

## Trout Stream Classification Checklist (revised 7/2012)

(This checklist should be completed and accompany any trout stream classification changes. Check the items as appropriate and attach comments if desired.)

Stream name:

South Fork of Kinnickinnic River  
(if stream is known by another name please list both names with the more common name first)

County: Pierce WBIC: 2603100

Define the portion of the stream to be classified. Please provide both a written description and the coordinate locations of the upstream and downstream beginning and end points.

All

This written description should reference permanent, unambiguous landmarks that would allow a person unfamiliar with the area to locate the points (e.g., dams, road crossings, stream confluences, county lines, section lines, township lines)

Please provide coordinate locations in one of three formats:

Longitude/Latitude (Degrees, Minutes, Seconds): 89° 41' 28.7" W, 44° 55' 14.0" N

Longitude/Latitude (Decimal Degrees): -89.691332, 44.920576

WTM91 (easting and northing in meters): 544361, 494173

Upstream point coordinates: -92.557680 44.848320

Downstream point coordinates: -92.634259 44.854714

Classification proposed Class 1

- Fish survey (including relative abundance, length distribution, and age structure) and habitat survey completed on water to be classified  
Survey on file at what location Baldwin
- Water leader has consulted with other Water Division Bureaus, especially for class III waters.  
Date 6-19-13 Sent email 6-18-13
- Public notice published in local newspaper or other media  
Date 7-15-13
- Notice sent to all clerks of the county, town, city, or village in which the stream is located  
Date 7-16-13
- Notice sent to legislators in the affected districts  
Date 7-16-13
- Notice sent to chairpersons of legislative committees with jurisdiction for natural resources issues  
Date 7-16-13
- No hearing requested 30 days after public notice

Hearing requested, held, and classification recommended  
Date \_\_\_\_\_

Signed: Author of Checklist Walter P. Egel Date 8-15-13  
 Fish Team Supervisor Marguerite Date 8/15/2013  
 Water Leader Don Hill Date 8/15/2013

# Stream Classification Report

## SOUTH FORK KINNICKINNIC RIVER

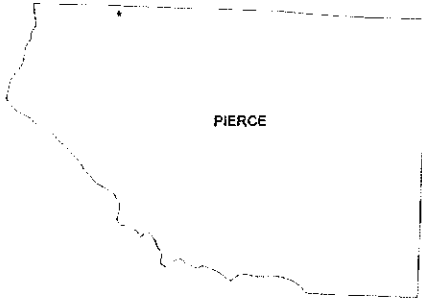
WBIC: 2603100

Pierce County

River Falls & Kinnickinnic Twp.

Category 4 Trout Fishing Regulation

Class II Trout Stream



### STREAM DESCRIPTION:

Length: 4.5 miles of Class II trout water.  
 Mean Stream Width: 6.0 m  
 Gradient: 42 ft/mi  
 Base Flow Stream Discharge: 0.34 cms  
 Stream Character: Coldwater  
 Stream Order: 3  
 Habitat Rating: Fair  
 IBI Rating: 1-2:Good 3:Exc 4:V. Poor  
 Ecoregion: Western Corn Belt

**STOCKING RECORDS:** Stocked annually with brook trout fingerlings from 1974 – 1979.

**SOUTH FORK KINNICKINNIC RIVER** is a small spring-fed tributary to the Kinnickinnic River. Its headwaters begin in southern St. Croix County and it flows west through northern Pierce County where it reaches the Kinnickinnic River in the City of River Falls. The South Fork flows mostly through agricultural lands, restored prairie habitat and urban landscapes. Part of the South Fork is owned by the State of Wisconsin and is managed as a Fishery Area. The last mile of the South Fork runs through the UW-River Falls campus and a rocky canyon before entering the Kinnickinnic River just below the dam on Lake George. There is a twenty foot waterfall just upstream of the mouth that prevents brown trout from moving into the South Fork. Fish habitat rankings in 1996 ranged from Good at the lower stations to Excellent in the middle stations. Station 4 ranked Very Poor. There is little groundwater recharge this far upstream. Bank erosion is light to medium and substrate consists mainly of fine sediments. There are some areas of limestone bedrock in Stations 1 and 2. There is a lack of suitable cover for adult trout in many areas outside of the trout habitat project areas. Beaver activity has been an issue on the South Fork in past years, especially between Stations 1 and 4. An intensive removal effort was made in 1991, and annual removals have been done to maintain beaver populations at low densities.

Creek 10-6(WBIC:2603500), Creek 5-15(WBIC:3000370) and Creek 7-1(WBIC:2603200) are small tributaries to the South Fork.

### FISHERY:

Brook trout were found at all stations surveyed in 2012 (Figure 1). Historically, the South Fork held small trout populations in the vicinity of Stations 1 - 3 but was supported by stocking during the seventies (Table 1). Brook trout fingerlings were stocked from 1974 through 1979. Since then, stocking has been eliminated and beaver control efforts, along with instream habitat improvement,

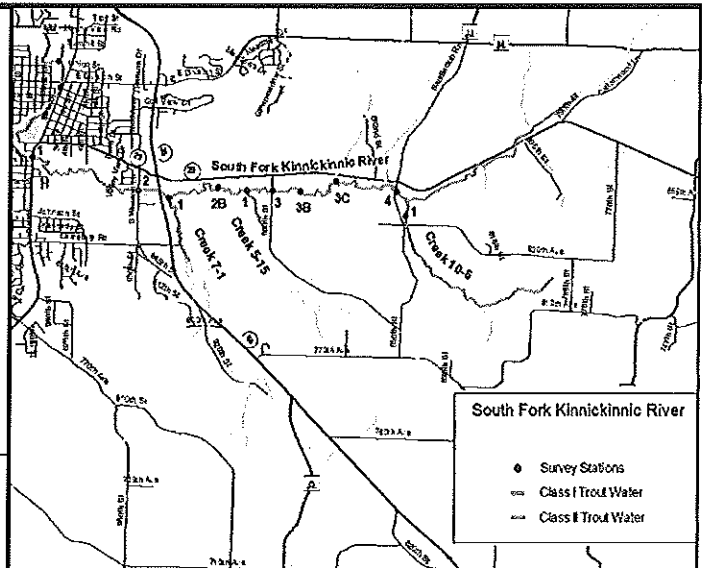
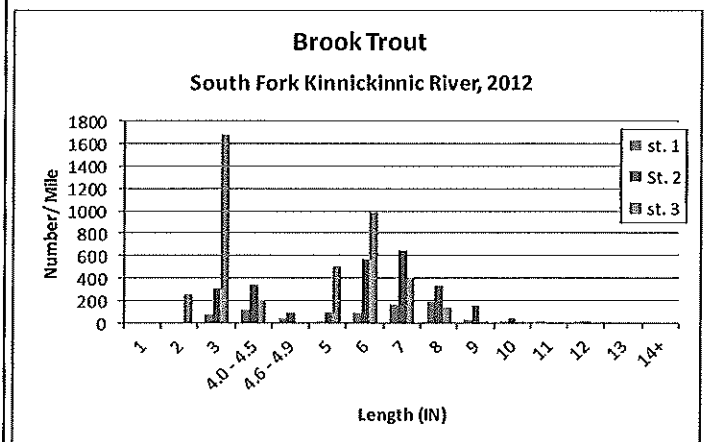


Figure 1 Length distribution



have been the main tools used to restore this fishery. Station 1 currently supports moderate natural reproduction and adult trout densities (Figure 1). The stream is wide and sandy and fallen trees provide the main cover for trout. Reproduction increases as one moves upstream to Station 3 and more gravel substrate is exposed. Station 2 has adult trout ranging from 4.6 to 12.2 inches. Station 3 has the most reproduction and moderate numbers of adult trout ranging in size from 5.0 to 10.9 inches. Compared to other medium size streams in the Western Corn Belt Plains and Driftless Area Ecoregion, the South Fork ranked in the 94 to 98th percentile for total Catch per Unit Effort (CPE) expressed as number per mile. The tributaries have held a few small trout (4-5 inches) in past

surveys, but don't seem to be used much for reproduction or adult trout habitat. Fish species found in the South Fork in 2012 are indicative of good quality trout streams (Table 2). The Coldwater Index of Biotic Integrity (IBI) rating was Good at Station 1. In 1996, IBI's ratings were Fair to Good in the urban areas (Stations 1 & 2), Excellent at Station 3 and Poor to Very Poor at Station 4.

**FUTURE MANAGEMENT:**

The South Fork of the Kinnickinnic River is currently classified as a Class II trout stream. This stream has had a self-sustaining brook trout population since the 1980's. Habitat improvement and beaver control projects have increased brook trout populations and benefited natural reproduction in the South Fork. Stocking has been eliminated and is not necessary to fully utilize trout habitat. We recommend the South Fork of the Kinnickinnic River be reclassified to Class I trout water.

Past beaver control efforts have been highly successful in restoring fishable populations of self-staining brook trout. We recommend the Department continue contracting with APHIS to control beaver and maintain conditions suitable to brook trout.

Acquisition of lands on the South Fork has allowed the Department to implement beaver control and trout instream habitat management. Addition habitat work and land acquisition is needed for recreational sport fishing and to allow trout populations to develop. We recommend continuing land acquisition from landowners willing to sell their lands to the Department.

Habitat restoration has been highly successful in the headwaters. Additional habitat restoration is needed throughout the watershed. The Department should continue restoring the South Fork as time, funding and access become available.

**Table 1** Abundance of brook trout (number per mile) at six stations on the South Fork Kinnickinnic River. (-) indicates stations that were not surveyed.

Year	St. 1		St. 2		St. 2B		St. 3		St. 3B		St. 3C		St. 4	
	Juv.	Adult	Juv.	Adult	Juv.	Adult	Juv.	Adult	Juv.	Adult	Juv.	Adult	Juv.	Adult
1974	0	8	11	53	-	-	0	65	0	35	-	-	0	0
1975	0	0	0	5	-	-	0	70	-	-	-	-	-	-
1985	-	-	-	-	-	-	248	104	-	-	-	-	0	0
1991	0	0	0	26	0	143	0	275	-	-	-	-	0	0
1996	35	35	217	223	-	-	469	211	-	-	-	-	0	0
2004	43	123	-	-	-	-	2288	288	-	-	-	-	-	-
2005	-	-	168	794	-	-	1936	896	-	-	-	-	-	-
2006	-	-	-	-	-	-	2656	448	0	858	-	-	-	-
2007	-	-	-	-	1370	1109	1712	160	323	1459	3	241	-	-
2008	-	-	-	-	2198	706	2736	80	334	1429	0	459	-	-
2009	-	-	-	-	2356	1112	1712	880	103	3076	0	1759	-	-
2010	-	-	-	-	5930	1363	3728	1072	-	-	251	2577	-	-
2011	-	-	-	-	-	-	4448	1312	-	-	-	-	-	-
2012	196	554	648	1937	-	-	2144	2080	-	-	-	-	-	-

**Table 2** Relative abundance of fish species found in South Fork Kinnickinnic River in 2012.

Species	St. 1	St. 2	St. 3
Brook Trout	111	355	264
Creek Chub	3	-	-
Mottled Sculpin	368	-	-
White Sucker	40	-	-

**For more information on the South Fork Kinnickinnic River, you can contact the following persons:**

Marty Engel, Senior Fisheries Biologist  
Wisconsin DNR

Matt Andre, Fisheries Technician  
Wisconsin DNR

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