

## New Hampshire Fish and Game Department Spatial Data Notes

**DATA LAYER:** WAP2020\_Aquatic.gdb → RiversStreams and LakesPonds feature classes  
**CONTENTS:** stream classification; Important Fish Habitat in New Hampshire  
**SOURCE:** National Hydrography Dataset (U.S. Geological Survey)  
**SOURCE SCALE:** 1:24,000  
**AUTOMATED BY:** USGS; attributes by TNC (2008) and NH Fish and Game Dept. (2020)  
**STATUS:** Updated with NH fish survey data through Dec. 2019  
**LAST REVISION:** April 16, 2020

### General Description of the Data

Larger work citation: Northeastern Aquatic Habitat Classification (TNC) designed to consistently represent the expected natural aquatic habitat types across this region in a manner deemed appropriate and useful for conservation planning by the participating states. This product is not intended to override state classifications, but is meant to complement state classifications and provide a means for looking at aquatic biodiversity patterns across the region.

The data set was revised in April 2020 to update aquatic habitat of importance identified by the Inland Fisheries Division of the New Hampshire Fish and Game Department. Categories of importance include aquatic habitats or species of concern, habitat related to ongoing migratory fish restoration projects, and areas where the Department has invested resources into restoration or other ongoing conservation work. The intent of the layer is to increase awareness of the Inland Fisheries Division's conservation goals as well as to encourage restoration and conservation efforts in areas that will benefit sensitive species and aquatic habitats in New Hampshire.

### Definitions of attributes added by NH Fish & Game

<u>Field name</u>	<u>Description</u>
<b>NHDESMODEL</b>	NH Dept. of Environmental Services 2016 Fish Assemblage Index of Biotic Integrity
<b>NHTEMP</b>	Fishery temperature class based on both the NHDES Model and species occurrences
<b>TNCHIGHQUAL</b>	<b>1</b> = top-ranked stream reach (TNC ranking method)
<b>TIDAL</b>	Reach is tidal ( <b>Y</b> or <b>N</b> )
<b>SPRINGFED</b>	<b>Viable:</b> Abundant wild trout present in multiple age classes, including juveniles (<90mm total length). Habitat is intact and summer water temperature is suitable to sustain a healthy population. <b>Confirmed:</b> Wild trout were present and habitat appears suitable, but more surveys are needed to determine if the population is viable over the long term. <b>Marginal:</b> Wild brook trout were captured at the site, but habitat appears limited or water temperature may not be suitable for sustaining a wild trout population over the long term. <b>Degraded:</b> Wild trout were present, but habitat has been degraded and appears to be impacting the population. <b>Not Viable:</b> Brook trout have been captured at the site, but there is no evidence of consistent successful reproduction. <b>Potential:</b> The stream has been reported to contain a wild trout population, but has yet to be surveyed.
<b>EBT</b>	<b>P</b> = wild brook trout present in stream reach during survey; <b>N</b> = not detected
<b>SPPCONCERN</b>	<b>P</b> = fish/mussel species of conservation concern present; <b>N</b> = not detected
<b>NHFGinterest</b>	<b>Y</b> = Rivers or streams with past, ongoing, or planned restoration/conservation work where NHFG has invested resources <b>T</b> = wild brook trout Tributaries to NHFG streams/rivers of interest
<b>HerringStock</b>	<b>Y</b> = River herring stock location, <b>M</b> = migratory path downstream to Merrimack River

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**Spatial Data Notes: WAP2015\_Aquatic**

<u>Field name</u>	<u>Description</u>
<b>ShadRestor</b>	<b>Y</b> = Potential American shad spawning or juvenile rearing habitat
<b>AnadFish</b>	<b>Y</b> = Anadromous fish present; <b>N</b> = not detected
<b>COLD_CAT</b>	<i>Coldwater Stream Habitat category</i> = EBT (wild brook trout present); Spring-fed (confirmed); NHDES model (coldwater)
<b>WAP_CAT</b>	<i>Wildlife Action Plan Fish Species category</i> = Fish T or E species; Fish Species of concern; Brook floater; Dwarf wedge mussel
<b>DIAD_CAT</b>	<i>Diadromous Fish Restoration category</i> = American shad; River herring
<b>WAPSPECIES</b>	List of species of conservation concern present in stream reach
<b>ABL</b>	<b>P</b> = American brook lamprey occupied habitat; <b>N</b> = not detected
<b>BridleShiner</b>	<b>P</b> = Bridle shiner occupied habitat; <b>N</b> = not detected

<u>FISH</u>				<u>MUSSELS</u>	
<b>ABL</b>	American Brook Lamprey	LT	Lake Trout	<b>BF</b>	Brook Floater
AE	American Eel	LW	Lake Whitefish	<b>DWM</b>	Dwarf Wedge Mussel
AS	American Shad	NRD	Northern Redbelly Dace		
AW	Alewife	RFP	Redfin Pickerel		
BDS	Banded Sunfish	RS	Rainbow Smelt		
BRB	Burbot	<b>RW</b>	Round Whitefish		
<b>BS</b>	Bridle Shiner	SD	Swamp Darter		
EBT	Brook Trout	SL	Sea Lamprey		
FD	Finescale Dace		Atlantic Sturgeon ( <i>no abbreviation</i> ); Shortnose Sturgeon ( <i>no occurrence</i> )		

**Method for identifying water bodies as Important Fish Habitat:**

Category	Description	Mapping	Intent/Justification
Coldwater Stream Habitat	Spring fed, isolated, brook trout streams known to be vulnerable.	Highlight reach.	Protect brook trout streams that have high potential for extirpation.
Coldwater Stream Habitat	Coldwater streams with known wild EBT populations (survey record).	Highlight reach.	Broad scale prioritization of conservation work on known coldwater stream habitat.
Coldwater Stream Habitat	Predicted coldwater stream with no survey record (NHDES 2016 fish assemblage IBI model)	Highlight reach	Create awareness of potential coldwater stream habitat.
NHFGD vested interest	Rivers or streams with past, ongoing, or planned restoration/conservation work (i.e. Nash Stream, Beebe River, Warner River, Ammonoosuc River, Dead Diamond River, Swift Diamond River, Indian Stream, McQuesten Brook, Emerald Acres crossing, Thompson Brook).	Highlight reach, and tributaries with wild brook trout present.	Protect sites where NHFG has invested resources in restoration or conservation projects.
WAP T&E species	Presence of State-listed Threatened & Endangered fish species.	Highlight occupied habitat.	Protect/create awareness of important habitat for T&E species.

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Spatial Data Notes: WAP2015\_Aquatic

WAP fish & mussel species of concern	Presence of fish and mussel species of conservation concern.	Highlight reach.	Encourage protection or restoration of habitat that supports SOC to help prevent declines.
Diadromous Fish Restoration	River or stream reaches important for river herring restoration.	Highlight migratory path and spawning habitat.	Emphasize areas where herring passage is important to achieving restoration goals.
Diadromous Fish Restoration	Designated as American shad spawning habitat in the Connecticut and Merrimack River shad management plans.	Highlight reach.	Increase awareness of restoration plan for American shad.

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