and maintained for it only takes a few years for the beaver to become re-established. The absence of the beaver dams will maintain streams in a free flowing and productive condition.

Lake Superior & St. Croix Basin – Bayfield Co. **Contact: Dennis Scholl**
Funding Status: Begins 2000 **Partners: APHIS**
DNR Staff will work with the Animal and Plant Health Inspection Service (APHIS) beaver trappers to do reconnaissance work on problem streams so we can direct their trapping effort. The work will begin in the spring and early summer of 2000.

Upper Chippewa Basin – Bayfield, Langlade, Price Co. **Contact: Skip Sommerfeldt**
Funding Status: Ongoing
In 1998-99, we once again contracted the Forest Service to do supplemental beaver control work on lower priority trout waters within the Chequamegon/Nicolet National Forest. This work included beaver and beaver dam removal on 55 miles of trout water as well as pre- and post-aerial reconnaissance of the beaver infested areas. Streams worked on included: Foulds Creek, Newman Creek, Elk River, Marengo River, Spring Brook, 18 Mile Creek, Venison Creek and many of their tributaries. This work will continue in 2000-01 -- but the streams may change. DNR staff use this project to target problem areas and maintain many of the more important spawning tributaries in a free-flowing state (especially in fall when the spawning run begins).

Lower Chippewa Basin – Chippewa Co. **Contact: Joe Kurz**
Funding Status: Complete
A contract was developed with a local trapper to remove beaver from 6 Lower Chippewa area streams. The contract trapper removed seven beaver from fishery areas. Also, 10 beaver dams were removed. A fall flight was conducted on 6 area streams to identify locations of beaver dams. Maps of beaver dam locations were developed and handed out to interested, local trappers. For FY00, similar programs are planned.

Lower Wisconsin Basin – Columbia, Sauk Co. **Contact: Tim Larson**
Funding Status: Ongoing
Beaver damage to trout streams in the Columbia and Sauk Co. portion of the Lower Wisconsin Basin is a continual problem that degrades the trout resource faster than our ability to improve it. Approximately 105 miles on 27 trout streams in this area are impacted. Project activity includes: contract beaver trapping as needed (typically 25-50 beaver are trapped annually), remove dams both manually and with explosives, and monitor streams to locate dams (fall flight, angler and hunter contacts).

Lower Chippewa & St. Croix Basin – Dunn , Pierce, St. Croix Co. **Contact: Marty Engel**
Funding Status: Complete
Past dam removal and trapping efforts in this basin have reduced beaver problems in key locations. During this biennium, DNR staff monitored beaver problems on select troubled streams in Dunn, Pierce and St. Croix counties and checked parts of the Parker, Gilbert, Wilson, Bolen, 18 Mile, Running Valley Creeks and the Kinnickinnic River system. Staff referred trappers to problem areas. In FY98, 22 dams were removed, 11 by blasting to restore trout stream channels, and in FY99 32 dams were removed, 6 by blasting, to restore the trout stream channels.

Black/Buffalo/Trempealeau Rivers – Jackson Co. **Contact: Dan Hatleli**
Funding Status: Complete
Class I and II trout streams were flown to locate beaver dams. Dam locations were mapped and the maps were provided to area trappers and Trappers Association. Subsequently, the dams have been removed. Work remains to be done on this project, but funds are not currently budgeted.

Upper Wisconsin River – Langlade, Lincoln Co. **Contact: Steven AveLallemant**
Funding Status: Complete **Partners: US Forest Service**
Beaver and dams have been removed on the Upper Wisconsin River since 1988. To date a total of over 200 miles of Class I and II trout streams in these counties have been maintained in a free-flowing condition. This effort has preserved a tremendous amount of high quality tout habitat and eliminated the need for expensive mechanical habitat restoration activities.

Upper Wisconsin Basin – Langlade, Lincoln Co. **Contact: Peter Segerson**
Funding Status: Begins 2000
This project differs from the one above in that it focuses on streams other than the Wisconsin River. So far under this project, 15 beaver have been trapped, 62 active and 11 inactive dams removed, and a spring aerial census was made to identify beaver problem areas. Work will be continuing.

Marinette County **Contact: Russell Heizer**
Funding Status: Ongoing **Partners: Goodman Lake Club**
This project involves removing beaver from 25 streams in Marinette County. In addition, it will pay for aerial surveying to pinpoint beaver locations.

Upper Green Bay Basin – Marinette, Oconto Co. **Contact: Cliff Sebero**
Funding Status: Ongoing
Partners: US Forest Service, Florence Co. Forestry Dept., Marinette Co. Forestry Dept., Lake Superior Land Comp., Kimberly Clark Corp., & Trout Unlimited
The objectives of this project are to reduce and control the beaver population on 25 selected trout streams. Results of the beaver control program have been positive with trout populations now being present in portions of the selected streams where little or no trout have existed for the last 20 years. In view of the favorable results of this beaver control project, 5 additional streams will be included in year 2000.

Upper Fox River – Marquette Co. **Contact: David Bartz**
Funding Status: Complete
No activities were conducted in this area during this biennium as planned since very little beaver activity was reported. More activity is anticipated under this project in the future due to low fur prices and decreased trapping effort. There are already reports of increased beaver activity and funding will no doubt be required again.

Upper Green Bay Basin – Marinette, Oconto Co. **Contact: Cliff Sebero**
Funding Status: Ongoing
Partners: US Forest Service, Florence Co. Forestry Dept., Marinette Co. Forestry Dept., Lake Superior Land Comp., Kimberly Clark Corp., & Trout Unlimited
The objectives of this project are to reduce and control the beaver population on 25 selected trout streams. Results of the beaver control program have been positive with trout populations now being present in portions of the selected streams where little or no trout have existed for the last 20 years. In view of the favorable results of this beaver control project, 5 additional streams will be included in year 2000.

Upper Fox River – Marquette Co. **Contact: David Bartz**
Funding Status: Begins 2000
These funds will support a program to monitor streams in order to locate active beaver populations and dams. Contractors will be hired to remove dams.

Wolf River Basin – Shawno, Oconto Co. **Contact: Ross Langhurst**
Funding Status: Ongoing
Funds are used to contract out beaver removal projects throughout the basin.

Central Wisconsin **Contact: Jack Zimmermann**
Funding Status: Ongoing
Surveys were conducted, beaver tapped and dams removed on DNR controlled waters in a five county area.

Statewide Operations **Contact: Larry Claggett**
Funding Status: Ongoing **Partners: APHIS**
This project is designed to manage beaver populations at low levels in specific high-priority trout stream watersheds where they are damaging habitat. It responds to input from external partners and uses watershed scale planning. The work includes reviewing the annual cooperative agreement with Animal and Plant Health Inspection Service (APHIS), monitoring APHIS expenses and accomplishments, meeting with APHIS and fish managers as necessary to review the program and set goals, and providing general information on the program. Funds are also available to pay APHIS trappers to control beavers and remove dams in target watersheds.

Wolf River Basin **Contact: Al Niebur**
Funding Status: Complete
Beaver control in trout streams of the Wolf River basin is a continuous management problem. This project was used to monitor beaver activity (flight reconnaissance), contract beaver trapping as needed, and remove dams manually and/or with explosives. Beaver activity during 1998-99 was down from past years, however, on several streams including Upper Pine River and Kaminski Creek beaver were trapped and dams removed.

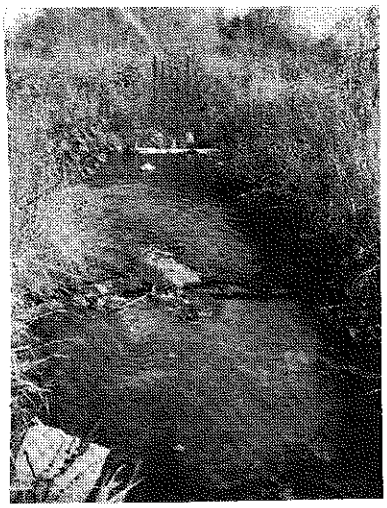
Research Studies and Surveys

Comprehensive Coldwater Stream Surveys

Year	FY98	FY99
Planned IWTS Expenditure	$75,505	$120,625
Total Program Expenditures (all funding sources)	$164,782	$150,120

Projects covered by this activity provide the manpower and support funding to survey fishery populations in trout waterways. Standardized techniques are used to determine the abundance and size structure of aquatic populations with additional data on habitat and water quality.

Projects Conducted in the FY98-99 Biennium	Contact
Black Earth Creek – Dane Co.	Scot Stewart
Onion River – Sheboygan Co.	John Nelson
Trout Creek – Buffalo Co., Lowe Creek – Jackson Co.,	Dan Hatleli
Beaver Creek and the Trempealeau River	Dan Hatleli
Grant/Platte/Pecatonica Rivers	Gene Van Dyck
Kickapoo Watershed	David Vetrano
Eau Galle River Watershed	Marty Engel
Plum Creek Watershed	Marty Engel
Bear Creek Watershed	Marty Engel
Isabelle Creek	Marty Engel
Big River	Marty Engel
Lower Rock Basin	Don Bush
Stress Springs	Frank Pratt
Thunder River/Middle Peshtigo River	Greg Kornely
Pin/Willow/Waupaca/Little Wolf	Al Niebur



Logs are used as current deflectors at a bend in Radley Creek to prevent erosion and create habitat.

Trout Genetics Evaluation/Study

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$9,015	$8,135	$13,471	$12,970
Total Program Expenditures (all funding sources)	$28,267	$21,850	N/A	N/A

Namekagon River – Bayfield Co. **Contact: Frank Pratt**

Funding Status: Ongoing

This pilot project is ongoing and showing real promise in terms of revolutionizing genetic management in our propagation program. The hypothesis is that propagated wild trout have much better survival rates than domestic strains. This project aims to prove the hypothesis and fine-tune wild propagation technology.

Methods used in the evaluation include:

- Creel census and summer electrofishing
- Experiments with new means for locating, capturing, holding, and transporting wild brood fish or their fertilized eggs
- Study genetics of tributary stocks of wild brook and rainbow trout
- Study movements of suspected migratory brook trout stock
- Raise 10-20,000 wild spring yoy for restocking in natal habitat, April 1999.
- Evaluate survival in August 1999 and 2000 and make follow-up recommendations on use of this strategy versus stocking wild yearlings.

Activities to date:

- Transferred fish to Phipps Reach in 1999 worked exceptionally well
- Analyzed 1999 angling diaries
- Captured book trout at the weir on the outlet of Stress Springs (in second year)

Peshtigo River – Forest, Langlade Co. **Contact: Steven AveLallemant**

Funding Status: Ongoing

During the last two years wild brown trout reared from eggs taken in the wild from Elvoy Creek in Forest Co. have been stocking in the Peshtigo. Previously, shocking of the Peshtigo did not document any natural reproduction. But past domestic brown trout stocking has yielded a few big fish. Early assessment looks like the wild fish are doing better than past domestic stocking though the study is continuing.

Eau Claire River – Langlade Co. **Contact: Steven AveLallemant**

Funding Status: Begins in 2000

Partners: Antigo Trout Unlimited & Northwooods Sportsman's Club

DNR has been involved in a cooperative rearing program of wild brook trout near Antigo with a sports club and Trout Unlimited. Shocking studies will follow to assess stocking success. Preliminary results are encouraging.

Coldwater Habitat Evaluation

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$6,024	$5,657	$61,130	$36,023
Total Program Expenditures (all funding sources)	$24,394	$19,714	N/A	N/A

Grant/Platte/Pecatonica Rivers – Dane Co. **Contact: David Marshall**
Funding Status: Begins 2000
The goal of this study is to assess brown trout stocking efforts, genetics and existing regulations. The results to date point to the fact that while there has been a decline in the trout population in these streams, the population is healthy. Water sampling will continue, but so far water quality degradation does not seem to be as serious a problem as might have been expected.

Lower Wisconsin River – Dane, Iowa, Green Co. **Contact: David Marshall**
Funding Status: Begins 2000
This study seeks to identify the streams feeding the Lower Wisconsin in the affected counties that are not meeting their potential habitat capabilities. So far, Trout Creek and Otter Creek have been identified as having significant impoundment problems due to dams. Castle Rock Creek will need to be repopulated with trout. The work is continuing.

South Branch Oconto River – Oconto Co. **Contact: Cliff Sebero**
Funding Status: Begins 2000 **Partners: US Forest Service, Menominee Indian Tribe**
This effort will evaluate the work accomplished under the trout habitat development project on the South Branch of the Oconto River covered earlier in this report. A biotic integrity survey will be conducted to analyze fish populations and water quality as a result of habitat improvement. Data will be gathered at points above the restoration, in the restored zone and below it. The survey is to be complete in October 2000.

South Branch Oconto River – Oconto Co. **Contact: Greg Kornely**
Funding Status: Begins 2000 **Partners: Trout Unlimited Chapters**
Funds allocated under this project will pay for the installation of a weir that can be used to assess health and population trends in this important trout fishery. Much of the population in this stream is migratory and has a very defined spring upstream and fall downstream movement and is extremely difficult to evaluate using standard sampling gear. A weir is a necessary and effective way to conduct surveys. Installation of the weir will allow monitoring not only in this biennium, but also in the future.

South Fork Hemlock Creek – Rusk Co. **Contact: Jim Lealos**
Funding Status: Complete
Mandated as a condition of the DNR permit for rebuilding Murphy Flowage Dam, the lower end of the South Fork of Hemlock Creek was channeled and re-routed so that it continues to feed the free-flowing portion of Hemlock Creek. The rebuilding project was designed to sustain brook trout recruitment dynamics in the watershed. The South Fork is a key spawning and nursery area for brook trout in the main stem of Hemlock Creek. The flooding of the Murphy impoundment inundates the natural inlet channel and, without the rerouted channel, would have eliminated most of the brook trout recruitment to main Hemlock Creek. Rusk County channeled the creek in 1995 and the DNR enhanced channel habitat in summer 1997. This project was a follow-up study to determine if the technology is working and to provide for any necessary fine-tuning. The workplan included:

- Study brook trout populations in Hemlock Creek and altered and unaltered portions of the South Fork (mid-summer 1997)
- Observe spawning activity in the fall

- Electrofishing the mainstream of the Hemlock in summer 1998 to quantify recruitment dynamics based on recovery of fish marked as juveniles in South Fork during the previous summer

The results of the study indicated that there are now several year classes of trout present including adults, young of the year and yearlings. Spawning, hatching, and recruitment of trout are occurring. The project appears to be successful and does not require any fine-tuning.

Namekagon River/Soft Maple Creek Sawyer, Rusk Co. **Contact: Frank Pratt**
Funding Status: Begins 2000
Partners: U.S. Park Service, Minnesota DNR, Rusk Co., Trout Unlimited
This evaluation involves implementing the recommendations and workplan actions from the comprehensive plans prepared for these streams. For the Namekagon River, the plan is to work with partners to complete the St. Croix Fisheries plan for public review, continue coldwater monitoring and initiate appropriate habitat restoration efforts. For Soft Maple Creek, staff will continue habitat restoration, repeat stream monitoring surveys and assist private riparians in zoning, acquisition and habitat restoration. Progress to date:

- Namekagon River/St. Croix Fishery Master Plan Draft complete
- Draft plan is out for agency review (Oct 99)
- Little Soft Maple Creek habitat improvement complete
- Re-evaluation of stream sites is scheduled for 2000-01

Deerskin Dam – Vilas Co. **Contact: Harland Carlson**
Funding Status: Complete
Deerskin Dam is an unsafe dam that is being evaluated for improvement or removal. This project evaluated the fishery impact prior to a decision on the dam's status. Electrofishing upstream a distance of 1,500 feet from the dam pond revealed brown and brook trout populations. Northern and muskie were found in the dam pond itself. No trout were detected below the dam for a distance of 1,500 feet.

Deerskin River/Flowage – Vilas Co. **Contact: Wes Jahns**
Funding Status: Begins 2000
The status of the existing Deerskin Dam is still in question. Its future is dependent upon someone claiming ownership and raising sufficient funds for reconstruction. The deadline for claiming ownership is April 1, 2000. This project is contingent upon the removal of the dam and the subsequent conversion of the flowage to a free-flowing stream. The Deerskin River is 14.1 miles long and provides the best trout fishery in Vilas County. The goal of the project is to assess the fisheries and aquatic habitat within the drawn-down flowage and establish baseline stream data in July of 2000.

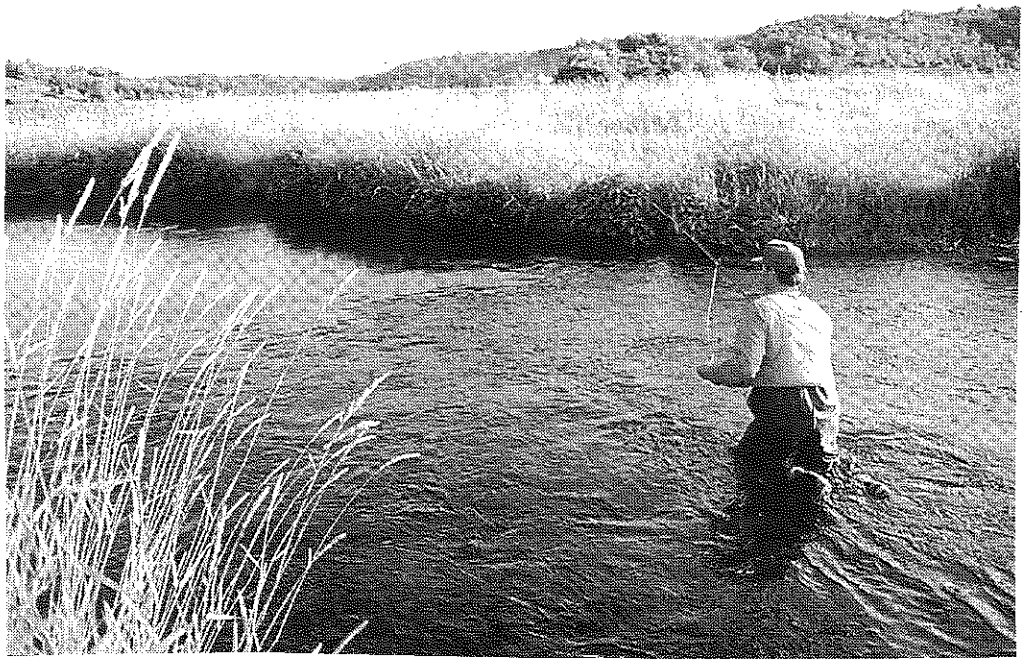
Shell Lake Outlet Study – Washburn Co. **Contact: Larry Damman**
Funding Status: Complete
This project involved the headwaters of two Class I trout streams, Sawyer Brook and Clam River. Both streams have significant state fisheries properties on them. The main purpose of the study was to determine whether either of these streams could withstand long-term water diversion from Shell Lake, which is a large land-locked lake with cyclic flooding problems. The local community was proposing to discharge surplus water from the lake to these streams and the Department needed a strong fact base to decide under what conditions, if any, that diversion could be allowed without destroying the trout habitat. The project involved: 4 population estimates over 2 years; water chemistries on the stream, Shell Lake and City of Shell Lake storm sewer system; several benthic invertebrate samples; stream flow gauging and temperature monitoring; and bottom profiles at several stations. DNR staff were able to actually monitor the effects of a 3 cubic feet/second discharge over 3 months on Sawyer Creek due to "emergency" pumping during the winter. This allowed actual measurements of the effects on stage, flow velocity, sediment transport/channel scour, temperature, water chemistry and invertebrates. This information was used in a contested case hearing in the summer of 1999. Department staff and Trout Unlimited expert witnesses verified that the amount

water needed to be discharged from Shell Lake to relieve flooding would be very destructive to trout habitat in both the short- and long-term. As this report goes to press, the hearing examiner's decision has not been handed down.

Buena Vista Marsh – Wood, Portage Co. **Contact: Tom Jerow**
Funding Status: Begins 2000
The Buena Vista Partnership project addresses the issues of changing agricultural land and water uses in the Portage County Drainage District and its watersheds as well as the impact these changes can have on water quality, competition for water and the impact on brook trout populations. Trout Stamp funds will support design, test and study of temporary trout habitat structures used in streams while the ditches of Buena Vista Marsh are periodically cleaned in order to provide drainage for important agricultural lands. This study is key to preserve the ecosystem of Buena Vista Marsh and yet maintain the agricultural systems that support many jobs in Central Wisconsin.

Upper Wisconsin Basin **Contact: Steve AveLallemant**
Funding Status: Complete
Electrofishing surveys were used to map current instream habitat conditions in the following beaver damaged streams (beaver and dams have been removed): Military Creek (Vilas Co.), Thunder Creek (Oneida Co.), Brule Creek (Forest Co.), Colburn Creek (Forest Co.), Haymeadow Creek (Forest Co.) and Little Somo River (Lincoln Co.).

Upper Wisconsin Basin. **Contact: Peter Segerson**
Funding Status: Ongoing
A second set of electrofishing surveys in the Basin are being used to map current instream habitat conditions in the following rivers: Wolf, East Branch Eau Claire, Hunting, Prairie, Little Popple, South Branch Little Popple and the following creeks: Johnson, Montagne, Woods, LeRoy, and Hendricks Lamon Tangue. Some work has already been accomplished on the East Branch Eau Claire and Prairies Rivers and in Forest and Florence Counties.



A healthy, vibrant fishery is the goal of all projects supported by Inland Waters Trout Stamp revenues.

Stocking/Regulation Evaluation – Plunkett Lake – Iron Co.

Year	FY98	FY99
Planned IWTS Expenditure	$740	$1,180
Total Program Expenditures (all funding sources)	$1,180	$3,374

Contact: Jeff Roth
Funding Status: Complete
Plunkett Lake is a 48.3-acre lake that lies in the Northern Highland State Forest. This lake was converted to a two-story fishery in 1983 and has been stocked annually with brook, brown and rainbow trout. The trout regulations are Category 5 which is a special regulation consisting of a five fish limit with species specific size limits of 12" for brown trout and 8" for all others, while only one fish may be over 12" in length. It was thought that this regulation might be overly restrictive and complicated. This project entailed a basic stocking evaluation that resulted in stocking strategy modification. Brook trout will no longer be stocked and higher levels of brown and rainbow trout will be planted in the future. Also as a result of the study, the special regulation in Plunkett Lake was deemed to be appropriate.

Brook Trout Restoration

Planned IWTS Expenditure: in FY98; in FY99; in FY00 and in FY01
Total Program Expenditures (all funding sources): in FY98 and in FY99

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$2,850	$2.350	$24,615	$24,615
Total Program Expenditures (all funding sources)	$7,529	$3,062	N/A	N/A

Raccoon Creek – Rock Co. **Contact: Don Bush**
Funding Status: Begins 2000
Raccoon Creek, one of only three trout streams in Rock County, almost certainly had a pre-settlement population of brook trout. In the past, agricultural activity has degraded the stream. Today, it is protected rather nicely through wetland protection rules, state ownership and changes in agricultural practices resulting in a reduction in grazing and row cropping. In the first year of this project, a feasibility analysis of the stream and the watershed will be done. In the second year, a program of habitat protection, enhancement and restoration will be accomplished. In addition, DNR will implement regulation changes and then open the stream for "no kill" fishing for brook trout. The ultimate goal is to establish a naturally reproducing fishery with a species assemblage and size structure characteristic of pre-settlement.

Upper Pine River – Waushara Co. **Contact: Al Niebur**
Funding Status: Ongoing
The brook trout is Wisconsin's only stream-dwelling native salmonid. In trout streams of the lower Wolf Basin and Upper Fox Basin, brook trout populations have been dramatically reduced or relegated to the smaller headwater reaches due to a combination of factors favoring the brown trout. In Waushara County only 4 streams, (Carter, Cedar Springs, Little Silver, and Porter's Creeks) representing 12.1 miles, sustain brook trout populations. Brook trout and brown trout coexist in 25 of the remaining 29 streams (approx. 129 miles) but brook trout are common in very small portions of the headwater reaches. In cooperation with DNR research specialists and partners this project will use physical removal of brown trout using electrofishing gear to restore native brook trout populations in the Upper Pine River (approx. 5 miles). In September 1997, DNR conducted mark recapture estimates using multiple capture techniques for all trout species in the Upper Pine River and Soules Creek. All brown trout captured in the Upper Pine River were removed and transferred to other streams and/or lakes. Data collected included index of biotic integrity scores, population estimates,

length/weight, and daily temperature. The project continues in FY00-01 with spring/fall trout population estimate surveys and removal of brown trout.

Inland Waters Trout Stamp Program Administration

Administer the Inland Waters Trout Stamp Program

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$6,000	$6,000	$6,000	$6,000
Total Program Expenditures (all funding sources)	$7,721	$5,845	N/A	N/A

Funding Status: Ongoing
Contact: Larry Claggett
This project covers costs associated with the judging the stamp design and selection process as well as printing of the Inland Waters Trout Stamp.

Inland Waters Trout Stamp Expenditure Report And Plan

Year	FY00
Planned IWTS Expenditure	$15,200
Total Program Expenditures (all funding sources)	N/A

Contact: Larry Claggett.
Funding Status: Begins in FY00, occurs each even year thereafter.
These expenses cover the costs of limited term employees to perform research and gather data, then write and assemble this Inland Waters Trout Stamp Expenditure Report.

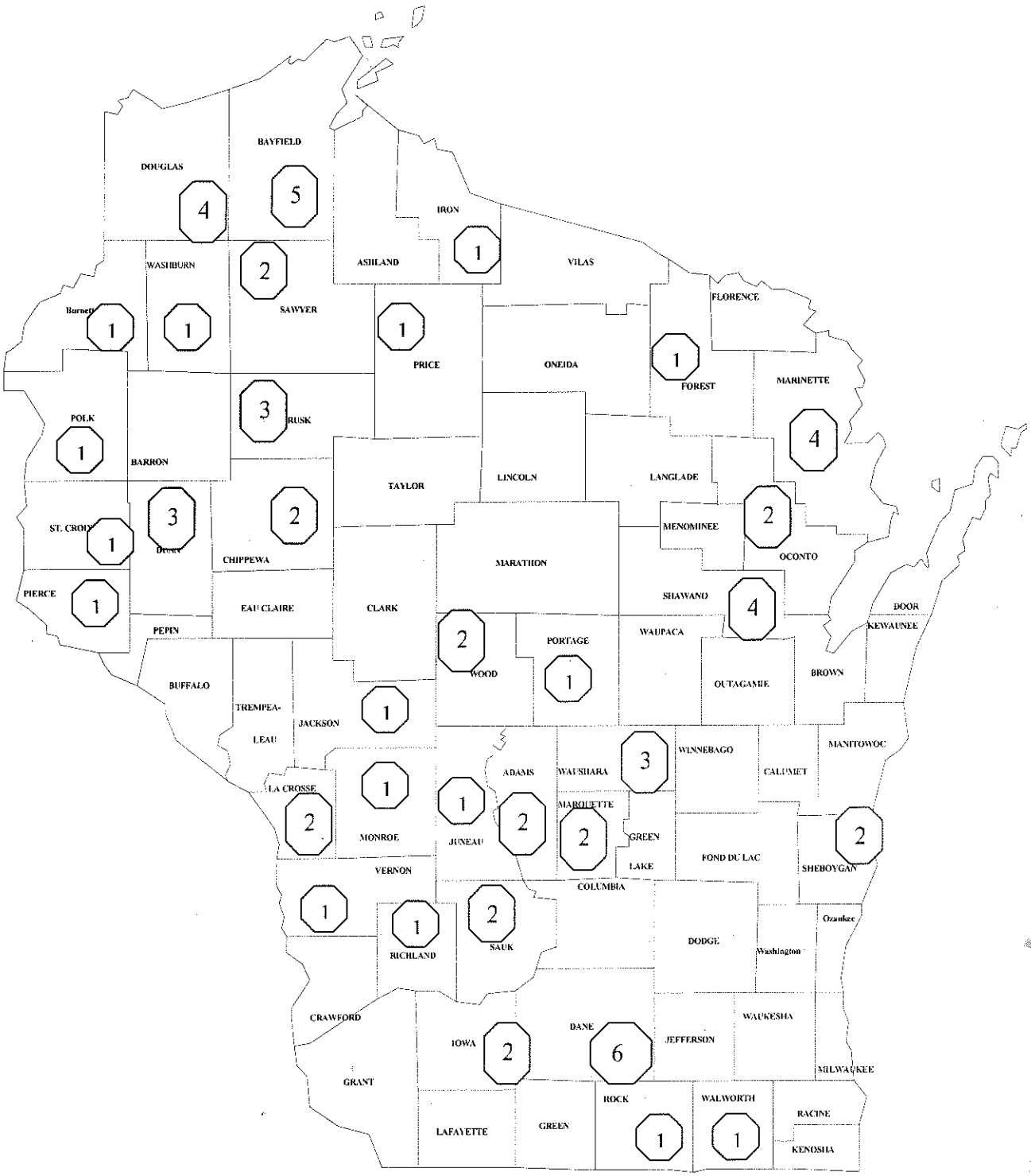
Permanent Employee Salaries

Year	FY98	FY99	FY00	FY01
Planned IWTS Expenditure	$239,681	$247,700	$252,654	$259,476
Total Program Expenditures (all funding sources)	$239,681	$247,700	N/A	N/A

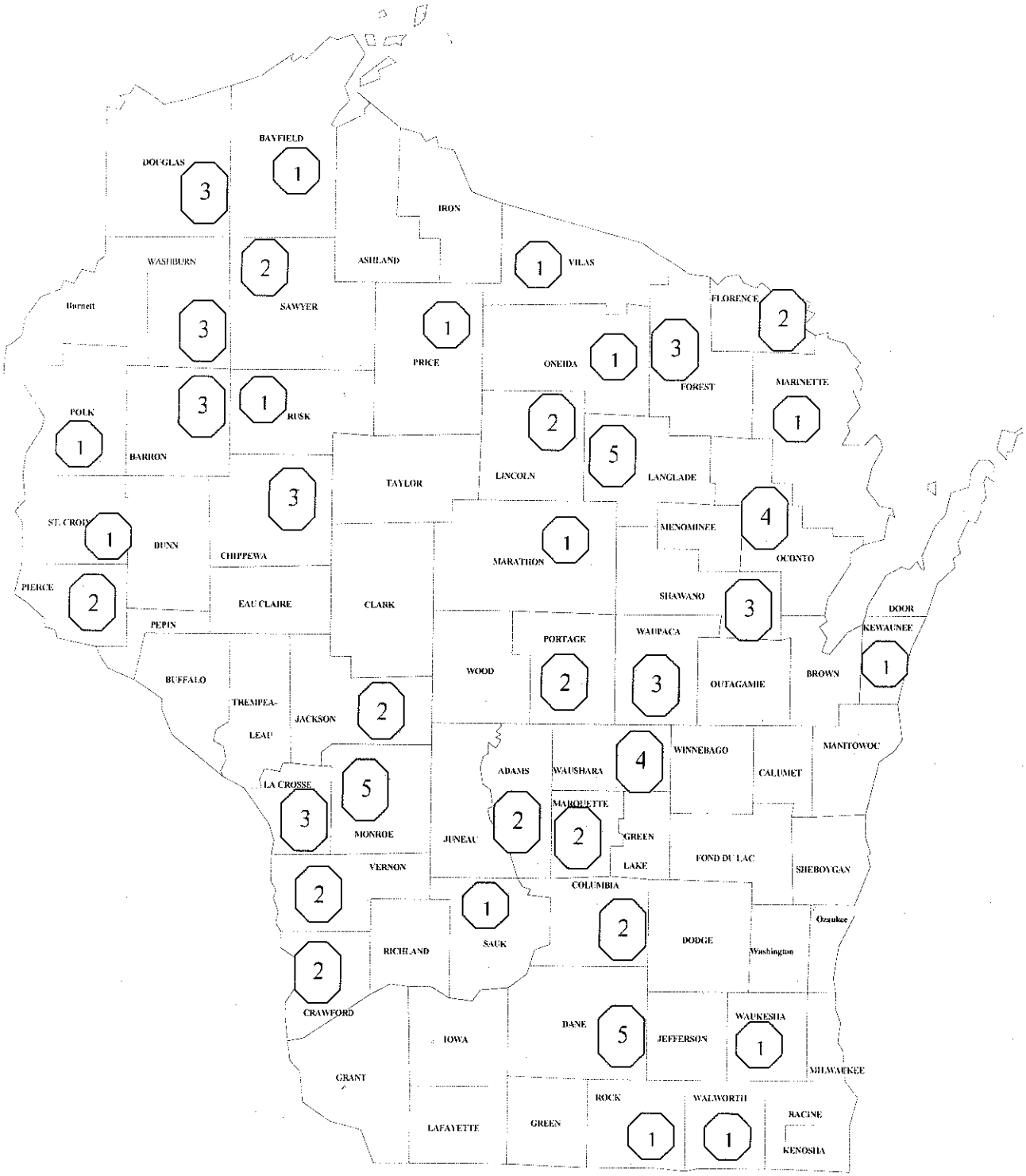
(Note: Total expenditures figures are offered here for reference. In actuality, permanent employee salaries are spread across the appropriate projects listed above and are accounted for in the total program expenditure figures for those projects.)

Funding Status: Ongoing
IWTS funds pay for salaries of 9.34 full time equivalent DNR permanent staff members throughout the state who work on inland waters trout programs.

Inland Water Trout Stamp Supported Projects 1998-1999 by County



Proposed Inland Water Trout Supported Projects 2000-2001 by County



Hydrographic Map of Wisconsin Trout Streams