

DATE: May 9, 2005

FILE REF: [Click [here](#) and type file ref.]

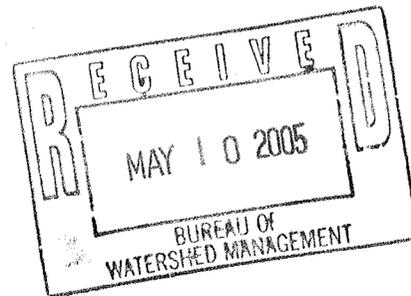
TO: Laura Bub – WT/2

FROM: Ken Schreiber - WCR

SUBJECT: Stream re-classification

Enclosed is documentation of two streams that have been re-classified in recent years to reflect results of fish surveys conducted in the 1980s and 1990s. Based on fish surveys conducted in 1981 and 1986, the Kinnickinnic River (Pierce Co.) below Devils Den to its confluence with the St. Croix River was declassified from Coldwater (Class I) to a Warmwater Sport Fishery (WWSF).

Based on fish surveys conducted in 1994, Tiffany Creek (Dunn Co.) from STH 79 to its confluence with the South Fork Hay River was reclassified from Fish and Aquatic Life (FAL) to Coldwater (Class II).



| | | | |
|---------------------------------------|-------------------------|-------------------------|--|
| Region <u>WCR</u> | County <u>ST. CROIX</u> | Report Date <u>none</u> | Classification <u>CW</u> <u>(? WWSF?)</u> |
| Water Body: <u>Kinnickinnic River</u> | | | |
| Discharger: _____ | | | |

If stream is classified as Limited Forage Fish (LFF) or Limited Aquatic Life (LAL), check any of the following Use Attainability Analysis factors that are identified in the classification report:

- _____ Naturally occurring pollutant concentrations prevent the attainment of use
- _____ Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met
- _____ Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place
- _____ Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or operate such modification in a way that would result in the attainment of the use
- _____ Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses
- _____ Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact

Supporting Evidence in the report (include comments on how complete/thorough data is)

- _____ Biological Data (fish/invert) _____
- _____ Chemical Data (temp, D.O., etc.) _____
- _____ Physical Data (flow, depth, etc.) _____
- _____ Habitat Description _____
- _____ Site Description/Map _____
- _____ Other: _____

Historical Reports in file:

- none -

Additional Comments/How to improve report:

CW stream - no documentation - or is it WWSF? - if WWSF, why is it listed in NR104?

Department of Natural Resources
Western District
1300 West Clairemont Avenue, Call Box 4001
Eau Claire, WI 54702-4001

September 30, 1988

"Pursuant to NR 1.02(7)(c), Wisconsin Administrative Code, the Department of Natural Resources gives public notice of the reclassification of 0.7 miles of the Kinnickinnic River in Pierce County as non-trout water."

This stretch of the Kinnickinnic River flows between a well known local landmark known as Devil's Den and the St. Croix River. Surveys conducted in April 1981 and August 1986 demonstrate this area is not trout water. Strong local interest exists in declassification of this reach of stream so it would be open to rough fish harvest in the early spring.

The Department shall waive any hearing requirement on this classification unless a written request for hearing is received before November 5, 1988. Requests should be sent to:

Marty Engel, Fisheries Manager
Wisconsin D.N.R.
Ag. Center, Box 61
Baldwin, WI 54002

FM6\GSNR1.gsm

Summary Report

TITLE: A Survey of Questionable Trout Water on the Lower Kinnickinnic River, Pierce Co.

AUTHOR: Martin P. Engel

DATE OF REPORT: September 22, 1988.

DATE OF FIELD WORK: April 4, 1981 and August 22, 1986. Field work was conducted by R. Scot Stewart, Fish Manager and Technician Jim Stewart.

WORK PURPOSE: To determine whether the Lower Kinnickinnic River from Devils Den landmark downstream to the St. Croix River should be reclassified as non-trout water.

Introduction

The Kinnickinnic River is presently listed as a Class 1 trout stream from its origin in St. Croix County to the mouth of the St. Croix River in Pierce County (DNR, 1980). For quite some time area sportsmen have been questioning the accuracy of this classification on the Lower Kinnickinnic River from the local landmark called Devils Den downstream to the St. Croix River (Figure 1). Since at least 1985, annual proposals have been presented at spring hearings, requesting declassification of this stretch of river. Using data obtained by the department during 1981 and 1986, sportsmen had claimed trout were not present and therefore the area should be opened to rough fish harvest. Unfortunately no action was taken by the department until now.

Methods

Stream shocking was conducted on two dates approximately four years apart. During April 8, 1981 a single electrofishing run was made beginning 1000 feet upstream from the confluence with the St. Croix River. The survey ended 4200 feet upstream from the point of origin. The second survey was conducted on August 22, 1986 and began at the confluence with the St. Croix River. This survey ended 3650 feet upstream at the Devils Den landmark.

All trout captured were measured and their general location noted. An attempt was made to note any trout that escaped capture. The general abundance of other species were noted as abundant, common or present.

Results

The 1981 survey captured 18 brown trout or 22.6 per mile varying in size from 7.0 - 14.4 inches. Of these 18 trout, 16 were captured upstream from Devils Den landmark. Six other species were noted to be present and include carp, quillback carpsucker, white sucker, gizzard shad, fathead and brassy minnows.

No trout were captured or observed during the 1986 survey. Gizzard shad were listed as being abundant; redhorse, suckers and carp as common, and northern pike, smallmouth bass and yellow perch as present.

Water temperature (59°) was suitable for trout during August 1986, although general observations indicate the area to be a transition zone between the Kinni river and the St. Croix River. Sand and gilt dominate the area substrate.

It is apparent a few trout may occupy this area from time to time but the total number most likely will remain very low. In consideration of this area as deposition zone any instream habitat improvement would probably not improve trout habitat.

Conclusions

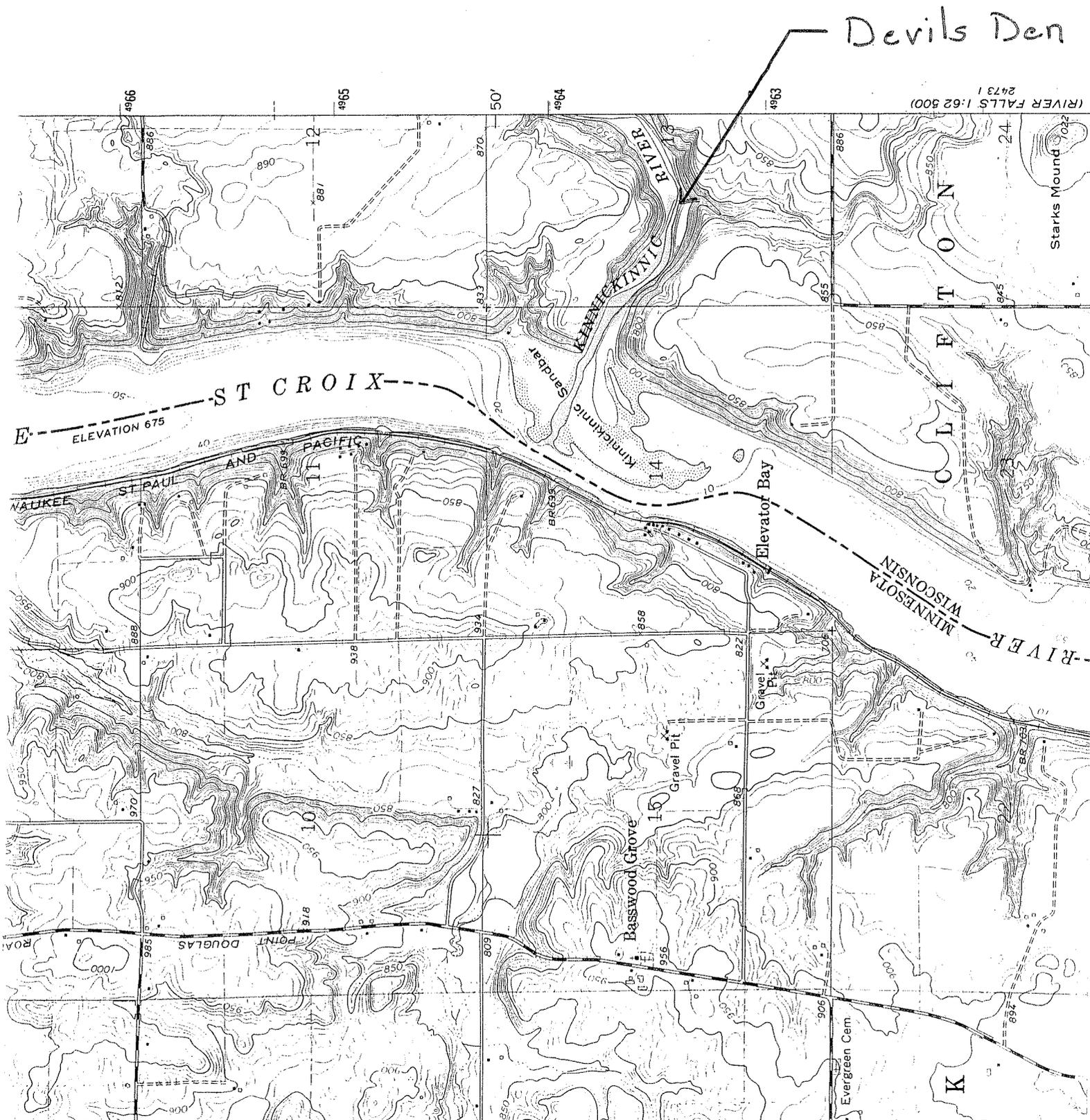
Based on the 1981 and 1986 fishery surveys I have little biological grounds to deny reclassification of the area to non-trout water from Devils Den downstream to the St. Croix River. It is also my opinion this area is a transition zone influenced by the water levels of the St. Croix River and is dominated by warmwater species.

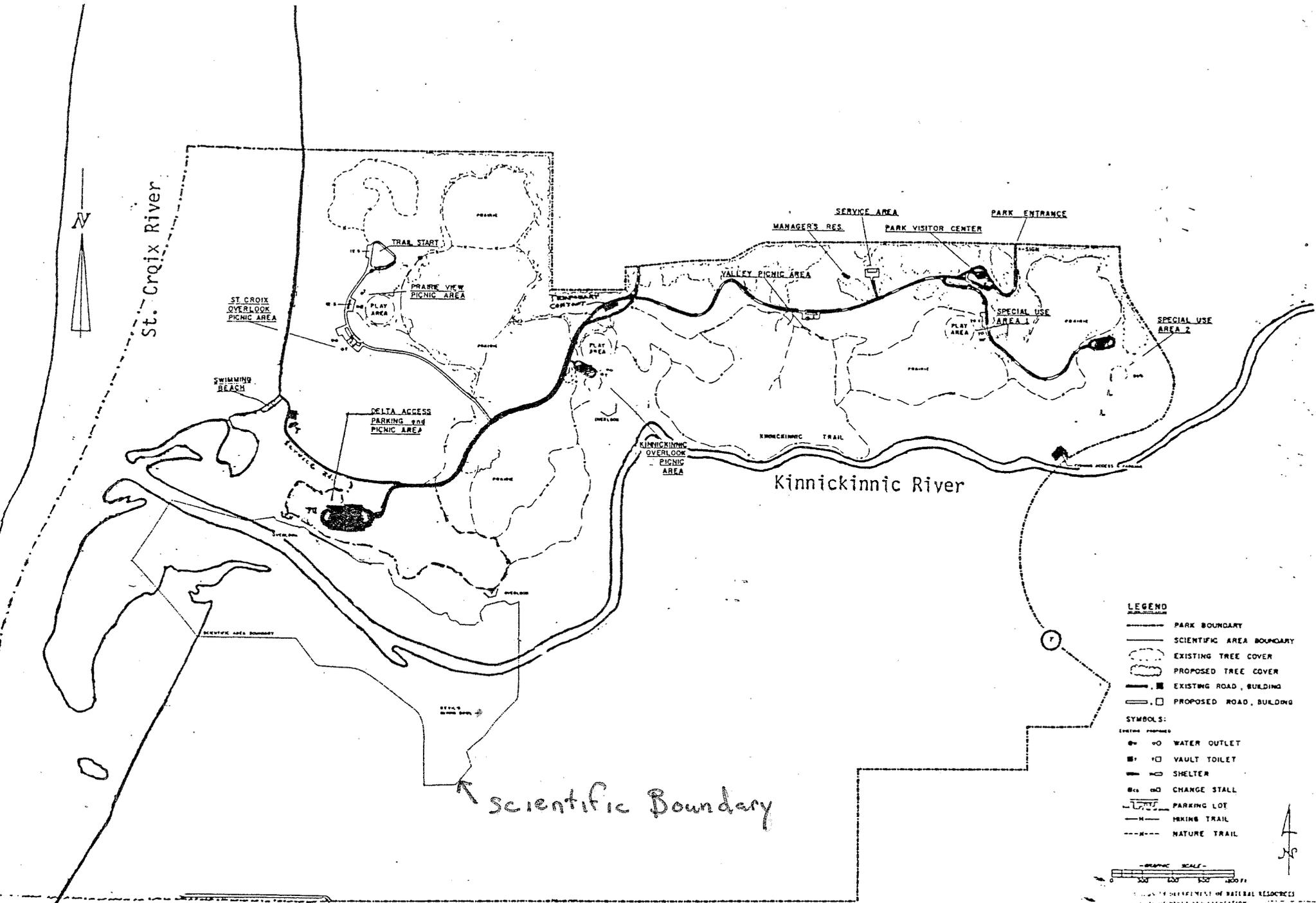
Therefore, I recommend the department proceed with declassifying the aftermentioned trout waters located in T27N R20W, Sections 13 and 14 to allow area sportsmen to take part in pre-trout season rough fish harvest opportunities. Also, I further recommend the river be posted and maintained by the department delineating non-trout and trout water at the Devils Den location.

LITERATURE CITED

Wisconsin Department of Natural Resources, 1980. Wisconsin Trout Streams. Wis. Dept. Nat. Resour. Publ. 6-3600(80). 44pp.

Figure 1.



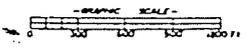


St. Croix River

Kinnickinnic River

scientific Boundary

- LEGEND**
- PARK BOUNDARY
 - - - SCIENTIFIC AREA BOUNDARY
 - ○ ○ ○ ○ EXISTING TREE COVER
 - □ □ □ □ PROPOSED TREE COVER
 - ■ — ■ — EXISTING ROAD, BUILDING
 - - - □ - - - PROPOSED ROAD, BUILDING
- SYMBOLS:**
- ○ ○ ○ ○ WATER OULET
 - ■ ■ ■ ■ VAULT TOILET
 - ○ — ○ — SHELTER
 - ○ ○ ○ ○ CHANGE STALL
 - ■ — ■ — PARKING LOT
 - — — HIKING TRAIL
 - - - - - NATURE TRAIL



DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF FOREST AND WILDLIFE
 PLANNING AND DEVELOPMENT

**DEVELOPMENT PLAN
 KINNICKINNIC**

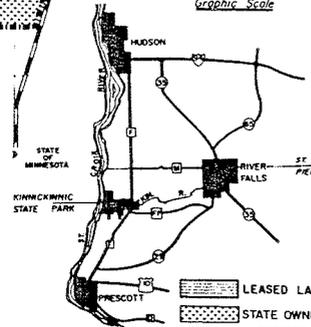
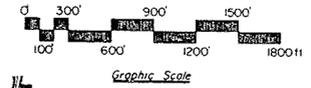
STATE OF MINNESOTA

RIVER

ST. CROIX

Devils Den

Scientific Area
Boundary
at
stream crossing



Clifton Township
T 27 N. - R. 9, 20 W
Pierce County
Wisconsin
LOCATOR
MAP

[Stippled Box] LEASED LAND
 [Dotted Box] STATE OWNED LAND
 [Dashed Line] APPROVED PARK BOUNDARY
 PROJECT 9243
 REVISED 4/87 BY J. GONZALES
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
BUREAU OF PARKS AND RECREATION
PARK PLANNING AND DEVELOPMENT
KINNICKINNIC STATE PARK
OWNERSHIP MAP
 Approved by: _____ Date: 8/1/87
 Drawing number: 150-3
 3/29/73

STREAM SURVEY STATION REPORT

DEPARTMENT OF NATURAL RESOURCES

FORM 3600-39

| | | | | | |
|---|---|---|--|---|-------------------------------------|
| NAME OF STREAM Kinnickinnic River | | Survey Station No. 1 | POINT OF EXAMINATION Shocked upstream starting 1000' upstream from confluence with St. Croix River. | | |
| COUNTY Pierce | | | | | |
| Township 27N | Range 20W | Section 13 | Distance Sampled (ft.) 4200' | GEAR USED 115 volt D.C. Stream shocker with 3 Electrode Handler | |
| Avg. Width (ft.) 100' | Avg. Depth (ft.) 1.0' | Vol. of Flow (c.f.s.) Not taken | VELOCITY <input checked="" type="checkbox"/> Sluggish to <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Rapid | | Max. Flood Crest (ft.) |
| WATER <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Stained <input type="checkbox"/> Dirty | | CONDUCTANCE C _f C ₇₇ | TEMPERATURE 59° Water 60° Air 1:00 PM Time | | pH |
| M.P.A. | | | | | |
| WATER LEVEL CONDITIONSIn. BelowNormal 2In. Above | | PRIOR WEATHER CONDITIONS Partly cloudy to clear two days before | | | |
| POLLUTION None | | | | | |
| STREAM BOTTOM TYPES (%)BedrockHardpanBoulderRubble 5GravelSand 75Silt 20MarlDetritus | | | | POOL GRADE B | |
| | | | | POOL-RIFFLE RATIO 60-40 | |
| AQUATIC VEGETATION (Species) None | Abund. | AQUATIC VEGETATION (Species) | Abund. | AQUATIC VEGETATION (Species) | Abund. |
| INSTREAM COVER | | | | | |
| Undercut banks | Scarce <input checked="" type="checkbox"/> | Common | Abundant | Stable <input checked="" type="checkbox"/> | Unstable |
| Rocks, boulders | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | |
| Logs, trees | <input checked="" type="checkbox"/> | | | | <input checked="" type="checkbox"/> |
| Debris | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | |
| Aquatic Vegetation | <input type="checkbox"/> | | | | |
| AQUATIC LIFE | | | | | |
| | Scarce <input checked="" type="checkbox"/> | Common | Abundant | Stonefly | |
| | <input checked="" type="checkbox"/> | | | Mayfly | |
| | <input checked="" type="checkbox"/> | | | Caddisfly | |
| | <input type="checkbox"/> | | | Shrimp | |
| | <input type="checkbox"/> | | | Crayfish | |
| STREAM BANK VEGETATION | | | | | |
|% Cultivated | | 50% Upland Hardwood | |% Swamp Conifer | |
|% Firm Pasture | |% Upland Conifer | |% Shrub Marsh | |
|% Meadow Pasture | | 50% Swamp Hardwood | |% Open Marsh | |
| STREAM COVER <input type="checkbox"/> Dense <input type="checkbox"/> Partly Open <input checked="" type="checkbox"/> Open | | | FISHABILITY <input checked="" type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor | | |
| BANK EROSION <input type="checkbox"/> Heavy <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> None | | | DAMS | Number | Height |
| | | | Man-made | 0 | |
| BANK HEIGHTS 3' to 200' | | | Beaver (active) | 0 | |
| NEED FOR INSTREAM DEVICES <input checked="" type="checkbox"/> Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> None | | | Beaver (inactive) | 0 | |
| REMARKS St. Croix River was about 2' high due to heavy rain during previous weekend. This made shocking the first 1000 feet nearly impossible because of deep wide water. | | | | | |
| (use back of sheet for additional remarks) | | | | | |
| DATE OF SURVEY 4-8-81 | | | INVESTIGATOR James M. Stewart | | |

| STREAM | | | | INVESTIGATOR | | |
|------------------------|-------------|-------|--------------|------------------|--------------|--------|
| Lower Kinnickinnic | | | | James M. Stewart | | |
| Area Sampled: | LENGTH | WIDTH | AREA (ACRES) | STATION NO. | NO. PER ACRE | DATE |
| | 4200' | 100' | 0.96 | 1 | 18 | 4-8-81 |
| SIZE RANGE | SPECIES | | | | | |
| | Brown Trout | | | | | |
| 1 | | | | | | |
| 1.0 - 1.4 | | | | | | |
| 1.5 - 1.9 | | | | | | |
| 2.0 - 2.4 | | | | | | |
| 2.5 - 2.9 | | | | | | |
| 3.0 - 3.4 | | | | | | |
| 3.5 - 3.9 | | | | | | |
| 4.0 - 4.4 | | | | | | |
| 4.5 - 4.9 | | | | | | |
| 5.0 - 5.4 | | | | | | |
| 5.5 - 5.9 | | | | | | |
| 6.0 - 6.4 | | | | | | |
| 6.5 - 6.9 | | | | | | |
| 7.0 - 7.4 | | | | | | |
| 7.5 - 7.9 | | | | | | |
| 8.0 - 8.4 | | | | | | |
| 8.5 - 8.9 | | | | | | |
| 9.0 - 9.4 | | | | | | |
| 9.5 - 9.9 | | | | | | |
| 10.0 - 10.4 | | | | | | |
| 10.5 - 10.9 | | | | | | |
| 11.0 - 11.4 | | | | | | |
| 11.5 - 11.9 | | | | | | |
| 12.0 - 12.4 | | | | | | |
| 12.5 - 12.9 | | | | | | |
| 13.0 - 13.4 | | | | | | |
| 13.5 - 13.9 | | | | | | |
| 14.0 - 14.4 | | | | | | |
| 14.5 - 14.9 | | | | | | |
| 15.0 - 15.4 | | | | | | |
| 15.5 - 15.9 | | | | | | |
| 16.0 - 16.4 | | | | | | |
| 16.5 - 16.9 | | | | | | |
| 17.0 - 17.4 | | | | | | |
| 17.5 - 17.9 | | | | | | |
| 18.0 - 18.4 | | | | | | |
| 18.5 - 18.9 | | | | | | |
| 19.0 - 19.4 | | | | | | |
| 19.5 - 19.9 | | | | | | |
| 20.0 - 20.4 | | | | | | |
| 20.5 - 20.9 | | | | | | |
| 21.0 - 21.4 | | | | | | |
| 21.5 - 21.9 | | | | | | |
| 22.0 - 22.4 | | | | | | |
| 22.5 - 22.9 | | | | | | |
| 23.0 - 23.4 | | | | | | |
| 23.5 - 23.9 | | | | | | |
| 24.0 - 24.4 | | | | | | |
| 24.5 - 24.9 | | | | | | |
| 5 + (give actual size) | | | | | | |
| TOTAL | | | | | | |
| | 18 | | | | | |

STATION SUMMARY
TROUT POPULATION PARAMETERS
KINNICKINNIC RIVER WATERSHED
PIERCE & ST. CROIX COUNTY, WISCONSIN
JULY & AUGUST, 1996

| STATION NUMBER | Kinnickinnic River | | | | | | | | | | |
|---|--------------------|-------------|-------------|-------------|---------------|-------------|-------------|----------------|----------------|-------------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Station Information | | | | | | | | | | | |
| W/BIC | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 |
| Sampling Date: | 07-30-96 | 07-08-96 | 07-08-96 | 07-08-96 | 07-08-96 | 07-15-96 | 07-15-96 | 07-16-96 | 07-16-96 | 07-22-96 | 07-22-96 |
| Recap Date: ** | NONE | 07-10-96 | 07-10-96 | 07-11-96 | 07-11-96 | 07-17-96 | 07-17-96 | 07-18-96 | 07-18-96 | 07-24-96 | 07-24-96 |
| River Mile: | 0.5 | 2.1 | 3.8 | 5.4 | 6.5 | 8.4 | 10.0 | 10.8 | 12.8 | 14.8 | 16.0 |
| Station Length (ft): | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| No. Acres: | 4.2 | 2.1 | 2.1 | 2.1 | 2.6 | 2.2 | 1.9 | 1.9 | 1.5 | 1.4 | 1.4 |
| Equipment: * | MB & SS | 2 SS | 2 SS | 2 SS | 2 SS | 2 SS | 2 SS | 2 SS | SS | SS | SS |
| No. Electrodes: | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 3 | 3 |
| Number Captured & Catch per Unit Effort | | | | | | | | | | | |
| Brown / Brook Trout | | | | | | | | | | | |
| 1st Run Total (< 4") | 0 / 0 | 87 / 0 | 102 / 0 | 125 / 0 | 266 / 0 | 730 / 0 | 118 / 0 | 398 / 3 | 418 / 0 | 234 / 0 | 109 / 0 |
| No. per mile: | 0 / 0 | 196.5 / 0 | 299.2 / 0 | 368.7 / 0 | 788.3 / 0 | 2,141.3 / 0 | 346.1 / 0 | 1,167.5 / 8.8 | 1,226.1 / 0 | 686.4 / 0 | 319.7 / 0 |
| 1st Run Total (4" and >) | 0 / 0 | 289 / 0 | 408 / 0 | 527 / 0 | 776 / 1 | 1,133 / 0 | 1,270 / 0 | 1,924 / 7 | 1,332 / 2 | 1,160 / 0 | 453 / 0 |
| No. per mile: | 0 / 0 | 647.7 / 0 | 1,190.9 / 0 | 1,545.9 / 0 | 2,276.3 / 2.9 | 3,323.5 / 0 | 3,725.3 / 0 | 5,643.7 / 20.5 | 3,907.2 / 5.9 | 3,402.7 / 0 | 1,328.8 / 0 |
| 1st Run Total (All) | 0 / 0 | 356 / 0 | 508 / 0 | 652 / 0 | 1,042 / 1 | 1,863 / 0 | 1,388 / 0 | 2,322 / 10 | 1,750 / 2 | 1,392 / 0 | 529 / 2 |
| No. per mile: | 0 / 0 | 1,044.3 / 0 | 1,490.1 / 0 | 1,912.5 / 0 | 3,056.5 / 2.9 | 5,464.8 / 0 | 4,071.5 / 0 | 6,811.2 / 29.3 | 5,133.3 / 5.9 | 4,083.2 / 0 | 1,551.7 / 5.9 |
| 2nd Run Total (4" and >) | | 272 / 0 | 387 / 0 | 497 / 0 | 820 / 1 | 1,045 / 0 | 1,165 / 0 | 1,322 / 5 | 1,106 / 4 | 1,147 / 0 | 514 / 2 |
| No. per mile: | | 797.9 / 0 | 1,076.5 / 0 | 1,457.9 / 0 | 2,405.3 / 2.9 | 3,065.3 / 0 | 3,417.3 / 0 | 3,877.9 / 14.7 | 3,244.3 / 11.7 | 3,364.5 / 0 | 1,507.7 / 0 |
| Smallmouth Bass | | | | | | | | | | | |
| 1st Run Total: | 9 | 16 | 4 | 1 | | | | | | | |
| 2nd Run Total: | | 9 | 4 | | | | | | | | |
| Walleye | | | | | | | | | | | |
| 1st Run Total: | 2 | 1 | | | | | | | | | |
| 2nd Run Total: | | 1 | | | | | | | | | |
| Sauger | | | | | | | | | | | |
| 1st Run Total: | | 1 | | | | | | | | | |
| 2nd Run Total: | | | | | | | | | | | |
| Muskegon | | | | | | | | | | | |
| 1st Run Total: | | | | | 1 | | | | | | |
| 2nd Run Total: | | 1 | 1 | | 1 | | | | | | |
| Brown / Brook Trout | | | | | | | | | | | |
| Length Distribution | | | | | | | | | | | |
| Inch Group | | | | | | | | | | | |
| 1 | | 1 / 0 | | 2 / 0 | | | 17 / 0 | | 72 / 0 | 16 / 0 | |
| 2 | | 44 / 0 | 58 / 0 | 87 / 0 | 133 / 0 | 337 / 0 | 84 / 0 | 242 / 0 | 289 / 0 | 202 / 0 | 101 / 0 |
| 3 | | 22 / 0 | 44 / 0 | 38 / 0 | 133 / 0 | 393 / 0 | 17 / 0 | 158 / 0 | 58 / 0 | 16 / 0 | 8 / 0 |
| 4 | | | | | | | 5 / 0 | 20 / 0 | 26 / 0 | 11 / 0 | 1 / 0 |
| 5 | | 1 / 0 | 1 / 0 | 1 / 0 | 3 / 0 | 1 / 0 | 99 / 0 | 158 / 0 | 145 / 0 | 84 / 0 | 12 / 0 |
| 6 | | 9 / 0 | 6 / 0 | 13 / 0 | 37 / 0 | 43 / 0 | 187 / 0 | 314 / 0 | 198 / 2 | 86 / 0 | 34 / 0 |
| 7 | | 45 / 0 | 43 / 0 | 72 / 0 | 138 / 0 | 145 / 0 | 130 / 0 | 315 / 0 | 149 / 0 | 215 / 0 | 26 / 0 |
| 8 | | 48 / 0 | 73 / 0 | 55 / 0 | 115 / 0 | 140 / 0 | 367 / 0 | 504 / 3 | 324 / 0 | 291 / 0 | 115 / 0 |
| 9 | | 8 / 0 | 9 / 0 | 29 / 0 | 58 / 0 | 307 / 0 | 339 / 0 | 427 / 2 | 289 / 0 | 247 / 0 | 133 / 0 |
| 10 | | 48 / 0 | 70 / 0 | 142 / 0 | 210 / 0 | 338 / 0 | 124 / 0 | 135 / 2 | 124 / 0 | 132 / 0 | 76 / 0 |
| 11 | | 75 / 0 | 110 / 0 | 131 / 0 | 131 / 0 | 123 / 0 | 30 / 0 | 33 / 0 | 53 / 0 | 65 / 0 | 40 / 0 |
| 12 | | 30 / 0 | 54 / 0 | 50 / 0 | 59 / 0 | 33 / 0 | 6 / 0 | 8 / 0 | 19 / 0 | 16 / 0 | 13 / 0 |
| 13 | | 18 / 0 | 22 / 0 | 27 / 0 | 19 / 1 | 4 / 0 | 3 / 0 | 4 / 0 | 6 / 0 | 7 / 0 | 3 / 0 |
| 14 | | 4 / 0 | 13 / 0 | 1 / 0 | 4 / 0 | 1 / 0 | | 4 / 0 | | 1 / 0 | |
| 15 | | 3 / 0 | 2 / 0 | 3 / 0 | 3 / 0 | | | 1 / 0 | | 1 / 0 | |
| 16 | | 2 / 0 | 2 / 0 | 1 / 0 | | | | 1 / 0 | | 1 / 0 | |
| 17 | | | 1 / 0 | | | | | | 1 / 0 | 1 / 0 | |
| 18 | | | | | | | | | | | |
| 19 | | | | | | | | | | 2 / 0 | |
| 20 | | | | | 1 / 0 | | | | | | |
| 21 | | | | 1 / 0 | | | | | | | |
| 22 | | | | | | | | | | | |
| 23 | | | | 1 / 0 | | | | | | | |
| Brown Trout | | | | | | | | | | | |
| Population Estimates | | | | | | | | | | | |
| 4 inches and greater: | | 470.6 | 648.5 | 747.8 | 1,046.6 | 1,319.6 | 1,994.4 | 2,510.3 | 1,984.4 | 2171.4 | 877.2 |
| STD: | | 48.1 | 64.3 | 48.0 | 46.5 | 34.1 | 136.2 | 74.4 | 83.8 | 174.6 | 131.27 |
| Pounds per acre: | | 90.1 | 123.1 | 140.8 | 139.7 | 196.8 | 200.0 | 258.8 | 301.5 | 324.8 | 157.4 |
| Number per mile: | | 1,360.4 | 1,902.3 | 2,193.5 | 3,070.0 | 3,870.8 | 5,850.4 | 7,363.6 | 5,820.9 | 6369.5 | 2573.2 |
| 6 inches and greater: | | 469.6 | 647.5 | 746.8 | 1,043.6 | 1,318.6 | 1,882.4 | 2,216.5 | 1763.2 | 1778.2 | 809.2 |
| STD: | | 48.1 | 64.3 | 48.0 | 46.5 | 34.1 | 84.0 | 81.8 | 78.2 | 103.2 | 123.3 |
| Pounds per acre: | | 90.1 | 123.1 | 140.8 | 139.6 | 196.8 | 190.4 | 249.9 | 300.4 | 308.7 | 154.2 |
| Number per mile: | | 1,377.4 | 1,899.3 | 2,190.5 | 3,061.2 | 3,867.9 | 4,935.2 | 6,501.7 | 5,172.1 | 5215.9 | 2373.7 |

* SS - stream shocker
BPK - backpack shocker
MB - mini boom shocker

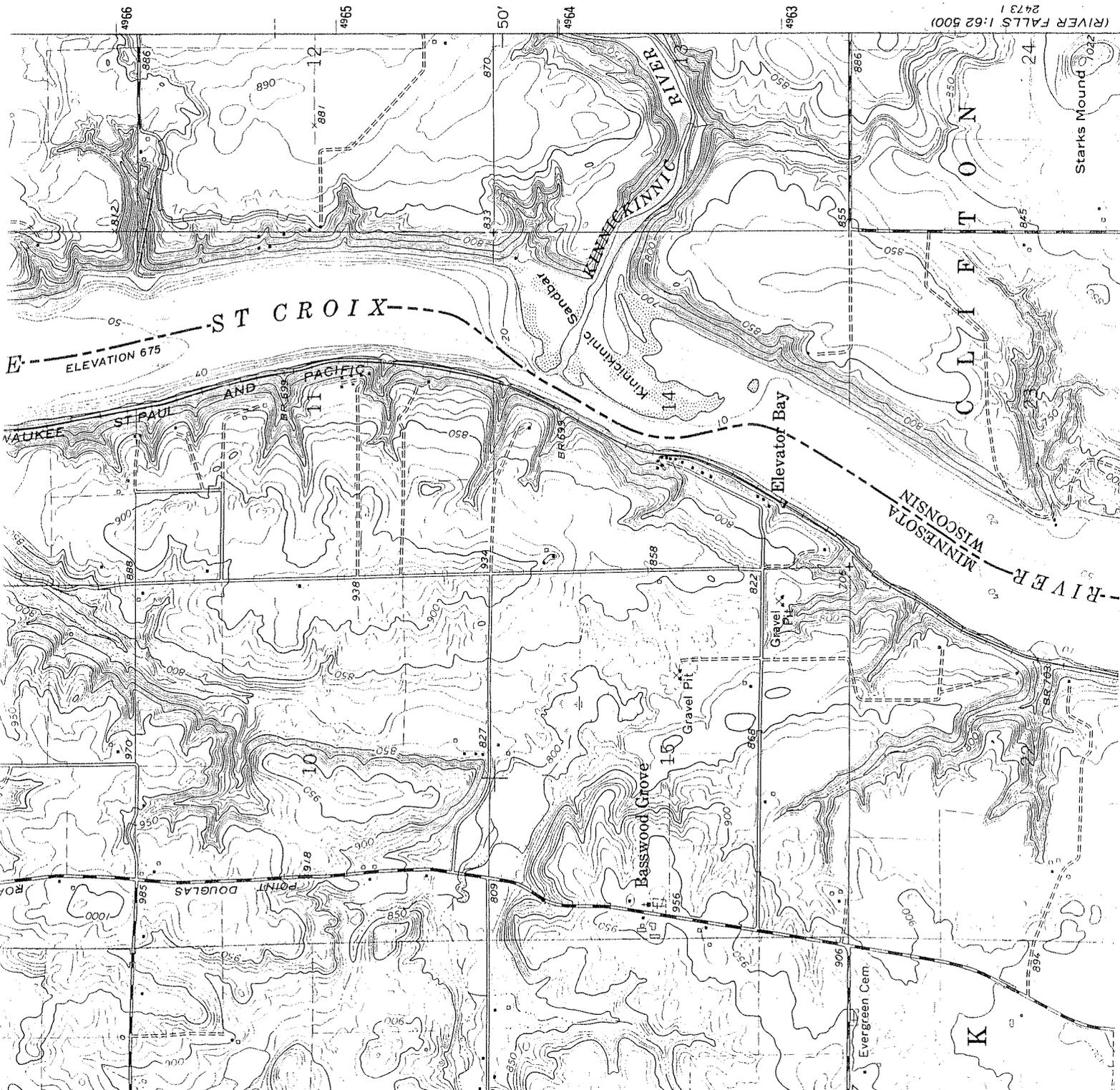
** IF less than 50 fish over 4 inches were captured on 1st run, then no 2nd run was done.

STATION SUMMARY
FISH ASSEMBLAGE
KINNICKINNIC RIVER WATERSHED
PIERCE & ST. CROIX COUNTY, WISCONSIN
JULY & AUGUST, 1996

| STATION NUMBER | Kinnickinnic River | | | | | | | | | | | |
|---|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
| Station Information & WBIC | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 | 2601800 |
| Sampling Date: | 07-30-96 | 07-08-96 | 07-08-96 | 07-09-96 | 07-09-96 | 07-15-96 | 07-15-96 | 07-16-96 | 07-16-96 | 07-22-96 | 07-22-96 | |
| River Mile: | 0.5 | 2.1 | 3.8 | 5.4 | 6.5 | 8.4 | 10.0 | 10.8 | 12.8 | 14.6 | 16.3 | |
| Station Length (ft): | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | |
| Basin Area (Sq. Mi.) | 173.9 | 165.0 | 162.5 | 161.5 | 158.2 | 156.4 | 116.8 | 115.0 | 98.4 | 94.7 | 88.1 | |
| Fish Species & Number Captured | | | | | | | | | | | | |
| Brook Trout | | | | | | | | 6 | | | | |
| Brown Trout | | 69 | 138 | 205 | 329 | 443 | 266 | 576 | 671 | 682 | 247 | |
| Green Sunfish | | | | | | | | 1 | | 5 | | |
| Smallmouth Bass | 4 | 3 | 2 | | | | | | | | | |
| Am. Brk. Lamprey | | 2 | | | | | | | | | | |
| Chestnut Lamprey | | 1 | | | | | | | | | | |
| Blacknose Dace | | 1 | 37 | 3 | | | | | | | | |
| Burbot | | 2 | 1 | | | | | | | | | |
| Common Carp | | | 10 | 4 | 1 | | | | | | | |
| Creek Chub | | | | | | | | | | | | |
| Emerald Shiner | 79 | 6 | 1 | | | | | | | | | |
| Fathead Minnow | 1 | | | | | | | | | | | |
| Largescale Stoneroller | | | | | | | | | | | | |
| Longnose Dace | 3 | 36 | 327 | 75 | 170 | 103 | | | | | | |
| Golden Redhorse | | | 3 | | | | | | | | | |
| Greater Redhorse | | | | | 1 | | | | | | | |
| Shorthead Redhorse | | 2 | 5 | 21 | 4 | 6 | | | | | | |
| Silver Redhorse | | 11 | 3 | 3 | | | | | | | | |
| Redhorse spp. | | 17 | | | | | | | | | | |
| White Sucker | 145 | 41 | 123 | 76 | 81 | 117 | 32 | 49 | 47 | 80 | 83 | |
| Fantail Darter | | | | | | | | | | | | |
| Johnny Darter | 30 | 6 | 17 | 1 | 4 | | | | | | | |
| Logperch | 4 | 2 | | | | | | | | | | |
| Brook Stickleback | | | | | | 1 | | 2 | | 35 | 8 | |
| Central Mudminnow | | | | | | | | | | | | 1 |
| Mottled Sculpin | | | | 1 | 1 | 17 | | | | | | |
| Coldwater IBI Calc. & Score | | | | | | | | | | | | |
| No. Intolerant Species | 1 | 3 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | |
| Score | 10 | 20 | 10 | 10 | 20 | 10 | 0 | 10 | 0 | 0 | 10 | |
| % Tolerant Individuals | 54.9 | 21.1 | 25.5 | 21.3 | 13.9 | 17 | 10.7 | 7.9 | 6.5 | 10.6 | 24.7 | |
| Score | 0 | 10 | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 0 | |
| % Top Carnivores | 1.5 | 37.2 | 21.1 | 52.7 | 55.7 | 64.5 | 89.3 | 91.8 | 93.5 | 85 | 72.6 | |
| Score | 0 | 10 | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| % Stenothermal Cool & Coldwater Species | 0 | 36.7 | 22.3 | 54 | 56 | 67.1 | 89.3 | 92.1 | 93.5 | 89.4 | 75.3 | |
| Score | 0 | 0 | 0 | 10 | 10 | 10 | 20 | 20 | 20 | 20 | 10 | |
| % Salmonid Individuals that are Brook Trout | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 0 | 0 | 0 | |
| Score | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Overall IBI Score | 10 | 40 | 20 | 50 | 60 | 50 | 50 | 60 | 50 | 50 | 40 | |
| Overall IBI Rating | Poor | Fair | Poor | Fair | Good | Fair | Fair | Good | Fair | Fair | Fair | |

* Rating may not be representative when the total number of individuals caught is less than 25. A rating of very poor may apply.

(RIVER FALLS 1:62 500)
2473 1



E - ST CROIX -
ELEVATION 675

ST PAUL AND PACIFIC

Waukege

ST PAUL

POINT DOUGLAS

Basswood Grove

Gravel Pit

Gravel Pit

Elevator Bay

K

Evergreen Cem.

MINNESOTA WISCONSIN RIVER

Kneekinnick RIVER

COLIFTON

Starks Mound

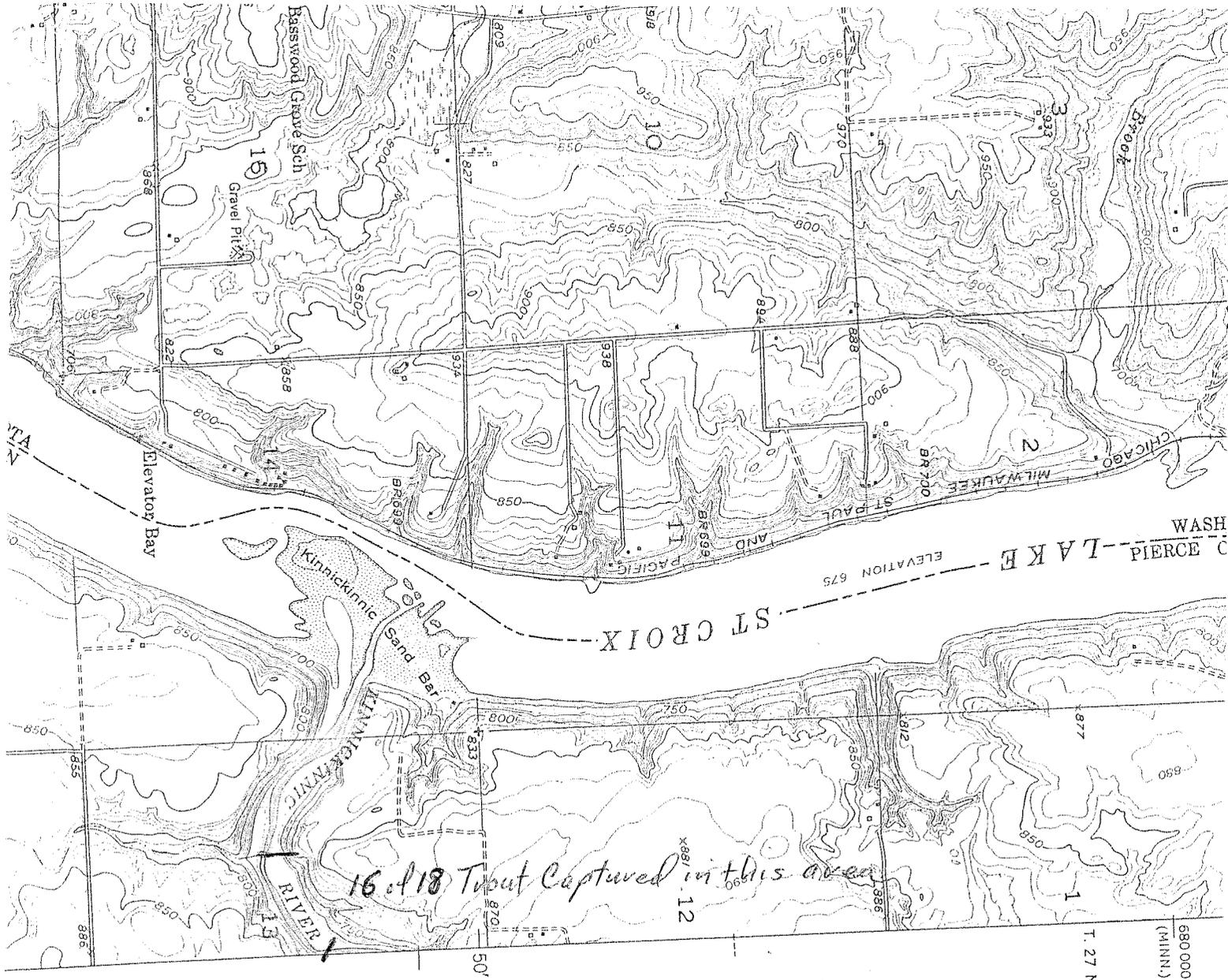
| STREAM | | | | INVESTIGATOR | | |
|-------------------------------|-------------------------------|-------|--------------|--------------|----------------|---------|
| Kinni River at Kinni St. park | | | | Scot Stewart | | |
| Area Sampled: | LENGTH | WIDTH | AREA (ACRES) | STATION NO. | NO. PER ACRE | DATE |
| | 3650 | 75' | | | | 8-22-86 |
| SIZE RANGE | SPECIES | | | | | |
| 1 | | | | | | |
| 1.0 - 1.4 | | | | 170 V DC | | |
| 1.5 - 1.9 | Air Temp 73° | | | PR 80% | | |
| 2.0 - 2.4 | Water 58° | | | DC 20% | | |
| 2.5 - 2.9 | | | | 2 A | | |
| 3.0 - 3.4 | | | | | | |
| 3.5 - 3.9 | Fish Species | | | 22 Anodes | | |
| 4.0 - 4.4 | G. Shad | A | 3-4" | 10 Cathodes | | |
| 4.5 - 4.9 | G. Redhorse | C | | | | |
| 5.0 - 5.4 | S. Redhorse | C | | Water Level | Normal & Clear | |
| 5.5 - 5.9 | Q. Perch | P | | | | |
| 6.0 - 6.4 | N. pike | | 28" | | | |
| 6.5 - 6.9 | C. Sucker | C | | | | |
| 7.0 - 7.4 | SM Bass | | 9.9" | | | |
| 7.5 - 7.9 | Carp | C | | | | |
| 8.0 - 8.4 | | | | | | |
| 8.5 - 8.9 | No Trout Observed or Captured | | | | | |
| 9.0 - 9.4 | | | | | | |
| 9.5 - 9.9 | | | | | | |
| 10.0 - 10.4 | | | | | | |
| 10.5 - 10.9 | | | | | | |
| 11.0 - 11.4 | | | | | | |
| 11.5 - 11.9 | | | | | | |
| 12.0 - 12.4 | | | | | | |
| 12.5 - 12.9 | | | | | | |
| 13.0 - 13.4 | | | | | | |
| 13.5 - 13.9 | | | | | | |
| 14.0 - 14.4 | | | | | | |
| 14.5 - 14.9 | | | | | | |
| 15.0 - 15.4 | | | | | | |
| 15.5 - 15.9 | | | | | | |
| 16.0 - 16.4 | | | | | | |
| 16.5 - 16.9 | | | | | | |
| 17.0 - 17.4 | | | | | | |
| 17.5 - 17.9 | | | | | | |
| 18.0 - 18.4 | | | | | | |
| 18.5 - 18.9 | | | | | | |
| 19.0 - 19.4 | | | | | | |
| 19.5 - 19.9 | | | | | | |
| 20.0 - 20.4 | | | | | | |
| 20.5 - 20.9 | | | | | | |
| 21.0 - 21.4 | | | | | | |
| 21.5 - 21.9 | | | | | | |
| 22.0 - 22.4 | | | | | | |
| 22.5 - 22.9 | | | | | | |
| 23.0 - 23.4 | | | | | | |
| 23.5 - 23.9 | | | | | | |
| 24.0 - 24.4 | | | | | | |
| 24.5 - 24.9 | | | | | | |
| 25 + (give actual size) | | | | | | |
| TOTAL | | | | | | |

STREAM SURVEY STATION REPORT

DEPARTMENT OF NATURAL RESOURCES

FCRM 3600-39

| | | | | | | | | | |
|---|-------------------------|----------------------------|---|---|--|------------------------------|----------------------------|------------------------|-----------------|
| NAME OF STREAM Kinnickinnic River | | Survey Station No. | | POINT OF EXAMINATION Confluence with St. Croix River upstream to Devils Den. | | | | | |
| COUNTY Pierce | | | | | | | | | |
| Township 27N | Range 20W | Section 13 | | Distance Sampled (ft.) 3650 | GEAR USED Mini Boom shocker, 170 VDC, 2A | | | | |
| Avg. Width (ft.) 75' | Avg. Depth (ft.) 1.0 | Vol. of Flow (c.f.s.) | | VELOCITY <input type="checkbox"/> Sluggish <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Rapid | | | | Max. Flood Crest (ft.) | |
| WATER <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Stained <input type="checkbox"/> Dirty | | | CONDUCTANCE C _f C ₇₇ | | TEMPERATURE58° Water 73° Air Time | | | pH | M.P.A. |
| WATER LEVEL CONDITIONSIn. Below ..X..Normal In. Above | | | PRIOR WEATHER CONDITIONS | | | | | | |
| POLLUTION | | | | | | | | | |
| STREAM BOTTOM TYPES (%)Bedrock Hardpan Boulder Rubble 5....Gravel75...Sand 20...Silt Marl Detritus | | | | | | | POOL GRADE B | | |
| | | | | | | | POOL-RIFFLE RATIO 60-40 | | |
| AQUATIC VEGETATION (Species) | | Abund. | AQUATIC VEGETATION (Species) | | Abund. | AQUATIC VEGETATION (Species) | | Abund. | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| INSTREAM COVER | | Scarce | Common | Abundant | Stable | Unstable | AQUATIC LIFE | | |
| Undercut banks | | X | | | X | | Stonefly | | |
| Rocks, boulders | | X | | | X | | Mayfly | | |
| Logs, trees | | X | | | | X | Caddisfly | | |
| Debris | | | X | | | X | Shrimp | | |
| Aquatic Vegetation | | 0 | | | | | Crayfish | | |
| STREAM BANK VEGETATION | | | | | | | | | |
|% Cultivated | | |50.....% Upland Hardwood | | |% Swamp Conifer | | | |
|% Firm Pasture | | |% Upland Conifer | | |% Shrub Marsh | | | |
|% Meadow Pasture | | |50.....% Swamp Hardwood | | |% Open Marsh | | | |
| STREAM COVER <input type="checkbox"/> Dense <input type="checkbox"/> Partly Open <input checked="" type="checkbox"/> Open | | | | | FISHABILITY <input checked="" type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor | | | | |
| BANK EROSION <input type="checkbox"/> Heavy <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> None | | | | | DAMS Man-made | | Number 0 | Height | Pool Area Above |
| BANK HEIGHTS 3' | | | | | Beaver (active) | | 0 | | |
| NEED FOR INSTREAM DEVICES <input type="checkbox"/> Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> None | | | | | Beaver (inactive) | | 0 | | |
| REMARKS Instream habitat at this station is a transition that of the Kinnickinnic River and the St. Croix River. The water temperature of the St. Croix River was 73°. | | | | | | | | | |
| (use back of sheet for additional remarks) | | | | | | | | | |
| DATE OF SURVEY 8-22-86 | | | | | INVESTIGATOR Scot Stewart | | | | |



16,418 Trout Captured in this area

x881
12

680,000 FEET
(MINN.)
T. 27 N.