Brian Pratt

From:	NH Online Forms <businessonestop@nh.gov></businessonestop@nh.gov>
Sent:	Monday, March 10, 2025 2:56 PM
То:	Brian Pratt
Subject:	Submission HQA-ZTYX-GXZ4S Provided to the State of New Hampshire

This Message is from an external sender.

Brian,

State of New Hampshire is pleased to inform you that your Wetlands Permit by Notification (PBN) **submission was received**. The reference number for this submission is <u>HQA-ZTYX-GXZ4S</u>. At any time, you can review the details and status of this submission. For reference, a read-only version of this submission is archived and can be downloaded from the Submission Overview (submission reference number link above).

Thank you, State of New Hampshire NHDES - Wetlands - Permits-by-Notification Email: lrm@des.nh.gov Phone: 603-271-2147



TRAILS NOTIFICATION STATUTORY PERMIT-BY-NOTIFICATION (SPN) Water Division / Land Resources Management <u>Check the Status of your Notification</u>



RSA/Rule: RSA 482-A:3, XII / Env-Wt 308.04(c); Env-Wt 517

NAME OF ORGANIZATION UNDERTAKING ACTIVITIES:

		SPN complete and project all applicable requirement	as described conforms with s.	
Administrative Use	Administrative Use	SPN incomplete and/or project as described does not conform with all applicable requirements.		
Only	Only	File No.:	Initials:	
		Check No.:	Amount:	

Terms in **bold font** are defined on the attached instructions page.

SECTION 1 - PROJECT CRITERIA (Env-Wt 517.08(a))	
Is the proposed activity limited to repair and/or replacement of out-of-water components of an existing legal boardwalk ?	🗌 Yes 🗌 No
If you answered "Yes", you do not need to obtain a wetlands approval or permit. If you answered "No", the next question.	, continue to
Does the project consist only of maintenance, repair, or replacement of an existing legal trail or pathway where there will be no change in location, configuration, dimensions or construction type and no work will be done in standing or flowing water?	🗌 Yes 🗌 No
If you answered "Yes", continue to Section 2. If you answered "No", continue to Section 1A.	
SECTION 1A - CRITERIA FOR TRAIL, PATHWAY AND TRAIL BRIDGE PROJECTS (Env-Wt 517.04, Env-Wt 5 N/A (Not Applicable): If the project involves only a boardwalk , check N/A and continue to Section 1	5 17.06(a)) B.
 a. Does the project include wetland crossings that: Impact more than 3,000 square feet per crossing? Have a trail width exceeding 20 feet? Have a fill width that has not been minimized and/or, exceeds 50 feet per crossing when measured at the toe of the trail side slope? Or Exceed 60 feet in length per crossing, measured along the centerline of the proposed access way? If the project does not include a wetland crossing, check N/A for "not applicable" and continue to question b: N/A 	🗌 Yes 🔜 No
b. Does the project impact a bog , marsh , sand dune , tidal wetland , cedar swamp , or undisturbed tidal buffer zone ?	🗌 Yes 📃 No
c. Does the project jeopardize the continued existence of protected species or habitat and the person responsible for the SPN project has not obtained recommendations from the Natural Heritage Bureau (NHB) or New Hampshire Fish and Game Department (NHFG), or both, as applicable, regarding the protected species or habitat (Env-Wt 407.02(d))?	Yes 🗌 No

d.	Is the project located within or adjacent to a prime wetland or duly-established 100-foot buffer and no waiver was obtained pursuant to Env-Wt 706?	Yes No
e.	If the project proposes culvert installations crossing a perennial or intermittent stream in jurisdictional areas, do the streams crossed have a scoured channel over eight feet wide, or the installations meet the bridge criteria of Env-Wt 517.06(a)(6)? If the project does not propose culvert installations crossing a perennial or intermittent stream in jurisdictional areas, check N/A and continue to question f: N/A	🗌 Yes 🗌 No
f.	 Does the project include the installation of a new bridge or replacement of an existing bridge where (Env-Wt 517.06(a)(6)): Work will be performed in the water or in a wetland and/or fill will be placed in the water or in a wetland, Impacts to the banks of the watercourse, including bridge structural supports, will exceed 3,000 square feet per crossing, The bridge is in a prime wetland or duly-established 100-foot buffer and no waiver was obtained pursuant to Env-Wt 706, The bridge is in a bog, marsh, sand dune, or floodplain wetland adjacent to a tier 3 watercourse, or The project site has been identified by NHB as having occurrences of protected species or habitat and the person responsible for the SPN project has not obtained recommendations from NHB or NHFG, or both, as applicable, regarding the protected species or habitat (Env-Wt 407.02(d))? 	🗌 Yes 🗌 No
lf yo <u>Perr</u>	ou answered "Yes" to any question(s) in Section 1A above, you cannot use this form and must file a <u>nit Application</u> . If you answered "No" to all questions in Section 1A above, continue to question g.	a <u>Standard</u>
g.	 Will the trail or pathway project: Use existing structures and pathways wherever practicable? For trails, comply with the New Hampshire State Parks Trails Bureau <u>Best Management</u> Practices for Trail Construction and Maintenance (Trail BMPs)? N/A 	🗌 Yes 🗌 No
If yo ans	ou answered "No" to question g, you cannot use this form and must file a <u>Standard Permit Applica</u> wered "Yes" or "NA" to question g, continue to Section 1B.	i <u>tion</u> . If you
SEC ⁻	TION 1B - CRITERIA FOR CONSTRUCTION OF BOARDWALKS (Env-Wt 517.07(a)) N/A: If the project does not involve a boardwalk , check N/A for "not applicable" and continue to S	ection 2.
a.	Is the proposed boardwalk in a non-tidal wetland or surface water body?	🗌 Yes 🗌 No
If yo ansv	ou answered "No" to Question a, you cannot use this form and must file a <u>Standard Permit Applica</u> wered "Yes" continue with the remaining questions.	tion. If you
b.	 Will the boardwalk construction: Have a total area exceeding 3,000 square feet (provided that log foot bridges on trails may have up to 3,000 square feet per crossing), Disturb more than 50 linear feet of a surface water body, measured along the shoreline of a lake or pond at its bank, and/or Have adverse impacts to a marsh, scrub-shrub wetland adjacent to a surface waterbody, floodplain wetland adjacent to a watercourse, cedar swamps, or Priority Resource Areas (PRAs), except as provided in Env-Wt 407? 	🗌 Yes 🗌 No

If you answered "Yes" to any criteria listed in Question b, you cannot use this form and must file a <u>Standard Permit</u> <u>Application</u> . If you answered "No" or "N/A" to all of the criteria in Question b, continue to Question c.					
c. Will the boardwalk construction meet the design and construction requirements of Env-Wt 517.05 (see general conditions)?					
If you answered "No" to Question c, you cannot use this form and must file a <u>Standard Permit Application</u> . If you answered "Yes", continue to Section 2.					
SECTION 2 - PROJECT DESCRIPTION (Env-Wt 308.0	95(a)(2))				
Provide a brief description of each activity and the	location at which it	t will occur:			
	064 492 4.2 VII/h/	2))			
TOWAR					
	TAX MAP/LOT NO				
SECTION 4 - ORGANIZATION UNDERTAKING ACTIV	/IIIES (RSA 482-A::	\$, XII(D)(1))			
ORGANIZATION NAME:					
MAILING ADDRESS:					
TOWN/CITY:		STATE:	ZIP CODE	E:	
SECTION 5 - PROPERTY OWNER(S) (RSA 482-A:3, >	(II(b)(2))				
LAST NAME, FIRST NAME, M.I.:					
MAILING ADDRESS:	TOWN/CITY:		STATE:	ZIP CODE:	
SECTION 6 - ATTACHMENTS					
Verify that the following attachments are submitte	ed with this form by	checking each	box below.		
NHB DataCheck Identification Number (Env-Wi	t 308.05(a)(2)):				
USGS (United States Geological Survey) Topographic Map (at its original scale with the proposed work area locations clearly identified) (RSA 482-A:3, XII(b)(4)).					
\$25 filing fee.					
Check or money order for \$25 payable to "Treasurer – State of NH" (RSA 482-A:3, XII (c)).					

SECTION 7 - REQU	SECTION 7 - REQUIRED CERTIFICATIONS FROM AUTHORIZED REPRESENTATIVE			
By initialing each it	By initialing each item and signing this application, the authorized representative affirms that (Env-Wt 308.05(b)(2)):			
Initials:	The project is not located in a PR	RA , except as provided in Env-Wt 407.		
Initials:	All recommendations of NHB and	d NHF&G have been received.		
Initials:	s: The person responsible for the activity is aware of the limits of the SPN and applicable BMPs for the project, and will adhere to both.			
By initialing each it	tem and signing this application, th	ne authorized representative certifies that (Env	v-Wt 311.11(e)):	
Initials:	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.			
Initials:	 The signer understands that: The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: Deny the application. Revoke any approval that is granted based on the information. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. 			
SECTION 8 - REQ	UIRED SIGNATURE (Env-Wt 308	8.05(b)(2); Env-Wt 311.11)		
SIGNATURE (OWNER	SIGNATURE (OWNER): PRINT NAME LEGIBLY: DATE:			
SIGNATURE (APPLICANT. IF DIFFERENT FROM OWNER): PRINT NAME LEGIBLY: DATE:		DATE:		
SIGNATURE (AGENT,	, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:	



TRAILS NOTIFICATION STATUTORY PERMIT-BY-NOTIFICATION (SPN) CONDITIONS



(Keep this sheet for reference; do not submit it with your notification.)

All trail activities are subject to the following general conditions:

- 1. The work shall be done in compliance with all applicable conditions in Env-Wt 307 (Env-Wt 308.08(a)).
- 2. Any work done in shoreland covered by RSA 483-B, the Shoreland Water Quality Protection Act, shall comply with all applicable conditions established therein (Env-Wt 308.08(b)).
- 3. All SPN projects shall be carried out in accordance with the applicable best management practices (Env-Wt 308.08(c)).
- 4. A proposed trail or pathway project shall be designed and constructed to (Env-Wt 517.04):
 - Use existing structures and pathways wherever practicable,
 - Maintain pathways no more than 20 feet wide, and
 - For trails, comply with the <u>Trail BMPs</u>.
- 5. In addition to meeting the applicable design and construction criteria in Env-Wt 300, **boardwalks** shall meet the following design and construction requirements (Env-Wt 517.05):
 - (a) Boardwalks shall not be located in or through any **PRA** if the use associated with the boardwalk would jeopardize the continued existence of protected species or habitat.
 - (b) To allow for circulation of air and water and penetration of light, boardwalks shall be designed and constructed:
 - (1) To be elevated at least four feet for tidal **wetlands** and at least two feet for non-tidal **wetlands** above the ground surface or normal high water line, as applicable, and
 - (2) Of slatted construction using boards no wider than eight to 10 inches that are placed not less than 0.75 inch apart.
 - (c) Boardwalks shall be at least 36 inches wide and no wider than six feet.
 - (d) Boardwalks crossing wetlands shall be designed and located to:
 - (1) Allow for movement of wildlife and maintain density and vigor of vegetation, and
 - (2) Minimize interference with the natural hydrology of the area.
 - (e) Boardwalks shall incorporate features designed to educate users about the importance of **wetlands**, transition areas, and public waters.
 - (f) Boardwalks shall be constructed using top-down construction methods, helical piles, and other methods to limit impacts to sensitive **wetlands** and **surface waters**.
 - (g) A boardwalk shall not be supported by horizontal support timbers, otherwise known as sleepers, on or in the soil, provided that on hiking trails, a log footbridge may have timber sleepers on the soils.
 - (h) The root mat and soil under and around the boardwalk shall not be disturbed except to drive pilings.



TRAILS NOTIFICATION STATUTORY PERMIT-BY-NOTIFICATION (SPN) ADDITIONAL INSTRUCTIONS



(Keep this sheet for reference; do not submit it with your notification.)

Applicability:

This notification form and process shall apply to the construction, repair, replacement, and maintenance of minimum impact projects for trails, **boardwalks**, trail bridges, and paths in jurisdictional areas used to provide access to outdoor recreational pursuits, including but not limited to snowmobiling as defined in RSA 215-C:1, XV, and off-highway recreational vehicle use as defined in RSA 215-A:1, VI.

Submitting the Notification to NHDES:

Please mail or deliver the notification with all attachments to the address at the bottom of this page.

Prior to Commencing Work:

Monitor your notification status at <u>OneStop</u>. If the Department determines that a notification is administratively complete and that the project as described meets the requirements for an SPN, within five working days of receipt of the notification, the Department will change the status on <u>OneStop</u> to "complete" (Env-Wt 308.05(c)). Trails SPNs are valid for five years (Env-Wt 314.04).

Prior to commencing the work covered by the SPN, the person responsible for a project must post at the site a copy of the SPN posted by the Department on its website or provided by the Department pursuant to Env-Wt 308.05(d)(2) (Env-Wt 308.07(a)).

If you proceed with the work subject to the notification requirements without first filing a complete and correct SPN form or obtaining a different type of authorization, then:

- (1) All work done shall be deemed to have been done without a permit or exemption, and
- (2) The person shall file an application for an after-the-fact standard permit (Env-Wt 308.05(f)).

Within 10 Calendar Days Following Completion of the Work Covered by the SPN (Env-Wt 308.07(b)):

The person responsible for the project shall submit to the Department confirmation of completion of the project, either by paper copy or electronically.



TRAILS STATUTORY PERMIT-BY-NOTIFICATION (SPN) DEFINITIONS OF TERMS



(Keep this sheet for reference; do not submit it with your notification.)

- 482-A Jurisdiction: Jurisdiction means the regulatory authority conferred by RSA 482-A (Env-Wt 103.24).
- **Bank:** transitional slope adjacent to the edge of a **surface water** body, the upper limit of which is usually defined by a break in slope, or for a **wetland**, where a line delineated in accordance with Env-Wt 400 indicates a change from wetland to upland (Env-Wt 102.15).
- Best Management Practices for Trail Construction and Maintenance (Trail BMPs): dated 2017, published by NH DNCR (Env-Wt 102.23).
- **Boardwalk**: An elevated walkway designed for use by pedestrians or non-motorized vehicles, or both, to allow access over **wetlands** or **surface waters**, or both, from upland to upland or from upland to navigable frontage (Env-Wt 102.27).
- **Bog:** A wetland distinguished by stunted evergreen trees and shrubs, peat deposits, poor drainage, highly acidic soil conditions, highly acidic water conditions, or any combination thereof, as determined using "Natural Communities of New Hampshire", 2nd edition, published by UNH Cooperative Extension dated 2011 (Env-Wt 102.30).
- **DataCheck Tool:** An <u>online data screening tool provided by NHB</u> where the public can screen for known locations of rare species and exemplary natural communities.
- **Duly-Established 100-foot Buffer:** The buffer recognized in RSA 482-A:11, IV for **prime wetlands** designated on or after September 11, 2009 but before August 17, 2012 (Env-Wt 102.63).
- Fill (as a noun): Any rock, soil, gravel, sand, or other natural or man-made material that has been deposited or caused to be deposited by human activity (Env-Wt 103.04).
- Floodplain Wetland: A wetland located within a 100-year floodplain (Env-Wt 103.10).
- Marsh: A wetland that is distinguished by soft-stemmed herbaceous plants such as grasses, rushes, and sedges, where the water table is at or above the surface throughout the year but can fluctuate seasonally, as determined using the federal classification method. The term includes freshwater marshes and tidal marshes (Env-Wt 103.37).
- **Perennial Stream**: A watercourse that is in the groundwater table for most of the year and so has groundwater as its primary source of water for stream flow, with runoff from rainfall and snowmelt as a supplemental source of water, so that it contains flowing water year-round during a typical year (Env-Wt 103.53).
- **Prime Wetlands:** Any contiguous areas falling within the jurisdictional definitions of RSA 482-A:2, X and RSA 482-A:4 that, because of their size, unspoiled character, fragile condition, or other relevant factors, make them of substantial significance (482-A:15, I-a).

Priority Resource Area (PRA): A jurisdictional area that:

- a) Has documented occurrences of protected species or habitat,
- b) Is a bog,
- c) Is a floodplain wetland contiguous to a tier 3 or higher watercourse,
- d) Is a designated prime wetland,
- e) Is a duly established 100-foot buffer zone,
- f) Is a sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone, or
- g) Is any combination of the resources listed above (Env-Wt 103.66).

Sand Dune: A hill or ridge of sand piled up by the wind and commonly found on the seacoast (RSA 482-A:2, VII).

- Scrub-Shrub Wetland: wetland dominated by woody vegetation less than 20 feet tall, such as true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions, as determined using the federal classification method (Env-Wt 104.13).
- **Stream Crossing:** A structure placed within a **watercourse** or on its associated upland or wetland approaches, or both, that is intended to provide human, animal, or vehicular passage over the watercourse (Env-Wt 104.28).
- Surface Water: Those portions of waters of the state that have standing or flowing water at or on the surface of the ground. The term includes but is not limited to watercourses, lakes, ponds, marshes, and tidal waters (Env-Wt 104.33).
- Swamp: A forested wetland that is dominated by trees, as determined using the federal classification method (Env-Wt 104.35).
- Tidal Buffer Zone: The area identified in RSA 482-A:4, I as bordering on tidal waters within 100 feet of the highest observable tide line, which can contain banks, upland areas, **bogs**, salt marsh, **swamps**, meadows, flats, or other lowlands subject to tidal action (Env-Wt 602.52).
- **Tidal Wetland:** A wetland whose vegetation, hydrology or soils are influenced by periodic inundation of the tides (Env-Wt 602.60).
- **Trail Activities:** Activities necessary for trail construction and management, as described in Env-Wt 517, including but not limited to cutting roads and pathways through forests (Env-Wt 104.37).
- **United States Geological Survey (USGS) Topographic Map**: A map published by the United States Geological Survey at a scale of 1:24,000 or a scale that provides greater detail (Env-Wt 104.41).
- Watercourse: Any surface water that develops and maintains a defined scoured channel, with evidence of sediment transport, or that is a continuous channel that flows to or from a wetland or other surface water. The term includes rivers and streams (Env-Wt 104.48).
- Wetland: An area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions (RSA 482-A:2, X).



Photo 1 - Looking back towards the house from the east side of the brook. Approx crossing location



Photo 2 - Looking North towards the crossing area.





StreamStats Report

Region ID:NHWorkspace ID:NH20250310141043952000Clicked Point (Latitude, Longitude):42.85089, -71.77984NHD Stream GNIS Name of Click Point:Stream name not foundTime:2025-03-10 10:11:09 -0400



Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
APRAVPRE	Mean April Precipitation	4.231	inches
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	104	feet per mi
DRNAREA	Area that drains to a point on a stream	7.69	square miles
PREG_06_10	Mean precipitation at gaging station location for June to October summer period	17.8	inches
TEMP	Mean Annual Temperature	44.784	degrees F
WETLAND	Percentage of Wetlands	3.0751	percent

> Peak-Flow Statistics

Peak-Flow Statistics Parameters [Peak Flow Statewide SIR2008 5206]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
APRAVPRE	Mean April Precipitation	4.231	inches	2.79	6.23

https://streamstats.usgs.gov/ss/

StreamStats

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CSL10_85	Stream Slope 10 and 85 Method	104	feet per mi	5.43	543
DRNAREA	Drainage Area	7.69	square miles	0.7	1290
WETLAND	Percent Wetlands	3.0751	percent	0	21.8

Peak-Flow Statistics Flow Report [Peak Flow Statewide SIR2008 5206]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	PIL	PIU	ASEp	Equiv. Yrs.
50-percent AEP flood	348	ft^3/s	215	564	30.1	3.2
20-percent AEP flood	584	ft^3/s	356	958	31.1	4.7
10-percent AEP flood	781	ft^3/s	467	1300	32.3	6.2
4-percent AEP flood	1050	ft^3/s	608	1810	34.3	8
2-percent AEP flood	1260	ft^3/s	709	2240	36.4	9
1-percent AEP flood	1520	ft^3/s	828	2790	38.6	9.8
0.2-percent AEP flood	2150	ft^3/s	1080	4270	44.1	11

Peak-Flow Statistics Citations

Olson, S.A.,2009, Estimation of flood discharges at selected recurrence intervals for streams in New Hampshire: U.S.Geological Survey Scientific Investigations Report 2008-5206, 57 p. (http://pubs.usgs.gov/sir/2008/5206/)

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Statewide]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.69	square miles	3.26	689
PREG_06_10	Jun to Oct Gage Precipitation	17.8	inches	16.5	23.1
TEMP	Mean Annual Temperature	44.784	degrees F	36	48.7

Low-Flow Statistics Flow Report [Low Flow Statewide]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp
7 Day 2 Year Low Flow	0.447	ft^3/s	0.164	0.929	55.7	55.7
7 Day 10 Year Low Flow	0.165	ft^3/s	0.0397	0.421	79.4	79.4

Low-Flow Statistics Citations

Flynn, R.H. and Tasker, G.D.,2002, Development of Regression Equations to Estimate Flow Durations and Low-Flow-Frequency Statistics in New Hampshire Streams: U.S.Geological Survey Scientific Investigations Report 02-4298, 66 p. (http://pubs.water.usgs.gov/wrir02-4298)

> Bankfull Statistics

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.69	square miles	0.07722	940.1535
Bankfull Statistics Pa	arameters [New England	P Bieger 2015	5]		
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.69	square miles	3.799224	138.999861
Bankfull Statistics Pa	arameters [USA Bieger 20	015]			
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.69	square miles	0.07722	59927.7393
Bankfull Statistics Fl	ow Report [Appalachian I	Highlands D B	ieger 2015]		
Bankfull Statistics Fl	ow Report [Appalachian I	Highlands D B	ieger 2015]		
Bankfull Statistics Fl Statistic	ow Report [Appalachian H	Highlands D B	ieger 2015]	Value	Unit
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de	ow Report [Appalachian H dth pth	Highlands D B	ieger 2015]	Value 35.4 2.01	Unit ft ft
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro	ow Report [Appalachian H dth pth pss_sectional_area	Highlands D B	ieger 2015]	Value 35.4 2.01 72.5	Unit ft ft ft2
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro Bankfull Statistics Fl	ow Report [Appalachian H dth pth oss_sectional_area ow Report [New England	Highlands D B	ieger 2015] 5]	Value 35.4 2.01 72.5	Unit ft ft ft2
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro Bankfull Statistics Fl Statistic	ow Report [Appalachian H dth pth oss_sectional_area ow Report [New England	Highlands D B	ieger 2015] 5]	Value 35.4 2.01 72.5 Value	Unit ft ft ft^2 Unit
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro Bankfull Statistics Fl Statistic Bieger_P_channel_wi	ow Report [Appalachian H dth pth oss_sectional_area ow Report [New England dth	Highlands D B	ieger 2015] 5]	Value 35.4 2.01 72.5 Value 44.7	Unit ft ft ft^2 Unit
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro Bankfull Statistics Fl Statistic Bieger_P_channel_wi Bieger_P_channel_de	ow Report [Appalachian H dth pth oss_sectional_area ow Report [New England dth pth	Highlands D B	ieger 2015] 5]	Value 35.4 2.01 72.5 Value 44.7 2.15	Unit ft ft ft^2 Unit ft ft
Bankfull Statistics Fl Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro Bankfull Statistics Fl Statistic Bieger_P_channel_wi Bieger_P_channel_cro	ow Report [Appalachian H dth pth oss_sectional_area ow Report [New England dth pth oss_sectional_area	Highlands D B	ieger 2015] 5]	Value 35.4 2.01 72.5 Value 44.7 2.15 98	Unit ft ft ft^2 Unit ft ft ft ft
Bankfull Statistics FI Statistic Bieger_D_channel_wi Bieger_D_channel_de Bieger_D_channel_cro Bankfull Statistics FI Statistic Bieger_P_channel_de Bieger_P_channel_de Bieger_P_channel_cro Bankfull Statistics FI	ow Report [Appalachian H dth pth oss_sectional_area ow Report [New England dth pth oss_sectional_area ow Report [USA Bieger 20	Highlands D B P Bieger 2015	ieger 2015] 5]	Value 35.4 2.01 72.5 Value 44.7 2.15 98	Unit ft ft*2 ft*2 Unit ft ft ft*2

	, and c	Unit
Bieger_USA_channel_width	25.4	ft
Bieger_USA_channel_depth	1.86	ft
Bieger_USA_channel_cross_sectional_area	51.4	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Bieger_D_channel_width	35.4	ft
Bieger_D_channel_depth	2.01	ft
Bieger_D_channel_cross_sectional_area	72.5	ft^2
Bieger_P_channel_width	44.7	ft
Bieger_P_channel_depth	2.15	ft

3/10/25, 10:12 AM

StreamStats

Statistic	Value	Unit
Bieger_P_channel_cross_sectional_area	98	ft^2
Bieger_USA_channel_width	25.4	ft
Bieger_USA_channel_depth	1.86	ft
Bieger_USA_channel_cross_sectional_area	51.4	ft^2

Bankfull Statistics Citations

Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. (https://digitalcommons.unl.edu/usdaarsfacpub/1515?

 $utm_source=digital commons.unl.edu\%2Fusdaarsfacpub\%2F1515\&utm_medium=PDF\&utm_campaign=PDFCoverPages)$

> Maximum Probable Flood Statistics

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.69	square miles	0.1	10000

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 1]

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	15700	ft^3/s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D.1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (https://pubs.usgs.gov/wsp/1887/report.pdf)

> NHD Features of Delineated Basin

NHD Streams Intersecting Basin Delineation Boundary

This functionality attempts to find the stream name at the delineation point. The name of the nearest intersecting National Hydrography Dataset (NHD) stream is selected by default to appear in the report above. NHD streams do not correspond to the StreamStats stream grid and may not be accurate. If you would like a different stream to appear in the above section, please make a selection below.

No NHD streams intersect the delineated basin.

Watershed Boundary Dataset (WBD) HUC 8 Intersecting Basin Delineation Boundary

This functionality attempts to find the intersecting HUC 8 of the delineated watershed. HUC boundaries do not correspond to the StreamStats data and may not be accurate.

HUC 8	Name
01070003	Contoocook River
01070006	Merrimack River

NHD Hydrologic Features Citations

StreamStats

U.S. Geological Survey, 2022, USGS TNM - National Hydrography Dataset, accessed July 21, 2022 at URL https://hydro.nationalmap.gov/arcgis/rest/services/nhd/MapServer/6. (https://hydro.nationalmap.gov/arcgis/rest/services/nhd/MapServer/6) U.S. Geological Survey, 2022, USGS TNM -National Hydrography Dataset, accessed July 21, 2022 at URL https://hydro.nationalmap.gov/arcgis/rest/services/wbd/MapServer/4. (https://hydro.nationalmap.gov/arcgis/rest/services/wbd/MapServer/4)

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