

Wisconsin Department of Natural Resources 2025 Regional Trout Survey Summary

Marquette, Shawano, Waupaca, and Waushara Counties

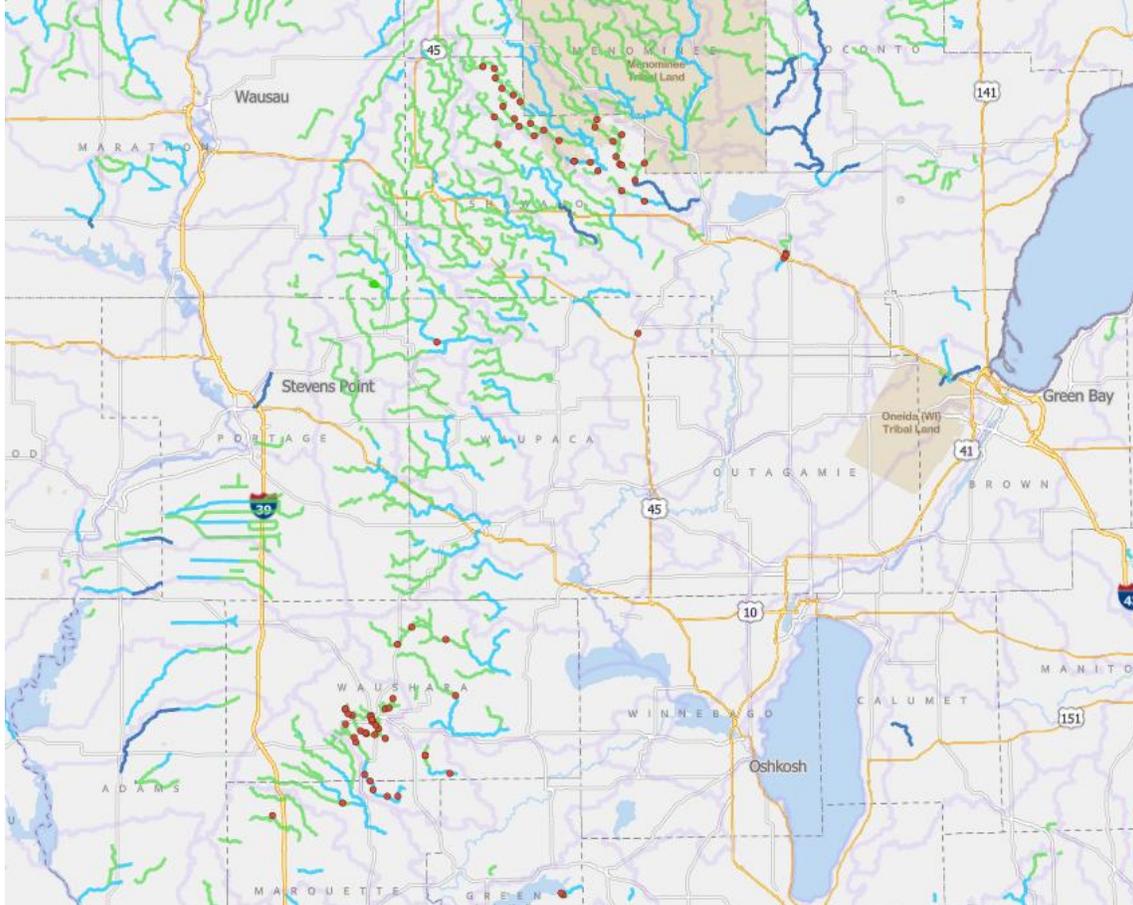


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Executive Summary

In 2025, the Wisconsin Department of Natural Resources (DNR) conducted electrofishing surveys on wadable streams located in Marquette, Shawano, Waushara and Waupaca counties to provide insight and direction for the future management of these waters. Primary sampling objectives of these surveys were to characterize relative abundance and size structure for all trout and overall ecological integrity through an index of biotic integrity (IBI) based on all fish species present in the sampled locations. All streams are sampled according to the DNR's wadable streams monitoring protocols. Metrics used to describe fish populations include catch per unit effort (CPUE) and length frequency distribution. The following report is a summary of trout metrics for all streams and sites surveyed in 2025.

Gamefish Species Sampled

Brook trout (*Salvelinus fontinalis*) is the only stream dwelling trout native to Wisconsin, found predominately in central and northern Wisconsin. Brook trout reside in cold headwater streams and spawn by building a nest called a redd in the fall of the year around November.

Brown trout (*Salmo trutta*) are a predatory species found throughout Wisconsin, not native to the United States they were introduced in 1883. Typically, brown trout spawn in gravel, forming nests called redds, from October to December.

Rainbow Trout (*Salmo gairdneri*) has been introduced throughout Wisconsin, found primarily in stocking locations throughout the state to provide a fishing opportunity. However, there are a few streams in southern areas of the Upper Fox and Lower Wolf work unit where rainbow trout naturally reproduce.

Methods

Sampling Schedule

Trend survey sites are sampled biannually in Shawano, Marquette, Waupaca, and Waushara Counties. While rotation sites are sampled on a rotational frequency by watershed and will vary by each field office.

Gear

All sampling sites are electrofished with either a towed barge or backpack electrofishing unit depending on the depth and width of a stream. Both gear types were used for the surveys listed in this report.

Site Distances

Sampling distance is at least 35 times the mean stream width or a minimum of 330 feet (100 meters), whichever is greater.

Data Collected

All gamefish are identified to species, measured for length and examined for fin-clips. In at least one survey site per stream, all fish species are collected and counted. If multiple sites are designated for a stream, only one site needs to be sampled for all fish.

Metric Descriptions

Catch per unit effort (CPUE) is a method of quantifying fish population relative abundance. For all trout surveys, we typically quantify CPUE as the number of a given size class of trout captured per mile of stream. CPUE indexes are compared to other trout streams throughout Wisconsin by what percentile (PCTL) they fall in. For example, if a CPUE is in the 90th percentile, it is higher than 90% of the other CPUEs in the state. CPUE percentiles can also be used to categorize trout abundance as low density (<33rd percentile), moderate density (33rd - 66th percentile), high density (66th - 90th percentile) and very high density (>90th percentile).

Length frequency distribution is a graphical representation of the number or percentage of fish captured by half inch or one inch size intervals.

Index of Biotic Integrity (IBI) is a rating of environmental quality based on the fish assemblage. Scores of 90 - 100 indicate excellent stream quality, while scores less than 30 indicate poor stream quality. Our analysis utilizes the IBI for Wisconsin coldwater streams. Coldwater streams in Wisconsin are those in which the maximum daily mean water temperature is usually <22°C (71.6°F). A coolwater stream IBI may also be used when a stream doesn't fit the temperature criteria for a coldwater stream.

Survey Effort

During the 2025 survey season the Upper Fox and Lower Wolf River work unit was able to survey 13.33 miles of stream. 5,035 brook trout, 9,023 brown trout and 432 rainbow trout were handled, along with many other species of fish which were used to calculate the IBI scores on the various stretches of stream.

We would like to thank Eli Jorgenson, Kyle Kossel, Jim Taylor, Zach Nemitz-Myer, Kyle Siebers, Max Scodius, Trevor Hoheisel, Paige Kudingo, Elliot Hoffman and Scott Bunde who were the primary crew members responsible for daily stream survey work and data entry/analysis. There were also other staff and volunteers, too numerous to list, who helped to complete these surveys throughout the summer. Their assistance was greatly appreciated.

Table 1. Survey site information for streams surveyed by the Upper Fox and Lower Wolf work unit in 2025

Stream Name	County	Survey Type	Site Location	Survey Dates	Water Temperature (°F)	Site Length (feet)
Bird Creek	Waushara	Rotational	HWY 21	7/21/2025	51	800
Bird Creek	Waushara	Rotational	HWY 22	7/29/2025	56	330
Bird Creek	Waushara	Rotational	River Road	7/21/2025	53	1500
Bird Creek	Waushara	Rotational	16th Avenue	7/23/2025	57	330
Bowers Creek	Waushara	Rotational	CTH C	7/16/2025	52	330
Bowers Creek	Waushara	Rotational	River Road	7/23/2025	50	330
Chaffee Creek	Marquette	Trend	CTH Y	8/5/2025	52	4000
Gardner Creek	Shawano	Rotational	CTH VV	8/6/2025	63	545
Gardner Creek	Shawano	Rotational	Butternut Road	8/5/2025	65	380
Gold Creek	Shawano	Rotational	Willow Road East	7/9/2025	56	410
Gold Creek	Shawano	Rotational	Gold Creek Lane	7/9/2025	56	528
Island Creek	Shawano	Rotational	Anderson Road	7/29/2025	65	330
Kroenke Creek	Shawano	Rotational	CTH U	7/28/2025	66	330
Kroenke Creek	Shawano	Rotational	Kroenke Creek Road	7/28/2025	68	364
Kroenke Creek	Shawano	Rotational	Mountain Bay Trail	7/31/2025	60	339
Kroenke Creek	Shawano	Rotational	Hickory Road	7/31/2025	59	508
Little Wolf River	Waupaca	Trend	Ness Road	8/4/2025	59	3000
Lunch Creek	Waushara	Rotational	Czech Court	7/10/2025	52	428
Lunch Creek	Waushara	Rotational	Dakota Avenue	7/31/2025	58	476
Lunch Creek	Marquette	Rotational	Dakota Lane	7/31/2025	54	560

Lunch Creek	Marquette	Rotational	Deerborn Drive East	7/10/2025	61	554
Lunch Creek	Marquette	Rotational	Deerborn Drive West	7/10/2025	61	670
Lunch Creek	Waushara	Rotational	CTH Y	7/10/2025	48	462
Lunch Creek	Waushara	Rotational	CTH Y	7/10/2025	49	445
Lunch Creek	Waushara	Rotational	HWY 21	7/8/2025	52	330
Mill Creek	Shawano	Trend	Winkle Road	8/6/2025	58	1250
Miller Creek	Shawano	Rotational	Townhall Road	7/31/2025	62	739
Miller Creek	Shawano	Rotational	Big Lake Road	7/31/2025	62	620
Miller Creek	Shawano	Rotational	CTH G	7/31/2025	62	623
Miller Creek	Shawano	Rotational	Mader Hill Road	8/26/2025	58	448
Miller Creek	Shawano	Rotational	Townhall Road	8/26/2025	60	431
Miller Creek	Shawano	Rotational	Anderson Road	8/26/2025	62	335
North Branch Embarrass River	Shawano	Trend	CTH D	8/5/2025	58	2000
Pine River	Waushara	Trend	CTH A	8/21/2025	54	2000
Pine River	Waushara	Trend	19th Lane	8/21/2025	52	2000
Silver Creek	Shawano	Rotational	CTH D	7/9/2025	56	367
Silver Creek	Shawano	Rotational	Silver Creek Road	7/10/2025	57	566
Silver Creek	Shawano	Rotational	Bierman Road	7/9/2025	60	608
Smith Creek	Shawano	Rotational	Camp 14 Road	7/28/2025	65	376
Smith Creek	Shawano	Rotational	Schmidt Lane	7/21/2025	62	330
Soules Creek	Waushara	Rotational	Snowmobile Trail	7/16/2025	49	390
Soules Creek	Waushara	Rotational	Swamp Road	7/16/2025	49	900

Sucker Creek	Waushara	Rotational	CTH YY	7/30/2025	52	330
Sucker Creek	Waushara	Rotational	24th Avenue	7/31/2025	54	330
Unnamed Tributary 330000	Shawano	Rotational	CTH A	7/21/2025	58	365
Unnamed Tributary 151900	Waushara	Rotational	CTH C	7/30/2025	53	330
Unnamed Tributary 151900	Waushara	Rotational	Lake Drive	7/30/2025	54	330
Unnamed Tributary 166200	Marquette	Rotational	Dover Court	8/21/2025	55	300
Unnamed Tributary 153600	Waushara	Rotational	Swamp Road	7/8/2025	48	330
Upper Pine River	Waushara	Trend	CTH AA	9/23/2025	53	7000
West Branch Red River	Shawano	Rotational	Red River Road East	7/15/2025	70	833
West Branch Red River	Shawano	Rotational	Spruce Road	7/15/2025	62	1001
West Branch Red River	Shawano	Rotational	Park Avenue	7/21/2025	62	1016
West Branch Red River	Shawano	Rotational	Maple Road	7/22/2025	59	798
West Branch Red River	Shawano	Rotational	CTH D	7/22/2025	59	976
West Branch Red River	Shawano	Rotational	Red River Road	7/15/2025	66	907
West Branch Red River	Shawano	Rotational	Moh He Con Nuck Road	8/25/2025	60	1306
West Branch Red River	Shawano	Rotational	Boehms Road	8/25/2025	60	1370
West Branch Red River	Shawano	Rotational	Murphy Road	8/25/2025	60	1299
West Branch Shioc River	Shawano	Rotational	HWY 29	8/6/2025	57	540
West Branch Shioc River	Shawano	Rotational	Bonduel Elementary	8/4/2025	56	330
West Branch Shioc River	Shawano	Rotational	Porter Road	8/6/2025	56	330
West Branch White River	Waushara	Rotational	Cottonville Avenue	7/15/2025	59	1250

West Branch White River	Waushara	Rotational	Cottonville Avenue	8/6/2025	50	3000
West Branch White River	Waushara	Rotational	CTH C	8/19/2025	54	2000
West Branch White River	Waushara	Rotational	Snowmobile Bridge	7/15/2025	56	2000
West Branch White River	Waushara	Rotational	CTH T	7/29/2025	57	483
West Branch White River	Waushara	Rotational	CTH T	7/29/2025	63	1750
West Branch White River	Waushara	Rotational	CTH Y	8/6/2025	54	1000
White Creek	Green Lake	Rotational	CTH A	8/20/2025	49	330
White Creek	Green Lake	Rotational	Spring Grove Road	8/20/2025	49	410
White River	Waushara	Rotational	Chicago Road	7/31/2025	56	1000
White River	Waushara	Trend	Cottonville Lane	8/28/2025	51	2000
White River	Waushara	Rotational	West River Street	7/23/2025	59	900
Willow Creek	Waushara	Trend	Blackhawk Road	8/25/2025	52	2000

Results

Table 2. Catch metrics per mile for brown trout on trend sites surveyed in 2025

Stream Name	Site Location	Average Length and Range (inches)	Total and (PCTL)	Young of Year (YOY) per mile	>8" (PCTL)	>12" (PCTL)	>15" (PCTL)
Chaffee Creek	CTH Y	10.4 (5.6 - 18.4)	492 (75)	-	345 (88)	60 (85)	7 (77)
Little Wolf River	Ness Road	10.2 (2.7 - 18.9)	93 (43)	3	31 (43)	22 (65)	12 (85)
Mill Creek	Winkle Road	7.5 (2.0 - 15.5)	42 (29)	8	12 (28)	4 (42)	4 (68)
North Branch Embarrass River	CTH D	7.7 (2.1 - 16.5)	113 (46)	10	31 (43)	7 (47)	5 (70)
Pine River	CTH A	8.5 (3.1 - 16.4)	287 (63)	31	158 (74)	47 (80)	7 (77)
Pine River	19th Lane	7.7 (2.6 - 14.5)	2369 (95)	588	846 (97)	68 (87)	-

Upper Pine River	CTH AA	7.1 (2.3 - 15.7)	1536 (92)	851	123 (69)	10 (53)	1 (63)
White River	Cottonville Lane	11.4 (6.3 - 22.6)	498 (75)	-	356 (89)	126 (95)	36 (97)
Willow Creek	Blackhawk Road	8.1 (2.8 - 17.1)	746 (82)	131	321 (87)	52 (83)	10 (82)

Table 3. Catch metrics per mile for brown trout on rotational sites surveyed in 2025

Stream Name	Site Location	Average Length and Range (inches)	Total and (PCTL)	Young of Year (YOY) per mile	>8" (PCTL)	>12" (PCTL)	>15" (PCTL)
Bird Creek	HWY 21	7.5 (2.8 - 14.4)	1098 (88)	32	486 (92)	26 (67)	-
Bird Creek	HWY 22	8.3 (5.1 - 14.8)	587 (78)	-	285 (85)	15 (58)	-
Bird Creek	River Road	8.1 (3.0 - 17.9)	971 (86)	14	387 (90)	49 (81)	3 (67)
Bird Creek	16th Avenue	7.7 (5.9 - 9.8)	126 (48)	-	79 (60)	-	-
Bowers Creek	CTH C	6.7 (2.3 - 11.6)	1365 (91)	95	380 (90)	-	-
Bowers Creek	River Road	7.1 (2.5 - 13.6)	1126 (88)	63	317 (87)	47 (80)	-
Kroenke Creek	Hickory Road	8.3 (8.3 - 8.3)	10 (9)	-	10 (25)	-	-
Lunch Creek	Czech Court	8.4 (2.4 - 16.1)	320 (65)	12	160 (74)	24 (66)	12 (85)
Lunch Creek	Dakota Avenue	8.0 (6.2 - 9.7)	111 (45)	-	55 (54)	-	-
Lunch Creek	Dakota Lane	8.7 (5.7 - 16.6)	163 (52)	-	100 (65)	18 (62)	9 (79)
Lunch Creek	Deerborn Drive East	9.2 (6.7 - 12.6)	47 (31)	-	38 (47)	9 (50)	-
Lunch Creek	Deerborn Drive West	8.1 (5.0 - 11.8)	149 (50)	-	78 (60)	-	-
Lunch Creek	CTH Y	6.3 (2.1 - 12.6)	1340 (91)	261	284 (85)	22 (65)	-
Lunch Creek	CTH Y	6.6 (2.0 - 12.4)	1369 (91)	178	380 (90)	23 (66)	-

Lunch Creek	HWY 21	2.5 (1.4 - 7.5)	1222 (89)	1063	-	-	-
Soules Creek	Snowmobile Trail	6.8 (2.5 - 10.6)	1621 (93)	54	391 (90)	-	-
Soules Creek	Swamp Road	7.3 (2.3 - 15.2)	1182 (89)	64	347 (88)	23 (65)	5 (73)
Unnamed Tributary 151900	CTH C	3.4 (2.3 - 5.7)	349 (67)	285	-	-	-
Unnamed Tributary 151900	Lake Drive	3.3 (2.1 - 5.7)	650 (80)	555	-	-	-
Unnamed Tributary 153600	Swamp Road	3.8 (2.6 - 6)	63 (36)	31	-	-	-

Table 4. Catch metrics per mile for brook trout on trend sites surveyed in 2025

Stream Name	Station Location	Average Length and Range (inches)	Total and (PCTL)	Young of Year (YOY) per mile	>8" (PCTL)	>10" (PCTL)
Chaffee Creek	CTH Y	7.8 (7.8 - 7.8)	1 (0)	-	-	-
Little Wolf River	Ness Road	6.5 (2.3 - 11)	311 (60)	93	61 (81)	10 (76)
Mill Creek	Winkle Road	7.5 (2.0 - 15.5)	814 (82)	232	75 (82)	12 (79)
North Branch Embarrass River	CTH D	5.9 (2.0- 11.0)	1978 (95)	237	155 (93)	2 (62)
Upper Pine River	CTH AA	6.3 (2.7 - 12)	694 (79)	256	61 (78)	7 (71)

Table 5. Catch metrics per mile for brook trout on rotational sites surveyed in 2025

Stream Name	Site Location	Average Length and Range (inches)	Total and (PCTL)	Young of Year (YOY) per mile	>8" (PCTL)	>10" (PCTL)
Bowers Creek	CTH C	3.4 (3.3 - 3.6)	31 (19)	31	-	-
Gardner Creek	Butternut Road	7.8 (2.8 - 11.5)	250 (56)	13	111 (89)	41 (94)

Gardner Creek	CTH VV	7.8 (4.3 - 10.4)	145 (44)	-	87 (85)	19 (86)
Gold Creek	Red River Road	5.1 (1.9 - 9.5)	1190 (89)	400	70 (81)	-
Gold Creek	Willow Road	4.7 (1.9 - 9.2)	435 (68)	243	12 (42)	-
Kroenke Creek	CTH U	3.2 (1.9 - 5.7)	698 (79)	619	-	-
Kroenke Creek	Hickory Road	7.1 (3.3 - 9.7)	312 (60)	20	52 (75)	-
Kroenke Creek	Kroenke Creek Road	6.1 (4.2 - 8.2)	362 (64)	-	14 (44)	-
Kroenke Creek	Mountain Bay Trail	4.5 (2.0 - 7.9)	1828 (95)	1234	-	-
Lunch Creek	CTH Y	5.1 (2.1 - 10.5)	340 (62)	125	11 (40)	11 (77)
Lunch Creek	CTH Y	5.6 (2.2 - 9.3)	392 (66)	142	35 (68)	-
Lunch Creek	HWY 21	3.2 (1.6 - 6.5)	253 (56)	174	-	-
Miller Creek	Big Lake Road	7.4 (7.4 - 7.4)	8 (5)	-	-	-
Miller Creek	Townhall Road	6.8 (6.0 - 8.3)	42 (24)	-	7 (34)	-
Silver Creek	Bierman Road	5.8 (1.7 - 10.0)	1391 (91)	278	173 (94)	8.6 (73)
Silver Creek	CTH D	5.6 (2.0 - 9.7)	785 (82)	300	71 (81)	-
Silver Creek	Silver Creek Road	5.7 (1.6 - 11.4)	2233 (96)	588	158 (93)	18 (86)
Smith Creek	Camp 14 Road	5.7 (5.1 - 6.3)	42 (23)	-	-	-
Smith Creek	Schmidt Lane	5.1 (2.2 - 9.9)	777 (81)	333	15 (47)	-
Soules Creek	Snowmobile Trail	5.6 (5.6 - 5.6)	13 (13)	-	-	-
Soules Creek	Swamp Road	7.0 (5.8 - 8.2)	11 (12)	-	-	-

Sucker Creek	CTH YY	3.4 (3.1 - 3.7)	31 (25)	31	-	-
Unnamed Tributary 330000	CTH A	5.3 (2.9 - 7.4)	72 (31)	28	-	-
Unnamed Tributary 151900	CTH C	3.9 (2.0 - 7.1)	857 (85)	682	-	-
Unnamed Tributary 151900	Lake Drive	4.5 (2.0 - 7.4)	1301 (90)	873	-	-
Unnamed Tributary 166200	Dover Court	4.9 (3.4 - 7.6)	210 (57)	105	-	-
Unnamed Tributary 153600	Swamp Road	6.2 (5.2 - 8.0)	111 (45)	-	15 (31)	-
West Branch Red River	Boehms Road	4.7 (2.2 - 9.2)	694 (79)	316	11 (41)	-
West Branch Red River	CTH D	4.8 (1.9 - 8.7)	1140 (89)	708	10 (40)	-
West Branch Red River	Maple Road	6.0 (2.2 - 11.3)	384 (65)	112	46 (72)	13 (80)
West Branch Red River	Moh He Con Nuck Road	5.7 (2.1 - 10.0)	1000 (87)	218	113 (89)	4 (64)
West Branch Red River	Murphy Road	5.7 (2.2 - 14.9)	353 (63)	105	48 (74)	12 (78)
West Branch Red River	Park Avenue	5.6 (1.7 - 11.3)	953 (85)	484	57 (76)	20 (87)
West Branch Red River	Red River Road	6.6 (2.2 - 11.2)	540 (73)	40	98 (87)	5 (67)
West Branch Red River	Red River Road East	5.7 (1.8 - 11.9)	822 (83)	322	101 (88)	6 (69)
West Branch Red River	Spruce Road	6.1 (1.9 - 10.0)	905 (85)	105	152 (93)	5 (66)
West Branch Shioc River	Bonduel Elementary	4.9 (2.1 - 9.0)	317 (61)	158	142 (60)	15 (47)
West Branch Shioc River	HWY 29	6.3 (1.5 - 12.3)	2892 (97)	2362	333 (98)	98 (99)

West Branch Shioc River	Porter Road	4.6 (2.0 – 10.9)	2428 (97)	2095	31 (62)	15 (82)
West Branch White River	CTH C	4.2 (4.2 -4.2)	2 (2)	-	-	-
West Branch White River	CTH T	4.6 (2.6 – 8.5)	12 (12)	6	3 (14)	-

Table 6. Catch metrics per mile for rainbow trout on trend sites surveyed in 2025

Stream Name	Site Location	Average Length and Range (inches)	Total	Young of Year (YOY) per mile	>8"	>10"
White River	Cottonville Lane	8.7 (7.2 – 9.9)	10	-	7	-

Table 7. Catch metrics per mile for rainbow trout on rotational sites surveyed in 2025

Stream Name	Site Location	Average Length and Range (inches)	Total	Young of Year (YOY) per mile	>8"	>10"
Bird Creek	HWY 21	7.2 (6.2 – 8.2)	19	-	6	-
Bird Creek	River Road	6.2 (4.7 – 8.5)	49	10	14	-
West Branch White River	CTH C	6.3 (2.4 – 10.7)	543	319	89	21
West Branch White River	CTH T	5.8 (2.4 – 10.6)	241	131	65	21
West Branch White River	CTH T	5.2 (1.8 – 11.5)	314	244	15	9
West Branch White River	CTH Y	6.0 (3.0 – 7.8)	52	5	-	-
West Branch White River	Cottonville Avenue	6.7 (2.2 – 11.0)	74	13	21	8
West Branch White River	Snowmobile Bridge	6.4 (5.3 – 7.4)	23	-	-	-