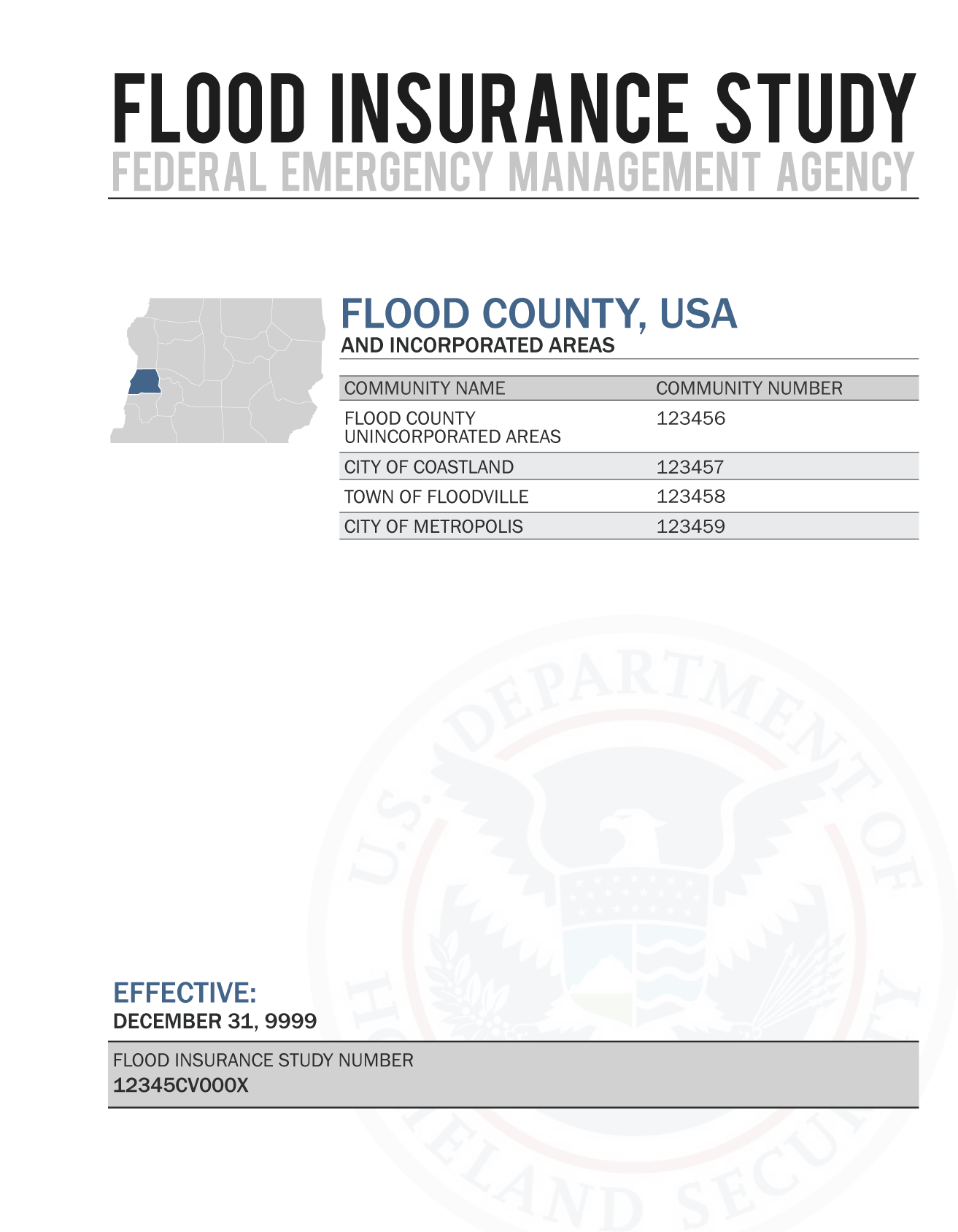
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**VOLUME 3 OF 3**

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|  | **STRAFFORD COUNTY,  NEW HAMPSHIRE**  **(ALL JURISDICTIONS)** |

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| --- | --- | --- | --- |
| COMMUNITY NAME | NUMBER | COMMUNITY NAME | NUMBER |
| BARRINGTON, TOWN OF | 330178 | MILTON, TOWN OF | 330149 |
| DOVER, CITY OF | 330145 | NEW DURHAM, TOWN OF | 330227 |
| DURHAM, TOWN OF | 330146 | ROCHESTER, CITY OF | 330150 |
| FARMINGTON, TOWN OF | 330147 | ROLLINSFORD, TOWN OF | 330190 |
| LEE, TOWN OF | 330148 | SOMERSWORTH, CITY OF | 330151 |
| MADBURY, TOWN OF | 330219 | STRAFFORD, TOWN OF | 330196 |
| MIDDLETON, TOWN OF | 330222 |  |  |
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| **REVISED:** | **PRELIMINARY**  **12/13/2018**  This is the DHS-FEMA logo placed on an FIS Report cover that contains a large number of community listings.  The logo is located in the lower right corner. |
|  |
| FLOOD INSURANCE STUDY NUMBER |
| 33017CV003C  Version Number 2.3.3.0 |

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| College Brook | 21-24 | P |
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**Published Separately**

Flood Insurance Rate Map (FIRM)

**FLOOD INSURANCE STUDY REPORT**

**STRAFFORD COUNTY, NEW HAMPSHIRE**

# SECTION 1.0 – INTRODUCTION

## 1.1 The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a voluntary federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

For decades, the national response to flood disasters was generally limited to constructing flood-control works such as dams, levees, sea-walls, and the like, and providing disaster relief to flood victims. This approach did not reduce losses nor did it discourage unwise development. In some instances, it may have actually encouraged additional development. To compound the problem, the public generally could not buy flood coverage from insurance companies, and building techniques to reduce flood damage were often overlooked.

In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances, and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for the protection.

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and other legislative measures. It was further modified by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004. The NFIP is administered by the Federal Emergency Management Agency (FEMA), which is a component of the Department of Homeland Security (DHS).

Participation in the NFIP is based on an agreement between local communities and the federal government. If a community adopts and enforces floodplain management regulations to reduce future flood risks to new construction and substantially improved structures in Special Flood Hazard Areas (SFHAs), the federal government will make flood insurance available within the community as a financial protection against flood losses. The community’s floodplain management regulations must meet or exceed criteria established in accordance with Title 44 Code of Federal Regulations (CFR) Part 60, *Criteria for Land Management and Use*.

SFHAs are delineated on the community’s Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community’s FIRMs are generally referred to as “Pre-FIRM” buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the federal government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after the effective date of the initial FIRM for the community or after December 31, 1974, whichever is later. These buildings are generally referred to as “Post-FIRM” buildings.

## 1.2 Purpose of this Flood Insurance Study Report

This Flood Insurance Study (FIS) Report revises and updates information on the existence and severity of flood hazards for the study area. The studies described in this report developed flood hazard data that will be used to establish actuarial flood insurance rates and to assist communities in efforts to implement sound floodplain management.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum federal requirements. Contact your State NFIP Coordinator to ensure that any higher state standards are included in the community’s regulations.

## 1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the entire geographic area of Stafford County, New Hampshire.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the United States Geological Survey (USGS) 8-digit Hydrologic Unit Code (HUC-8) sub-basins affecting each, are shown in Table 1. The FIRM panel numbers that affect each community are listed. If the flood hazard data for the community is not included in this FIS Report, the location of that data is identified.

Table 1: Listing of NFIP Jurisdictions

| Community | CID | HUC-8  Sub-Basin(s) | Located on FIRM Panel(s) | If Not Included, Location of Flood Hazard Data |
| --- | --- | --- | --- | --- |
| Barrington, Town of | 330178 | 01060003 | 33017C0190E 33017C0195E 33017C0213E 33017C0260E 33017C0280E 33017C0285E 33017C0290E 33017C0295E 33017C0302F 33017C0305F 33017C0315F |  |
| Dover, City of | 330145 | 01060003 | 33017C0218F 33017C0302F 33017C0305F |  |

| **Table 1: Listing of NFIP Jurisdictions (continued)** | | | | |
| --- | --- | --- | --- | --- |
| Community | CID | HUC-8  Sub-Basin(s) | Located on FIRM Panel(s) | If Not Included, Location of Flood Hazard Data |
| Dover, City of (continued) | 330145 | 01060003 | 33017C0310F 33017C0320E 33017C0330F 33017C0340E 33017C0405E |  |
| Durham, Town of | 330146 | 01060003 | 33017C0314F 33017C0315F 33017C0318E 33017C0320E 33017C0340E 33017C0376F 33017C0377E 33017C0378F 33017C0379E 33017C0381E 33017C0383E 33017C0385E 33017C0405E |  |
| Farmington, Town of | 330147 | 01060003 01070006 | 33017C0095E 33017C0113E 33017C0114E 33017C0115E 33017C0118E 33017C0120E 33017C0138E 33017C0160E 33017C0176E 33017C0177E 33017C0180E 33017C0181E 33017C0182E 33017C0183E 33017C0184E 33017C0190E 33017C0195E 33017C0201E |  |
| Lee, Town of | 330148 | 01060003 | 33017C0295E 33017C0314F 33017C0315F 33017C0355E 33017C0360E 33017C0376F 33017C0378F |  |
| Madbury, Town of | 330219 | 01060003 | 33017C0305F 33017C0310F 33017C0315F 33017C0318E 33017C0320E 33017C0340E |  |
| Middleton, Town of | 330222 | 01060003 01070002 | 33017C0040D 33017C0045E 33017C0105E 33017C0107E 33017C0110E 33017C0115E |  |
| Milton, Town of | 330149 | 01060003 | 33017C0045E 33017C0062E 33017C0064E 33017C0065E 33017C0105E 33017C0107E 33017C0110E 33017C0115E 33017C0118E 33017C0120E 33017C0126E 33017C0127E 33017C0128E 33017C0129E 33017C0136E 33017C0137E 33017C0138E 33017C0201E |  |
| New Durham, Town of | 330227 | 01060003 01070002 01070006 | 33017C0010D 33017C0015D1 33017C0020D 33017C0040D 33017C0085E 33017C0095E 33017C0105E 33017C0105E 33017C0115E 33017C0160E |  |
| Rochester, City of | 330150 | 01060003 | 33017C0138E 33017C0182E 33017C0183E 33017C0184E 33017C0190E 33017C0195E 33017C0201E |  |
| Rochester, City of (continued) | 330150 | 01060003 | 33017C0203E 33017C0204E 33017C0208E 33017C0211E 33017C0212E 33017C0213E 33017C0214E 33017C0216E 33017C0217E 33017C0218F 33017C0219E 33017C0302F 33017C0305F 33017C0310F |  |
| Rollinsford, Town of | 330190 | 01060003 | 33017C0310F 33017C0327F 33017C0330F |  |
| Somersworth, City of | 330151 | 01060003 | 33017C0217E 33017C0218F 33017C0219E 33017C0238E 33017C0239E 33017C0310F 33017C0327F 33017C0330F |  |
| Strafford, Town of | 330196 | 01060003 01070006 | 33017C0155D 33017C0160E 33017C0165E 33017C0170E 33017C0180E 33017C0190E 33017C0195E 33017C0255E 33017C0260E 33017C0280E |  |

1 Panel Not Printed

## 1.4 Considerations for using this Flood Insurance Study Report

The NFIP encourages state and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1-percent-annual-chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1-percent-annual-chance and 0.2-percent-annual-chance floodplains; and 1-percent-annual-chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

This section presents important considerations for using the information contained in this FIS Report and the FIRM, including changes in format and content. Figures 1, 2, and 3 present information that applies to using the FIRM with the FIS Report.

* Part or all of this FIS Report may be revised and republished at any time. In addition, part of this FIS Report may be revised by a Letter of Map Revision (LOMR), which does not involve republication or redistribution of the FIS Report. Refer to Section 6.5 of this FIS Report for information about the process to revise the FIS Report and/or FIRM.

It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 31, “Map Repositories,” within this FIS Report.

* New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

The initial Countywide FIS Report for Stafford County became effective on May 17, 2005. Refer to Table 28 for information about subsequent revisions to the FIRMs.

* Selected FIRM panels for the community may contain information (such as

floodways and cross sections) that was previously shown separately on the

corresponding Flood Boundary and Floodway Map (FBFM) panels. In addition,

former flood hazard zone designations have been changed as follows:

Old Zone New Zone

A1 through A30 AE

V1 through V30 VE

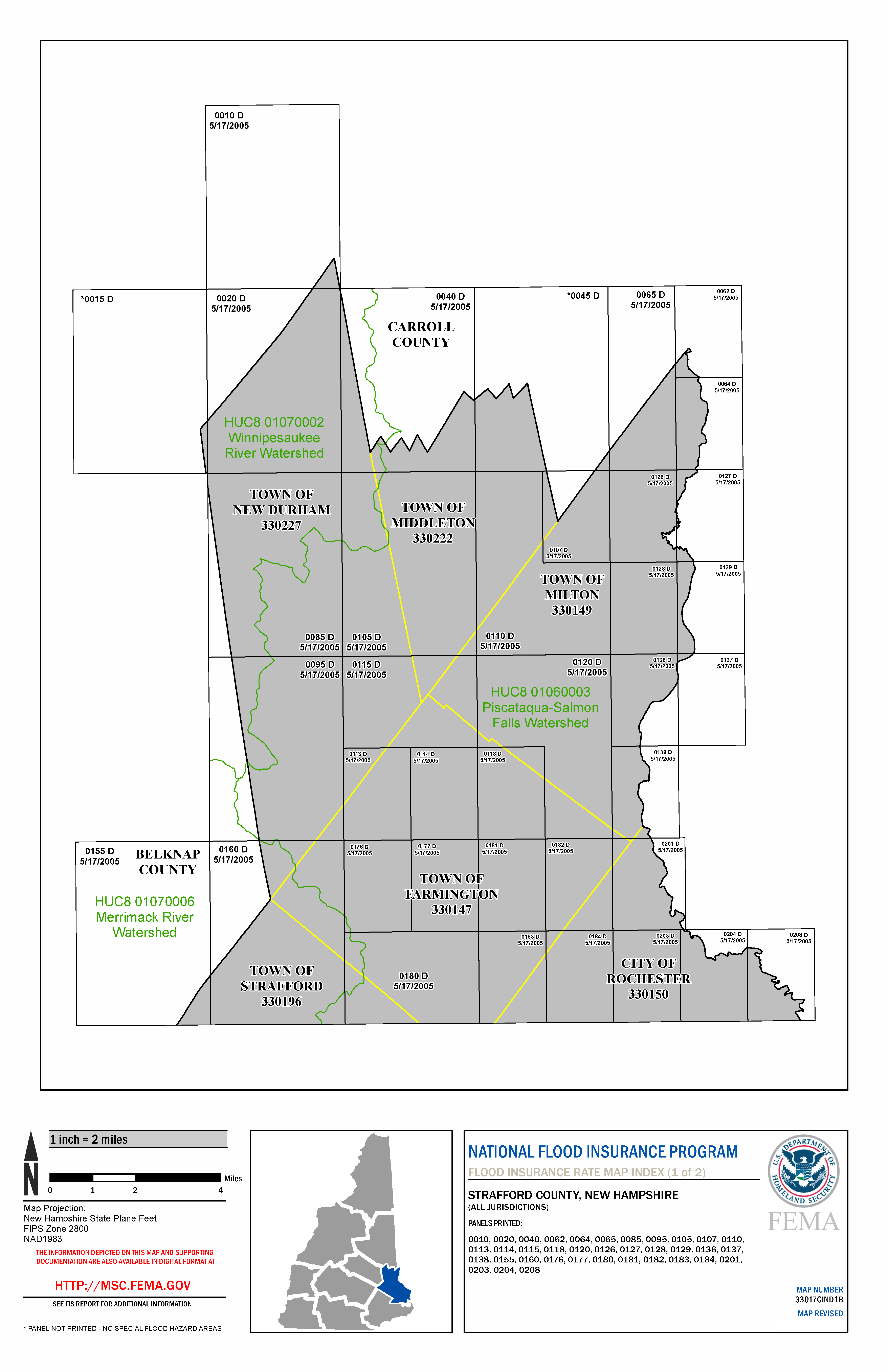
B X (shaded)

C X (unshaded)

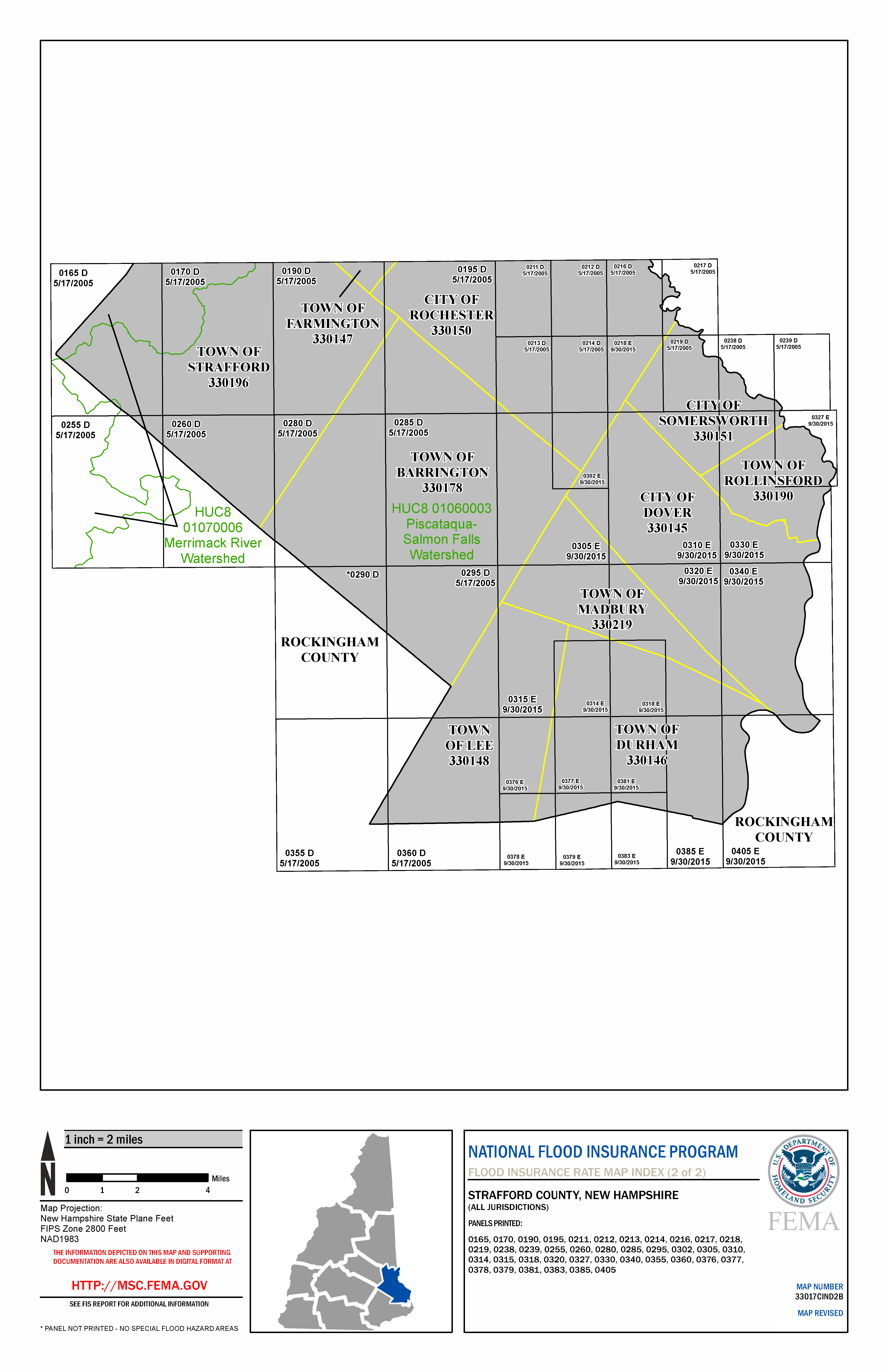
* FEMA has developed a *Guide to Flood Maps* (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at [www.fema.gov/online-tutorials](https://www.fema.gov/online-tutorials).

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Strafford County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Index includes community boundaries, flooding sources, watershed boundaries, and USGS HUC-8 codes.

Figure 1: FIRM Index



Index Page 2

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Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on that map. However, the FIRM panel does not contain enough space to show all the notes that may be relevant in helping to better understand the information on the panel. Figure 2 contains the full list of these notes.

Figure 2: FIRM Notes to Users

**NOTES TO USERS**

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at [msc.fema.gov](https://msc.fema.gov/). Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Flood Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to Table 28 in this FIS Report.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

PRELIMINARY FIS REPORT: FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.

The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.

BASE FLOOD ELEVATIONS: For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Non-Coastal Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.

FLOODWAY INFORMATION: Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.

FLOOD CONTROL STRUCTURE INFORMATION: Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 4.3 "Non-Levee Flood Protection Measures" of this FIS Report for information on flood control structures for this jurisdiction.

PROJECTION INFORMATION: The projection used in the preparation of the map was North American Datum of 1983 (NAD83) StatePlane New Hampshire FIPS 3900, Lambert Conformal Conic. The horizontal datum was the North American Datum of 1983 NAD83, GRS1980 spheroid.Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

ELEVATION DATUM: Flood elevations on the FIRM are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988,visit the National Geodetic Survey website at [www.ngs.noaa.gov](https://www.ngs.noaa.gov/) or contact the National Geodetic Survey at the address below:

*NGS Information Services*

*NOAA, N/NGS12*

*National Geodetic Survey*

*SSMC-3, #9202*

*1315 East-West Highway*

*Silver Spring, Maryland 20910-3282*

*(301) 713-3242*

Local vertical monuments may have been used to create the map. To obtain current monument information, please contact the appropriate local community listed in Table 31 of this FIS Report.

BASE MAP INFORMATION: Base map information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). This information was derived from digital orthophotography at a 1-foot resolution from photography dated 2015.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables may reflect stream channel distances that differ from what is shown on the map.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

**NOTES FOR FIRM INDEX**

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Strafford County, New Hampshire, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 28 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

ATTENTION: The corporate limits shown are based on the best information available at the time of publication of this FIRM Panel Index. As such, they may be more current than those shown on FIRM panels issued before TBD.

FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.

Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Stafford County.

Figure 3: Map Legend for FIRM

|  |  |
| --- | --- |
| **SPECIAL FLOOD HAZARD AREAS:** *The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.* *The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. See note for specific types. If the floodway is too narrow to be shown, a note is shown.* | |
| Light Blue Rectangle | Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE) |
| Zone A | The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone. |
| Zone AE | The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone. |
| Zone AH | The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone. |
| Zone AO | The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone. |
| Zone AR | The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| Zone A99 | The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone. |
| Zone V | The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone. |
| Zone VE | Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone. |
| Screen for Regulatory Floodway determined in Zone AE.  Light blue rectangle with diagonal red hatching. | Regulatory Floodway determined in Zone AE. |
| **OTHER AREAS OF FLOOD HAZARD** | |
| Solid light orange rectangle | Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile. |
| Screen for Future Conditions 1% Annual Chance Flood Hazard.  Light grey rectangle with diagonal darker grey hatching. | Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone. |
| Screen for Area with Reduced Flood Risk due to Levee.  Light orange rectangle with diagonal grey hatching. | Area with Reduced Flood Risk due to Levee: Areas where an accredited levee, dike, or other flood control structure has reduced the flood risk from the 1% annual chance flood. |
| Screen for Area with Flood Risk due to Levee.  Light yellow rectangle with diagonal grey hatching. | Area with Flood Risk due to Levee: Areas where a non-accredited levee, dike, or other flood control structure is shown as providing protection to less than the 1% annual chance flood. |
| **OTHER AREAS** | |
| Solid light orange color rectangle | Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible. |
| **No SCREEN** | Unshaded Zone X: Areas of minimal flood hazard. |
| **FLOOD HAZARD AND OTHER BOUNDARY LINES** | |
| Flood Zone Boundary symbology for ortho-based maps Flood Zone Boundary symbology for vector-based maps  (ortho) (vector) | Flood Zone Boundary (white line on ortho-photography-based mapping; gray line on vector-based mapping) |
| Red line with a white line through the middle | Limit of Study |
| Yellow line with a black line through the middle | Jurisdiction Boundary |
| LiMWA symbology | Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet |
| **GENERAL STRUCTURES** | |
| Black dash lines  *Aqueduct*  *Channel*  *Culvert*  *Storm Sewer* | Channel, Culvert, Aqueduct, or Storm Sewer |
| \_\_\_\_\_\_\_\_\_\_  *Dam*  *Jetty*  *Weir* | Dam, Jetty, Weir |
| PALevee | Levee, Dike, or Floodwall |
| Bridge symbology  *Bridge* | Bridge |
| **COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA):** *CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.* | |
| Black diagonal lines  **CBRS AREA 09/30/2009** | Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway. |
| Diagonal black dash lines**OTHERWISE PROTECTED AREA 09/30/2009** | Otherwise Protected Area |
| **REFERENCE MARKERS** | |
| A number above a dot | River mile Markers |
| **CROSS SECTION & TRANSECT INFORMATION** | |
| Lettered Cross Section symbology | Lettered Cross Section with Regulatory Water Surface Elevation (BFE) |
| Numbered cross section symbology | Numbered Cross Section with Regulatory Water Surface Elevation (BFE) |
| Unlettered cross section symbology | Unlettered Cross Section with Regulatory Water Surface Elevation (BFE) |
| Coastal transect symbology | Coastal Transect |
| ProfileBaseline | Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation. |
| CoastBaseline | Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping. |
| BFE | Base Flood Elevation Line |
| **ZONE AE**  **(EL 16)** | Static Base Flood Elevation value (shown under zone label) |
| **ZONE AO**  **(DEPTH 2)** | Zone designation with Depth |
| **ZONE AO**  **(DEPTH 2)**  **(VEL 15 FPS)** | Zone designation with Depth and Velocity |
| **BASE MAP FEATURES** | |
| *HydroFeature (Solid Blue Line)Missouri Creek* | River, Stream or Other Hydrographic Feature |
| Interstate highway symbology | Interstate Highway |
| us highway symbol | U.S. Highway |
| state highway symbol | State Highway |
| county highway symbol | County Highway |
| MAPLE LANE  road symbology | Street, Road, Avenue Name, or Private Drive if shown on Flood Profile |
| *railroad symbology RAILROAD* | Railroad |
|  | Horizontal Reference Grid Line |
|  | Horizontal Reference Grid Ticks |
| A cross figure | Secondary Grid Crosshairs |
| Land Grant | Name of Land Grant |
| 7 | Section Number |
| R. 43 W. T. 22 N. | Range, Township Number |
| **4276000mE** | Horizontal Reference Grid Coordinates (UTM) |
| **365000 FT** | Horizontal Reference Grid Coordinates (State Plane) |
| **80° 16’ 52.5”** | Corner Coordinates (Latitude, Longitude) |

# SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

## 2.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance (500-year) flood is employed to indicate additional areas of flood hazard in the community.

Each flooding source included in the project scope has been studied and mapped using professional engineering and mapping methodologies that were agreed upon by FEMA and Stafford County as appropriate to the risk level. Flood risk is evaluated based on factors such as known flood hazards and projected impact on the built environment. Engineering analyses were performed for each studied flooding source to calculate its 1-percent-annual-chance flood elevations; elevations corresponding to other floods (e.g. 10-, 4-, 2-, 0.2-percent-annual-chance, etc.) may have also been computed for certain flooding sources. Engineering models and methods are described in detail in Section 5.0 of this FIS Report. The modeled elevations at cross sections were used to delineate the floodplain boundaries on the FIRM; between cross sections, the boundaries were interpolated using elevation data from various sources. More information on specific mapping methods is provided in Section 6.0 of this FIS Report.

Depending on the accuracy of available topographic data (Table 23), study methodologies employed (Section 5.0), and flood risk, certain flooding sources may be mapped to show both the 1- and 0.2-percent-annual-chance floodplain boundaries, regulatory water surface elevations (BFEs), and/or a regulatory floodway. Similarly, other flooding sources may be mapped to show only the 1-percent-annual-chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM. Figure 3, “Map Legend for FIRM”, describes the flood zones that are used on the FIRMs to account for the varying levels of flood risk that exist along flooding sources within the project area. Table 2 and Table 3 indicate the flood zone designations for each flooding source and each community within Stafford County, respectively.

Table 2, “Flooding Sources Included in this FIS Report,” lists each flooding source, including its study limits, affected communities, mapped zone on the FIRM, and the completion date of its engineering analysis from which the flood elevations on the FIRM and in the FIS Report were derived. Descriptions and dates for the latest hydrologic and hydraulic analyses of the flooding sources are shown in Table 13. Floodplain boundaries for these flooding sources are shown on the FIRM (published separately) using the symbology described in Figure 3. On the map, the 1-percent-annual-chance floodplain corresponds to the SFHAs. The 0.2-percent-annual-chance floodplain shows areas that, although out of the regulatory floodplain, are still subject to flood hazards.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2: Flooding Sources Included in this FIS Report

| Flooding Source | Community | Downstream Limit | Upstream Limit | HUC-8 Sub-Basin(s) | Length (mi) (streams or coastlines) | Area (mi2) (estuaries or ponding) | Floodway (Y/N) | Zone shown on FIRM | Date of Analysis |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Axe Handle Brook | Rochester, City of | At confluence of Cocheco River | At confluence of Rickers Brook | 01060003 | 2.1 | -- | N | A | 2017 |
| Beards Creek | Durham, Town of; Madbury, Town of | At confluence of Oyster River | Points of one square mileage of drainage area | 01060003 | 3.1 | -- | N | A | 2013 |
| Beaver Brook | New Durham, Town of | Belknap County boundary | Just downstream of Kings Highway | 01070002 | 4.3 |  | N | A | 2013 |
| Bellamy River | Barrington, Town of; Madbury, Town of | Town of Dover Corporate limits | At confluence of Swain’s Lake | 01060003 | 8.9 | -- | N | A | 2017 |
| Bellamy River | Dover, City of | Approximately 900 feet downstream of the confluence with Canney Brook | Approximately 0.2 miles upstream of Durham Road | 01060003 | 2.0 | ­- | N | A | 2013 |
| Bellamy River | Dover, City of | Approximately 0.2miles upstream of Durham Road | Town of Dover Corporate limits | 01060003 | 2.6 | -- | Y | AE | 1978 |
| Bellamy River | Dover, City of | At confluence of Little Harbor | Approximately 0.2miles upstream of Durham Road | 01060003 | 1.6 | -- | N | AE | 1978 |
| Berrys River | Barrington, Town of; Farmington, Town of; Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 9.51 | -- | N | A | 2017 |
| Big River | Farmington, Town of; Strafford, Town of | Belknap County Boundary | Approximately 0.8 miles upstream of the Town of Farmington Corporate limits | 01070006 | 6.6 | -- | N | A | 2017 |
| Blackwater Brook | Dover, City of; Somersworth, City of; Rochester, City of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 5.5 | -- | N | A | 2017 |
| Bow Lake | Strafford, Town of | Entire Shoreline | Entire Shoreline | 01060003 | -- | 1.8 | N | AE | 2000 |

| **Table 2: Flooding Sources Included in this FIS Report (continued)** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Flooding Source | Community | Downstream Limit | Upstream Limit | HUC-8 Sub-Basin(s) | Length (mi) (streams or coastlines) | Area (mi2) (estuaries or ponding) | Floodway (Y/N) | Zone shown on FIRM | Date of Analysis |
| Branch River | Middleton, Town of | Carroll County boundary | Approximately 1.28 miles upstream of Carroll County boundary | 01060003 | 1.28 | -- | N | A | 2017 |
| Branch River | Milton, Town of | At confluence of Salmon Falls River | Carroll County boundary | 01060003 | 4.6 | -- | Y | AE | 1985 |
| Bunker Creek | Durham, Town of | At confluence of Oyster River | Points of one square mileage of drainage area | 01060003 | 0.6 | -- | N | A | 2013 |
| Caldwell Brook | Barrington, Town of; Lee, Town of | At confluence of Dube Brook | Points of one square mileage of drainage area | 01060003 | 1.9 | -- | N | A | 2017 |
| Canney Brook | Dover, City of | At confluence of Bellamy River | At Dover Point Road | 01060003 | 0.7 | -- | N | A | 2013 |
| Chelsey Brook | Durham, Town of; Lee, Town of | At confluence of Oyster River | Points of one square mileage of drainage area | 01060003 | 1.2 | -- | N | A | 2017 |
| Clark Brook | Dover, City of; Rochester, City of | At confluence of Blackwater Brook | Points of one square mileage of drainage area | 01060003 | 2.5 | -- | N | A | 2017 |
| Club Pond | New Durham, Town of | Entire Shoreline | Entire Shoreline | 01060003 | -- | 0.1 | N | AE | 1989 |
| Cocheco River | Dover, City of; Farmington, Town of; New Durham, Town of; Rochester, City of | At confluence of Salmon Falls River | At confluence of Sunrise Laker | 01060003 | 1.8 | -- | N | A | 2017 |
| Cocheco River | Dover, City of | At confluence of Piscataqua River | Approximately 1.2 miles upstream of confluence of Piscataqua River | 01060003 | 1.2 | -- | N | A | 2013 |
| Cocheco River | Dover, City of | Approximately 0.5 miles downstream of Washington Street Footbridge | Whittier Street | 01060003 | 2.3 | -- | Y | AE | 1978 |
| Cocheco River | Rochester, City of | At Dover-Rochester corporate limits | Approximately 855 feet upstream of the confluence of Willow Brook | 01060003 | 6.3 | -- | Y | AE | 1981 |
| Cocheco River | Rochester, City of | Confluence of Axe Handle Brook | Approximately 570 feet upstream of Bridge Street | 01060003 | 2.4 | -- | Y | AE | 2017 |
| Cocheco River | Farmington, Town of; Rochester, City of | Approximately 310 feet downstream of North Main Street | Approximately 0.7 miles upstream of confluence of Ela River | 01060003 | 20.1 | -- | Y | AE | 1985 |
| College Brook | Durham, Town of | Confluence with Oyster River | State Route 155A | 01060003 | 1.3 | -- | N | AE | 2012 |
| College Brook | Durham, Town of | State Route 155A | Approximately 0.2 mile upstream of State Route 155A | 01060003 | 0.2 | -- | N | A | 2013 |
| Crommet Creek | Durham, Town of | At confluence of Great Bay | Approximately 90 feet upstream of Dame Road | 01060003 | 0.6 | -- | N | A | 2013 |
| Dames Brook | Farmington, Town of | At confluence of Cocheco River | At confluence of Kicking Horse Brook | 01060003 | 0.12 | -- | Y | AE | 1985 |
| Dames Brook | Farmington, Town of; Milton, Town of | At confluence of Kicking Horse Brook | At confluence of Sunrise Lake | 01060003 | 4.8 | -- | N | A | 2017 |
| Dube Brook | Lee, Town of; Madbury, Town of | At confluence of Oyster River | At confluence of Caldwell Brook | 01060003 | 3.4 | -- | N | A | 2017 |
| Durham Reservoir | Durham, Town of | At confluence of Pettee Brook | At confluence of Pettee Brook | 01060003 | -- | 0.2 | N | A | 2013 |
| Ela River | Farmington, Town of; New Durham, Town of | Approximately 950 feet downstream of the New Durham corporate limits | Approximately 1 mile upstream of the New Durham corporate limits | 01060003 | 2.2 | -- | N | A | 2017 |
| Ela River | Farmington, Town of | Approximately 188 feet upstream of the confluence with Cocheco River | Club Pond Dam | 01060003 | 6.2 | -- | Y | AE | 1985 |
| Ellison Brook | Durham, Town of | Points of one square mileage of drainage area | Points of one square mileage of drainage area | 01060003 | 0.7 | -- | N | A | 2013 |
| Follets Brook | Durham, Town of | Rockingham County Boundary | Points of one square mileage of drainage area | 01060003 | 0.9 | -- | N | A | 2013 |
| Garvin Brook | Dover, City of; Rollinsford, City of | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 01060003 | 0.7 | -- | N | A | 2013 |
| Gerrish Brook | Durham, Town of; Madbury, Town of | At confluence of Johnson Creek | Points of one square mileage of drainage area | 01060003 | 0.2 | -- | N | A | 2013 |
| Great Bay | Durham, Town of | At confluence of Atlantic Ocean | At confluence of Crommet Creek | 01060003 | 1.7 | -- | N | AE | \* |
| Great Brook | Milton, Town of | At confluence of Salmon Falls River | At confluence of Lyman Brook | 01060003 | 1.7 | -- | N | A | 2017 |
| Hall Brook | Barrington, Town of; Strafford, Town of | At confluence of Spruce Brook | Points of one square mileage of drainage area | 01060003 | 3.6 | -- | N | A | 2017 |
| Hamel Brook | Durham, Town of | At confluence with Oyster River | At confluence of Longmarsh Brook | 01060003 | 0.7 | -- | Y | AE | 1987 |
| Hart Brook | Milton, Town of | At confluence of Jones Brook | Points of one square mileage of drainage area | 01060003 | 3.6 | -- | N | A | 2017 |
| Hayes Brook | New Durham, Town of | At confluence of Cocheco River | At confluence of Marchs Pond | 01060003 | 3.4 | -- | N | A | 2017 |
| Heath Brook | Rochester, City of | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 01060003 | 3.41 | -- | N | A | 2017 |
| Isinglass River | Barrington, Town of; Rochester, City of; Strafford, Town of | At confluence of Cocheco River | Approximately 3600 feet upstream from Webber Road | 01060003 | 16.6 | -- | N | A | 2017 |
| Johnson Creek | Dover, City of; Durham, Town of; Madbury, Town of | At confluence of Oyster River | Points of one square mileage of drainage area | 01060003 | 3.0 | -- | N | A | 2013 |
| Jones Brook | Milton, Town of; Middleton, Town of | At confluence of Branch River | At confluence of Horn Brook | 01060003 | 7.8 | -- | N | A | 2017 |
| Kicking Horse Brook | Farmington, Town of | Confluence with Dames Brook | Approximately 97 feet upstream of Charles Street | 01060003 | 0.8 | -- | N | AE | 1985 |
| La Roche Brook | Durham, Town of | Confluence with Lamprey River | Approximately 1.7 miles upstream of confluence with Lamprey River | 01060003 | 1.7 | -- | N | A | 2013 |
| Lamprey River | Lee, Town of | Rockingham County boundary | Rockingham County boundary | 01060003 | 8.2 | -- | N | A | 2017 |
| Lamprey River | Durham, Town of | Rockingham County boundary | Town of Durham corporate limit | 01060003 | 3.8 | **--** | Y | AE | 2012 |
| Little Bay | Durham, Town of | At confluence of Great Bay | At confluence of Oyster River | 01060003 | 4.7 | -- | N | AE | 2013 |
| Little River | Barrington, Town of; Lee, Town of; Strafford, Town of | At confluence of Lamprey River | Town of Nottingham corporate limits | 01060003 | 4.1 | -- | N | A | 2017 |
| Little River 3 | Barrington, Town of | Town of Nottingham corporate limits | Points of one square mileage of drainage area | 01060003 | 2.9 | - | N | A | 2017 |
| Littlehale Creek | Durham, Town of | At confluence of Beards Creek | Points of one square mileage of drainage area | 01060003 | 0.3 | -- | N | A | 2013 |
| Longmarsh Brook | Durham, Town of | At confluence of Hamel Brook | At confluence of Gaudette Brook | 01060003 | 0.5 | -- | Y | AE | 1987 |
| Lyman Brook | Milton, Town of | At confluence of Great Brook | Approximately 1.5 miles upstream of confluence with Great Brook | 01060003 | 1.5 | -- | N | A | 2017 |
| Mad River | Farmington, Town of | At confluence of Stream 178 | Points of one square mileage of drainage area | 0106000 | 2.3 | -- | N | A | 2017 |
| Mad River | Farmington, Town of | Confluence with Cocheco River | Hornetown Road | 01060003 | 3.2 | -- | Y | AE | 1985 |
| Mallego Brook | Barrington, Town of | Distances are measured in feet about 300 feet upstream from Barrington-Madbury corporate Limits | Points of one square mileage of drainage area | 01060003 | 5.3 | -- | N | A | 2017 |
| Merrymeeting River | New Durham, Town of | Belknap County boundary | At Lions Camp Pride Way | 01060003 | 8.1 | -- | N | A | 2017 |
| Miller Brook | Milton, Town of | At confluence of Salmon Falls River | Approximately 95 feet upstream of Willey Road | 01060003 | 0.8 | -- | N | A | 2017 |
| Miller Brook | Milton, Town of | Approximately 95 feet upstream of Willey Road | Carroll County boundary | 01060003 | 1.3 | -- | Y | AE | 1985 |
| Mohawk River | Barrington, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 7.0 | -- | N | A | 2017 |
| North River | Lee, Town of | Rockingham County boundary | Rockingham County boundary | 01060003 | 2.0 | -- | N | A | 2017 |
| Oyster River | Lee, Town of; Madbury, Town of | Approximately 885 feet upstream of State Route 155A | Points of one square mileage of drainage area | 01060003 | 2.8 | -- | N | A | 2017 |
| Oyster River | Durham, Town of | At confluence of Little Bay | Approximately 885 feet upstream of State Route 155A | 01060003 | 7.2 | -- | Y | AE | 2012 |
| Peters Marsh Brook | Somersworth, Town of | Points of one square mileage of drainage area | Points of one square mileage of drainage area | 01060003 | 2.4 | -- | N | A | 2017 |
| Pettee Brook | Durham, Town of | Approximately 300 feet upstream of Gables Way | Just upstream of Durham Reservoir Spillway | 01060003 | 0.6 | -- | N | A | 2017 |
| Pettee Brook | Durham, Town of | At confluence with Beards Creek | Just upstream of Durham Reservoir Spillway | 01060003 | 1.4 | -- | N | AE | 1998 |
| Piscataqua River | Dover, City of | Rockingham County boundary | At confluence of Salmon Falls River | 01060003 | 3.8 | -- | N | AE | \* |
| Pookamoonshine Brook | Farmington, Town of | Approximately 100 feet downstream of Henry Wilson Highway | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Reyners Brook | Dover, City of | At confluence of Bellamy River | Approximately 85 feet downstream of Spaulding Turnpike | 01060003 | 1.6 | -- | N | A | 2017 |
| Rickers Brook | Rochester, City of | At confluence of Axe Handle Brook | At confluence of Baxter Lake | 01060003 | 3.4 | -- | N | A | 2017 |
| Rollins Brook | Rollinsford, City of | At confluence of Fresh Creek | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Rollins Brook | Lee, Town of | At confluence of North River | Rockingham County boundary | 01060003 | 0.8 | -- | N | A | 2017 |
| Salmon Falls River | Rollinsford, City of | At confluence of Piscataqua River | Somersworth-Rollinsford corporate limits | 01060003 | 13.1 | -- | N | A | 2017 |
| Salmon Falls River | Milton, Town of; Rochester, City of; Somersworth, City of | Somersworth-Rollinsford corporate limits | Carroll County boundary | 01060003 | 34.8 | -- | Y | AE | 1985 |
| Spruce Brook | Barrington, Town of; Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 3.9 | -- | N | A | 2017 |
| Stream007 | Milton, Town of | At confluence of Dames Brook | Points of one square mileage of drainage area | 01060003 | 0.2 | -- | N | A | 2017 |
| Stream038 | Middleton, Town of; Milton, Town of | At confluence of Jones Brook | Points of one square mileage of Somersworth  drainage area | 01060003 | 3.1 | -- | N | A | 2017 |
| Stream04 | Farmington, Town of;  Milton, Town of | At confluence of Dames Brook | Points of one square mileage of drainage area | 01060003 | 0.6 | -- | N | A | 2017 |
| Stream052 | Milton, Town of | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 01060003 | 1.9 | -- | N | A | 2017 |
| Stream068 | Lee, Town of | Nottingham-Lee corporate limits | Points of one square mileage of drainage area | 01060003 | 0.4 | -- | N | A | 2017 |
| Stream079 | Rochester, City of; Somersworth, City of | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 01060003 | 2.8 | -- | N | A | 2017 |
| Stream142 | Barrington, Town of | At confluence of Bellamy River | Points of one square mileage of drainage area | 01060003 | 6.1 | -- | N | A | 2017 |
| Stream174 | Middleton, Town of; New Durham, Town of | At confluence of Sunrise Lake | Points of one square mileage of drainage area | 01060003 | 2.7 | -- | N | A | 2017 |
| Stream177 | New Durham, Town of | At confluence of Ela River | Points of one square mileage of drainage area | 01060003 | 1.3 | -- | N | A | 2017 |
| Stream178 | Farmington, Town of;  New Durham, Town of | At confluence of Mad River | Points of one square mileage of drainage area | 01060003 | 2.8 | -- | N | A | 2017 |
| Stream179 | Middleton, Town of | At confluence of Branch River | Points of one square mileage of drainage area | 01060003 | 1.8 | -- | N | A | 2017 |
| Stream187 | Farmington, Town of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 0.7 | -- | N | A | 2017 |
| Stream188 | Farmington, Town of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 3.7 | -- | N | A | 2017 |
| Stream203 | Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 1.8 | -- | N | A | 2017 |
| Stream204 | Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 1.6 | -- | N | A | 2017 |
| Stream205 | Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 2.2 | -- | N | A | 2017 |
| Stream206 | Strafford, Town of | At confluence of Stream207 | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Stream207 | Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 4.0 | -- | N | A | 2017 |
| Stream210 | Strafford, Town of | At confluence of Mohawk River | Points of one square mileage of drainage area | 01060003 | 2.6 | -- | N | A | 2017 |
| Stream215 | Strafford, Town of | At confluence of Berrys River | Points of one square mileage of drainage area | 01060003 | 2.2 | -- | N | A | 2017 |
| Stream216 | Strafford, Town of | At confluence of Berrys River | Points of one square mileage of drainage area | 01060003 | 3.3 | -- | N | A | 2017 |
| Stream219 | Rochester, City of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 3.4 | -- | N | A | 2017 |
| Stream222 | Dover, City of Rochester, City of; Somersworth, City of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 5.8 | -- | N | A | 2017 |
| Stream239 | Farmington, Town of | At confluence of Mad River | Points of one square mileage of drainage area | 01060003 | 1.0 | -- | N | A | 2017 |
| Stream279 | Barrington, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Stream293 | Lee, Town of | At confluence of Stream582 | Points of one square mileage of drainage area | 01060003 | 0.3 | -- | N | A | 2017 |
| Stream365 | Lee, Town of | At confluence of Chelsey Brook | Points of one square mileage of drainage area | 01060003 | 0.7 | -- | N | A | 2017 |
| Stream374 | Barrington, Town of; Madbury, Town of | At confluence of Bellamy River | Points of one square mileage of drainage area | 01060003 | 3.4 | -- | N | A | 2017 |
| Stream4 | Lee, Town of;  Nottingham, Town of | At confluence of Stream633 | Points of one square mileage of drainage area | 01060003 | 0.8 | -- | N | A | 2017 |
| Stream555 | Strafford, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 0.4 | -- | N | A | 2017 |
| Stream563 | Lee, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 0.3 | -- | N | A | 2017 |
| Stream567 | Milton, Town of | At confluence of Hart Brook | Points of one square mileage of drainage area | 01060003 | 0.2 | -- | N | A | 2017 |
| Stream568 | Milton, Town of | At confluence of Dames Brook | Points of one square mileage of drainage area | 01060003 | 0.8 | -- | N | A | 2017 |
| Stream569 | Lee, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 0.8 | -- | N | A | 2017 |
| Stream582 | Lee, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.8 | -- | N | A | 2017 |
| Stream593 | Farmington, Town of | At confluence of Berrys River | Points of one square mileage of drainage area | 01060003 | 0.6 | -- | N | A | 2017 |
| Stream606 | Lee, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 1.8 | -- | N | A | 2017 |
| Stream617 | Farmington, Town of | At confluence of Mad River | Points of one square mileage of drainage area | 01060003 | 0.6 | -- | N | A | 2017 |
| Stream622 | Rochester, City of | At confluence of Heath Brook | Points of one square mileage of drainage area | 01060003 | 0.6 | -- | N | A | 2017 |
| Stream624 | Lee, Town of | At confluence of Little River 3 | Points of one square mileage of drainage area | 01060003 | 0.7 | -- | N | A | 2017 |
| Stream630 | New Durham, Town of | At confluence of Ela River | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Stream632 | Somersworth, City of | At confluence of Peters Marsh Brook | Points of one square mileage of drainage area | 01060003 | 0.4 | -- | N | A | 2017 |
| Stream633 | Lee, Town of | At confluence of Little River 3 | Points of one square mileage of drainage area | 01060003 | 1.2 | -- | N | A | 2017 |
| Stream634 | Milton, Town of | At confluence of Jones Brook | Points of one square mileage of drainage area | 01060003 | 0.8 | -- | N | A | 2017 |
| Stream635 | Lee, Town of | At confluence of Oyster River | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Stream638 | New Durham, Town of | At confluence of Hayes Brook | Points of one square mileage of drainage area | 01060003 | 1.5 | -- | N | A | 2017 |
| Stream649 | Strafford, Town of | At confluence of Mohawk River | Points of one square mileage of drainage area | 01060003 | 0.4 | -- | N | A | 2017 |
| Stream652 | Strafford, Town of | At confluence of Stream659 | Points of one square mileage of drainage area | 01060003 | 1.1 | -- | N | A | 2017 |
| Stream654 | Milton, Town of | At confluence of Miller River | Points of one square mileage of drainage area | 01060003 | 1.7 | -- | N | A | 2017 |
| Stream659 | Strafford, Town of | At confluence of Mohawk River | Points of one square mileage of drainage area | 01060003 | 1.8 | -- | N | A | 2017 |
| Stream660 | New Durham, Town of | At confluence of Ela River | Points of one square mileage of drainage area | 01060003 | 1.4 | -- | N | A | 2017 |
| Stream668 | Somersworth, City of | At confluence of Stream079 | Points of one square mileage of drainage area | 01060003 | 1.4 | -- | N | A | 2017 |
| Stream800 | Strafford, Town of | At confluence of Berrys River | Points of one square mileage of drainage area | 01060003 | 0.4 | -- | N | A | 2017 |
| Stream9004 | Lee, Town of | At confluence of Dube Brook | Points of one square mileage of drainage area | 01060003 | 0.8 | -- | N | A | 2017 |
| Stream9249 | Somersworth, City of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 1.3 | -- | N | A | 2017 |
| Stream9256 | Rochester, City of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 1.1 | -- | N | A | 2017 |
| Stream9278 | Barrington, Town of | At confluence of Isinglass River | Points of one square mileage of drainage area | 01060003 | 2.8 | -- | N | A | 2017 |
| Stream9284 | Dover, City of;  Somersworth, City of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 4.0 | -- | N | A | 2017 |
| Stream989 | Farmington, Town of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 1.8 | -- | N | A | 2017 |
| Sunrise Lake | Middleton, Town of | At confluence of Cocheco River | At confluence of Dames Brook | 01060003 | -- | 0.4 | N | A | 2017 |
| Tates Brook | Somersworth, City of | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 01060003 | 2.3 | -- | N | A | 2017 |
| Twombly Brook | Dover, City of; Rollinsford, City of, Somersworth, Town of | At confluence of Fresh Creek | Points of one square mileage of drainage area | 01060003 | 2.5 | -- | N | A | 2017 |
| Wheelwright Pond | Lee, Town of | Entire Shoreline | Entire Shoreline | 01060003 | -- | 0.2 | N | A | 2017 |
| Willand Pond | Dover, City of | Entire Shoreline | Entire Shoreline | 01060003 | -- | 0.1 | N | A | 2017 |
| Willow Brook | Rochester, Town of | At confluence of Cocheco River | Points of one square mileage of drainage area | 01060003 | 3.1 | -- | N | A | 2017 |
| \*Data not available | | | | | | | | | |

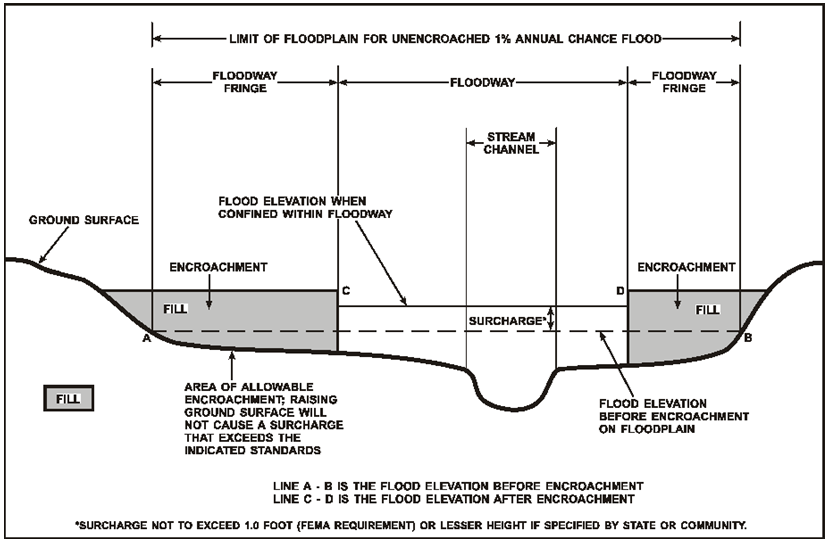
## 2.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard.

For purposes of the NFIP, a floodway is used as a tool to assist local communities in balancing floodplain development against increasing flood hazard. With this approach, the area of the 1-percent-annual-chance floodplain on a river is divided into a floodway and a floodway fringe based on hydraulic modeling. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order to carry the 1-percent-annual-chance flood. The floodway fringe is the area between the floodway and the 1-percent-annual-chance floodplain boundaries where encroachment is permitted. The floodway must be wide enough so that the floodway fringe could be completely obstructed without increasing the water surface elevation of the 1-percent-annual-chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 4.

To participate in the NFIP, federal regulations require communities to limit increases caused by encroachment to 1.0 foot, provided that hazardous velocities are not produced.Regulations for New Hampshire require communities in Strafford County to limit increases caused by encroachment to 1.0 foot and several communities have adopted additional restrictions.The floodways in this project are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway projects.

Figure 4: Floodway Schematic



Floodway widths presented in this FIS Report and on the FIRM were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. For certain stream segments, floodways were adjusted so that the amount of floodwaters conveyed on each side of the floodplain would be reduced equally. The results of the floodway computations have been tabulated for selected cross sections and are shown in Table 24, “Floodway Data.”

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in Figure 3. In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

## 2.3 Base Flood Elevations

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The Base Flood Elevation (BFE) is the elevation of the 1-percent-annual-chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM.

BFEs are primarily intended for flood insurance rating purposes. Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM. For example, the user may use the FIRM to determine the stream station of a location of interest and then use the profile to determine the 1-percent-annual-chance elevation at that location. Because only selected cross sections may be shown on the FIRM for riverine areas, the profile should be used to obtain the flood elevation between mapped cross sections. Additionally, for riverine areas, whole-foot elevations shown on the FIRM may not exactly reflect the elevations derived from the hydraulic analyses; therefore, elevations obtained from the profile may more accurately reflect the results of the hydraulic analysis.

## 2.4 Non-Encroachment Zones

Some states and communities use non-encroachment zones to manage floodplain development. For flooding sources with medium flood risk, field surveys are often not collected and surveyed bridge and culvert geometry is not developed. Standard hydrologic and hydraulic analyses are still performed to determine BFEs in these areas. However, floodways are not typically determined, since specific channel profiles are not developed. To assist communities with managing floodplain development in these areas, a “non-encroachment zone” may be provided. While not a FEMA designated floodway, the non-encroachment zone represents that area around the stream that should be reserved to convey the 1-percent-annual-chance flood event. As with a floodway, all surcharges must fall within the acceptable range in the non-encroachment zone.

General setbacks can be used in areas of lower risk (e.g. unnumbered Zone A), but these are not considered sufficient where unnumbered Zone A is replaced by Zone AE. The NFIP requires communities to ensure that any development in a non-encroachment area causes no increase in BFEs. Communities must generally prohibit development within the area defined by the non-encroachment width to meet the NFIP requirement. Regulations for New Hampshire require communities in Strafford County to limit increases caused by encroachment to 1.0 foot and several communities have adopted additional restrictions for non-encroachment areas.

Non-encroachment determinations may be delineated where it is not possible to delineate floodways because specific channel profiles with bridge and culvert geometry were not developed. Any non-encroachment determinations for this Flood Risk Project have been tabulated for selected cross sections and are shown in Table 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.” Areas for which non-encroachment zones are provided show BFEs and the 1-percent-annual-chance floodplain boundaries mapped as zone AE on the FIRM but no floodways.

## 2.5 Coastal Flood Hazard Areas

This section is not applicable to this Flood Risk Project.

### 2.5.1 Water Elevations and the Effects of Waves

This section is not applicable to this Flood Risk Project.

Figure 5: Wave Runup Transect Schematic

**[Not Applicable to this Flood Risk Project]**

### 2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

This section is not applicable to this Flood Risk Project.

### 2.5.3 Coastal High Hazard Areas

This section is not applicable to this Flood Risk Project.

Figure 6: Coastal Transect Schematic

**[Not Applicable to this Flood Risk Project]**

### 2.5.4 Limit of Moderate Wave Action

This section is not applicable to this Flood Risk Project.

# SECTION 3.0 – INSURANCE APPLICATIONS

## 3.1 National Flood Insurance Program Insurance Zones

For flood insurance applications, the FIRM designates flood insurance rate zones as described in Figure 3, “Map Legend for FIRM.” Flood insurance zone designations are assigned to flooding sources based on the results of the hydraulic or coastal analyses. Insurance agents use the zones shown on the FIRM and depths and base flood elevations in this FIS Report in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

The 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (e.g. Zones A, AE, V, VE, etc.), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood insurance zones in Stafford County.

Table 3: Flood Zone Designations by Community

| Community | Flood Zone(s) |
| --- | --- |
| Barrington, Town of | A, X |
| Dover, City of | A, AE, AO, X |
| Durham, Town of | A, AE, X |
| Farmington, Town of | A, AE, X |

| **Table 3: Flood Zone Designations by Community (continued)** | |
| --- | --- |
| Community | Flood Zone(s) |
| Lee, Town of | A, AE, X |
| Madbury, Town of | A, AE, X |
| Middleton, Town of | A, X |
| Milton, Town of | A, AE, X |
| New Durham, Town of | A, AE, X |
| Rochester, City of | A, AE, X |
| Rollinsford, Town of | A, X |
| Somersworth, City of | A, AE, X |
| Strafford, Town of | A, AE, X |

## 3.2 Coastal Barrier Resources System

This section is not applicable to this Flood Risk Project.

Table 4: Coastal Barrier Resources System Information

**[Not Applicable to this Flood Risk Project]**

# SECTION 4.0 – AREA STUDIED

## 4.1 Basin Description

Table 5 contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its drainage area.

Table 5: Basin Characteristics

| HUC-8 Sub-Basin Name | HUC-8  Sub-Basin Number | Primary Flooding Source | Description of Affected Area | Drainage Area (square miles) |
| --- | --- | --- | --- | --- |
| Merrimack River | 01070006 | Merrimack River | The Merrimack River watershed stretches from central New Hampshire into Northeastern Massachusetts. | 1,801 |

| **Table 5: Basin Characteristics (continued)** | | | | |
| --- | --- | --- | --- | --- |
| HUC-8 Sub-Basin Name | HUC-8  Sub-Basin Number | Primary Flooding Source | Description of Affected Area | Drainage Area (square miles) |
| Piscataqua-Salmon Falls | 01060003 | Exeter River | The watershed is bordered by the Saco River, Winnipesaukee River, and Merrimack River Watersheds. The topography of the area is primarily flat coastal plains to the east with more hilly terrain to the west. At its outlet, the Piscataqua-Salmon Falls River drainage area measures approximately 944.47 square miles. Development within Strafford and Rockingham counties is primarily residential. | 1,621 |
| Winnipesaukee River | 01070002 | Winnipesaukee River | The Winnipesaukee River Watershed is centrally located over the Lakes Region of the state. The watershed is primarily rural, with small urban centers in Laconia and Franklin. | 486 |

## 4.2 Principal Flood Problems

Table 6 contains a description of the principal flood problems that have been noted for Stafford Countyby flooding source.

Table 6: Principal Flood Problems

| Flooding Source | Description of Flood Problems |
| --- | --- |
| All Flood Sources | Flooding in Strafford County historically has occurred in every season. Floods occurring during the mid-summer and late summer are often associated with tropical storms moving up the Atlantic coastline. The more severe flooding occurs in early spring as a result of snowmelt and heavy rains.  Ice and debris jams occurring at culverts, bridges, and other debris-catching structures, especially along the Cocheco River, have helped to compound flooding in the county. |
| Ela River, Great Bay and Oyster River | Low-lying areas adjacent to the Ela River, Great Bay and tidal portions of the Oyster River are subject to periodic flooding. However, little significant damage occurs in these areas due to the general absence of buildings and other structures. |

Table 7 contains information about historic flood elevations in the communities within Stafford County.

Table 7: Historic Flooding Elevations

| Flooding Source | Location | Historic Peak (Feet NAVD88) | Event Date | Approximate Recurrence Interval (years) | Source of Data |
| --- | --- | --- | --- | --- | --- |
| Bellamy River | \* | \* | 1977 | 14 | FEMA 2015 |
| Cocheco River | \* | \* | 1986 | 100 | FEMA 2015 |
| Lamprey River | Packers Falls | \* | 1936 | 25 | USGS gage |
| Lamprey River | Packers Falls | \* | 1987 | 100 | USGS gage |
| Salmon Falls River | \* | \* | 1936 | 50 | FEMA 2015 |
| \*Data not available | | | | | |

## 4.3 Non-Levee Flood Protection Measures

Table 8 contains information about non-levee flood protection measures within Stafford County such as dams, jetties, and or dikes. Levees are addressed in Section 4.4 of this FIS Report.

Table 8: Non-Levee Flood Protection Measures

| Flooding Source | Structure Name | Type of Measure | Location | Description of Measure |
| --- | --- | --- | --- | --- |
| Bellamy Reservoir | N/A | Reservoir | City of Portsmouth | The flood storage available due to the 362-acre normal pool, coupled with the two-stage weir outlet structure, reduces downstream flows by nearly 50 percent. |
| Cocheco River | N/A | Dike | Between Central Street and South Main Street | In 1955, channel improvements consisted of straightening and enlarging 3,100 feet and construction of 3,000 feet of dike along the left bank was completed by the U.S. Army Corps of Engineers (USACE 1955). |
| Cocheco River | N/A | Dike | Left bank downstream of South Main Street bridge | In 1958, 200 feet of dike was constructed along the left bank downstream of South Main Street. |
| Mad River | N/A | Channel Modifications | Between Central Street and South Main Street | In 1955, straightening and enlarging 600 feet was completed by the U.S. Army Corps of Engineers (USACE 1955). |

## 4.4 Levees

For purposes of the NFIP, FEMA only recognizes levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with comprehensive floodplain management criteria. The Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10) describes the information needed for FEMA to determine if a levee system reduces the risk from the 1% annual chance flood. This information must be supplied to FEMA by the community or other party when a flood risk study or restudy is conducted, when FIRMs are revised, or upon FEMA request. FEMA reviews the information for the purpose of establishing the appropriate FIRM flood zone.

Levee systems that are determined to reduce the risk from the 1% annual chance flood are accredited by FEMA. FEMA can also grant provisional accreditation to a levee system that was previously accredited on an effective FIRM and for which FEMA is awaiting data and/or documentation to demonstrate compliance with Section 65.10. These levee systems are referred to as Provisionally Accredited Levees, or PALs. Provisional accreditation provides communities and levee owners with a specified timeframe to obtain the necessary data to confirm the levee’s certification status.

Accredited levee systems and PALs are shown on the FIRM using the symbology shown in Figure 3 and in Table 9. If the required information for a PAL is not submitted within the required timeframe, or if information indicates that a levee system no longer meets Section 65.10, FEMA will de-accredit the levee system and issue an effective FIRM showing the levee-impacted area as a SFHA.

FEMA coordinates its programs with USACE, who may inspect, maintain, and repair levee systems. The USACE has authority under Public Law 84-99 to supplement local efforts to repair flood control projects that are damaged by floods. Like FEMA, the USACE provides a program to allow public sponsors or operators to address levee system maintenance deficiencies. Failure to do so within the required timeframe results in the levee system being placed in an inactive status in the USACE Rehabilitation and Inspection Program. Levee systems in an inactive status are ineligible for rehabilitation assistance under Public Law 84-99.

FEMA coordinated with the USACE, the local communities, and other organizations to compile a list of levees that exist within Strafford County. Table 9, “Levees,” lists all accredited levees, PALs, and de-accredited levees shown on the FIRM for this FIS Report. Other categories of levees may also be included in the table. The Levee ID shown in this table may not match numbers based on other identification systems that were listed in previous FIS Reports. Levees identified as PALs in the table are labeled on the FIRM to indicate their provisional status.

Please note that the information presented in Table 9 is subject to change at any time. For that reason, the latest information regarding any USACE structure presented in the table should be obtained by contacting USACE and accessing the USACE national levee database. For levees owned and/or operated by someone other than the USACE, contact the local community shown in Table 31.

Table 9: Levees

| Community | Flooding Source | Levee Location | Levee Owner | USACE Levee | Levee ID | Covered Under  PL84-99  Program? | FIRM Panel(s) | Levee Status |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Town of Farmington | Cocheco River | Left Bank | Town of Farmington | Yes | 4304000007 | Y | 33017C0114E  33017C0118E | Accredited |

# SECTION 5.0 – ENGINEERING METHODS

For the flooding sources in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded at least once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2-percent-annual-chance, respectively, of being equaled or exceeded during any year.

Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than one year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

The engineering analyses described here incorporate the results of previously issued Letters of Map Change (LOMCs) listed in Table 27, “Incorporated Letters of Map Change”, which include Letters of Map Revision (LOMRs). For more information about LOMRs, refer to Section 6.5, “FIRM Revisions.”

## 5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak elevation-frequency relationships for floods of the selected recurrence intervals for each flooding source studied. Hydrologic analyses are typically performed at the watershed level. Depending on factors such as watershed size and shape, land use and urbanization, and natural or man-made storage, various models or methodologies may be applied. A summary of the hydrologic methods applied to develop the discharges used in the hydraulic analyses for each stream is provided in Table 13. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

A summary of the discharges is provided in Table 10. Frequency Discharge-Drainage Area Curves used to develop the hydrologic models may also be shown in Figure 7 for selected flooding sources. A summary of stillwater elevations developed for non-coastal flooding sources is provided in Table 11. (Coastal stillwater elevations are discussed in Section 5.3 and shown in Table 17.) Stream gage information is provided in Table 12.

Table 10: Summary of Discharges

|  |  |  | Peak Discharge (cfs) | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Flooding Source | Location | Drainage Area (Square Miles) | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Bellamy River | At State Route 108 in Dover | 26.21 | 910 | \* | 1,940 | 2,440 | 3,690 |
| Bellamy River | At Bellamy Road in Dover | 25.40 | 910 | \* | 1,940 | 2,440 | 3,690 |
| Bellamy River | At Dover-Madbury corporate limits | 24.22 | 910 | \* | 1,940 | 2,440 | 3,690 |
| Branch River | At confluence of Salmon Falls River | 57.0 | 2,050 | \* | 3,270 | 3,930 | 5,500 |
| Branch River | Upstream of confluence of Jones Brook | 54.6 | 1,295 | \* | 2,055 | 2,470 | 3,600 |
| Cocheco River | At Central Avenue in Dover | 173.45 | 6,330 | \* | 11,140 | 13,560 | 19,110 |
| Cocheco River | At Fourth Street in Dover | 173.15 | 6,330 | \* | 11,140 | 13,560 | 19,110 |
| Cocheco River | At Whittier Street in Dover | 171.30 | 6,330 | \* | 11,140 | 13,560 | 19,110 |
| Cocheco River | At England Road in Rochester | 73.6 | 3,160 | \* | 5,100 | 6,120 | 9,580 |
| Cocheco River | At Spaulding Turnpike | 56.1 | 2,300 | \* | 3,720 | 4,460 | 6,650 |
| Cocheco River | At North Main Street | 53.6 | 2,260 | \* | 3,660 | 4,400 | 6,500 |
| Cocheco River | At Little Falls Bridge Road | 50.4 | 2,150 | \* | 3,530 | 4,240 | 6,250 |

| **Table 10: Summary of Discharges (continued)** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Peak Discharge (cfs) | | | | |
| Flooding Source | Location | Drainage Area (Square Miles) | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Cocheco River | At Farmington-Rochester corporate limits | 50.0 | 2,150 | \* | 3,530 | 4,240 | 6,250 |
| Cocheco River | Upstream of confluence of Mad River | 23.4 | 1,610 | \* | 2,900 | 3,560 | 5,440 |
| Cocheco River | Upstream of confluence of Ela River | 13.7 | 910 | \* | 1,630 | 2,010 | 3,100 |
| College Brook | Above At confluence of Oyster River | 0.91 | 100 | \* | 150 | 170 | 240 |
| College Brook | Above railroad crossing | 0.65 | 75 | \* | 110 | 130 | 180 |
| Dames Brook | At confluence of Cocheco River | 5.8 | 380 | \* | 700 | 860 | 1,320 |
| Ela River | At confluence of Cocheco River | 9.5 | 480 | \* | 840 | 1,020 | 1,560 |
| Ela River | At Old Quaker Road | 8.0 | \* | \* | \* | 570 | \* |
| Ela River | At Club Pond Dam | 2.7 | \* | \* | \* | 900 | \* |
| Kicking Horse Brook | At confluence of Dames Brook | 0.6 | 40 | \* | 80 | 105 | 175 |
| Kicking Horse Brook | At Bunker Street | 0.45 | 30 | \* | 60 | 80 | 120 |
| Lamprey River | At MacCallen Dam1 | 212 | 4,320 | \* | 7,320 | 8,920 | 13,600 |
| Lamprey River | At confluence of Longmarsh Brook1 | 188 | 3,840 | \* | 6,510 | 7,940 | 12,100 |
| Lamprey River | At confluence of Woodman Brook | 186 | 4,740 | \* | 8,030 | 9,790 | 14,900 |
| Lamprey River | At USGS Streamgage No. 01073500 | 185 | 4,720 | \* | 7,990 | 9,740 | 14,900 |
| Lamprey River | At Wiswall Dam | 184 | 4,690 | \* | 7,950 | 9,690 | 14,800 |
| Mad River | At confluence of Cocheco River | 9.7 | 710 | \* | 1,320 | 1,630 | 2,550 |
| Mad River | Upstream of Brook C | 8.3 | 620 | \* | 1,160 | 1,440 | 2,280 |
| Mad River | Approximately 0.93 miles upstream of Brook C | 7.6 | 560 | \* | 1,050 | 1,300 | 2,045 |
| Mad River | Upstream of Brook B | 4.6 | 330 | \* | 620 | 760 | 1,200 |
| Miller Brook | At confluence of Salmon Falls River | 3.1 | 210 | \* | 370 | 440 | 660 |
| Oyster River | At Route 108 Bridge | 20.4 | 1,060 | \* | 1,720 | 2,050 | 2,960 |
| Oyster River | At confluence of College Brook | 20.3 | 1,060 | \* | 1,710 | 2,030 | 2,940 |
| Oyster River | At confluence of Long Marsh Brook | 19.0 | 990 | \* | 1,600 | 1,910 | 2,750 |
| Oyster River | At Durham Reservoir Dam | 17.0 | 890 | \* | 1,430 | 1,700 | 2,460 |
| Oyster River | At confluence of Chesley Brook | 15.6 | 810 | \* | 1,310 | 1,560 | 2,260 |
| Oyster River | At Lee/Durham town boundary | 13.9 | 730 | \* | 1,170 | 1,400 | 2,020 |
| Oyster River | At USGS Streamgage No. 01073000 | 12.3 | 640 | \* | 1,030 | 1,230 | 1,780 |
| Pettee Brook | Above Edgewood Road | 0.80 | 60 | \* | 90 | 105 | 145 |
| Pettee Brook | Above UNH Parking Lot “A” | 0.66 | 50 | \* | 80 | 90 | 125 |
| Salmon Falls River | At Buffumsville Road | 234.7 | 4,600 | \* | 7,460 | 9,000 | 13,800 |
| Salmon Falls River | At Walnut Grove Road | 148.6 | 3,360 | \* | 5,450 | 6,570 | 10,080 |
| Salmon Falls River | At Spaulding Avenue | 130.5 | 3,050 | \* | 4,940 | 5,960 | 9,150 |
| Salmon Falls River | At Milton-Rochester corporate limits | 117.3 | 3,030 | \* | 4,700 | 5,500 | 7,960 |
| Salmon Falls River | At USGS gage (01072100) in Milton downstream of Milton Three Ponds Dam | 108.0 | 2,930 | \* | 4,500 | 5,290 | 7,490 |
| Salmon Falls River | Upstream of confluence of Branch River | 41.5 | 1,430 | \* | 2,200 | 2,580 | 3,660 |
| Salmon Falls River | Upstream of confluence of Miller Brook | 28.7 | 1,080 | \* | 1,660 | 1,960 | 2,770 |
| \*Not calculated for this Flood Risk Project  1Due to diversion to Oyster River (dam located in Rockingham County) | | | | | | | |

Figure 7: Frequency Discharge-Drainage Area Curves

**[Not Applicable to this Flood Risk Project]**

Table 11: Summary of Non-Coastal Stillwater Elevations

|  |  | Elevations (feet NAVD88) | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Flooding Source | Location | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Bow Lake | At Bow Lake Dam (routed) | \* | \* | \* | 516.4 | \* |
| Club Pond | For its entire shoreline within the Town of New Durham | \* | \* | \* | 533.4 | \* |
| Little Bay and Oyster River | Downstream of Mill Pond Dam within the Town of Durham | 5.7 | 6.2 | \* | 6.4 | 7.0 |
| Piscataqua River | From confluence of Cocheco River to Rockingham County boundary | \* | \* | \* | 8.3 | \* |
| \*Not calculated for this Flood Risk Project | | | | | | |

Table 12: Stream Gage Information used to Determine Discharges

| Flooding Source | Gage Identifier | Agency that Maintains Gage | Site Name | Drainage Area (Square Miles) | Period of Record | |
| --- | --- | --- | --- | --- | --- | --- |
| From | To |
| Lamprey River | 01073500 | USGS | Lamprey River near Newmarket, NH | 185 | 1934 | 2011 |
| Oyster River | 01073000 | USGS | Oyster River near Durham, NH | 12.1 | 1934 | 2011 |
| Salmon Falls River | 01072100 | USGS | Salmon Falls River at Milton, NH | 108 | \* | \* |
| Salmon Falls River | 01072500 | USGS | Salmon Falls River near South Lebanon, ME | 140 | 1930 | 1969 |
| \*Data not available | | | | | | |

## 5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Base flood elevations on the FIRM represent the elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations. These whole-foot elevations may not exactly reflect the elevations derived from the hydraulic analyses. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM. The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

For streams for which hydraulic analyses were based on cross sections, locations of selected cross sections are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 6.3), selected cross sections are also listed in Table 24, “Floodway Data.”

A summary of the methods used in hydraulic analyses performed for this project is provided in Table 13. Roughness coefficients are provided in Table 14. Roughness coefficients are values representing the frictional resistance water experiences when passing overland or through a channel. They are used in the calculations to determine water surface elevations. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

Table 13: Summary of Hydrologic and Hydraulic Analyses

| Flooding Source | Study Limits  Downstream Limit | Study Limits  Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Axe Handle Brook | At confluence of Cocheco River | At confluence of Rickers Brook | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Beards Creek | At confluence of Oyster River | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Beaver Brook | Belknap County boundary | Just downstream of Kings Highway | \* | HEC-RAS | 2013 | A |  |
| Bellamy River | Town of Dover Corporate limits | At confluence of Swain’s Lake | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Bellamy River | Approximately 900 feet downstream of the confluence with Canney Brook | Approximately 0.2 miles upstream of Durham Road | \* | HEC-RAS | 2013 | A |  |
| Bellamy River | Approximately 0.2miles upstream of Durham Road | Town of Dover Corporate limits | SCS TR-20 | SCS WSP-2 | 1978 | AE w/ Floodway | Discharge-frequency data were developed using an SCS synthetic rainfall-runoff procedure based on regionalized climatological data coupled with individual stream physical characteristics for input into the SCS TR-20 computer program (USDA 1983).  Water-surface elevations were computed using SCS WSP-2 step-backwater computer program (USDA 1976). |

| **Table 13: Summary of Hydrologic and Hydraulic Analyses (continued)** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Flooding Source | Study Limits  Downstream Limit | Study Limits  Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
| Bellamy River | At confluence of Little Harbor | Approximately 0.2miles upstream of Durham Road | SCS TR-20 | SCS WSP-2 | 1978 | AE | Discharge-frequency data were developed using an SCS synthetic rainfall-runoff procedure based on regionalized climatological data coupled with individual stream physical characteristics for input into the SCS TR-20 computer program (USDA 1983).  Water-surface elevations were computed using SCS WSP-2 step-backwater computer program (USDA 1976).  The flood hazard information was redelineated based on updated topographic data on the tidal portion of Bellamy River in the 2015 revision. No new flood hazard analysis was performed. |
| Berrys River | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Big River | Belknap County boundary | Approximately 0.8 miles upstream of the Town of Farmington corporate limits | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Blackwater Brook | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Bow Lake | Entire Shoreline | Entire Shoreline | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2000 | AE | Portion of the flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| Branch River | Carroll County boundary | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Branch River | At confluence of Salmon Falls River | Carroll County boundary | USGS Regression Equations | HEC-2 | 1985 | AE w/ Floodway |  |
| Bunker Creek | At confluence of Oyster River | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Caldwell Brook | At confluence of Dube Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Canney Brook | At confluence of Bellamy River | At Dover Point Road | \* | HEC-RAS | 2013 | A |  |
| Chelsey Brook | At confluence of Oyster River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Clark Brook | At confluence of Blackwater Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Club Pond | Entire Shoreline | Entire Shoreline | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 1989 | AE | Portion of the flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| Cocheco River | At confluence of Salmon Falls River | At confluence of Sunrise Lake | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Cocheco River | At confluence of Piscataqua River | Approximately 1.2 miles upstream of confluence of Piscataqua River | \* | HEC-RAS | 2013 | A |  |
| Cocheco River | Approximately 0.5 miles downstream of Washington Street Footbridge | Whittier Street | SCS TR-20 | SCS WSP-2 | 1978 | AE w/ Floodway | The flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| Cocheco River | At Dover-Rochester corporate limits | Approximately 855 feet upstream of the confluence of Willow Brook | USGS Regional Equations | HEC-2 | 1981 | AE w/ Floodway | The flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| Cocheco River | At confluence of Axe Handle Brook | Approximately 570 feet upstream of Bridge Street | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | AE w/ Floodway |  |
| Cocheco River | Approximately 310 feet downstream of North Main Street | Approximately 0.7 miles upstream of confluence of Ela River | USGS Regional Equations | HEC-2 | 1985 | AE w/ Floodway | The flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| College Brook | At Colovose Road | Approximately 0.1 mile upstream of State Route 155A | Regression Equations | HEC-RAS | 2012 | AE |  |
| College Brook | At Main Street | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Crommet Creek | At confluence of Great Bay | Approximately 90 feet upstream of Dame Road | \* | HEC-RAS | 2013 | A |  |
| Dames Brook | At confluence of Cocheco River | At confluence of Sunrise Lake | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Dames Brook | At confluence of Cocheco River | At confluence of Kicking Horse Brook | USGS Regression Equations | HEC-2 | 1985 | AE w/ Floodway | The flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| Dube Brook | At confluence of Oyster River | At confluence of Caldwell Brook | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Durham Reservoir | At confluence of Pettee Brook | At confluence of Pettee Brook | \* | HEC-RAS | 2013 | A |  |
| Ela River | At confluence of Club Pond | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Ela River | At confluence of Club Pond | At confluence of Stream660 | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | AE |  |
| Ela River | At confluence with Cocheco River | Approximately 1000 feet downstream from the New Durham Border | USGS Regression Equations | HEC-2 | 1985 | AE w/ Floodway | The flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| Ellison Brook | Points of one square mileage of drainage area | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Follets Brook | Rockingham County Boundary | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Garvin Brook | At confluence of Salmon Falls River | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Gerrish Brook | At confluence of Johnson Creek | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Great Bay | At confluence of Atlantic Ocean | At confluence of Crommet Creek | 1-D storm surge model | 1-D storm surge model | \* | AE | The flood levels were based on an FIS for the Town of Exeter, in which hydraulic analyses of the inland propagation of the storm surge were performed using a one-dimensional (1-D) storm surge model (FEMA, May 1982).  The flood hazard information was redelineated based on newly developed topographic data in the 2013 revision. No new flood hazard analysis was performed. |
| Great Brook | At confluence of Salmon Falls River | At confluence of Lyman Brook | USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Hall Brook | At confluence of Spruce Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Hamel Brook | At confluence of Oyster River | At confluence of Longmarsh Brook | SCS TR-20 | \* | 1987 | AE | The flood hazard information was redelineated based on newly developed topographic data in the 2013 revision. No new flood hazard analysis was performed. |
| Hart Brook | At confluence of Jones Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Hayes Brook | At confluence of Cocheco River | At confluence of Marchs Pond | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Heath Brook | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Isinglass River | At confluence of Cocheco River | Approximately 3600 feet upstream from Webber Road | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Johnson Creek | At confluence of Oyster River | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Jones Brook | At confluence of Branch River | At confluence of Horn Brook | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Kicking Horse Brook | At confluence of Dames Brook | Approximately 300 feet downstream of Charles Street | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 1985 | AE | The flood hazard information was redelineated based on newly developed topographic data in the 2017 revision. No new flood hazard analysis was performed. |
| La Roche Brook | Confluence with Lamprey River | Approximately 1.7 miles upstream of confluence with Lamprey River | \* | HEC-RAS | 2013 | A |  |
| Lamprey River | Rockingham County boundary | Rockingham County boundary | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Lamprey River | Rockingham County boundary | Limit of Study | Log-Pearson Type III | HEC-RAS 4.1.0 | 2012 | AE w/ Floodway |  |
| Little Bay | At confluence of Great Bay | At confluence of Oyster River | \* | HEC-RAS 4.1.0 | 2013 | AE |  |
| Little River | At confluence of Lamprey River | Town of Nottingham corporate limits | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Little River 3 | Town of Barrington corporate limits | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Littlehale Creek | At confluence of Beards Creek | Points of one square mileage of drainage area | \* | HEC-RAS | 2013 | A |  |
| Longmarsh Brook | At confluence of Oyster River | At confluence of Longmarsh Brook | SCS TR-20 | \* | 1987 | AE | The flood hazard information was redelineated based on newly developed topographic data in the 2013 revision. No new flood hazard analysis was performed. |
| Lyman Brook | At confluence with Great Brook | Approximately 1.5 miles upstream of confluence with Great Brook | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Mad River | At confluence of Stream 178 | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Mad River | At confluence with Cocheco River | At confluence of Stream 178 | USGS Regional Equations | HEC-2 | 1985 | AE w/ Floodway |  |
| Mallego Brook | Distances are measured in feet about 300 feet upstream from Barrington-Madbury Corporate Limits | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Merrymeeting River | Belknap County boundary | Belknap County boundary | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Miller Brook | Approximately 95 feet upstream of Willey Road | Carroll County boundary | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Miller Brook | At confluence of Salmon Falls River | Approximately 95 feet upstream of Willey Road | USGS Regional Equations | HEC-2 | 1985 | AE w/ Floodway |  |
| Mohawk River | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| North River | Rockingham County boundary | Rockingham County boundary | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Oyster River | Approximately 885 feet upstream of State Route 155A | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Oyster River | At confluence of Little Bay | Approximately 885 feet upstream of State Route 155A | Log-Pearson Type III | HEC-RAS 4.1.0 | 2012 | AE w/ Floodway |  |
| Peters Marsh Brook | At confluence with Salmon Falls River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Pettee Brook | Approximately 300 feet upstream of Gables Way | Just upstream of Durham Reservoir Spillway | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Pettee Brook | Approximately 300 feet upstream of Gables Way | Just upstream of Durham Reservoir Spillway | USGS Regional Regression Equations | HEC-2 | 1998 | AE | The flood hazard information was redelineated based on newly developed topographic data in the 2013 revision. No new flood hazard analysis was performed. |
| Piscataqua River | Rockingham County boundary | At confluence of Salmon Falls River | 1-D storm surge model | 1-D storm surge model | \* | AE | The flood levels were based on an FIS for the Town of Exeter, in which hydraulic analyses of the inland propagation of the storm surge were performed using a one-dimensional (1-D) storm surge model (FEMA, May 1982).  The flood hazard information was redelineated based on newly developed topographic data in the 2013 revision. No new flood hazard analysis was performed. |
| Pookamoonshine Brook | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Reyners Brook | At confluence of Bellamy River | Approximately 85 feet downstream of Spaulding Turnpike | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Rickers Brook | At confluence of Axe Handle Brook | At confluence of Baxter Lake | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Rollins Brook | At confluence of Fresh Creek | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Rollins Brook | At confluence of North River | Rockingham County boundary | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Salmon Falls River | At confluence with Piscataqua River | Somersworth-Rollinsford corporate limits | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Salmon Falls River | Somersworth-Rollinsford corporate limits | Carroll County boundary | Log-Pearson Type III | HEC-2 | 2013 | AE w/ Floodway | The flood hazard information was redelineated based on newly developed topographic data in the 2013 revision. No new flood hazard analysis was performed. |
| Spruce Brook | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream007 | At confluence of Dames Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream038 | At confluence of Jones Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream04 | At confluence of Dames Brook | Town of Milton corporate limits | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream052 | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream068 | Nottingham corporate limits | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream079 | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream142 | At confluence of Bellamy River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream174 | At confluence of Sunrise Lake | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream177 | At confluence of Ela River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream178 | At confluence of Mad River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream179 | At confluence of Branch River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream187 | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream188 | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream203 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream204 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream205 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream206 | At confluence of Stream207 | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream207 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream210 | At confluence of Mohawk River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream215 | At confluence of Berrys River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream216 | At confluence of Berrys River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream219 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream239 | At confluence of Mad River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream279 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream293 | At confluence of Stream582 | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream365 | Durham corporate limits | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream374 | At confluence of Bellamy River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream4 | At confluence of Stream633 | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream555 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream563 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream567 | At confluence of Hart Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream568 | At confluence of Dames Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream569 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream582 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream593 | At confluence of Berrys River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream606 | At confluence of North River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream617 | At confluence of Mad River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream622 | At confluence of Heath Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | AE |  |
| Stream624 | At confluence of Little River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream630 | At confluence of Ela River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream630 |  |  |  |  |  |  |  |
| Stream 632 | At confluence of Peters Marsh Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream633 | At confluence of Little River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream634 | At confluence of Jones Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream635 | At confluence of Oyster River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream638 | At confluence of Hayes Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream649 | At confluence of Mohawk River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream652 | At confluence of Stream659 | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream654 | At confluence of Miller River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream659 | At confluence of Mohawk River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream660 | At confluence of Ela River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream668 | At confluence of Stream079 | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream800 | At confluence of Berrys River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream9004 | At confluence of Caldwell Brook | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream9249 | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream9256 | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream9278 | At confluence of Isinglass River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream9284 | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Stream989 | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Sunrise Lake | At confluence of Cocheco River | At confluence of Dames Brook | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Tates Brook | At confluence of Salmon Falls River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Twombly Brook | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Wheelwright Pond | At confluence of Dube Brook | Entire shoreline | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| Willand Pond | Entire Shoreline | Entire Shoreline | \* | HEC-RAS | 2013 | A |  |
| Willow Brook | At confluence of Cocheco River | Points of one square mileage of drainage area | 2008 USGS Regression Equations – Region 1 | HEC-RAS 4.1 | 2017 | A |  |
| \*Data not available | | | | | | | |

Table 14: Roughness Coefficients

| Flooding Source | Channel “n” | Overbank “n” |
| --- | --- | --- |
| Bellamy River | 0.035-0.065 | 0.050-0.120 |
| Branch River | 0.030-0.040 | 0.040-0.120 |
| Cocheco River | 0.024-0.055 | 0.050-0.200 |
| College Brook | 0.030-0.050 | 0.020-0.060 |
| Dames Brook | 0.030-0.036 | 0.065-0.120 |
| Ela River | 0.035-0.070 | 0.070-0.120 |
| Kicking Horse Brook | 0.013-0.065 | 0.020-0.120 |
| Lamprey River | 0.040-0.065 | 0.050-0.100 |
| Lamprey River Diversion | 0.025-0.070 | 0.060-0.120 |
| Mad River | 0.030-0.055 | 0.060-0.120 |
| Miller Brook | 0.032-0.050 | 0.050-0.090 |
| Oyster River | 0.020-0.050 | 0.040-0.010 |
| Pettee Branch | 0.020-0.070 | 0.020-0.060 |
| Salmon Falls River | 0.029-0.070 | 0.035-0.150 |

## 5.3 Coastal Analyses

This section is not applicable to this Flood Risk Project.

Table 15: Summary of Coastal Analyses

**[Not Applicable to this Flood Risk Project]**

### 5.3.1 Total Stillwater Elevations

This section is not applicable to this Flood Risk Project.

Figure 8: 1-Percent-Annual-Chance Total Stillwater Elevations for Coastal Areas

**[Not Applicable to this Flood Risk Project]**

Table 16: Tide Gage Analysis Specifics

**[Not Applicable to this Flood Risk Project]**

### 5.3.2 Waves

This section is not applicable to this Flood Risk Project.

### 5.3.3 Coastal Erosion

This section is not applicable to this Flood Risk Project.

### 5.3.4 Wave Hazard Analyses

This section is not applicable to this Flood Risk Project.

Table 17: Coastal Transect Parameters

**[Not Applicable to this Flood Risk Project]**

Figure 9: Transect Location Map

**[Not applicable to this Flood Risk Project]**

## 5.4 Alluvial Fan Analyses

This section is not applicable to this Flood Risk Project.

Table 18: Summary of Alluvial Fan Analyses

**[Not Applicable to this Flood Risk Project]**

Table 19: Results of Alluvial Fan Analyses

**[Not Applicable to this Flood Risk Project]**

# SECTION 6.0 – MAPPING METHODS

## 6.1 Vertical and Horizontal Control

All FIS Reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS Reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the completion of the North American Vertical Datum of 1988 (NAVD88), many FIS Reports and FIRMs are now prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS Report and on the FIRMs are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between NGVD29 and NAVD88 or other datum conversion, visit the National Geodetic Survey website at [www.ngs.noaa.gov](https://www.ngs.noaa.gov/).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the archived project documentation associated with the FIS Report and the FIRMs for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks in the area, please visit the NGS website at [www.ngs.noaa.gov](https://www.ngs.noaa.gov/).

The datum conversion locations and values that were calculated for Strafford County are provided in Table 20.

Table 20: Countywide Vertical Datum Conversion

| Quadrangle Name | Quadrangle Corner | Latitude | Longitude | Conversion from NGVD29 to NAVD88 (feet) |
| --- | --- | --- | --- | --- |
| Baxter Lake | SE | -71.000 | 43.250 | -0.6 |
| Baxter Lake | SW | -71.125 | 43.250 | -0.6 |
| Dover West | SE | -70.875 | 43.125 | -0.8 |
| Dover West | SW | -71.000 | 43.125 | -0.7 |
| Dover West | NE | -70.875 | 43.250 | -0.7 |
| Farmington | SE | -70.999 | 43.375 | -0.6 |
| Farmington | SW | -71.125 | 43.375 | -0.5 |
| Farmington | NE | -70.999 | 43.500 | -0.5 |
| Farmington | NW | -71.125 | 43.500 | -0.5 |
| Parker Mountain | SW | -71.249 | 43.250 | -0.6 |
| Average Conversion from NGVD29 to NAVD88 = -0.6 feet | | | | |

Table 21: Stream-Based Vertical Datum Conversion

**[Not Applicable to this Flood Risk Project]**

## 6.2 Base Map

The FIRMs and FIS Report for this project have been produced in a digital format. The flood hazard information was converted to a Geographic Information System (GIS) format that meets FEMA’s FIRM Database specifications and geographic information standards. This information is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community. The FIRM Database includes most of the tabular information contained in the FIS Report in such a way that the data can be associated with pertinent spatial features. For example, the information contained in the Floodway Data table and Flood Profiles can be linked to the cross sections that are shown on the FIRMs. Additional information about the FIRM Database and its contents can be found in FEMA’s *Guidelines and Standards for Flood Risk Analysis and Mapping*, [www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping](https://www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping).

Base map information shown on the FIRM was derived from the sources described in Table 22.

Table 22: Base Map Sources

| Data Type | Data Provider | Data Date | Data Scale | Data Description |
| --- | --- | --- | --- | --- |
| Digital Orthophoto | U.S. Geological Survey | 2015 | 1 foot GSD | High resolution orthoimages for New Hampshire |
| General Structures | New Hampshire Department of Transportation | 2010 and 2017 | 1:12,000 | Major and significant NFHL recorded structures |
| Political boundaries | Earth Systems Research Center, University of New Hampshire | 1992 and 2016 | \* | New Hampshire municipal and county boundaries |
| Political boundaries | Earth Systems Research Center, University of New Hampshire | 2013 and 2016 | \* | New Hampshire Conservation/Public Lands |
| Political boundaries | Earth Systems Research Center, University of New Hampshire | 1992 | 1:24,000 | Municipal and county boundaries were derived from NFHL data |
| Political boundaries | Strafford County | 2004 | N/A | Municipal and county boundaries were derived from Strafford County data |
| Transportation Features | New Hampshire Department of Transportation | 2010 and 2017 | \* | New Hampshire road centerlines |
| Surface Water Features | U.S. Geological Survey | 2011 | 1:12,000 | Streams, rivers, and lakes were derived from National Hydrography Data Set |
| Surface Water Features | Strafford County | 2004 | N/A | Streams, rivers, and lakes were derived from Strafford County data |
| \*Data not available | | | | |

## 6.3 Floodplain and Floodway Delineation

The FIRM shows tints, screens, and symbols to indicate floodplains and floodways as well as the locations of selected cross sections used in the hydraulic analyses and floodway computations.

For riverine flooding sources, the mapped floodplain boundaries shown on the FIRM have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23. In ponding areas, flood elevations were determined at each junction of the model; between junctions, boundaries were interpolated using the topographic elevation data described in Table 23.

In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

The floodway widths presented in this FIS Report and on the FIRM were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. Table 2 indicates the flooding sources for which floodways have been determined. The results of the floodway computations for those flooding sources have been tabulated for selected cross sections and are shown in Table 24, “Floodway Data.”

Certain flooding sources may have been studied that do not have published BFEs on the FIRMs, or for which there is a need to report the 1-percent-annual-chance flood elevations at selected cross sections because a published Flood Profile does not exist in this FIS Report. These streams may have also been studied using methods to determine non-encroachment zones rather than floodways. For these flooding sources, the 1-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23. All topographic data used for modeling or mapping has been converted as necessary to NAVD88. The 1-percent-annual-chance elevations for selected cross sections along these flooding sources, along with their non-encroachment widths, if calculated, are shown in Table 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.”

Table 23: Summary of Topographic Elevation Data used in Mapping

|  |  | Source for Topographic Elevation Data | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Flooding Source | Description | Vertical Accuracy | Horizontal Accuracy | Citation |
| Strafford County | All within Strafford County | LiDAR | 15 cm RMSEZ | \* | USGS 2011 |
| \*Data not available | | | | | |

BFEs shown at cross sections on the FIRM represent the 1-percent-annual-chance water surface elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report.Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations.

Table 24: Floodway Data

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | |  | | | |  | | | |  | | | |  | | | |  | |  | | | | | |  | | | | | |  | | | | | |  |
|  | **LOCATION** | | | | | | **FLOODWAY** | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | | | | | | | |  |
|  | CROSS SECTION | | DISTANCE1 | | | | WIDTH (FEET) | | | SECTION AREA  (SQ. FEET) | | | | | MEAN VELOCITY (FEET/ SEC) | | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | | | WITH FLOODWAY | | | | | | INCREASE | | | |  |
|  |  | |  | | | |  | | |  | | | | |  | | | |  | | | |  | | | | | |  | | | | | |  | | | |  |
|  | A | | 26,715 | | | | 96 | | | 814 | | | | | 3.0 | | | | 54.4 | | | | 54.4 | | | | | | 55.4 | | | | | | 1.0 | | | |  |
|  | B | | 28,253 | | | | 69 | | | 580 | | | | | 4.2 | | | | 74.8 | | | | 74.8 | | | | | | 75.8 | | | | | | 1.0 | | | |  |
|  | C | | 30,765 | | | | 166 | | | 1,170 | | | | | 2.1 | | | | 86.4 | | | | 86.4 | | | | | | 87.4 | | | | | | 1.0 | | | |  |
|  | D | | 33,773 | | | | 309 | | | 2,069 | | | | | 1.2 | | | | 87.8 | | | | 87.8 | | | | | | 88.8 | | | | | | 1.0 | | | |  |
|  | E | | 36,283 | | | | 476 | | | 2,343 | | | | | 1.0 | | | | 88.7 | | | | 88.7 | | | | | | 89.7 | | | | | | 1.0 | | | |  |
|  |  | |  | | | |  | | |  | | | | |  | | | |  | | | |  | | | | | |  | | | | | |  | | | |  |
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|  | 1Feet above Scammel Bridge at Little Bay | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | | | |
| **FLOODING SOURCE: BELLAMY RIVER** | | | | | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | | | |
|  |  |  | | | | |  | |  | | | | |  | | | | | |  |  | | | | |  | | | | | |  | | | | |  | | |
|  | **LOCATION** | | | | | | **FLOODWAY** | | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | | | | |  | | |
|  | CROSS SECTION | | | DISTANCE1 | | | WIDTH (FEET) | | | SECTION AREA  (SQ. FEET) | | | | | | MEAN VELOCITY (FEET/SEC) | | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | | | WITH FLOODWAY | | | | | | INCREASE |  | | |
|  |  | | |  | | |  | | |  | | | | | |  | | | |  | | | |  | | | | | |  | | | | | |  |  | | |
|  | A | | | 980 | | | 451 | | | 2,516 | | | | | | 1.6 | | | | 420.4 | | | | 414.92 | | | | | | 415.7 | | | | | | 0.8 |  | | |
|  | B | | | 3,080 | | | 1,895 | | | 7,385 | | | | | | 0.5 | | | | 420.4 | | | | 415.32 | | | | | | 415.9 | | | | | | 0.6 |  | | |
|  | C | | | 5,590 | | | 435 | | | 1,070 | | | | | | 3.7 | | | | 420.4 | | | | 414.62 | | | | | | 415.6 | | | | | | 1.0 |  | | |
|  | D | | | 6,410 | | | 404 | | | 1,540 | | | | | | 2.6 | | | | 420.4 | | | | 417.22 | | | | | | 417.2 | | | | | | 0.0 |  | | |
|  | E | | | 7,070 | | | 200 | | | 1,260 | | | | | | 3.1 | | | | 420.4 | | | | 417.52 | | | | | | 417.5 | | | | | | 0.0 |  | | |
|  | F | | | 7,780 | | | 301 | | | 1,265 | | | | | | 3.1 | | | | 420.4 | | | | 417.92 | | | | | | 417.9 | | | | | | 0.0 |  | | |
|  | G | | | 10,220 | | | 336 | | | 1,651 | | | | | | 2.4 | | | | 420.4 | | | | 418.82 | | | | | | 419.6 | | | | | | 0.8 |  | | |
|  | H | | | 11,970 | | | 507 | | | 2,429 | | | | | | 1.6 | | | | 420.4 | | | | 419.52 | | | | | | 420.5 | | | | | | 1.0 |  | | |
|  | I | | | 13,950 | | | 837 | | | 4,686 | | | | | | 0.8 | | | | 420.4 | | | | 420.42 | | | | | | 421.1 | | | | | | 0.7 |  | | |
|  | J | | | 15,000 | | | 289 | | | 1,252 | | | | | | 3.1 | | | | 420.5 | | | | 420.5 | | | | | | 421.2 | | | | | | 0.7 |  | | |
|  | K | | | 15,250 | | | 420 | | | 2,087 | | | | | | 1.9 | | | | 422.7 | | | | 422.7 | | | | | | 422.7 | | | | | | 0.0 |  | | |
|  | L | | | 16,410 | | | 551 | | | 2,831 | | | | | | 1.4 | | | | 423.0 | | | | 423.0 | | | | | | 423.2 | | | | | | 0.2 |  | | |
|  | M | | | 17,900 | | | 600 | | | 2,624 | | | | | | 1.5 | | | | 423.3 | | | | 423.3 | | | | | | 423.5 | | | | | | 0.2 |  | | |
|  | N | | | 18,200 | | | 112 | | | 382 | | | | | | 10.3 | | | | 424.3 | | | | 424.3 | | | | | | 424.3 | | | | | | 0.0 |  | | |
|  | O | | | 19,600 | | | 543 | | | 2,064 | | | | | | 1.2 | | | | 429.1 | | | | 429.1 | | | | | | 430.1 | | | | | | 1.0 |  | | |
|  | P | | | 20,500 | | | 342 | | | 675 | | | | | | 3.7 | | | | 432.0 | | | | 432.0 | | | | | | 432.0 | | | | | | 0.0 |  | | |
|  | Q | | | 20,780 | | | 221 | | | 1,038 | | | | | | 2.4 | | | | 433.9 | | | | 433.9 | | | | | | 433.9 | | | | | | 0.0 |  | | |
|  | R | | | 21,600 | | | 300 | | | 1,035 | | | | | | 2.4 | | | | 435.1 | | | | 435.1 | | | | | | 435.3 | | | | | | 0.2 |  | | |
|  | S | | | 22,900 | | | 81 | | | 246 | | | | | | 10.0 | | | | 440.2 | | | | 440.2 | | | | | | 440.2 | | | | | | 0.0 |  | | |
|  |  | | |  | | |  | | |  | | | | | |  | | | |  | | | |  | | | | | |  | | | | | |  |  | | |
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| 1Feet above confluence with Salmon Falls River  2Elevation computed without consideration of backwater effects from Salmon Falls River | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | |  | | | | | | | | |  | | | |  | | |  | | | | |  | | | | | |  | | | | |  | | |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | | |
| **FLOODING SOURCE: BRANCH RIVER** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | | |
|  |  |  | | | | |  |  | | | | |  | | | | | | |  |  | | | |  | | | | | |  | | | | | | |  | |
|  | **LOCATION** | | | | | | **FLOODWAY** | | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | | | | | |  | |
|  | CROSS SECTION | | | DISTANCE1 | | | WIDTH (FEET) | | | SECTION AREA  (SQ. FEET) | | | | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | | | WITH FLOODWAY | | | | | | INCREASE | |  | |
|  |  | | |  | | |  | | |  | | | | | | |  | | |  | | | |  | | | | | |  | | | | | |  | |  | |
|  | A | | | 14,810 | | | 262 | | | 3,704 | | | | | | | 3.7 | | | 8.7 | | | | 8.7 | | | | | | 9.7 | | | | | | 1.0 | |  | |
|  | B | | | 17,000 | | | 226 | | | 3,108 | | | | | | | 4.4 | | | 10.7 | | | | 10.7 | | | | | | 11.7 | | | | | | 1.0 | |  | |
|  | C | | | 20,943 | | | 290 | | | 4,202 | | | | | | | 3.2 | | | 46.4 | | | | 46.4 | | | | | | 47.4 | | | | | | 1.0 | |  | |
|  | D | | | 22,358 | | | 707 | | | 7,643 | | | | | | | 1.8 | | | 46.8 | | | | 46.8 | | | | | | 47.8 | | | | | | 1.0 | |  | |
|  | E | | | 23,553 | | | 128 | | | 2,623 | | | | | | | 5.2 | | | 46.9 | | | | 46.9 | | | | | | 47.9 | | | | | | 1.0 | |  | |
|  | F | | | 25,458 | | | 225 | | | 3,781 | | | | | | | 3.6 | | | 47.4 | | | | 47.4 | | | | | | 48.4 | | | | | | 1.0 | |  | |
|  |  | | |  | | |  | | |  | | | | | | |  | | |  | | | |  | | | | | |  | | | | | |  | |  | |
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|  |  | | |  | | |  | | |  | | | | | | |  | | |  | | | |  | | | | | |  | | | | | |  | |  | |
|  | 1Feet above confluence with Piscataqua River | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | |
| **FLOODING SOURCE: COCHECO RIVER** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | |
|  |  | | |  | | |  | | | | |  | | | | |  | | |  | |  | | | | | |  | | | | | |  | | | |  | |
|  | **LOCATION** | | | | | | **FLOODWAY** | | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | | | | | |  | |
|  | CROSS SECTION | | | DISTANCE1 | | | WIDTH (FEET) | | | SECTION AREA  (SQ. FEET) | | | | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | | | WITH FLOODWAY | | | | | | INCREASE | |  | |
|  | G | | | 450 | | | 740 | | | 7,329 | | | | | | | 1.7 | | | 123.6 | | | | 123.6 | | | | | | 124.5 | | | | | | 0.9 | |  | |
|  | H | | | 11,660 | | | 70 | | | 870 | | | | | | | 7.0 | | | 125.3 | | | | 125.3 | | | | | | 126.0 | | | | | | 0.7 | |  | |
|  | I | | | 11,730 | | | 256 | | | 2,087 | | | | | | | 2.9 | | | 126.4 | | | | 126.4 | | | | | | 127.3 | | | | | | 0.9 | |  | |
|  | J | | | 19,850 | | | 94 | | | 1,258 | | | | | | | 4.9 | | | 130.1 | | | | 130.1 | | | | | | 130.5 | | | | | | 0.4 | |  | |
|  | K | | | 21,470 | | | 144 | | | 996 | | | | | | | 6.1 | | | 131.0 | | | | 131.0 | | | | | | 131.4 | | | | | | 0.4 | |  | |
|  | L | | | 24,265 | | | 148 | | | 625 | | | | | | | 9.8 | | | 138.8 | | | | 138.8 | | | | | | 138.9 | | | | | | 0.1 | |  | |
|  | M | | | 24,615 | | | 76 | | | 723 | | | | | | | 8.5 | | | 142.8 | | | | 142.8 | | | | | | 142.8 | | | | | | 0.0 | |  | |
|  | N | | | 24,666 | | | 100 | | | 1,657 | | | | | | | 3.7 | | | 160.0 | | | | 160.0 | | | | | | 160.0 | | | | | | 0.0 | |  | |
|  | O | | | 26,116 | | | 117 | | | 1,368 | | | | | | | 4.5 | | | 161.8 | | | | 161.8 | | | | | | 162.1 | | | | | | 0.3 | |  | |
|  | P | | | 26,228 | | | 105 | | | 1,322 | | | | | | | 4.6 | | | 181.4 | | | | 181.4 | | | | | | 181.4 | | | | | | 0.0 | |  | |
|  | Q | | | 26,388 | | | 105 | | | 1,214 | | | | | | | 5.0 | | | 181.5 | | | | 181.5 | | | | | | 181.5 | | | | | | 0.0 | |  | |
|  | R | | | 26,488 | | | 105 | | | 1,431 | | | | | | | 4.3 | | | 182.1 | | | | 182.1 | | | | | | 182.1 | | | | | | 0.0 | |  | |
|  | S | | | 32,093 | | | 104 | | | 1,492 | | | | | | | 2.9 | | | 183.2 | | | | 183.2 | | | | | | 183.5 | | | | | | 0.3 | |  | |
|  | T | | | 84,8782 | | | 123 | | | 1,538 | | | | | | | 5.3 | | | 183.4 | | | | 183.4 | | | | | | 184.1 | | | | | | 0.7 | |  | |
|  | U | | | 85,9112 | | | 218 | | | 1,773 | | | | | | | 4.3 | | | 184.6 | | | | 184.6 | | | | | | 185.2 | | | | | | 0.6 | |  | |
|  | V | | | 87,5012 | | | 355 | | | 4,230 | | | | | | | 1.8 | | | 187.7 | | | | 187.7 | | | | | | 188.0 | | | | | | 0.3 | |  | |
|  | W | | | 89,4612 | | | 389 | | | 4,476 | | | | | | | 1.7 | | | 188.2 | | | | 188.2 | | | | | | 188.6 | | | | | | 0.4 | |  | |
|  | X | | | 91,0612 | | | 239 | | | 3,746 | | | | | | | 1.9 | | | 188.7 | | | | 188.7 | | | | | | 189.1 | | | | | | 0.4 | |  | |
|  | Y | | | 93,5712 | | | 360 | | | 4,512 | | | | | | | 1.6 | | | 189.2 | | | | 189.2 | | | | | | 189.7 | | | | | | 0.5 | |  | |
|  | Z | | | 95,8972 | | | 148 | | | 1,306 | | | | | | | 5.5 | | | 189.4 | | | | 189.4 | | | | | | 189.9 | | | | | | 0.5 | |  | |
|  | AA | | | 96,7722 | | | 40 | | | 425 | | | | | | | 16.8 | | | 193.5 | | | | 193.5 | | | | | | 193.5 | | | | | | 0.0 | |  | |
|  | AB | | | 97,3442 | | | 217 | | | 2,813 | | | | | | | 2.5 | | | 219.6 | | | | 219.6 | | | | | | 219.9 | | | | | | 0.3 | |  | |
|  | AC | | | 97,6892 | | | 145 | | | 1,666 | | | | | | | 4.3 | | | 224.3 | | | | 224.3 | | | | | | 224.6 | | | | | | 0.3 | |  | |
|  | AD | | | 46,353 | | | 176 | | | 1,645 | | | | | | | 2.7 | | | 224.3 | | | | 224.3 | | | | | | 224.7 | | | | | | 0.4 | |  | |
|  | AE | | | 49,093 | | | 169 | | | 1,277 | | | | | | | 3.4 | | | 224.5 | | | | 224.5 | | | | | | 224.8 | | | | | | 0.3 | |  | |
|  | 1Feet above Dover-Rochester corporate limits | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
|  | 2Feet above confluence with Fresh Creek | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | | | | | |
| **FLOODING SOURCE: COCHECO RIVER** | | | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | | | | | |
|  |  | | |  | | |  | | | | |  | | | | |  | | |  | |  | | | | | |  | | | | | |  | | | |  | |
|  | **LOCATION** | | | | | | **FLOODWAY** | | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | | | | | |  | |
|  | CROSS SECTION | | | DISTANCE1 | | | WIDTH (FEET) | | | SECTION AREA  (SQ. FEET) | | | | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | | | WITH FLOODWAY | | | | | | INCREASE | |  | |
|  | AF | | | 49,148 | | | 200 | | | 2,064 | | | | | | | 2.1 | | | 224.7 | | | | 224.7 | | | | | | 225.0 | | | | | | 0.3 | |  | |
|  | AG | | | 56,348 | | | 73 | | | 831 | | | | | | | 5.3 | | | 225.4 | | | | 225.4 | | | | | | 226.1 | | | | | | 0.7 | |  | |
|  | AH | | | 57,995 | | | 472 | | | 1,918 | | | | | | | 2.3 | | | 226.5 | | | | 226.5 | | | | | | 227.0 | | | | | | 0.5 | |  | |
|  | Al | | | 60,570 | | | 98 | | | 979 | | | | | | | 4.5 | | | 227.8 | | | | 227.8 | | | | | | 228.1 | | | | | | 0.3 | |  | |
|  | AJ | | | 60,642 | | | 208 | | | 1,564 | | | | | | | 2.8 | | | 228.1 | | | | 228.1 | | | | | | 228.2 | | | | | | 0.1 | |  | |
|  | AK | | | 66,672 | | | 54 | | | 571 | | | | | | | 7.7 | | | 231.1 | | | | 231.1 | | | | | | 231.5 | | | | | | 0.4 | |  | |
|  | AL | | | 66,732 | | | 253 | | | 1,732 | | | | | | | 2.5 | | | 232.5 | | | | 232.5 | | | | | | 232.8 | | | | | | 0.3 | |  | |
|  | AM | | | 75,482 | | | 410 | | | 2,545 | | | | | | | 1.7 | | | 235.3 | | | | 235.3 | | | | | | 235.5 | | | | | | 0.2 | |  | |
|  | AN | | | 79,240 | | | 110 | | | 726 | | | | | | | 5.8 | | | 237.0 | | | | 237.0 | | | | | | 237.3 | | | | | | 0.3 | |  | |
|  | AO | | | 79,740 | | | 150 | | | 1,261 | | | | | | | 3.4 | | | 237.9 | | | | 237.9 | | | | | | 238.6 | | | | | | 0.7 | |  | |
|  | AP | | | 80,003 | | | 85 | | | 857 | | | | | | | 4.9 | | | 239.5 | | | | 239.5 | | | | | | 239.6 | | | | | | 0.1 | |  | |
|  | AQ | | | 80,804 | | | 440 | | | 3,448 | | | | | | | 1.2 | | | 239.7 | | | | 239.7 | | | | | | 240.4 | | | | | | 0.7 | |  | |
|  | AR | | | 81,495 | | | 540 | | | 3,275 | | | | | | | 1.3 | | | 239.8 | | | | 239.8 | | | | | | 240.6 | | | | | | 0.8 | |  | |
|  | AS | | | 82,736 | | | 650 | | | 4,123 | | | | | | | 1.0 | | | 239.9 | | | | 239.9 | | | | | | 240.8 | | | | | | 0.9 | |  | |
|  | AT | | | 83,618 | | | 630 | | | 3,640 | | | | | | | 1.2 | | | 240.1 | | | | 240.1 | | | | | | 241.1 | | | | | | 1.0 | |  | |
|  | AU | | | 84,996 | | | 600 | | | 2,661 | | | | | | | 1.6 | | | 240.7 | | | | 240.7 | | | | | | 241.7 | | | | | | 1.0 | |  | |
|  | AV | | | 85,610 | | | 380 | | | 2,699 | | | | | | | 1.6 | | | 240.7 | | | | 240.7 | | | | | | 241.7 | | | | | | 1.0 | |  | |
|  | AW | | | 85,950 | | | 350 | | | 2,466 | | | | | | | 1.7 | | | 244.0 | | | | 244.0 | | | | | | 244.3 | | | | | | 0.3 | |  | |
|  | AX | | | 86,893 | | | 445 | | | 3,362 | | | | | | | 1.3 | | | 244.2 | | | | 244.2 | | | | | | 244.5 | | | | | | 0.3 | |  | |
|  | AY | | | 87,633 | | | 138 | | | 751 | | | | | | | 5.6 | | | 244.3 | | | | 244.3 | | | | | | 245.3 | | | | | | 1.0 | |  | |
|  | AZ | | | 88,332 | | | 130 | | | 954 | | | | | | | 4.4 | | | 246.0 | | | | 246.0 | | | | | | 246.0 | | | | | | 00.0 | |  | |
|  | BA | | | 89,098 | | | 130 | | | 983 | | | | | | | 4.3 | | | 246.4 | | | | 246.4 | | | | | | 246.8 | | | | | | 0.4 | |  | |
|  | BB | | | 90,180 | | | 126 | | | 696 | | | | | | | 6.1 | | | 247.1 | | | | 247.1 | | | | | | 247.7 | | | | | | 0.6 | |  | |
|  | BC | | | 90,675 | | | 105 | | | 651 | | | | | | | 6.5 | | | 248.7 | | | | 248.7 | | | | | | 249.0 | | | | | | 0.3 | |  | |
|  | BD | | | 90,925 | | | 240 | | | 1,874 | | | | | | | 2.3 | | | 254.2 | | | | 254.2 | | | | | | 254.5 | | | | | | 0.3 | |  | |
|  | 1Feet above Dover-Rochester corporate limits | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | | | | | |
| **FLOODING SOURCE: COCHECO RIVER** | | | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **LOCATION** | | | | | | | | **FLOODWAY** | | | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | |  | |
|  | | CROSS SECTION | | | | | DISTANCE1 | | | WIDTH (FEET) | | | | | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | WITH FLOODWAY | | | | INCREASE | |  | |
|  | |  | | | | |  | | |  | | | | | |  | | | |  | | | |  | | | |  | | | |  | | | |  | |  | |
|  | | BE | | | | | 92,290 | | | 310 | | | | | | 3,303 | | | | 1.3 | | | | 254.6 | | | | 254.6 | | | | 255.0 | | | | 0.4 | |  | |
|  | | BF | | | | | 93,140 | | | 250 | | | | | | 2,257 | | | | 1.9 | | | | 254.7 | | | | 254.7 | | | | 255.1 | | | | 0.4 | |  | |
|  | | BG | | | | | 93,955 | | | 250 | | | | | | 1,920 | | | | 2.2 | | | | 254.8 | | | | 254.8 | | | | 255.3 | | | | 0.5 | |  | |
|  | | BH | | | | | 94,365 | | | 340 | | | | | | 3,464 | | | | 1.2 | | | | 254.9 | | | | 254.9 | | | | 255.4 | | | | 0.5 | |  | |
|  | | BI | | | | | 94,685 | | | 310 | | | | | | 2,460 | | | | 1.7 | | | | 255.0 | | | | 255.0 | | | | 255.8 | | | | 0.8 | |  | |
|  | | BJ | | | | | 95,420 | | | 490 | | | | | | 6,670 | | | | 0.6 | | | | 255.1 | | | | 255.1 | | | | 256.0 | | | | 0.9 | |  | |
|  | | BK | | | | | 96,590 | | | 590 | | | | | | 5,946 | | | | 0.7 | | | | 255.2 | | | | 255.2 | | | | 256.1 | | | | 0.9 | |  | |
|  | | BL | | | | | 98,055 | | | 700 | | | | | | 4,917 | | | | 0.9 | | | | 255.4 | | | | 255.4 | | | | 256.3 | | | | 0.9 | |  | |
|  | | BM | | | | | 99,150 | | | 970 | | | | | | 4,192 | | | | 1.0 | | | | 255.6 | | | | 255.6 | | | | 256.5 | | | | 0.9 | |  | |
|  | | BN | | | | | 99,935 | | | 895 | | | | | | 3,002 | | | | 1.4 | | | | 255.9 | | | | 255.9 | | | | 256.9 | | | | 1.0 | |  | |
|  | | BO | | | | | 100,820 | | | 403 | | | | | | 1,152 | | | | 3.7 | | | | 257.1 | | | | 257.1 | | | | 257.4 | | | | 0.3 | |  | |
|  | | BP | | | | | 101,925 | | | 200 | | | | | | 813 | | | | 5.2 | | | | 260.1 | | | | 260.1 | | | | 260.5 | | | | 0.4 | |  | |
|  | | BQ | | | | | 102,820 | | | 77 | | | | | | 417 | | | | 10.2 | | | | 262.9 | | | | 262.9 | | | | 263.2 | | | | 0.3 | |  | |
|  | | BR | | | | | 103,550 | | | 65 | | | | | | 442 | | | | 9.6 | | | | 267.6 | | | | 267.6 | | | | 267.6 | | | | 0.0 | |  | |
|  | | BS | | | | | 103,770 | | | 73 | | | | | | 456 | | | | 9.3 | | | | 268.6 | | | | 268.6 | | | | 268.6 | | | | 0.0 | |  | |
|  | | BT | | | | | 104,780 | | | 77 | | | | | | 543 | | | | 7.8 | | | | 272.6 | | | | 272.6 | | | | 272.8 | | | | 0.2 | |  | |
|  | | BU | | | | | 105,942 | | | 95 | | | | | | 591 | | | | 7.2 | | | | 275.4 | | | | 275.4 | | | | 276.2 | | | | 0.8 | |  | |
|  | | BV | | | | | 106,443 | | | 81 | | | | | | 480 | | | | 7.4 | | | | 277.6 | | | | 277.6 | | | | 277.7 | | | | 0.1 | |  | |
|  | | BW | | | | | 106,720 | | | 120 | | | | | | 335 | | | | 10.6 | | | | 280.0 | | | | 280.0 | | | | 280.0 | | | | 0.0 | |  | |
|  | | BX | | | | | 106,950 | | | 53 | | | | | | 382 | | | | 9.3 | | | | 282.3 | | | | 282.3 | | | | 282.4 | | | | 0.1 | |  | |
|  | | BY | | | | | 108,060 | | | 235 | | | | | | 460 | | | | 7.7 | | | | 287.4 | | | | 287.4 | | | | 287.4 | | | | 0.0 | |  | |
|  | | BZ | | | | | 109090 | | | 637 | | | | | | 1316 | | | | 2.7 | | | | 295.3 | | | | 295.3 | | | | 295.6 | | | | 0.3 | |  | |
|  | | CA | | | | | 109,805 | | | 350 | | | | | | 593 | | | | 6.0 | | | | 300.1 | | | | 300.1 | | | | 300.3 | | | | 0.2 | |  | |
|  | | 1Feet above Dover-Rochester corporate limits | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | |  | | | |  | |  | |
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| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | | | | | | |
| **FLOODING SOURCE: COCHECO RIVER** | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | | | | | | |
|  | |  | | |  | | | | |  | |  | | | | | |  | | | | | |  | |  | | | |  | | | |  | | | |  | |
|  | | **LOCATION** | | | | | | | | **FLOODWAY** | | | | | | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | | | | | | | | |  | |
|  | | CROSS SECTION | | | | DISTANCE1 | | | | WIDTH (FEET) | | | SECTION AREA  (SQ. FEET) | | | | | | MEAN VELOCITY (FEET/SEC) | | | | | REGULATORY | | | | WITHOUT FLOODWAY | | | | WITH FLOODWAY | | | | INCREASE | |  | |
|  | |  | | | |  | | | |  | | |  | | | | | |  | | | | |  | | | |  | | | |  | | | |  | |  | |
|  | | A | | | | 100 | | | | 35 | | | 137 | | | | | | 6.3 | | | | | 260.0 | | | | 259.92 | | | | 260.9 | | | | 1.0 | |  | |
|  | | B | | | | 445 | | | | 30 | | | 190 | | | | | | 4.5 | | | | | 261.4 | | | | 261.4 | | | | 262.0 | | | | 0.6 | |  | |
|  | | C | | | | 590 | | | | 36 | | | 246 | | | | | | 3.5 | | | | | 264.8 | | | | 264.8 | | | | 264.8 | | | | 0.0 | |  | |
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|  | | 1Feet above confluence with Cocheco River  2Elevation computed without consideration of backwater effects from Cocheco River | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
|  | |  | |  | | | | |  | | | | | |  | | | | | | |  |  | | | | | | | | | | | | | | |  | |
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| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | | | | | | | |
| **FLOODING SOURCE: DAMES BROOK** | | | | | | | | | | | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | | | | | | | |

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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | A | | | 4,090 | | 140 | | 1,140 | | | | 0.9 | | | 308.9 | | 308.9 | | 309.8 | | 0.9 |  |
|  | B | | | 4,730 | | 55 | | 281 | | | | 3.6 | | | 308.9 | | 308.9 | | 309.9 | | 1.0 |  |
|  | C | | | 5,045 | | 54 | | 354 | | | | 2.9 | | | 312.0 | | 312.0 | | 312.6 | | 0.6 |  |
|  | D | | | 6,050 | | 39 | | 108 | | | | 9.5 | | | 322.7 | | 322.7 | | 322.7 | | 0.0 |  |
|  | E | | | 6,815 | | 53 | | 207 | | | | 4.9 | | | 328.3 | | 328.3 | | 328.6 | | 0.3 |  |
|  | F | | | 7,745 | | 39 | | 107 | | | | 9.5 | | | 340.2 | | 340.2 | | 340.2 | | 0.0 |  |
|  | G | | | 8,980 | | 83 | | 192 | | | | 5.3 | | | 349.7 | | 349.7 | | 349.9 | | 0.2 |  |
|  | H | | | 9,745 | | 70 | | 129 | | | | 7.9 | | | 360.2 | | 360.2 | | 360.2 | | 0.0 |  |
|  | I | | | 9,920 | | 50 | | 285 | | | | 3.6 | | | 364.4 | | 364.4 | | 364.8 | | 0.4 |  |
|  | J | | | 10,500 | | 48 | | 115 | | | | 8.9 | | | 367.7 | | 367.7 | | 367.7 | | 0.0 |  |
|  | K | | | 11,955 | | 61 | | 398 | | | | 2.6 | | | 379.9 | | 379.9 | | 380.1 | | 0.2 |  |
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|  | 1Feet above confluence with Cocheco River | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: ELA RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | A | | | 5,450 | | 30 | | 185 | | | | 7.0 | | | 24.7 | | 24.7 | | 25.7 | | 1.0 |  |
|  | B | | | 5,765 | | 41 | | 257 | | | | 5.0 | | | 28.0 | | 28.0 | | 29.0 | | 1.0 |  |
|  | C | | | 5,860 | | 122 | | 1,020 | | | | 1.3 | | | 30.0 | | 30.0 | | 31.0 | | 1.0 |  |
|  | D | | | 6,345 | | 127 | | 1,175 | | | | 1.1 | | | 30.4 | | 30.4 | | 31.4 | | 1.0 |  |
|  | E | | | 7,805 | | 253 | | 1,920 | | | | 0.7 | | | 31.9 | | 31.9 | | 32.9 | | 1.0 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
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|  | 1Feet above Mill Pond Dam | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: HAMEL BROOK – LONGMARSH BROOK** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE2 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | A-K1 | | | \* | | \* | | \* | | | | \* | | | \* | | \* | | \* | | \* |  |
|  | L | | | 4,367 | | 585 | | 7,191 | | | | 1.2 | | | 35.4 | | 35.4 | | 36.3 | | 0.9 |  |
|  | M | | | 4,670 | | 377 | | 5,299 | | | | 1.5 | | | 35.4 | | 35.4 | | 36.3 | | 0.9 |  |
|  | N | | | 5,029 | | 286 | | 5,675 | | | | 1.4 | | | 35.4 | | 35.4 | | 36.3 | | 0.9 |  |
|  | O | | | 6,657 | | 306 | | 4,994 | | | | 1.6 | | | 35.5 | | 35.5 | | 36.4 | | 0.9 |  |
|  | P | | | 7,682 | | 311 | | 4,532 | | | | 1.8 | | | 35.6 | | 35.6 | | 36.5 | | 0.9 |  |
|  | Q | | | 8,054 | | 219 | | 3,546 | | | | 2.8 | | | 35.6 | | 35.6 | | 36.5 | | 0.9 |  |
|  | R | | | 8,924 | | 229 | | 3,432 | | | | 2.9 | | | 35.6 | | 35.6 | | 36.6 | | 1.0 |  |
|  | S | | | 9,069 | | 222 | | 3,355 | | | | 3.0 | | | 35.6 | | 35.6 | | 36.6 | | 1.0 |  |
|  | T | | | 9,813 | | 259 | | 3,537 | | | | 2.8 | | | 35.8 | | 35.8 | | 36.8 | | 1.0 |  |
|  | U | | | 10,296 | | 148 | | 2,730 | | | | 3.6 | | | 35.8 | | 35.8 | | 36.8 | | 1.0 |  |
|  | V | | | 10,413 | | 118 | | 2,234 | | | | 4.4 | | | 36.0 | | 36.0 | | 36.9 | | 0.9 |  |
|  | W | | | 11,289 | | 301 | | 4,117 | | | | 2.4 | | | 36.4 | | 36.4 | | 37.4 | | 1.0 |  |
|  | X | | | 12,302 | | 196 | | 2,865 | | | | 3.4 | | | 36.5 | | 36.5 | | 37.5 | | 1.0 |  |
|  | Y | | | 12,962 | | 240 | | 2,748 | | | | 3.5 | | | 36.8 | | 36.8 | | 37.7 | | 0.9 |  |
|  | Z | | | 13,117 | | 216 | | 2,445 | | | | 4.0 | | | 36.9 | | 36.9 | | 37.8 | | 0.9 |  |
|  | AA | | | 13,952 | | 135 | | 1,057 | | | | 9.2 | | | 38.6 | | 38.6 | | 39.1 | | 0.5 |  |
|  | AB | | | 14,441 | | 356 | | 3,770 | | | | 2.6 | | | 41.3 | | 41.3 | | 41.5 | | 0.2 |  |
|  | AC | | | 14,507 | | 341 | | 3,125 | | | | 3.1 | | | 41.3 | | 41.3 | | 41.5 | | 0.2 |  |
|  | AD | | | 14,847 | | 104 | | 672 | | | | 14.4 | | | 42.6 | | 42.6 | | 42.6 | | 0.0 |  |
|  | AE | | | 15,009 | | 99 | | 1,039 | | | | 9.3 | | | 47.2 | | 47.2 | | 47.2 | | 0.0 |  |
|  | AF | | | 15,084 | | 90 | | 1,654 | | | | 5.9 | | | 59.1 | | 59.1 | | 59.3 | | 0.2 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Cross sections A-K are located in Rockingham County  2Feet above MacCallen Dam | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: LAMPREY RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | AG | | | 15,240 | | 182 | | 3,863 | | | | 2.5 | | | 59.2 | | 59.2 | | 59.9 | | 0.7 |  |
|  | AH | | | 16,747 | | 170 | | 3,802 | | | | 2.6 | | | 59.3 | | 59.3 | | 60.2 | | 0.9 |  |
|  | AI | | | 18,379 | | 260 | | 4,228 | | | | 2.3 | | | 59.4 | | 59.4 | | 60.4 | | 1.0 |  |
|  | AJ | | | 18,789 | | 267 | | 3,942 | | | | 2.5 | | | 59.5 | | 59.5 | | 60.5 | | 1.0 |  |
|  | AK | | | 18,872 | | 212 | | 2,377 | | | | 4.1 | | | 59.5 | | 59.5 | | 60.5 | | 1.0 |  |
|  | AL | | | 18,909 | | 280 | | 4,128 | | | | 2.4 | | | 62.5 | | 62.5 | | 62.7 | | 0.2 |  |
|  | AM | | | 19,067 | | 149 | | 1,725 | | | | 5.6 | | | 62.5 | | 62.5 | | 62.7 | | 0.2 |  |
|  | AN | | | 19,088 | | 166 | | 1,946 | | | | 5.0 | | | 63.2 | | 63.2 | | 63.4 | | 0.2 |  |
|  | AO | | | 19,187 | | 253 | | 3,565 | | | | 2.7 | | | 63.6 | | 63.6 | | 63.8 | | 0.2 |  |
|  | AP | | | 19,998 | | 177 | | 2,523 | | | | 3.8 | | | 63.7 | | 63.7 | | 63.9 | | 0.2 |  |
|  | AQ | | | 21,683 | | 144 | | 2,516 | | | | 3.9 | | | 64.1 | | 64.1 | | 64.4 | | 0.3 |  |
|  | AR | | | 22,817 | | 216 | | 2,963 | | | | 3.3 | | | 64.4 | | 64.4 | | 64.9 | | 0.5 |  |
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|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Feet above MacCallen Dam | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: LAMPREY RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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|  | **LOCATION** | | | **FLOODWAY** | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | DISTANCE1 | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | MEAN VELOCITY (FEET/SEC) | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | |  |  | |  | | |  | |  | |  | |  | |  |  |
|  | A | | 630 | 49 | | 228 | | | 7.1 | | 278.6 | | 278.6 | | 278.6 | | 0.0 |  |
|  | B | | 1,420 | 25 | | 126 | | | 12.9 | | 285.9 | | 285.9 | | 285.9 | | 0.0 |  |
|  | C | | 1,575 | 50 | | 443 | | | 3.7 | | 288.5 | | 288.5 | | 289.0 | | 0.5 |  |
|  | D | | 2,125 | 56 | | 166 | | | 9.8 | | 289.4 | | 289.4 | | 289.4 | | 0.0 |  |
|  | E | | 3,115 | 67 | | 235 | | | 6.9 | | 302.8 | | 302.8 | | 302.8 | | 0.0 |  |
|  | F | | 4,015 | 40 | | 148 | | | 11.0 | | 316.5 | | 316.5 | | 316.5 | | 0.0 |  |
|  | G | | 4,145 | 35 | | 162 | | | 10.1 | | 317.8 | | 317.8 | | 318.3 | | 0.5 |  |
|  | H | | 4,410 | 26 | | 188 | | | 8.7 | | 322.1 | | 322.1 | | 322.4 | | 0.3 |  |
|  | I | | 4,700 | 46 | | 211 | | | 7.7 | | 327.8 | | 327.8 | | 327.8 | | 0.0 |  |
|  | J | | 5,045 | 48 | | 157 | | | 10.4 | | 336.3 | | 336.3 | | 336.3 | | 0.0 |  |
|  | K | | 6,190 | 29 | | 145 | | | 9.9 | | 358.2 | | 358.2 | | 358.6 | | 0.4 |  |
|  | L | | 7,060 | 43 | | 204 | | | 7.1 | | 369.1 | | 369.1 | | 369.8 | | 0.7 |  |
|  | M | | 7,870 | 38 | | 134 | | | 10.7 | | 386.8 | | 386.8 | | 386.8 | | 0.0 |  |
|  | N | | 8,730 | 39 | | 178 | | | 8.1 | | 409.9 | | 409.9 | | 410.5 | | 0.6 |  |
|  | O | | 9,440 | 37 | | 133 | | | 10.8 | | 433.2 | | 433.2 | | 438.2 | | 0.0 |  |
|  | P | | 9,558 | 31 | | 125 | | | 11.5 | | 435.5 | | 435.5 | | 435.5 | | 0.0 |  |
|  | Q | | 10,400 | 49 | | 166 | | | 8.6 | | 455.2 | | 455.2 | | 455.6 | | 0.4 |  |
|  | R | | 11,110 | 53 | | 159 | | | 8.2 | | 471.8 | | 471.8 | | 471.8 | | 0.0 |  |
|  | S | | 12,105 | 60 | | 174 | | | 7.5 | | 492.4 | | 492.4 | | 492.7 | | 0.3 |  |
|  | T | | 13,255 | 57 | | 153 | | | 8.5 | | 517.7 | | 517.7 | | 517.7 | | 0.0 |  |
|  | U | | 13,780 | 24 | | 107 | | | 12.1 | | 544.1 | | 544.1 | | 544.1 | | 0.0 |  |
|  | V | | 14,310 | 47 | | 196 | | | 6.6 | | 553.2 | | 553.2 | | 553.5 | | 0.3 |  |
|  | W | | 15,050 | 30 | | 150 | | | 8.7 | | 559.1 | | 559.1 | | 559.5 | | 0.4 |  |
|  | X | | 16,045 | 48 | | 183 | | | 4.1 | | 565.0 | | 565.0 | | 565.2 | | 0.2 |  |
|  | Y | | 16,580 | 75 | | 109 | | | 6.9 | | 568.6 | | 568.6 | | 568.6 | | 0.0 |  |
|  |  | |  |  | |  | | |  | |  | |  | |  | |  |  |
|  | 1Feet above confluence with Cocheco River | | | | | | | | | | | | | | | | |  |
|  |  | |  |  | | |  | |  |  | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | **FLOODWAY DATA** | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | |
| **FLOODING SOURCE: MAD RIVER** | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | |

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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | A | | | 780 | | 65 | | 263 | | | | 1.7 | | | 425.5 | | 424.12 | | 425.1 | | 1.0 |  |
|  | B | | | 1,300 | | 60 | | 270 | | | | 1.6 | | | 425.5 | | 424.42 | | 425.4 | | 1.0 |  |
|  | C | | | 1,600 | | 65 | | 261 | | | | 1.7 | | | 426.4 | | 426.4 | | 426.5 | | 0.1 |  |
|  | D | | | 1,950 | | 65 | | 250 | | | | 1.8 | | | 426.4 | | 426.4 | | 426.6 | | 0.2 |  |
|  | E | | | 2,875 | | 41 | | 129 | | | | 3.4 | | | 426.7 | | 426.7 | | 427.6 | | 0.9 |  |
|  | F | | | 3,700 | | 25 | | 78 | | | | 5.6 | | | 430.9 | | 430.9 | | 431.2 | | 0.3 |  |
|  | G | | | 4,000 | | 35 | | 87 | | | | 5.1 | | | 433.0 | | 433.0 | | 433.5 | | 0.5 |  |
|  | H | | | 4,170 | | 40 | | 62 | | | | 7.1 | | | 435.7 | | 435.7 | | 435.7 | | 0.0 |  |
|  | I | | | 4,300 | | 100 | | 731 | | | | 0.6 | | | 444.0 | | 444.0 | | 444.9 | | 0.9 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
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|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Feet above confluence with Salmon Falls River  2Elevation computed without consideration of backwater effects from Salmon Falls River | | | | | | | | | | | | | | | | | | | | |  |
|  |  |  | | |  | | | | |  | | |  |  | | | | | | | |  |
|  |  | | |  | |  | | |  | | |  | |  | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: MILLER BROOK** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | A | | | 227 | | 126 | | 1,015 | | | | 2.0 | | | 13.7 | | 13.7 | | 13.8 | | 0.1 |  |
|  | B | | | 762 | | 420 | | 2,219 | | | | 0.9 | | | 13.8 | | 13.8 | | 13.9 | | 0.1 |  |
|  | C | | | 1,116 | | 78 | | 595 | | | | 3.4 | | | 13.8 | | 13.8 | | 13.9 | | 0.1 |  |
|  | D | | | 2,012 | | 103 | | 590 | | | | 3.2 | | | 14.1 | | 14.1 | | 14.2 | | 0.1 |  |
|  | E | | | 2,802 | | 86 | | 616 | | | | 2.8 | | | 14.4 | | 14.4 | | 14.6 | | 0.2 |  |
|  | F | | | 3,891 | | 58 | | 308 | | | | 5.6 | | | 15.5 | | 15.5 | | 15.7 | | 0.2 |  |
|  | G | | | 4,433 | | 42 | | 159 | | | | 10.8 | | | 19.9 | | 19.9 | | 20.8 | | 0.9 |  |
|  | H | | | 5,222 | | 152 | | 568 | | | | 3.0 | | | 24.2 | | 24.2 | | 25.1 | | 0.9 |  |
|  | I | | | 5,868 | | 57 | | 331 | | | | 5.2 | | | 25.2 | | 25.2 | | 25.9 | | 0.7 |  |
|  | J | | | 6,633 | | 71 | | 456 | | | | 3.8 | | | 26.6 | | 26.6 | | 27.6 | | 1.0 |  |
|  | K | | | 7,343 | | 42 | | 215 | | | | 8.0 | | | 28.1 | | 28.1 | | 29.0 | | 0.9 |  |
|  | L | | | 7,543 | | 70 | | 702 | | | | 2.5 | | | 37.8 | | 37.8 | | 38.0 | | 0.2 |  |
|  | M | | | 8,270 | | 43 | | 387 | | | | 4.4 | | | 37.9 | | 37.9 | | 38.2 | | 0.3 |  |
|  | N | | | 8,427 | | 43 | | 484 | | | | 3.5 | | | 38.7 | | 38.7 | | 38.9 | | 0.2 |  |
|  | O | | | 8,936 | | 240 | | 1,825 | | | | 0.9 | | | 38.9 | | 38.9 | | 39.2 | | 0.3 |  |
|  | P | | | 9,642 | | 36 | | 242 | | | | 7.0 | | | 38.9 | | 38.9 | | 39.1 | | 0.2 |  |
|  | Q | | | 9,689 | | 72 | | 465 | | | | 3.7 | | | 39.2 | | 39.2 | | 39.8 | | 0.6 |  |
|  | R | | | 9,763 | | 104 | | 750 | | | | 2.3 | | | 39.5 | | 39.5 | | 40.1 | | 0.6 |  |
|  | S | | | 9,784 | | 156 | | 922 | | | | 1.9 | | | 51.4 | | 51.4 | | 51.4 | | 0.0 |  |
|  | T | | | 9,941 | | 164 | | 2,198 | | | | 0.8 | | | 51.5 | | 51.5 | | 51.5 | | 0.0 |  |
|  | U | | | 11,009 | | 92 | | 708 | | | | 2.4 | | | 51.5 | | 51.5 | | 51.5 | | 0.0 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Feet above confluence with Little Bay at Route 108 pedestrian bridge | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: OYSTER RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | V | | | 11,977 | | 29 | | 137 | | | | 12.3 | | | 52.7 | | 52.7 | | 53.4 | | 0.7 |  |
|  | W | | | 13,031 | | 128 | | 828 | | | | 2.0 | | | 56.8 | | 56.8 | | 57.8 | | 1.0 |  |
|  | X | | | 14,014 | | 209 | | 1,015 | | | | 1.6 | | | 57.4 | | 57.4 | | 58.3 | | 0.9 |  |
|  | Y | | | 15,453 | | 76 | | 347 | | | | 4.8 | | | 58.5 | | 58.5 | | 59.3 | | 0.8 |  |
|  | Z | | | 16,646 | | 48 | | 403 | | | | 3.9 | | | 61.0 | | 61.0 | | 61.7 | | 0.7 |  |
|  | AA | | | 17,606 | | 178 | | 1,061 | | | | 1.5 | | | 61.6 | | 61.6 | | 62.6 | | 1.0 |  |
|  | AB | | | 18,411 | | 157 | | 871 | | | | 1.8 | | | 61.9 | | 61.9 | | 62.9 | | 1.0 |  |
|  | AC | | | 19,792 | | 166 | | 786 | | | | 2.0 | | | 62.7 | | 62.7 | | 63.7 | | 1.0 |  |
|  | AD | | | 20,541 | | 164 | | 655 | | | | 2.4 | | | 63.3 | | 63.3 | | 64.3 | | 1.0 |  |
|  | AE | | | 21,033 | | 188 | | 693 | | | | 2.0 | | | 63.8 | | 63.8 | | 64.6 | | 0.8 |  |
|  | AF | | | 21,139 | | 84 | | 469 | | | | 3.0 | | | 66.5 | | 66.5 | | 67.4 | | 0.9 |  |
|  | AG | | | 21,327 | | 137 | | 1,045 | | | | 1.3 | | | 66.5 | | 66.5 | | 67.5 | | 1.0 |  |
|  | AH | | | 21,632 | | 178 | | 1,081 | | | | 1.3 | | | 66.5 | | 66.5 | | 67.5 | | 1.0 |  |
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|  | 1Feet above confluence with Little Bay at Route 108 pedestrian bridge | | | | | | | | | | | | | | | | | | | | |  |
|  |  |  | | |  | | | | |  | | |  |  | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: OYSTER RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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|  | **LOCATION** | | | **FLOODWAY** | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | DISTANCE1 | WIDTH2 (FEET) | | SECTION AREA  (SQ. FEET) | | | MEAN VELOCITY (FEET/SEC) | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | |  |  | |  | | |  | |  | |  | |  | |  |  |
|  | A | | 800 | 130/50 | | 1,264 | | | 7.1 | | 72.5 | | 72.5 | | 72.7 | | 0.2 |  |
|  | B | | 3,030 | 98/30 | | 814 | | | 11.1 | | 75.0 | | 75.0 | | 75.4 | | 0.4 |  |
|  | C | | 3,108 | 120/25 | | 1,026 | | | 8.8 | | 76.2 | | 76.2 | | 76.2 | | 0.0 |  |
|  | D | | 4,903 | 154/90 | | 1,376 | | | 6.5 | | 84.6 | | 84.6 | | 85.6 | | 1.0 |  |
|  | E | | 4,991 | 260/120 | | 5,378 | | | 1.7 | | 108.7 | | 108.7 | | 108.7 | | 0.0 |  |
|  | F | | 8,211 | 160/95 | | 2,472 | | | 3.6 | | 108.8 | | 108.8 | | 108.8 | | 0.0 |  |
|  | G | | 10,696 | 113/30 | | 1,782 | | | 5.0 | | 116.0 | | 116.0 | | 116.2 | | 0.2 |  |
|  | H | | 10,748 | 115/45 | | 1,310 | | | 6.9 | | 123.3 | | 123.3 | | 123.3 | | 0.0 |  |
|  | I | | 12,978 | 296/130 | | 887 | | | 10.1 | | 166.4 | | 166.4 | | 166.4 | | 0.0 |  |
|  | J | | 13,029 | 275/150 | | 3,015 | | | 3.0 | | 174.2 | | 174.2 | | 174.2 | | 0.0 |  |
|  | K | | 13,359 | 109/50 | | 1,312 | | | 6.9 | | 174.2 | | 174.2 | | 174.2 | | 0.0 |  |
|  | L | | 13,469 | 130/65 | | 1,756 | | | 5.1 | | 175.1 | | 175.1 | | 175.1 | | 0.0 |  |
|  | M | | 15,049 | 160/80 | | 2,113 | | | 4.5 | | 176.0 | | 176.0 | | 176.1 | | 0.1 |  |
|  | N | | 17,319 | 125/75 | | 2,080 | | | 4.3 | | 176.6 | | 176.6 | | 176.8 | | 0.2 |  |
|  | O | | 20,039 | 127/70 | | 2,206 | | | 4.1 | | 177.1 | | 177.1 | | 177.5 | | 0.4 |  |
|  | P | | 21,839 | 111/50 | | 1,712 | | | 5.3 | | 177.3 | | 177.3 | | 177.7 | | 0.4 |  |
|  | Q | | 21,879 | 558/90 | | 3,624 | | | 2.5 | | 177.6 | | 177.6 | | 178 | | 0.4 |  |
|  | R | | 23,199 | 115/55 | | 2,052 | | | 4.4 | | 177.9 | | 177.9 | | 178.3 | | 0.4 |  |
|  | S | | 26,379 | 175/95 | | 2,461 | | | 3.7 | | 178.6 | | 178.6 | | 179.2 | | 0.6 |  |
|  | T | | 29,024 | 166/86 | | 1,927 | | | 4.7 | | 179.8 | | 179.8 | | 180.6 | | 0.8 |  |
|  | U | | 29,077 | 183/90 | | 1,829 | | | 4.9 | | 182.2 | | 182.2 | | 182.3 | | 0.1 |  |
|  | V | | 31,915 | 915/805 | | 7,086 | | | 1.3 | | 183.0 | | 183.0 | | 183.2 | | 0.2 |  |
|  | W | | 44,085 | 146/100 | | 1,499 | | | 4.4 | | 183.9 | | 183.9 | | 184.4 | | 0.5 |  |
|  |  | |  |  | |  | | |  | |  | |  | |  | |  |  |
|  | 1Feet above Somersworth-Rollinsford corporate limits  2Width/width within county boundary | | | | | | | | | | | | | | | | |  |
|  |  | |  |  | | |  | |  |  | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | **FLOODWAY DATA** | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | |
| **FLOODING SOURCE: SALMON FALLS RIVER** | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **LOCATION** | | | **FLOODWAY** | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | DISTANCE1 | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | MEAN VELOCITY (FEET/SEC) | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | |  |  | |  | | |  | |  | |  | |  | |  |  |
|  | X | | 45,160 | 77/382 | | 1,131 | | | 5.8 | | 184.6 | | 184.6 | | 185.1 | | 0.5 |  |
|  | Y | | 45,200 | 352/552 | | 3,212 | | | 2.0 | | 185.2 | | 185.2 | | 185.6 | | 0.4 |  |
|  | Z | | 62,910 | 354/902 | | 3,005 | | | 2.2 | | 189.2 | | 189.2 | | 190.2 | | 1.0 |  |
|  | AA | | 70,945 | 100/602 | | 528 | | | 12.5 | | 194.0 | | 194.0 | | 194.0 | | 0.0 |  |
|  | AB | | 71,400 | 199/952 | | 1,713 | | | 3.8 | | 197.3 | | 197.3 | | 198.0 | | 0.7 |  |
|  | AC | | 71,470 | 164/1002 | | 1,667 | | | 3.9 | | 205.6 | | 205.6 | | 205.6 | | 0.0 |  |
|  | AD | | 72,770 | 79/402 | | 643 | | | 10.2 | | 205.6 | | 205.6 | | 205.6 | | 0.0 |  |
|  | AE | | 72,870 | 219/1102 | | 1,335 | | | 4.9 | | 206.9 | | 206.9 | | 207.0 | | 0.1 |  |
|  | AF | | 73,250 | 70/352 | | 452 | | | 14.5 | | 209.3 | | 209.3 | | 209.3 | | 0.0 |  |
|  | AG | | 73,350 | 70/302 | | 704 | | | 9.3 | | 212.6 | | 212.6 | | 212.6 | | 0.0 |  |
|  | AH | | 74,550 | 100/502 | | 1,335 | | | 4.9 | | 214.4 | | 214.4 | | 214.9 | | 0.5 |  |
|  | AI | | 80,700 | 165/1252 | | 1,306 | | | 4.6 | | 215.7 | | 215.7 | | 216.7 | | 1.0 |  |
|  | AJ | | 83,935 | 81/412 | | 868 | | | 6.9 | | 218.7 | | 218.7 | | 219.5 | | 0.8 |  |
|  | AK | | 84,030 | 536/452 | | 1,805 | | | 3.3 | | 220.6 | | 220.6 | | 220.8 | | 0.2 |  |
|  | AL | | 93,150 | 125/1002 | | 1,267 | | | 4.7 | | 222.3 | | 222.3 | | 222.8 | | 0.5 |  |
|  | AM | | 97,210 | 248/1652 | | 2,338 | | | 2.5 | | 225.6 | | 225.6 | | 226.5 | | 0.9 |  |
|  | AN | | 100,425 | 199/1602 | | 1,079 | | | 5.5 | | 227.6 | | 227.6 | | 228.4 | | 0.8 |  |
|  | AO | | 100,510 | 235/2002 | | 1,646 | | | 3.6 | | 228.8 | | 228.8 | | 229.8 | | 1.0 |  |
|  | AP | | 102,700 | 1,586/ 1,5262 | | 4,687 | | | 1.3 | | 232.0 | | 232.0 | | 232.6 | | 0.6 |  |
|  | AQ | | 103,050 | 748/5002 | | 3,344 | | | 1.8 | | 246.7 | | 246.7 | | 246.7 | | 0.0 |  |
|  | AR | | 104,065 | 5323 | | 8,177 | | | 0.7 | | 246.7 | | 246.7 | | 246.7 | | 0.0 |  |
|  | AS | | 107,135 | 9883 | | 8,201 | | | 0.7 | | 246.7 | | 246.7 | | 246.7 | | 0.0 |  |
|  |  | |  |  | |  | | |  | |  | |  | |  | |  |  |
|  | 1Feet above Somersworth-Rollinsford corporate limits  2Width/width within county boundary  3Width extends beyond county boundary | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | **FLOODWAY DATA** | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | |
| **FLOODING SOURCE: SALMON FALLS RIVER** | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | |

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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | AT | | | 108,565 | | 932 | | 664 | | | | 8.3 | | | 247.6 | | 247.6 | | 247.6 | | 0.0 |  |
|  | AU | | | 109,860 | | 1792 | | 607 | | | | 9.1 | | | 257.2 | | 257.2 | | 257.2 | | 0.0 |  |
|  | AV | | | 111,670 | | 1312 | | 902 | | | | 6.1 | | | 264.9 | | 264.9 | | 265.1 | | 0.2 |  |
|  | AW | | | 112,840 | | 812 | | 421 | | | | 13.1 | | | 309.5 | | 309.5 | | 309.5 | | 0.0 |  |
|  | AX | | | 114,285 | | 3242 | | 1,966 | | | | 2.8 | | | 354.5 | | 354.5 | | 355.5 | | 1.0 |  |
|  | AY | | | 116,320 | | 2022 | | 1,506 | | | | 3.7 | | | 398.2 | | 398.2 | | 398.8 | | 0.6 |  |
|  | AZ | | | 116,520 | | 1152 | | 813 | | | | 6.8 | | | 398.8 | | 398.8 | | 399.3 | | 0.5 |  |
|  | BA | | | 117,700 | | 234 | | 3,371 | | | | 1.6 | | | 419.6 | | 419.6 | | 420.2 | | 0.6 |  |
|  | BB | | | 118,440 | | 197 | | 2,520 | | | | 2.1 | | | 419.7 | | 419.7 | | 420.3 | | 0.6 |  |
|  | BC | | | 120,440 | | 2,088 | | 46,821 | | | | 0.1 | | | 419.7 | | 419.7 | | 420.3 | | 0.6 |  |
|  | BD | | | 122,970 | | 610 | | 9,603 | | | | 0.6 | | | 419.7 | | 419.7 | | 420.3 | | 0.6 |  |
|  | BE | | | 125,070 | | 333 | | 4,158 | | | | 1.3 | | | 419.7 | | 419.7 | | 420.3 | | 0.6 |  |
|  | BF | | | 126,935 | | 705 | | 9,177 | | | | 0.6 | | | 419.8 | | 419.8 | | 420.4 | | 0.6 |  |
|  | BG | | | 127,900 | | 550 | | 7,198 | | | | 0.7 | | | 419.8 | | 419.8 | | 420.4 | | 0.6 |  |
|  | BH | | | 128,420 | | 273 | | 4,312 | | | | 1.2 | | | 420.2 | | 420.2 | | 420.9 | | 0.7 |  |
|  | BI | | | 131,670 | | 1,390 | | 24,230 | | | | 0.2 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BJ | | | 133,470 | | 1,971 | | 30,716 | | | | 0.2 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BK | | | 135,770 | | 1,584 | | 21,746 | | | | 0.2 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BL | | | 137,995 | | 1,645 | | 21,542 | | | | 0.2 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BM | | | 139,745 | | 2,150 | | 26,769 | | | | 0.1 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BN | | | 142,175 | | 450 | | 4,179 | | | | 0.6 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BO | | | 143,645 | | 692 | | 7,016 | | | | 0.4 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Feet above Somersworth-Rollinsford corporate limits  2This width extends beyond county boundary | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: SALMON FALLS RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | BP | | | 145,185 | | 160 | | 1,714 | | | | 1.5 | | | 420.3 | | 420.3 | | 421.0 | | 0.7 |  |
|  | BQ | | | 147,320 | | 299 | | 2,454 | | | | 1.1 | | | 420.4 | | 420.4 | | 421.2 | | 0.8 |  |
|  | BR | | | 148,620 | | 200 | | 1,593 | | | | 1.6 | | | 420.4 | | 420.4 | | 421.2 | | 0.8 |  |
|  | BS | | | 149,850 | | 400 | | 2,854 | | | | 0.9 | | | 420.5 | | 420.5 | | 421.4 | | 0.9 |  |
|  | BT | | | 151,370 | | 551 | | 3,783 | | | | 0.7 | | | 420.6 | | 420.6 | | 421.6 | | 1.0 |  |
|  | BU | | | 153,170 | | 400 | | 2,085 | | | | 1.2 | | | 420.7 | | 420.7 | | 421.7 | | 1.0 |  |
|  | BV | | | 155,120 | | 571 | | 2,695 | | | | 1.0 | | | 421.0 | | 421.0 | | 422.0 | | 1.0 |  |
|  | BW | | | 157,320 | | 400 | | 1,963 | | | | 1.3 | | | 422.0 | | 422.0 | | 422.9 | | 0.9 |  |
|  | BX | | | 158,720 | | 450 | | 2,574 | | | | 1.0 | | | 422.4 | | 422.4 | | 423.4 | | 1.0 |  |
|  | BY | | | 160,120 | | 80 | | 503 | | | | 5.1 | | | 422.9 | | 422.9 | | 423.7 | | 0.8 |  |
|  | BZ | | | 161,990 | | 273 | | 1,417 | | | | 1.8 | | | 424.8 | | 424.8 | | 425.8 | | 1.0 |  |
|  | CA | | | 163,220 | | 65 | | 198 | | | | 9.9 | | | 427.1 | | 427.1 | | 427.1 | | 0.0 |  |
|  | CB | | | 164,640 | | 127 | | 1,422 | | | | 1.4 | | | 450.7 | | 450.7 | | 450.7 | | 0.0 |  |
|  | CC | | | 164,850 | | 122 | | 865 | | | | 2.3 | | | 451.5 | | 451.5 | | 451.5 | | 0.0 |  |
|  | CD | | | 166,275 | | 82 | | 211 | | | | 9.3 | | | 464.2 | | 464.2 | | 464.2 | | 0.0 |  |
|  | CE | | | 167,095 | | 61 | | 322 | | | | 6.1 | | | 470.1 | | 470.1 | | 470.8 | | 0.7 |  |
|  | CF | | | 168,720 | | 218 | | 494 | | | | 4.0 | | | 490.3 | | 490.3 | | 490.8 | | 0.5 |  |
|  | CG | | | 170,520 | | 588 | | 3,940 | | | | 0.5 | | | 506.9 | | 506.9 | | 506.9 | | 0.0 |  |
|  | CH | | | 172,320 | | 110 | | 816 | | | | 2.4 | | | 506.9 | | 506.9 | | 506.9 | | 0.0 |  |
|  | CI | | | 173,295 | | 114 | | 796 | | | | 2.5 | | | 507.0 | | 507.0 | | 507.2 | | 0.2 |  |
|  | CJ | | | 174,495 | | 500 | | 1,989 | | | | 1.0 | | | 507.1 | | 507.1 | | 507.5 | | 0.4 |  |
|  | CK | | | 175,945 | | 125 | | 847 | | | | 2.3 | | | 507.3 | | 507.3 | | 507.7 | | 0.4 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Feet above Somersworth-Rollinsford corporate limits | | | | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: SALMON FALLS RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |
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|  | **LOCATION** | | | | | **FLOODWAY** | | | | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)** | | | | | | |  |
|  | CROSS SECTION | | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | | | MEAN VELOCITY (FEET/SEC) | | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | CL | | | 177,620 | | 896 | | 3,223 | | | | 0.6 | | | 507.4 | | 507.4 | | 507.8 | | 0.4 |  |
|  | CM | | | 179,070 | | 105 | | 1,013 | | | | 1.9 | | | 507.5 | | 507.5 | | 507.9 | | 0.4 |  |
|  | CN | | | 180,670 | | 550 | | 1,285 | | | | 1.5 | | | 507.6 | | 507.6 | | 508.3 | | 0.7 |  |
|  | CO | | | 181,740 | | 443 | | 1,315 | | | | 1.5 | | | 508.3 | | 508.3 | | 509.3 | | 1.0 |  |
|  | CP | | | 183,795 | | 71 | | 216 | | | | 9.1 | | | 511.0 | | 511.0 | | 511.0 | | 0.0 |  |
|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
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|  |  | | |  | |  | |  | | | |  | | |  | |  | |  | |  |  |
|  | 1Feet above Somersworth-Rollinsford corporate limits | | | | | | | | | | | | | | | | | | | | |  |
|  |  |  | | |  | | | | |  | | |  |  | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **STRAFFORD COUNTY, NEW HAMPSHIRE** | | | | | | | | | |
| **FLOODING SOURCE: SALMON FALLS RIVER** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | | | |

Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams

**[Not Applicable to this Flood Risk Project]**

## 6.4 Coastal Flood Hazard Mapping

This section is not applicable to this Flood Risk Project.

Table 26: Summary of Coastal Transect Mapping Considerations

**[Not Applicable to this Flood Risk Project]**

## 6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 31, “Map Repositories”).

### 6.5.1 Letters of Map Amendment

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA.

To obtain an application for a LOMA, visit [www.fema.gov/floodplain-management/letter-map-amendment-loma](https://www.fema.gov/floodplain-management/letter-map-amendment-loma) and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at [www.fema.gov/online-tutorials](https://www.fema.gov/online-tutorials).

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

### 6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting [www.fema.gov/floodplain-management/letter-map-amendment-loma](https://www.fema.gov/floodplain-management/letter-map-amendment-loma) for the “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill” or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the “Flood Map-Related Fees” section.

A tutorial for LOMR-F is available at [www.fema.gov/online-tutorials](https://www.fema.gov/online-tutorials).

### 6.5.3 Letters of Map Revision

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit

([www.fema.gov/media-library/assets/documents/1343](https://www.fema.gov/media-library/assets/documents/1343)) and download the form “MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision”. Visit the “Flood Map-Related Fees” section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Strafford County FIRM are listed in Table 27.

Table 27: Incorporated Letters of Map Change

**[Not Applicable to this Flood Risk Project]**

### 6.5.4 Physical Map Revisions

A Physical Map Revisions (PMR) is an official republication of a community’s NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community’s chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit [www.fema.gov](https://www.fema.gov) and visit the “Flood Map Revision Processes” section.

### 6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit [www.fema.gov](https://www.fema.gov) to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

### 6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Strafford County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBMs) and/or Flood Boundary and Floodway Maps (FBFMs) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28, “Community Map History.” A description of each of the column headings and the source of the date is also listed below.

* *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
* *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or “pending” (for Preliminary FIS Reports) is shown. If the community is listed in Table 28 but not identified on the map, the community is treated as if it were unmapped.

* *Initial FHBM Effective Date* is the effective date of the first FHBM. This date may be the same date as the Initial NFIP Map Date.
* *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.
* *Initial FIRM Effective Date* is the date of the first effective FIRM for the community.
* *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as PMRs of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Strafford County FIRMs in countywide format was 05/17/2005.

Table 28: Community Map History

| Community Name | Initial Identification Date | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s) |
| --- | --- | --- | --- | --- | --- |
| Barrington, Town of | 02/21/1975 | 02/21/1975 | N/A | 09/01/1989 | TBD 09/30/2015 05/17/2005 |
| Dover, City of | 07/26/1974 | 07/26/1974 | 02/11/1977 | 04/15/1980 | TBD 09/30/2015 05/17/2005 |
| Durham, Town of | 09/13/1974 | 09/13/1974 | 05/14/1976 | 05/03/1990 | TBD 09/30/2015 05/17/2005 08/23/2001 |
| Farmington, Town of | 06/28/1974 | 06/28/1974 | 12/07/1979 04/16/1976 | 05/17/1988 | TBD 05/17/2005 |
| Lee, Town of | 06/21/1974 | 06/21/1974 | 09/03/1976 | 04/02/1986 | TBD 09/30/2015 05/17/2005 |
| Madbury, Town of | 01/17/1975 | 01/17/1975 | N/A | 05/17/2005 | TBD 09/30/2015 |
| Middleton, Town of | 01/31/1975 | 01/31/1975 | 01/10/1978 | 08/01/1988 | TBD 05/17/2005 |
| Milton, Town of | 10/25/1974 | 10/25/1974 | 02/18/1977 | 06/03/1988 | TBD 05/17/2005 |
| New Durham, Town of | 02/07/1975 | 02/07/1975 | 12/10/1976 | 05/02/1991 | TBD 05/17/2005 |
| Rochester, City of | 11/08/1977 | 11/08/1977 | N/A | 09/16/1982 | TBD 09/30/2015 05/17/2005 |
| Rollinsford, Town of | 01/03/1975 | 01/03/1975 | 02/28/1978 | 04/02/1986 | TBD 09/30/2015 05/17/2005 |
| Somersworth, City of | 02/21/1975 | 02/21/1975 | 11/19/1976 | 08/16/1982 | TBD 09/30/2015 05/17/2005 |
| Strafford, Town of | 02/28/1975 | 02/28/1975 | 12/31/1976 | 04/02/1986 | TBD 05/17/2005 05/02/2002 |

# SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

## 7.1 Contracted Studies

Table 29 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 29: Summary of Contracted Studies Included in this FIS Report

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
| --- | --- | --- | --- | --- | --- |
| Axe Handle | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Rochester, City of |
| Beards Creek | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of; Madbury, Town of |
| Beaver Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | New Durham, Town of |
| Bellamy River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Madbury, Town of |
| Bellamy River | 09/30/2013 | UNH | EMB-2010-CA-0916 | September 2013 | Dover, City of |
| Bellamy River | 10/1979 | U.S. SCS | IAA-H-18-75, Project Order No. 8 | January 1978 | Dover, City of |
| Berrys River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Farmington, Town of; Strafford, Town of |
| Big River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Strafford, Town of; Farmington, Town of |
| Blackwater Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Dover, City of; Somersworth, City of; Rochester, City of |
| Bow Lake | 05/02/2002 | USGS | EMW-99-IA-0163 | June 2000 | Strafford, Town of |
| Branch River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Middleton, Town of |
| Branch River | 06/03/1988 | Costello, Lomasney, & DeNapoi Inc. | EMW-84-R-160 | November 1985 | Milton, Town of |
| Bunker Creek | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Caldwell Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Lee, Town of |

| **Table 29: Summary of Contracted Studies Included in this FIS Report (continued)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
| Canney Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Dover, City of |
| Chelsey Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Durham, Town of; Lee, Town of |
| Clark Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Dover, City of; Rochester, City of |
| Club Pond | 05/02/1991 | SCS | EMW-88-E-2736 | September 1989 | New Durham, Town of |
| Cocheco River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Dover, City of; Farmington, Town of; New Durham, Town of; Rochester, City of |
| Cocheco River | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Dover, City of |
| Cocheco River | 10/1979 | U.S. SCS | IAA-H-18-75, Project Order No. 8 | January 1978 | Dover, City of |
| Cocheco River | 03/16/1982 | Hamilton Engineering Associates, Inc. | EMW-C-0334 | April 1981 | Rochester, City of |
| Cocheco River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Rochester, City of |
| Cocheco River | 05/17/1988 | Costello, Lomansney, & deNapoli | EMW-84-R-1600 | November 1985 | Farmington, Town of; Rochester, City of |
| College Brook | 09/30/2015 | USGS, New England Water Science Center | EMB-2010-CA-0916 | November 2012 | Durham, Town of |
| College Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Crommet Creek | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Dames Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Farmington, Town of; Milton, Town of |
| Dames Brook | 05/17/1988 | Costello, Lomasney, & deNapoli Inc. | EMW-84-R-160 | November 1985 | Farmington, Town of |
| Dube Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Lee, Town of; Madbury, Town of |
| Durham Reservoir | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Ela River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Farmington, Town of; New Durham, Town of |
| Ela River | 05/17/1988 | Costello, Lomasney, & deNapoli Inc. | EMW-84-R-1600 | November 1985 | Farmington, Town of |
| Ellison Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Follets Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Garvin Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Dover, City of; Rollinsford, City of |
| Gerrish Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of; Madbury, Town of |
| Great Bay | 09/30/2015 | \* | \* | \* | Durham, Town of |
| Great Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Milton, Town of |
| Hall Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Strafford, Town of |
| Hamel Brook | 05/03/1990 | SCS | EMW-86-E-2225, Project Order No. 01 | September 1987 | Durham, Town of |
| Hart Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Milton, Town of |
| Hayes Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | New Durham, Town of |
| Heath Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Rochester, City of |
| Isinglass River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Rochester, City of; Strafford, Town of |
| Johnson Creek | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Dover, City of; Durham, Town of; Madbury, Town of |
| Jones Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Milton, Town of; Middleton, Town of |
| Kicking Horse Brook | 05/17/1988 | AECOM | EMB-2016-CA-00001 | November 1985 | Farmington, Town of |
| La Roche Brook | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Lamprey River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Lee, Town of |
| Lamprey River | 09/30/2015 | USGS, New England Water Science Center | EMB-2010-CA-0916 | November 2012 | Durham, Town of |
| Little Bay | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Little River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Lee, Town of; Strafford, Town of |
| Littlehale Creek | 09/30/2015 | UNH | EMB-2010-CA-0916 | September 2013 | Durham, Town of |
| Longmarsh Brook | 05/03/1990 | SCS | EMW-86-E-2225, Project Order No. 01 | September 1987 | Durham, Town of |
| Lyman Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Milton, Town of |
| Mad River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Farmington, Town of |
| Mad River | 05/17/1988 | Costello, Lomasney, & deNapoli, Inc. | EMW-84-R-1600 | November 1985 | Farmington, Town of |
| Mallego Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of |
| Merrymeeting River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | New Durham, Town of |
| Miller Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Milton, Town of |
| Miller Brook | 06/03/1988 | Costello, Lomasney, & deNapoli, Inc. | EMW-84-R-160 | November 1985 | Milton, Town of |
| Mohawk River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of |
| North River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Lee, Town of |
| Oyster River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Lee, Town of; Madbury, Town of |
| Oyster River | 09/30/2015 | USGS, New England Water Science Center | EMB-2010-CA-0916 | November 2012 | Durham, Town of |
| Peters Marsh Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Somersworth, Town of |
| Pettee Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Durham, Town of |
| Pettee Brook | 08/23/2001 | USGS | EMW-97-IA-0155 | April 1998 | Durham, Town of |
| Piscataqua River | 09/30/2015 | \* | \* | \* | Dover, City of |
| Pookamoonshine Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Farmington, Town of |
| Reyners Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Dover, City of |
| Rickers Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Rochester, City of |
| Rollins Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Rollinsford, City of |
| Rollins Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Lee, Town of |
| Salmon Falls River | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Rollinsford, City of |
| Salmon Falls River | 06/03/1988 | Costello, Lomasney, & deNapoli, Inc. | EMW-84-R-160 | November 1985 | Milton, Town of; Rochester, City of; Somersworth, City of |
| Spruce Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Barrington, Town of; Strafford, Town of |
| Tates Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Somersworth, City of |
| Twombly Brook | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Dover, City of; Rollinsford, City of; Somersworth, City of |
| Wheelwright Pond | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Lee, Town of |
| Willand Pond | TBD | AECOM | EMB-2016-CA-00001 | December 2017 | Dover, City of |
| \*Data not available | | | | | |

## 7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 30. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

Table 30: Community Meetings

| Community | FIS Report Dated | Date of Meeting | Meeting Type | Attended By |
| --- | --- | --- | --- | --- |
| Barrington, Town of | TBD | 12/03/2015 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Dover, City of | TBD | 9/22/2011 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, the study contractor, and USACE |
| Durham, Town of | TBD | 9/22/2011 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Farmington, Town of | TBD | 05/06/2016 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Lee, Town of | TBD | 12/03/2015 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |

| **Table 30: Community Meetings (continued)** | | | | |
| --- | --- | --- | --- | --- |
| Community | FIS Report Dated | Date of Meeting | Meeting Type | Attended By |
| Madbury, Town of | TBD | 9/22/2011 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Middleton, Town of | TBD | 12/03/2015 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Milton, Town of | TBD | 12/03/2015 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| New Durham, Town of | TBD | 05/06/2016 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Rochester, City of | TBD | 12/03/2015 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
|  |  |  |  |  |
| Rollinsford, Town of | TBD | 9/22/2011 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Somersworth, City of | TBD | 12/03/2015 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |
| Strafford, Town of | TBD | 05/052016 | Discovery | FEMA, the community, AECOM, NH DOT, NH Office of Energy and Planning, NH Homeland Security & Emergency Management, Strafford Regional Planning Commission, and University of New Hampshire |
| TBD | CCO Meeting | FEMA, the community, and the study contractor |

# SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see [www.fema.gov](https://www.fema.gov).

Table 31 is a list of the locations where FIRMs for Strafford County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

Table 31: Map Repositories

| Community | Address | City | State | Zip Code |
| --- | --- | --- | --- | --- |
| Barrington, Town of | Town Office  333 Calef Highway | Barrington | HH | 03825 |
| Dover, City of | City Office  288 Central Avenue | Dover | NH | 03820 |
| Durham, Town of | Town Office  15 Newmarket Road | Durham | NH | 03824 |
| Farmington, Town of | Town Hall  365 Main Street | Farmington | NH | 03835 |
| Lee, Town of | Town Hall  7 Mast Road | Lee | NH | 03861 |
| Madbury, Town of | Town Hall  13 Town Hall Road | Madbury | NH | 03823 |
| Middleton, Town of | Town Office  182 Kings Highway | Middleton | NH | 03887 |
| Milton, Town of | Town Office  424 White Mountain Highway | Milton | NH | 03851 |
| New Durham, Town of | Town Office  4 Main Street | New Durham | NH | 03855 |
| Rochester, City of | City Code Enforcement Office City Hall  31 Wakefield Street | Rochester | NH | 03867 |
| Rollinsford, Town of | Town Office  667 Main Street | Rollinsford | NH | 03869 |
| Somersworth, City of | City Hall  1 Government Way | Somersworth | NH | 03878 |
| Strafford, Town of | Town Hall  12 Mountain View Drive | Strafford | NH | 03884 |

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM Databases and LOMCs. Together they create a GIS data layer for a state or territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 32.

Table 32 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of state or territorial government to coordinate that state's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of state and local GIS data in their state.

Table 32: Additional Information

|  |  |
| --- | --- |
| FEMA and the NFIP | |
| FEMA and FEMA Engineering Library website | [www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library](https://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library) |
| NFIP website | [www.fema.gov/national-flood-insurance-program](https://www.fema.gov/national-flood-insurance-program) |
| NFHL Dataset | [msc.fema.gov](https://msc.fema.gov/) |
| FEMA Region I | FEMA Region I  99 High Street, 6th Floor  Boston, MA 02110  (617) 956-7536 |
| Other Federal Agencies | |
| USGS website | [www.usgs.gov](https://www.usgs.gov/) |
| Hydraulic Engineering Center website | [www.hec.usace.army.mil](http://www.hec.usace.army.mil) |
| State Agencies and Organizations | |
| State NFIP Coordinator | Jennifer Gilbert, CFM, ANFI NH Office of Strategic Initiatives 107 Pleasant Street, Johnson Hall, 3rd Floor  Concord, New Hampshire 03301 (603) 271-1762[jennifer.gilbert@nh.gov](mailto:jennifer.gilbert@nh.gov) |
| State GIS Coordinator | Ken Gallager, GISP NH Office of Strategic Initiatives 107 Pleasant Street, Johnson Hall, 3rd Floor Concord, New Hampshire 03301 Phone: (603) 271-1773[ken.gallager@nh.gov](mailto:ken.gallager@nh.gov) |

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# SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 33 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

Table 33: Bibliography and References

| Citation  in this FIS | Publisher/ Issuer | *Publication Title,* “Article,” Volume, Number, etc. | Author/Editor | Place of  Publication | Publication Date/ Date of Issuance | Link |
| --- | --- | --- | --- | --- | --- | --- |
| FEMA 2015 | Federal Emergency Management Agency | *Flood Insurance Study, Strafford County, New Hampshire, All Jurisdictions* |  | Washington, D.C. | September 30, 2015 | FEMA Flood Map Service Center  msc.fema.gov |
| FEMA 1982 | Federal Emergency Management Agency | *Flood Insurance Study, Town of Exeter, Rockingham County, New Hampshire* |  | Washington, D.C. | May 1982 | FEMA Flood Map Service Center  msc.fema.gov |
| USACE 1955 | U.S. Army Corps of Engineers | *Pertinent Data, Local Protection Project, Cocheco River Flood Control, Farmington, New Hampshire* |  |  | February 1955 |  |
| USDA 1983 | U.S. Department of Agriculture, Soil Conservation Service | *Computer Program, Project Formulation, Hydrology. Technical Release No. 20* |  | Washington, D.C. | May 1983 |  |
| USDA 1976 | U.S. Department of Agriculture, Soil Conservation Service | *WSP-2 Computer Program. Technical Release No. 61* |  | Washington, D.C. | May 1976 |  |
| USGS 2011 | U.S. Department of Interior, Geological Survey | *LiDAR data, based on North American Vertical Datum of 1988, accurate to 2-ft contours* |  | Washington, D.C. | May 2011 | lidar.cr.usgs.gov/ |