

**NJDEP Division of Fish and Wildlife
Bureau of Freshwater Fisheries**



Wild Trout Stream Regulation Assessment

NJDFW has documented reproducing trout populations in nearly 200 streams (or stream segments) statewide, but only a handful of these (36) are currently designated as *Wild Trout Streams (WTS)*. The majority of the *WTS* are tributaries to larger, trout-stocked streams. However, *WTS* are not stocked with hatchery trout, but rather rely upon their wild, naturally reproducing trout populations to provide a recreational fishery.

The *WTS* regulation is more stringent than the statewide general trout regulation and has changed little since it was adopted in 1990. Over time several streams have been added or taken off the



Willoughby Brook (Hunterdon),
regulated as a Wild Trout Stream

WTS list. More notably, in 2008 when the general statewide minimum harvestable size for trout was increased from 178 to 305 mm (7 to 9 in) this change was also made to the *WTS* regulation. Currently the regulation provides for a limited harvest of only two trout daily, from the Opening Day of the trout season in April through September 15. The minimum size limit on trout is 229 mm (9 in), except for 3 streams (Van Campens Brook, Pequannock River, and Wanaque River) that produce large Brown Trout where the Brown

Trout harvested must be at least 305 mm (12 in). Fishing gear restrictions also apply (artificials only, no bait or bait scent allowed).

Many of the streams currently designated as *WTS* are relatively small, contain limited numbers of (or no) harvestable-sized wild trout, and have limited (or no) public access. In 2014 a multi-year assessment was initiated to review the *WTS* regulation, collect and analyze data, and develop regulations that will better address recreational fishing opportunities for, and conservation needs of, the state's wild trout fisheries.

This effort is being guided by a team of Bureau biologists. Fish population data were collected from streams using established sampling protocols (150 m stretch electrofished in July and August). In 2014, 46 electrofishing surveys were conducted on the 36 designated *WTS*'s.



Biologist Ross Shramko at Van Campens
Brook holding wild Brown Trout



Wild Brown Trout from Spring Mills Brook held by seasonal technician Ryan Preston

In 2015 this assessment continued with an additional 48 electrofishing surveys conducted on 39 streams (see table below). Of these, 23 surveys were conducted on 18 current *WTS* to collect additional data for regulation development and/or as part of a stream temperature monitoring study of *Trout Production* streams (Appendix F). The remaining 25 surveys were conducted on 21 *Trout Production* streams not currently regulated as *WTS*. Most of these were selected for survey because previous fish data suggested they may be good candidates for wild trout fishing regulations. Collectively these 48 surveys produced 3,093 trout for an average of 64 trout per survey. Although most of the trout captured were wild fish, some trout were stocked fish (i.e. hatchery origin). The catch breakdown by trout species was 46% Brown Trout, 50% Brook Trout, and 4% Rainbow Trout. Brook Trout were found in 30 surveys, Brown Trout in 23 surveys, and Rainbow Trout in 14 surveys. No trout were found in two surveys, Stony Brook

(Stokes State Forest) and a tributary to the Rockaway River).

In addition to the survey results described above, other surveys conducted under different studies in 2015 on the Lamington (Black) River, Raritan River S/B, and Pohatcong Creek that documented wild trout also provide useful data for regulation development.

The data collected in 2014 and 2015, as well as data previously collected from streams having naturally reproducing trout populations, will be analyzed in 2016 to evaluate the current *Wild Trout Stream* regulation and determine if changes are warranted.

2015 Wild Trout Stream Surveys

Results of 48 electrofishing surveys conducted on 39 streams during 2015 in New Jersey as part of a statewide *Wild Trout Stream (WTS)* regulation assessment. The number of trout includes wild and stocked trout captured (BKT= Brook Trout; BNT=Brown Trout; RBT=Rainbow Trout).

Stream	County	Location	Number of trout			
			BKT	BNT	RBT	Total
<i>Upper Delaware Region (Upper Delaware & Wallkill)</i>						
Bear Creek (<i>WTS</i>)	Warren	Rt. 613	25	0	2	27
Beatty's Brook	Hunterdon	Penwell Road	54	3	0	57
Beerskill Creek	Sussex	Cemetery Road	29	0	0	29
Bowers Brook	Warren	Rt. 664	42	0	0	42
Brass Castle Brook	Warren	Harmony-Brass Castle Rd	168	0	0	168
Brass Castle Brook	Warren	Kayharts Lane	46	0	0	46
Criss Brook	Sussex	Flatbrook Road	42	0	0	42
Forked Brook	Sussex	Grau Road	13	0	0	13
Hakihokake Creek (trib.)(Wydner)	Hunterdon	Javes Road	0	22	0	22
Hances Brook (<i>WTS</i>)	Warren	Rt. 57	1	0	0	1
Lopatcong Creek	Warren	Rt. 519 - Warren Co. fairground	0	42	1	43

Lopatcong Creek	Warren	Lock Street	0	158	4	162
Lopatcong Creek	Warren	South Main Street	0	183	1	184
Mill (Clove) Brook (WTS)	Sussex	Rt. 23	0	3	0	3
Mill (Clove) Brook (Outflow Lake Marcia) (WTS)	Sussex	Old Mashipacong Road	6	0	0	6
Mine Brook	Morris	Drakestown Road, upstream	12	0	0	12
Parker Brook (WTS)	Sussex	Crigger Rd Bridge (Stokes SF)	2	0	0	2
Spring Mills Brook	Hunterdon	Rt. 519 (behind ice cream stand)	0	160	0	160
Stephensburg Brook (WTS)	Morris	Stephensburg Road	46	16	0	62
Stony Brook (WTS)	Sussex	Kittle Road & Coursen Road	0	0	0	0
Stony Brook (WTS)	Sussex	Kittle Road	4	0	0	4
Van Campens Brook (WTS)	Warren	Blairstown-Millbrook Road	59	0	19	78
Van Campens Brook (WTS)	Warren	Watergate Rec Area	13	0	4	17
Van Campens Brook (WTS)	Warren	Van Campens Glen	0	28	0	28
Van Campens Brook (WTS)	Warren	Depew Rec. Area	1	45	0	46

Passaic Region (Passaic, Hackensack, & Hudson) and Upper Atlantic

Bear Swamp Brook (WTS)	Bergen	Bear Swamp Road	28	0	0	28
Hibernia Bk (trib.)(Lk Ames)	Morris	Snake Hill Road	68	0	0	68
Indian Grove Brook (WTS)	Somerset	Hardscrabble Road	0	0	29	29
Mill Brook (Morris)	Morris	Fords Road	0	137	0	137
Passaic River (WTS)	Somerset	Upstream of confluence with Indian Grove Brook	0	32	31	63
Pequannock River (trib.) (Copperas Mtn.)	Morris	Green Pond Road	114	6	0	120
Primrose Brook	Morris	Morristown NHP	108	0	0	108
Rockaway River (trib.)(West Longwood Lake)	Morris	Paderewski Road	0	0	0	0

Raritan Region (Raritan, Arthur Kill, Raritan Bay, Shrewsbury, & Navesink)

Beaver Brook	Hunterdon	Old Highway 22	0	25	4	29
Black Brook (WTS)	Hunterdon	Van Syckels Road	0	11	0	11
Hickory Run (WTS)	Hunterdon	Hickory Run Road	198	0	0	198
India Brook	Morris	Mountainside Road	0	75	2	77
Mulhockaway Creek	Hunterdon	Norton Rd-Charleston Road	2	12	1	15
Raritan River N/B	Morris	Roxiticus Road	0	87	7	94
Raritan River N/B	Morris	Mosle Road	0	15	4	19
Raritan River S/B (trib.) (Drakestown)	Morris	Joy Drive	110	0	0	110
Raritan River S/B (trib.) SW of Budd Lake)	Morris	Route 46	24	0	0	24
Rinehart Brook (WTS)	Morris	Hacklebarney State Park	0	94	0	94
Rocky Run (WTS)	Hunterdon	Rocky Run Road	81	0	0	81
Stony Brook (WTS)	Morris	Columbia Trail	9	181	2	192
Trout Brook (WTS)	Morris	Hacklebarney SP	194	0	0	194
Turkey Brook (WTS)	Morris	Stephens Mill Road	49	50	0	99
Willoughby Brook (WTS)	Hunterdon	Rt. 31	5	44	0	49

2014 Wild Trout Stream Surveys

In 2014 the Bureau of Freshwater Fisheries conducted 46 electrofishing surveys on sections of all 36 designated *Wild Trout Streams* (see table below). Eight streams were surveyed at 2 or 3

locations, due to their length or because they have two unconnected regulated sections. Brown Trout were found in 33 surveys, Brook Trout in 22 surveys, Rainbow Trout in 9 surveys, and Tiger Trout (a hybrid of Brook and Brown Trout) in 1 survey. No trout were found at one location in Merrill Creek, upstream of Merrill Creek Reservoir, however Brook and Brown trout were found at the location below the reservoir. Trout were found at on one of two Bear Creek locations. Collectively the 46 surveys produced 3,137 trout, with a mean of 68 trout per survey. Brown Trout were by far the most abundant trout species caught (65% of total), followed by Brook Trout (25%), Rainbow Trout (10%), and Tiger Trout (1 individual). (Federal Grant F-48-R, Project I)

Results of 46 electrofishing surveys conducted in 2014 on 36 New Jersey streams regulated as <i>Wild Trout Streams</i> .						
Stream Name	County	Location	Number of Trout ¹			
			BKT	BNT	RBT	Total
Bear Brook	Warren	Rt. 612	24	0	0	24
Bear Creek	Warren	Rt. 519	0	0	0	0
Bear Creek	Warren	Bear Creek Road	1	0	0	1
Bear Swamp Brook	Bergen	Bear Swamp Bk Rd	24	0	0	24
Black Brook	Hunt	Van Syckle's Road	0	13	0	13
Burnett Brook	Morris	Rt. 24	0	74	0	74
Cold Brook	Hunt	Vliettown Road	0	67	0	67
Clove (Mill) Brook	Sussex	Rt. 23	0	14	0	14
Dunnfield Creek	Warren	1.3 km upstream	9	58	0	67
Dunnfield Creek	Warren	Del. Water Gap	5	114	0	120*
Flanders Brook	Morris	Rt. 206	1	56	27	84
Hakihohake Ck (Lt Yk Bk)	Hunt.	Sweet Hollow Road	0	95	0	95
Hance's Brook	Warren	Highland Avenue	0	5	0	5
Herzog (Lomerson) Brook	Morris	Longview Road	1	93	0	94
Hickory Run	Hunt	Hickory Run Road	254	0	0	254
India Brook	Morris	Doby Road	12	44	0	56
India Brook	Morris	Mountainside Road	0	155	34	189
Indian Grove Brook	Somerset	Hardscrabble Road	0	0	24	24
Jackson Brook	Morris	Hedden Park	0	72	0	72
Ledgewood Brook	Morris	Emmans Road	0	95	0	95
Merrill Creek	Warren	Richline Road	0	0	0	0
Merrill Creek	Warren	Prospect Street	34	197	0	231
Parker Brook	Sussex	Crigger Road	3	0	0	3
Passaic River	Morris	Jockey Hollow Rd	0	13	8	21
Pequannock River	Passaic	Cross Road	0	126	0	126
Pequannock River	Passaic	Generant Factory	0	8	0	8
Rinehart Brook	Morris	Hacklebarney SP	0	105	0	105
Rockaway Creek, N/Br	Hunt	Rockaway Road	0	58	0	58
Rocky Run	Hunt	Rocky Run Road	69	0	0	69
Saddle River	Passaic	Lake Street	0	69	0	69
Saddle River	Passaic	Stone Church Road	0	38	0	38
Stephensburg Brook	Morris	Stephensburg Rd	15	3	0	18
Stony Brook	Morris	Naughtright Road	2	102	0	104
Stony Brook	Sussex	Kittle Road	12	0	0	12
Teetertown Brook	Hunt	Trimmer Rd	49	44	0	93
Trout Brook	Morris	Hacklebarney SP	118	0	0	118
Turkey Brook	Morris	Flanders-Drakestwn Rd	23	5	0	28

Van Campens Brook	Warren	Millbrook	50	0	42	92
Van Campens Brook	Warren	Brink Road	5	22	27	54
Van Campens Brook	Warren	Depew access area	1	59	4	64
Wanaque River	Passaic	Back Beach Park	0	82	0	82
Wanaque River	Passaic	Boulevard Avenue	0	9	0	9
Wanaque River	Passaic	Meadow Brook	0	1	0	1
West Brook	Passaic	West Brook Road	0	0	144	144
Whippany River	Morris	Tingley Road	0	94	2	96
Willhoughby Brook	Hunt	Buffalo Hollow Rd	70	52	0	122

¹ **BKT= Brook Trout; BNT=Brown Trout; RBT=Rainbow Trout**

*** Total includes one Tiger Trout**