December 2017

Spatial Data Notes: WAP2015_Aquatic

New Hampshire Fish and Game Department Spatial Data Notes

DATA LAYER: WAP2015 Aquatic.qdb → 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. (2015, 2017)

STATUS: Updated as needed to accommodate revisions to NHD

LAST REVISION: December 2017

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 2017 to highlight 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 identified in the 2015 State Wildlife Action Plan, 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

Field name Description

NHDESMODEL NH Dept. of Environmental Services' coldwater fisheries predictive model Fishery temperature class from NHDES Model and species occurrences

TNCHIGHQUAL 1 = top-ranked stream reach (TNC ranking method)

TIDAL Reach is tidal (Y or N)

EBT P = wild brook trout present in stream reach during survey; N = not detected P = fish/mussel species of conservation concern present; N = not detected Y = spring fed, isolated, brook trout stream, population known to be vulnerable

ABL P = American brook lamprey occupied habitat; **N** = not detected

BridleShiner P = Bridle shiner occupied habitat; **N** = not detected

HerringStock Y = River herring stock location, M = migratory path downstream to Merrimack River

ShadRestor Y = American shad designated spawning habitat **Y** = Anadromous fish present; **N** = not detected

NHFGinterest Y = Rivers or streams with past, ongoing, or planned restoration/conservation work

where NHFG has invested resources

T = wild brook trout Tributaries to NHFG streams/rivers of interest

COLD CAT Coldwater Stream Habitat category = EBT (wild brook trout present); Spring-fed;

NHDES model; upstream of NHDES model

WAP_CAT Wildlife Action Plan Fish Species category = Fish T or E species; Fish Species of

concern; Brook floater; Dwarf wedge mussel

DIAD_CAT Diadromous Fish Restoration category = American shad; River herring

WAPSPECIES List of species of conservation concern present in stream reach (abbreviated)

Attributes added to RiversStreams feature class; except three highlighted were also added to LakesPonds feature class

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	FISH			N	MUSSELS
ABL	American Brook Lamprey	LT	Lake Trout	BF	Brook Floater
ΑE	American Eel	LW	Lake Whitefish	DWM	Dwarf Wedge Mussel
AS	American Shad	NRD	Northern Redbelly Dace		
AW	Alewife	RFP	Redfin Pickerel		
BDS	Banded Sunfish	RS	Rainbow Smelt		
BRB	Burbot	RW	Round Whitefish		
BS	Bridle Shiner	SD	Swamp Darter		
EBT	Brook Trout	SL	Sea Lamprey		
FD	Finescale Dace	Atlanti	tlantic Sturgeon (no abbrv); Shortnose Sturgeon (no occur)		

Category	Description	Mapping	Intent/Justification
Coldwater Stream Habitat	Spring fed, isolated, brook trout streams or populations 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 Coldwater IBI)	Highlight reach + all reaches upstream.	Create awareness of potential coldwater stream habitat.
NHFGD vested interest	Rivers or streams with past, ongoing, or planned restoration/conservation work (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.
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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