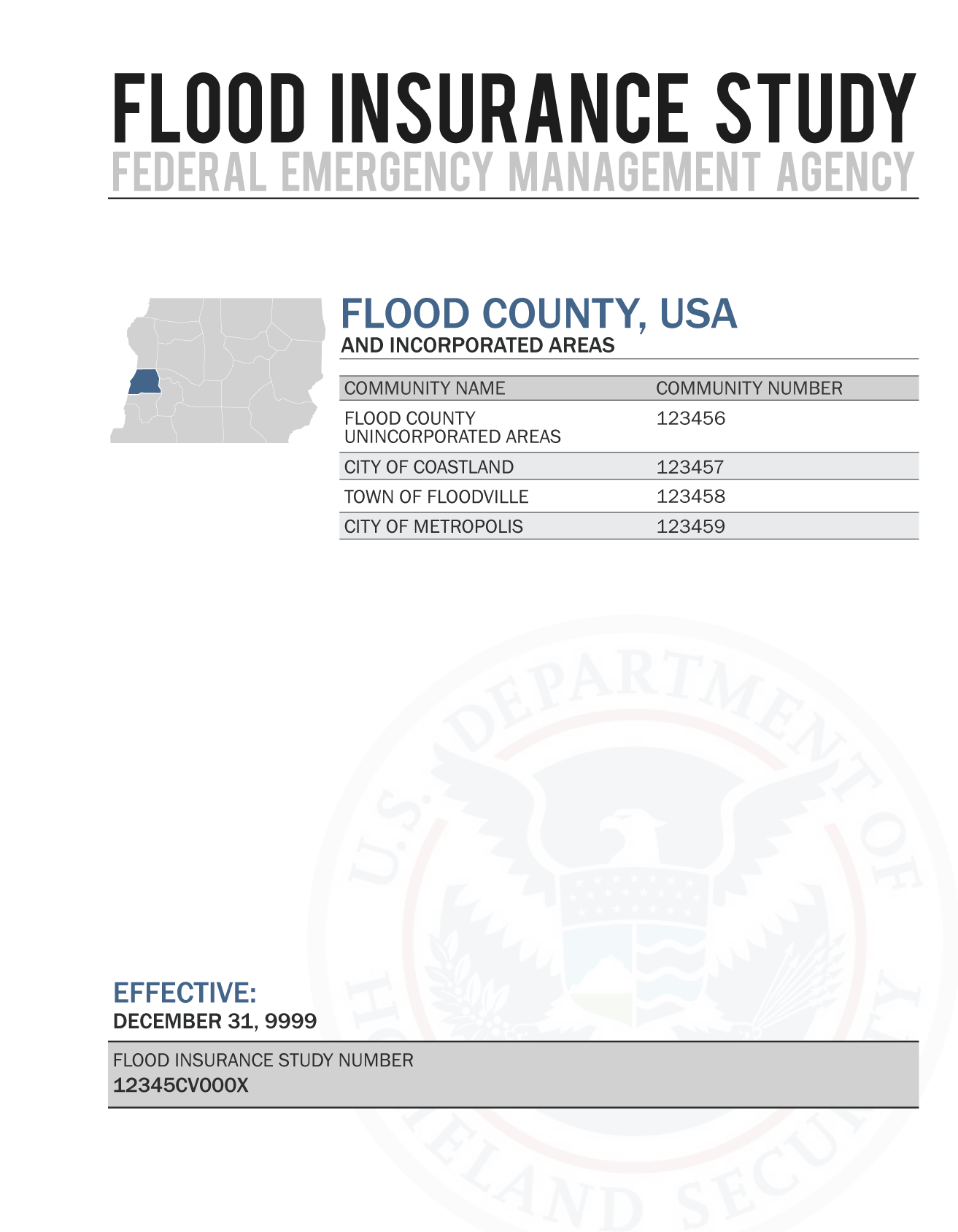
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**VOLUME 1 OF 5**

|  |  |
| --- | --- |
|  | **ROCKINGHAM COUNTY,  NEW HAMPSHIRE**  **(ALL JURISDICTIONS)** |

|  |  |  |  |
| --- | --- | --- | --- |
| COMMUNITY NAME | NUMBER | COMMUNITY NAME | NUMBER |
| ATKINSON, TOWN OF | 330175 | NEW CASTLE, TOWN OF | 330135 |
| AUBURN, TOWN OF | 330176 | NEWFIELDS, TOWN OF | 330228 |
| BRENTWOOD, TOWN OF | 330125 | NEWINGTON, TOWN OF | 330229 |
| CANDIA, TOWN OF | 330126 | NEWMARKET, TOWN OF | 330136 |
| CHESTER, TOWN OF | 330182 | NEWTON, TOWN OF | 330240 |
| DANVILLE, TOWN OF | 330199 | NORTH HAMPTON, TOWN OF | 330232 |
| DEERFIELD, TOWN OF | 330127 | NORTHWOOD, TOWN OF | 330855 |
| DERRY, TOWN OF | 330128 | NOTTINGHAM, TOWN OF | 330137 |
| EAST KINGSTON, TOWN OF | 330203 | PLAISTOW, TOWN OF | 330138 |
| EPPING, TOWN OF | 330129 | PORTSMOUTH, CITY OF | 330139 |
| EXETER, TOWN OF | 330130 | RAYMOND, TOWN OF | 330140 |
| FREMONT, TOWN OF | 330131 | RYE, TOWN OF | 330141 |
| GREENLAND, TOWN OF | 330210 | SALEM, TOWN OF | 330142 |
| HAMPSTEAD, TOWN OF | 330211 | SANDOWN, TOWN OF | 330191 |
| HAMPTON FALLS, TOWN OF | 330133 | SEABROOK, TOWN OF | 330143 |
| HAMPTON, TOWN OF | 330132 | SEABROOK BEACH  VILLAGE DISTRICT | 330854 |
| KENSINGTON, TOWN OF | 330216 | SOUTH HAMPTON, TOWN OF | 330193 |
| KINGSTON, TOWN OF | 330217 | STRATHAM, TOWN OF | 330197 |
| LONDONDERRY, TOWN OF | 330134 | WINDHAM, TOWN OF | 330144 |

|  |  |
| --- | --- |
| **REVISED:**  **PRELIMINARY: 12/20/2018** | **DHS-FEMA** |
|  |
| FLOOD INSURANCE STUDY NUMBER |
| **33015CV001B**  Version Number 2.3.3.0 |

**TABLE OF CONTENTS**

**Volume 1**

Sections

Page

[SECTION 1.0 – INTRODUCTION 1](#_Toc525809532)

[1.1 The National Flood Insurance Program 1](#_Toc525809533)

[1.2 Purpose of this Flood Insurance Study Report 2](#_Toc525809534)

[1.3 Jurisdictions Included in the Flood Insurance Study Project 2](#_Toc525809535)

[1.4 Considerations for using this Flood Insurance Study Report 10](#_Toc525809536)

[SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS 22](#_Toc525809537)

[2.1 Floodplain Boundaries 22](#_Toc525809538)

[2.2 Floodways 48](#_Toc525809539)

[2.3 Base Flood Elevations 49](#_Toc525809540)

[2.4 Non-Encroachment Zones 50](#_Toc525809541)

[2.5 Coastal Flood Hazard Areas 50](#_Toc525809542)

[2.5.1 Water Elevations and the Effects of Waves 51](#_Toc525809543)

[2.5.2 Floodplain Boundaries and BFEs for Coastal Areas 52](#_Toc525809544)

[2.5.3 Coastal High Hazard Areas 53](#_Toc525809545)

[2.5.4 Limit of Moderate Wave Action (LIMWA) 54](#_Toc525809546)

[SECTION 3.0 – INSURANCE APPLICATIONS 55](#_Toc525809547)

[3.1 National Flood Insurance Program Insurance Zones 55](#_Toc525809548)

[3.2 Coastal Barrier Resources System 56](#_Toc525809549)

[SECTION 4.0 – AREA STUDIED 56](#_Toc525809550)

[4.1 Basin Description 56](#_Toc525809551)

[4.2 Principal Flood Problems 57](#_Toc525809552)

[4.3 Non-Levee Flood Protection Measures 60](#_Toc525809553)

[4.4 Levees 60](#_Toc525809554)

[SECTION 5.0 – ENGINEERING METHODS 61](#_Toc525809555)

[5.1 Hydrologic Analyses 61](#_Toc525809556)

[5.2 Hydraulic Analyses 87](#_Toc525809557)

Figures

Page

[Figure 1: FIRM Panel Index 12](#_Toc525151582)

[Figure 2: FIRM Notes to Users 15](#_Toc525151583)

[Figure 3: Map Legend for FIRM 18](#_Toc525151584)

[Figure 4: Floodway Schematic 49](#_Toc525151585)

[Figure 5: Wave Runup Transect Schematic 52](#_Toc525151586)

[Figure 6: Coastal Transect Schematic 54](#_Toc525151587)

[Figure 7: Frequency Discharge-Drainage Area Curves 86](#_Toc525151588)

Tables

Page

[Table 1: Listing of NFIP Jurisdictions 2](#_Toc525806662)

[Table 2: Flooding Sources Included in this FIS Report 23](#_Toc525806663)

[Table 3: Flood Zone Designations by Community 55](#_Toc525806664)

[Table 4: Coastal Barrier Resources System Information 56](#_Toc525806665)

[Table 5: Basin Characteristics 57](#_Toc525806666)

[Table 6: Principal Flood Problems 58](#_Toc525806667)

[Table 7: Historic Flooding Elevations 59](#_Toc525806668)

[Table 8: Non-Levee Flood Protection Measures 60](#_Toc525806669)

[Table 9: Levees 60](#_Toc525806670)

[Table 10: Summary of Discharges 62](#_Toc525806671)

[Table 11: Summary of Non-Coastal Stillwater Elevations 86](#_Toc525806672)

[Table 12: Stream Gage Information used to Determine Discharges 87](#_Toc525806673)

[Table 13: Summary of Hydrologic and Hydraulic Analyses 88](#_Toc525806674)

**Volume 2**

Sections

Page

[SECTION 5.0 – ENGINEERING METHODS (continued)](#_Toc440971002)

[5.3 Coastal Analyses 129](#_Toc525809558)

[5.3.1 Total Stillwater Elevations 129](#_Toc525809559)

[5.3.2 Waves 130](#_Toc525809560)

[5.3.3 Coastal Erosion 130](#_Toc525809561)

[5.3.4 Wave Hazard Analyses 130](#_Toc525809562)

[5.4 Alluvial Fan Analyses 146](#_Toc525809563)

[SECTION 6.0 – MAPPING METHODS 146](#_Toc440971011)

[6.1 Vertical and Horizontal Control 146](#_Toc440971012)

[6.2 Base Map 147](#_Toc440971013)

[6.3 Floodplain and Floodway Delineation 148](#_Toc440971014)

Figures

Page

[Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas 129](#_Toc525151589)

Figure 9: Transect Location Map 145

Tables

Page

[Table 13: Summary of Hydrologic and Hydraulic Analyses (continued) 95](#_Toc525802131)

[Table 14: Roughness Coefficients 127](#_Toc525806675)

[Table 15: Summary of Coastal Analyses 129](#_Toc525806676)

[Table 16: Tide Gage Analysis Specifics 130](#_Toc525806677)

[Table 17: Coastal Transect Parameters 133](#_Toc525806678)

[Table 18: Summary of Alluvial Fan Analyses 146](#_Toc525806679)

[Table 19: Results of Alluvial Fan Analyses 146](#_Toc525806680)

[Table 20: Countywide Vertical Datum Conversion 147](#_Toc525806681)

[Table 21: Stream-Based Vertical Datum Conversion 147](#_Toc525806682)

[Table 22: Base Map Sources 147](#_Toc525806683)

[Table 23: Summary of Topographic Elevation Data used in Mapping 149](#_Toc525806684)

[Table 24: Floodway Data 150](#_Toc525806685)

**Volume 3**

Sections

Page

SECTION 6.0 – MAPPING METHODS (continued) 146

[6.4 Coastal Flood Hazard Mapping 189](#_Toc440971016)

[6.5 FIRM Revisions 189](#_Toc440971017)

[6.5.1 Letters of Map Amendment 189](#_Toc440971018)

[6.5.2 Letters of Map Revision Based on Fill 189](#_Toc440971019)

[6.5.3 Letters of Map Revision 190](#_Toc440971020)

[6.5.4 Physical Map Revisions 190](#_Toc440971021)

[6.5.5 Contracted Restudies 191](#_Toc440971022)

[6.5.6 Community Map History 191](#_Toc440971023)

[SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION 194](#_Toc440971024)

[7.1 Contracted Studies 194](#_Toc440971025)

[7.2 Community Meetings 197](#_Toc440971026)

[SECTION 8.0 – ADDITIONAL INFORMATION 207](#_Toc440971027)

[SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES 210](#_Toc440971028)

Tables

Page

[Table 25: Flood hazard and Non-Encroachment Data for Selected Streams 189](#_Toc525806686)

[Table 26: Summary of Coastal Transect Mapping Considerations 189](#_Toc525806687)

[Table 27: Incorporated Letters of Map Change 190](#_Toc525806688)

[Table 28: Community Map History 192](#_Toc525806689)

[Table 29: Summary of Contracted Studies Included in this FIS Report 194](#_Toc525806690)

[Table 30: Community Meetings 198](#_Toc525806691)

[Table 31: Map Repositories 207](#_Toc525806692)

[Table 32: Additional Information 209](#_Toc525806693)

[Table 33: Bibliography and References 211](#_Toc525806694)

Exhibits

Flood Profiles Panel

|  |  |  |
| --- | --- | --- |
| Beaver Brook | 01-15 | P |
| Black Brook | 16-20 | P |
| Bryant Brook | 21-22 | P |
| Cohas Brook | 23-24 | P |
| Cunningham Brook | 25-34 | P |
| Drew Brook | 35-37 | P |
| Dudley Brook | 38-41 | P |
| Exeter River | 42-56 | P |
| Flatrock Brook | 57-61 | P |
| Golden Brook | 62-68 | P |
| Grassy Brook | 69 | P |

**Volume 4**

Exhibits

Flood Profiles Panel

|  |  |  |
| --- | --- | --- |
| Hidden Valley Brook | 70-73 | P |
| Hill Brook | 74 | P |
| Hog Hill Brook | 74-76 | P |
| Hornes Brook | 77-80 | P |
| Kelly Brook | 81-82 | P |
| Lamprey River (Town of Newmarket) | 83 | P |
| Lamprey River | 84-93 | P |
| Little Cohas River | 95-105 | P |
| Little River No. 1 | 106 | P |
| Little River No. 2 | 107-108 | P |
| Little River No. 3 | 109-113 | P |
| Nesenkeag Brook | 114-130 | P |
| Pickering Brook | 131-132 | P |
| Piscassic River | 133-134 | P |
| Policy Brook – Unnamed Brook | 135 | P |
| Porcupine Brook | 136 | P |
| Porcupine Brook Tributary | 137 | P |
| Powwow River (Downstream Reach) | 138 | P |
| Powwow River (Upstream Reach) | 139-140 | P |
| Shields Brook | 141-158 | P |
| Spicket River | 159-161 | P |

**Volume 5**

Exhibits

Flood Profiles Panel

|  |  |  |
| --- | --- | --- |
| Taylor Brook (including Ballard Pond) | 162-166 | P |
| Tributary C to Beaver Brook | 167-170 | P |
| Tributary E to Beaver Lake | 171-172 | P |
| Tributary E to Little Cohas Brook | 173-174 | P |
| Tributary F to Beaver Lake | 175-179 | P |
| Tributary G to Beaver Brook | 180-183 | P |
| Tributary H to Drew Brook | 184-188 | P |
| Tributary H to Nesenkeag Brook | 189-191 | P |
| Tributary J to Black Brook | 192-193 | P |
| Tributary O to Beaver Brook | 194-200 | P |
| Upper Beaver Brook | 201-203 | P |
| Wash Pond Tributary | 204 | P |
| West Channel Policy Brook | 205-206 | P |
| Winnicut River | 207 | P |

**Published Separately**

Flood Insurance Rate Map (FIRM)

**FLOOD INSURANCE STUDY REPORT**

**ROCKINGHAM 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 60.3, *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 geographic area of Rockingham County, New Hampshire.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the 8-digit Hydrologic Unit Codes (HUC-8) sub-basins affecting each, are shown in Table 1. The Flood Insurance Rate Map (FIRM) panel numbers that affect each community are also 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 |
| --- | --- | --- | --- | --- |
| Atkinson, Town of | 330175 | 01060003,  01070006 | 33015C0552E, 33015C0556E, 33015C0558E, 33015C0560E, 33015C0576E, 33015C0578E | — |
| Auburn, Town of | 330176 | 01070006 | 33015C0145E, 33015C0165E, 33015C0170E, 33015C0307E, 33015C0309E, 33015C0328E, 33015C0330E,  33015C0335E | — |

| **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 |
| Brentwood, Town of | 330125 | 01060003 | 33015C0215E, 33015C0218E, 33015C0220E, 33015C0379E, 33015C0380E, 33015C0381E 33015C0382F, 33015C0383E, 33015C0384F, 33015C0401E | — |
| Candia, Town of | 330126 | 01060003,  01070006 | 33015C0145E, 33015C0155E, 33015C0160E, 33015C0165E, 33015C0170E, 33015C0178E, 33015C0186E | — |
| Chester, Town of | 330182 | 01060003,  01070006 | 33015C0170E, 33015C0335E, 33015C0341E, 33015C0342E, 33015C0355E, 33015C0360E, 33015C0365E | — |
| Danville, Town of | 330199 | 01060003,  01070006 | 33015C0360E, 33015C0370E, 33015C0378E, 33015C0379E, 33015C0390E | — |
| Deerfield, Town of | 330127 | 01060003,  01070006 | 33015C0060E, 33015C0065E, 33015C0070E, 33015C0090E, 33015C0095E, 33015C0155E, 33015C0160E, 33015C0178E, 33015C0180E, 33015C0185E | — |
| Derry, Town of | 330128 | 01060003,  01070006 | 33015C0328E, 33015C0330E, 33015C0336E, 33015C0337E, 33015C0339E, 33015C0341E, 33015C0342E, 33015C0343E, 33015C0344E, 33015C0363E, 33015C0365E, 33015C0527E, 33015C0529E, 33015C0531E, 33015C0532E, 33015C0533E, 33015C0551E, 33015C0552E | — |
| East Kingston, Town of | 330203 | 01060003,  01070006 | 33015C0383E, 33015C0384E, 33015C0395E,  33015C0403F, 33015C0413E,  33015C0415E | — |
| Epping, Town of | 330129 | 01060003 | 33015C 0185E, 33015C0192E, 33015C0194E, 33015C0205E, 33015C0210F, 33015C0215E, 33015C0218E, 33015C0220F | — |
| Exeter, Town of | 330130 | 01060003 | 33015C0220F, 33015C0236F, 33015C0238F, 33015C0239F, 33015C0245F, 33015C0382E, 33015C0384F, 33015C0401F, 33015C0402F, 33015C0403F, 33015C0404F, 33015C0406F, 33015C0408F, 33015C0410F | — |
| Fremont, Town of | 330131 | 01060003 | 33015C0193E, 33015C0194E, 33015C0215E, 33015C0360E, 33015C0378E, 33015C0379E, 33015C0380E | — |
| Greenland, Town of | 330210 | 01060003 | 33015C0235F, 33015C0245F, 33015C0255F, 33015C0265F, 33015C0270F | — |
| Hampstead, Town of | 330211 | 01060003,  01070006 | 33015C0363E, 33015C0365E, 33015C0370E, 33015C0390E, 33015C0552E, 33015C0556E, 33015C0560E | — |
| Hampton Falls, Town of | 330133 | 01060003 | 33015C0410F, 33015C0428F, 33015C0430F, 33015C0433F, 33015C0436F, 33015C0437F, 33015C0439F, 33015C0441F, 33015C0443F | — |
| Hampton, Town of | 330132 | 01060003 | 33015C0408F, 33015C0410F, 33015C0420F,  33015C0428F, 33015C0436F, 33015C0437F, 33015C0438F, 33015C0439F | — |
| Kensington, Town of | 330216 | 01060003,  01070006 | 33015C0403F, 33015C0404F, 33015C0408F, 33015C0413E, 33015C0415E, 33015C0420F | — |
| Kingston, Town of | 330217 | 01060003,  01070006 | 33015C0370F, 33015C0378E, 33015C0379E, 33015C0383E, 33015C0384F, 33015C0390E, 33015C0395E, 33015C0403F, 33015C0576E,  33015C0577E | — |
| Londonderry, Town of | 330134 | 01070006 | 33015C0309E, 33015C0315E, 33015C0316E, 33015C0317E, 33015C0318E, 33015C0319E, 33015C0328E, 33015C0336E, 33015C0337E, 33015C0338E, 33015C0339E, 33015C0506E, 33015C0507E, 33015C0508E, 33015C0509E, 33015C0526E, 33015C0527E, 33015C0528E, 33015C0536E | — |
| New Castle, Town of | 330135 | 01060003 | 33015C0278F, 33015C0279F, 33015C0286F, 33015C0287F | — |
| Newfields, Town of | 330228 | 01060003 | 33015C0220F, 33015C0236F, 33015C0237F, 33015C0238F, 33015C0239F, 33015C0245F | — |
| Newington, Town of | 330229 | 01060003 | 33015C0235F, 33015C0255F, 33015C0260F, 33015C0265F | — |
| Newmarket, Town of | 330136 | 01060003 | 33015C0210F, 33015C0220F, 33015C0230F, 33015C0235F, 33015C0236F, 33015C0237F, 33015C0245F | — |
| Newton, Town of | 330240 | 01070006 | 33015C 0395, 33015C0577, 33015C0579, 33015C0585 | — |
| North Hampton, Town of | 330232 | 01060003 | 33015C0265F, 33015C0270F, 33015C0410F, 33015C0426F, 33015C0428F, 33015C0430F, 33015C0431F, 33015C0432F, 33015C0433F, 33015C0434F | — |
| Northwood, Town of | 330855 | 01060003,  01070006 | 33015C0020E1, 33015C0040E1, 33015C0060E, 33015C0070E, 33015C0080E, 33015C0085E, 33015C0090E, 33015C0095E | — |
| Nottingham, Town of | 330137 | 01060003 | 33015C0085E, 33015C0090E, 33015C0095E, 33015C0105E, 33015C0115E, 33015C0120E, 33015C0180E, 33015C0185E, 33015C0205E, 33015C0210F | — |
| Plaistow, Town of | 330138 | 01070006 | 33015C0390E, 33015C0560E, 33015C0577E, 33015C0578E, 33015C0579E, 33015C0585E, 33015C0590E | — |
| Portsmouth, City of | 330139 | 01060003 | 33015C0255F, 33015C0259F, 33015C0260F, 33015C0265F, 33015C0269F, 33015C0270F, 33015C0278F, 33015C0286F | — |
| Raymond, Town of | 330140 | 01060003 | 33015C0170E, 33015C0178E, 33015C0180E, 33015C0185E, 33015C0186E, 33015C0187E, 33015C0190E, 33015C0191E, 33015C0192E, 33015C0193E, 33015C0194E, 33015C0335E, 33015C0355E, 33015C0360E | — |
| Rye, Town of | 330141 | 01060003 | 33015C0265F, 33015C0269F, 33015C0270F, 33015C0286F, 33015C0287F, 33015C0288F, 33015C0431F, 33015C0432F,  33015C 0434F, 33015C0451F, 33015C0457F, 33015C0459F, 33015C0476F, 33015C0478F | — |
| Salem, Town of | 330142 | 01070006 | 33015C0545E, 33015C0551E, 33015C0552E, 33015C0553E, 33015C0554E, 33015C0561E, 33015C0562E, 33015C0563E, 33015C0564E, 33015C0570E, 33015C0657E1, 33015C0676E, 33015C0677E | — |
| Sandown, Town of | 330191 | 01060003,  01070006 | 33015C0355E, 33015C0360E, 33015C0365E, 33015C0370E | — |
| Seabrook, Town of | 330143 | 01060003 | 33015C0420F, 33015C0438F, 33015C0439F, 33015C0443F, 33015C0626F, 33015C0627F | — |
| Seabrook Beach Village District | 330854 | 01060003 | 33015C0439F, 33015C0627F | — |
| South Hampton, Town of | 330193 | 01060003,  01070006 | 33015C0395E, 33015C0413E, 33015C0415E, 33015C0420F, 33015C0585E, 33015C0601E, 33015C0602E | — |
| Stratham, Town of | 330197 | 01060003 | 33015C0239F, 33015C0245F, 33015C0265F, 33015C0402F, 33015C0406F, 33015C0410F, 33015C0426F | — |
| Windham, Town of | 330144 | 01070006 | 33015C0529E, 33015C0531E, 33015C0532E, 33015C0533E, 33015C0534E, 33015C0536E, 33015C0537E, 33015C0538E, 33015C0539E, 33015C0541E, 33015C0543E, 33015C0545E, 33015C0551E,  33015C0553E, 33015C0561E | — |

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% annual chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1% annual chance and 0.2% annual chance floodplains; and 1% 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 Rockingham 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](http://www.fema.gov/online-tutorials).

The FIRM Panel Index in Figure 1 shows the overall FIRM panel layout within Rockingham County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Panel Index includes community boundaries, flooding sources, watershed boundaries, and United States Geological Survey (USGS) Hydrologic Unit Code – 8 (HUC-8) codes.

Figure 1: FIRM Panel Index

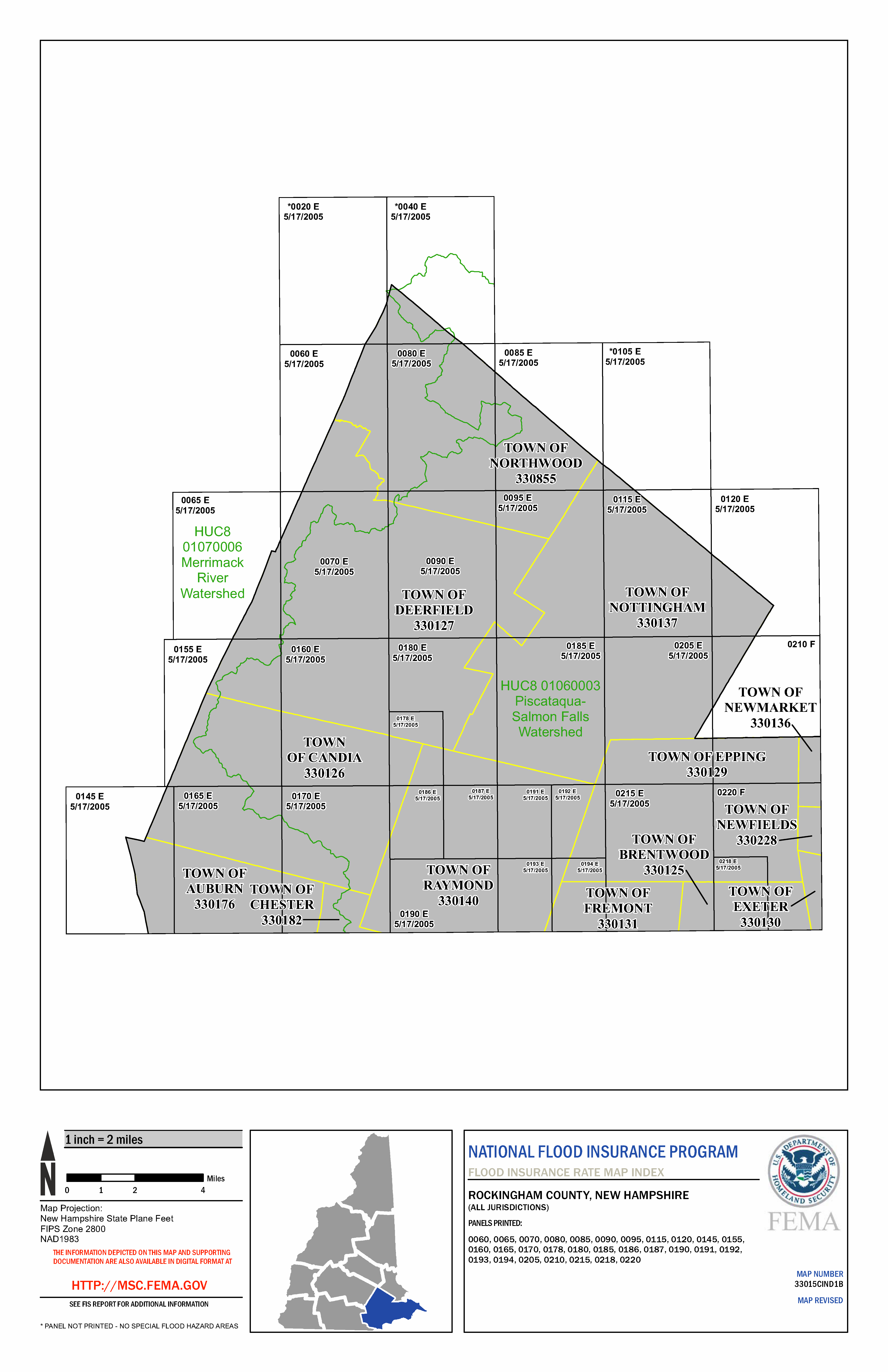


Figure 1: FIRM Panel Index (continued)

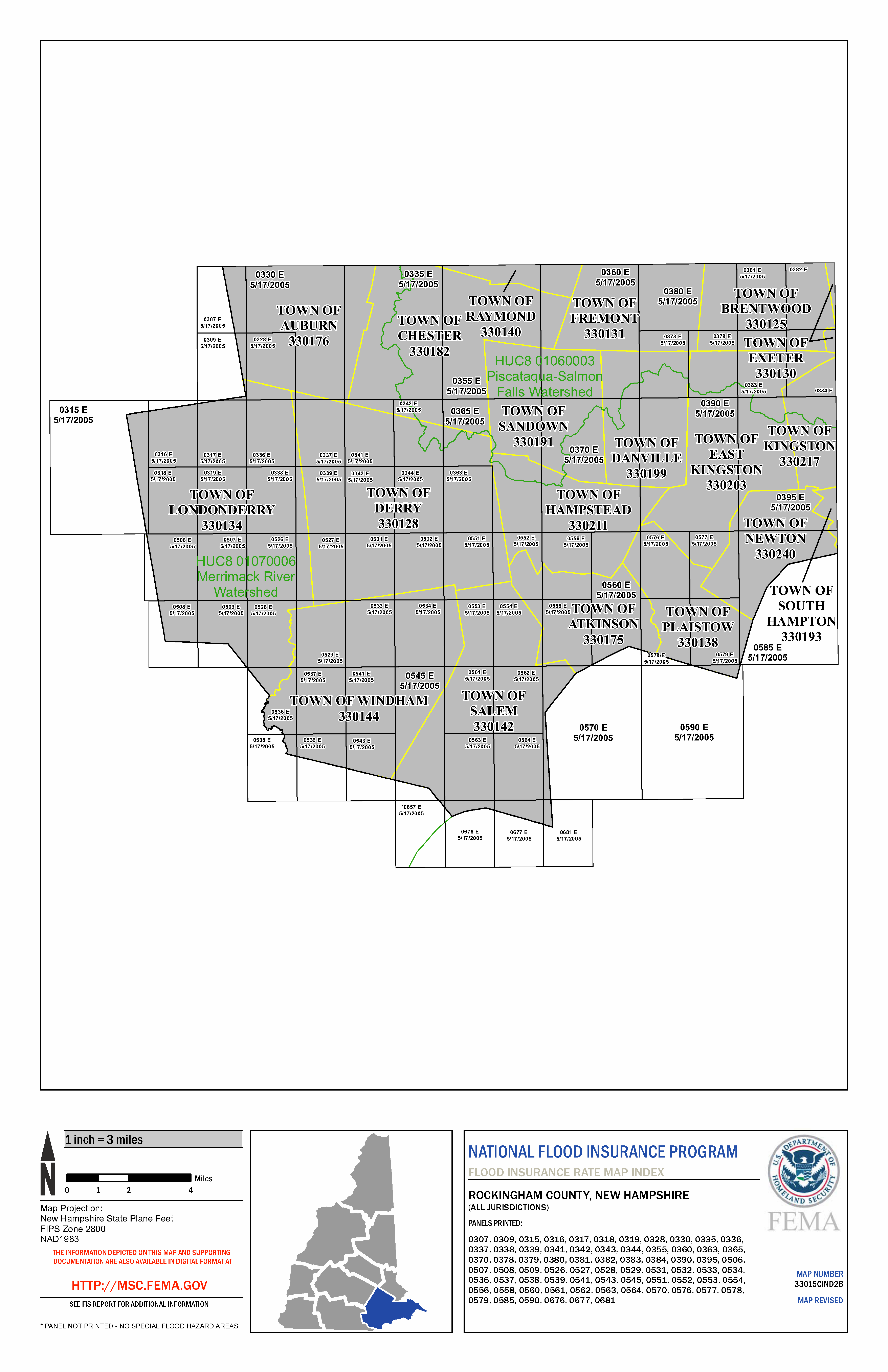
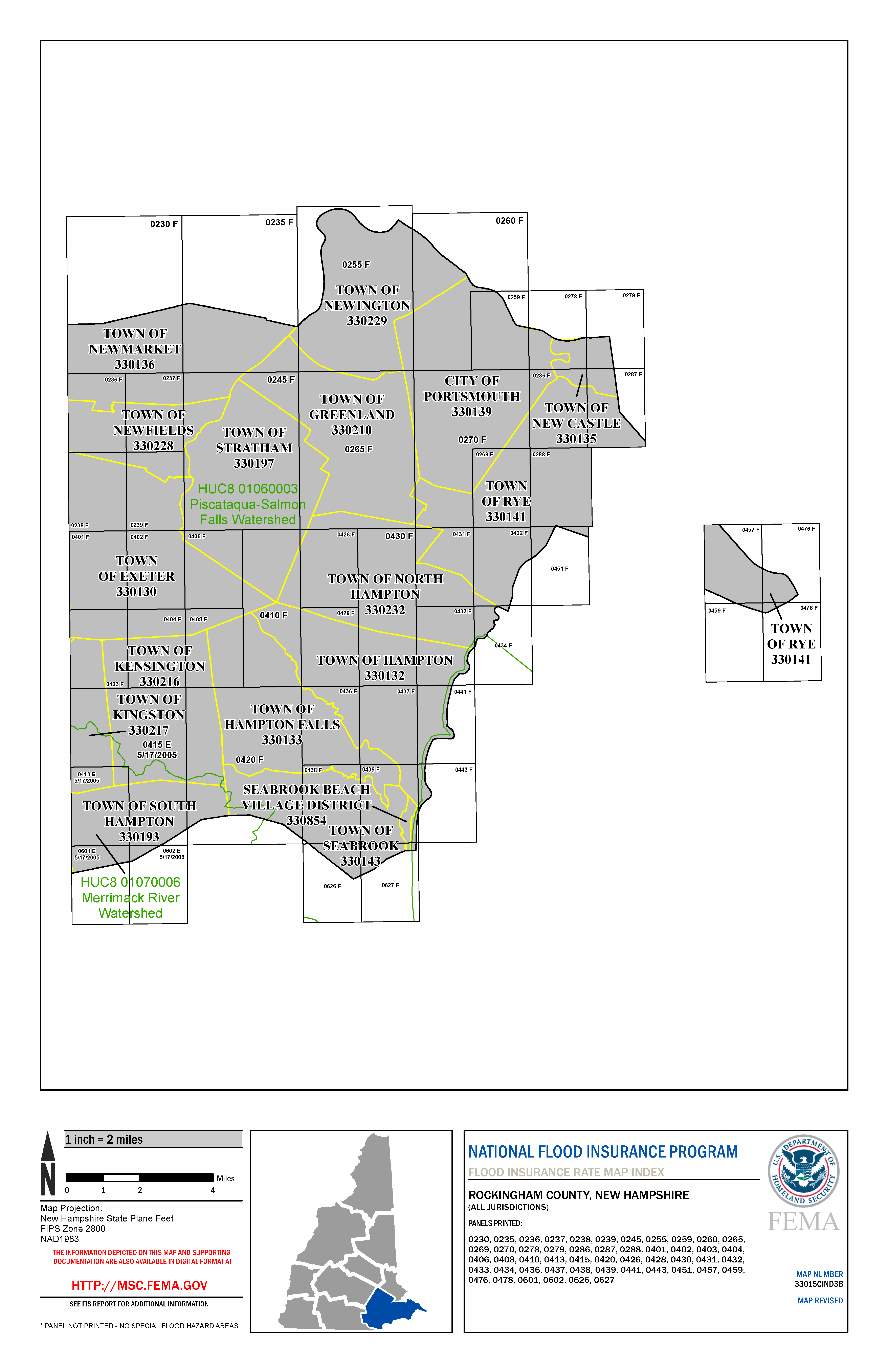


Figure 1: FIRM Panel Index (continued)



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

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| **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](http://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 Panel 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.  Coastal Base Flood Elevations shown on the map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Coastal flood elevations are also provided in the Coastal Transect Parameters table in the FIS Report for this jurisdiction. Elevations shown in the Coastal Transect Parameters table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.  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) New Hampshire State Plane Feet, FIPS Zone 2800, Transverse Mercator. The horizontal datum was NAD83, Spheroid GRS 1980. 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 or National Geodetic Vertical Datum of 1929. 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](http://www.ngs.noaa.gov/) or contact the National Geodetic Survey at the following address:  *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 these jurisdictions. 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. |

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| **NOTES FOR FIRM INDEX**  REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Rockingham County, New Hampshire, corresponding revisions to the FIRM Panel 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 April of 2009. |
| **SPECIAL NOTES FOR SPECIFIC FIRM PANELS**  This Notes to Users section was created specifically for Rockingham County, NH, effective XXXX, XXXX.  ELEVATION DATUM: There are two flood elevations shown on the FIRM that are referenced to the North American Vertical Datum of 1988 (NAVD) or National Geodetic Vertical Datum of 1929 (NVGD). NAVD is shown in all areas in Rockingham County that are within the Piscataqua/Salmon Falls Watershed and NGVD is shown in all areas that are within the Merrimack River Watershed.  LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LiMWA (or between the shoreline and the LiMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in Zone VE. |
| 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 Rockingham 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, either at cross section locations or as static whole-foot elevations that apply throughout the 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. |
| Light Blue and pink diagonal stripes | Regulatory Floodway determined in Zone AE. |
| Light Blue Rectangle | Non-encroachment zone (see Section 2.4 of this FIS Report for more information) |
| **OTHER AREAS OF FLOOD HAZARD** | |
| Solid light pink 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. |
| **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** | |
| (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* | Aqueduct, Channel, Culvert, or Storm Sewer |
| *\_\_\_\_\_\_\_\_\_\_ Dam Jetty Weir* | Dam, Jetty, Weir |
| *PALevee* | Levee, Dike or Floodwall |
| *Bridge symbol 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 with Regulatory Water Surface Elevation (BFE) | Lettered Cross Section with Regulatory Water Surface Elevation (BFE) |
| Numbered Cross Section with Regulatory Water Surface Elevation (BFE) | Numbered Cross Section with Regulatory Water Surface Elevation (BFE) |
| Unlettered Cross Section with Regulatory Water Surface Elevation (BFE) | Unlettered Cross Section with Regulatory Water Surface Elevation (BFE) |
|  | 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 (shown for flooding sources for which no cross sections or profile are available) |
| **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)Lamprey River* | River, Stream or Other Hydrographic Feature |
| Interstate Highway | 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* | 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% annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2% 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 Rockingham 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% 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% 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% annual chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% 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 Rockingham County.

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% annual chance floodplain corresponds to the SFHAs. The 0.2% 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 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Adams Pond | Derry, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.04 | N | | AE | 2005 |
| Arlington Mill Reservoir | Salem, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.4 | N | | AE | 2005 |
| Ash Brook | Exeter, Town of; Hampton, Town of; Hampton Falls, Town of; Stratham, Town of | At Taylor River confluence | Points of one square mileage of drainage area | 01060003 | 0.4 |  | N | | A | 2013 |
| Atlantic Ocean | Hampton, Town of; New Castle, Town of; North Hampton, Town of; Rye, Town of; Seabrook, Town of | State Boundary with Massachusetts | State Boundary with Maine | 01060003 | 13 |  | N | | VE | 2013 |
| Back Creek and Zone A Tributaries | Deerfield, Town of; Nottingham, Town of | At confluence of Mile Brook | Points of one square mileage of drainage area | 01060003 | 9 |  | N | | A | 2017 |
| Bailey Brook | Rye, Town of | At confluence of Burke Pond | Points of one square mileage of drainage area | 01060003 | 2.2 |  | N | | A | 2013 |
| Ballard Pond | Derry, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.2 | N | | AE | 2005 |
| Barton Brook | Greenland, Town of; North Hampton, Town of | At confluence of Winnicut River | Points of one square mileage of drainage area | 01060003 | 0.2 |  | N | | A | 2013 |
| Bean River and Zone A Tributaries | Deerfield, Town of; Nottingham, Town of; Northwood, Town of | At confluence of North River | Approximately 1,500 feet above upstream of confluence with Stream281 | 01060003 | 6.4 |  | N | | A | 2017 |
| Bear Brook | Deerfield; Town of | Merrimack County Boundary | Approximately 0.5 miles upstream of Spruce Pond Road | 01070006 | 2.8 |  | N | | A | 2005 |
| Beaver Brook and Zone A Tributaries | Derry, Town of; Londonderry, Town of; Windham, Town of | Hillsborough County Boundary | At confluence of Lower Beaver Lake | 01070006 | 12.4 |  | Y | | AE | 2005 |
| Beaver Lake and Zone A Tributaries | Derry, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.3 | N | | AE | 2005 |
| Beech Hill Brook | Exeter, Town of | At confluence of Fresh River | Points of one square mileage of drainage area | 01060003 | 0.2 |  | N | | A | 2013 |
| Berry’s Brook | Portsmouth, City of; Rye, Town of | At confluence of Seavey Creek | Points of one square mileage of drainage area | 01060003 | 6.7 |  | N | | A | 2013 |
| Black Brook | Londonderry, Town of | Approximately 320 feet downstream of Mammoth Road | Approximately 60 feet upstream of Pillsbury Road | 0107006 | 1.6 |  | N | | A | 2005 |
| Black Brook | Londonderry, Town of | At confluence of Beaver Brook | Approximately 320 feet downstream of Mammoth Road | 0107006 | 2.8 |  | Y | | AE | 2005 |
| Blackwater River | Hampton, Town of; Seabrook, Town of | At confluence of Hampton River | Massachusetts/New Hampshire Corporate Limits | 01060003 | 2.4 |  | N | | AE | 2013 |
| Bloody Brook | Exeter, Town of | At confluence of Little River | State Route 101 | 01060003 | 1.2 |  | N | | A | 2013 |
| Bow Lake | Northwood, Town of | Entire Shoreline | Strafford County Boundary | 01060003 |  | 0.09 | N | | A | 2005 |
| Bracked Brook | Greenland, Town of | At confluence of Great Bay | Points of one square mileage of drainage area | 01060003 | 0.9 |  | N | | A | 2013 |
| Brickyard Brook | East Kingston, Town of | At confluence of Great Brook | Points of one square mileage of drainage area | 01060003 | 0.3 |  | N | | A | 2013 |
| Brown River | Hampton Falls, Town of; Seabrook, Town of | At confluence of Blackwater River | Springfield Terminal Powerlines | 01060003 | 2.7 |  | N | | AE | 2013 |
| Bryant Brook | Atkinson, Town of; Plaistow, Town of | At confluence of Little River No. 3 | At East Road | 0107006 | 1.6 |  | Y | | AE | 2005 |
| Bryant Brook | Atkinson, Town of; Plaistow, Town of | At East Road | Points of one square mileage of drainage area | 0107006 | 0.6 |  | N | | A | 2005 |
| Burke Pond | Rye, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.04 | N | | A | 2013 |
| Cains Brook | Seabrook, Town of | At confluence of Shepherd River | Massachusetts/New Hampshire Corporate Limits | 01060003 | 2.6 |  | N | | A | 2013 |
| Camp Brook | Atkinson, Town of; Plaistow, Town of | At confluence of Little River No. 3 | Massachusetts State Boundary | 0107006 | 0,5 |  | N | | A | 2005 |
| Canobie Lake | Salem, Town of; Windham, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.6 | N | | A | 2005 |
| Captain Pond Brook | Salem, Town of | At confluence of Captain Pond | At Shannon Road | 01070006 | 1.2 |  | N | | A | 2005 |
| Chapel Brook | North Hampton, Town of | At confluence of Philbrook Pond | At confluence of Little River #2 | 01060003 |  |  | N | | AE | 2013 |
| Clark Pond | Auburn, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.06 | N | | A | 2005 |
| Cobbetts Pond | Windham, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.47 | N | | A | 2005 |
| Cohas Brook | Londonderry, Town of | Approximately 190 feet downstream of Auburn Road | Town of Exeter Corporate limits | 0107006 | 0.4 |  | N | | A | 2005 |
| Cohas Brook | Londonderry, Town of | Town of Exeter Corporate limits | Approximately 190 feet downstream of Auburn Road | 0107006 | 1.4 |  | Y | | AE | 2005 |
| Colby Brook | Danville, Town of | At confluence of Cub Pond | Approximately 1500 feet upstream of Shadow Lake Road | 0107006 | 2.9 |  | N | | A | 2005 |
| Colcord Pond | Exeter, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.03 | N | | A | 2013 |
| Cornelius Brook | North Hampton, Town of | At confluence of Winnicut River | Approximately 650 feet upstream of Lovering Road | 01060003 | 0.3 |  | N | | AE | 2013 |
| Country Pond | Kingston, Town of; Newton, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.48 | N | | AE | 2005 |
| Cub Pond | Danville, Town of; Sandown, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.09 | N | | A | 2005 |
| Cunningham Brook | Derry, Town of | At confluence of Winnicut River | At Hampstead Road | 0107006 | 1.7 |  | N | | A | 2005 |
| Cunningham Brook | Derry, Town of | At Hampstead Road | Approximately 650 feet upstream of Lovering Road | 0107006 | 0.8 |  | Y | | AE | 2005 |
| Don Pond | Deerfield, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  |  | N | | A | 2005 |
| Dearborn Brook | North Hampton, Town of; Stratham, Town of | Rollins Farm Drive | Walnut Avenue | 01060003 | 0.8 |  | N | | A | 2013 |
| Dodge Ponds | Hampton Falls, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.004 | N | | A | 2013 |
| Drakes River | Hampton, Town of; Hampton Falls, Town of | At confluence of Taylor River | Approximately 650 feet downstream of Towle Farm Road | 01060003 | 1.8 |  | N | | AE | 2013 |
| Drew Brook | Derry, Town of | At confluence of Island Pond | At confluence of Cunningham Brook | 0107006 | 1.6 |  | Y | | AE | 2005 |
| Dudley Brook | Exeter, Town of; Brentwood, Town of | Approximately 700 feet above North Road | At North Road | 01060003 | 2.5 |  | N | | A | 2017 |
| Dudley Brook | Exeter, Town of; Brentwood, Town of | Town of Exeter Corporate limits | Approximately 600ft upstream of North Road | 01060003 | 4.0 |  | Y | | AE | 2017 |
| Dudley Brook 2 | Nottingham, Town of; Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 2.4 |  | N | | A | 2017 |
| Eel Pond | Rye, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.16 | N | | AE | 2013 |
| Exeter Reservoir | Exeter, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.08 | N | | A | 2013 |
| Exeter River and Zone A Tributaries | Fremont, Town of; | Approximately 900 feet miles upstream of confluence with Stream 1001 | Approximately 300 feet downstream of the Raymond - Fremont Town boundary | 01060003 | 8.9 |  | N | | A | 2017 |
| Exeter River and Zone A Tributaries | Chester, Town of; Danville, Town of; Fremont, Town of; Sandown, Town of | Approximately 1000 feet miles upstream of the Raymond - Chester Town boundary | Points of one square mileage of drainage area | 01060003 | 15.8 |  | N | | A | 2017 |
| Exeter River | Exeter, Town of; | At String Bridge | At Exeter – Brentwood Town boundary | 01060003 | 8.3 |  | Y | | AE | 2013 |
| Exeter River | Brentwood, Town of;; Fremont, Town of; | At Exeter – Brentwood Town boundary | Approximately 900 feet miles upstream of confluence with Stream 1001 | 01060003 | 8.5 |  | Y | | AE | 2017 |
| Exeter River | Chester, Town of; Fremont, Town of; Raymond, Town of; | Approximately 300 feet downstream of the Raymond - Fremont Town boundary | Approximately 1000 feet miles upstream of the Raymond - Chester Town boundary | 01060003 | 7.4 |  | Y | | AE | 2017 |
| Ezekial Pond | Derry, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.02 | N | | A | 2005 |
| Fardway Brook | Chester, Town of; Raymond, Town of | At confluence of Exeter River | Approximately 800ft upstream of corporate limit with Town of Chester | 01060003 | 6.6 |  | N | | A | 2017 |
| Farm Brook | Seabrook, Town of | At confluence of Hunts Island Creek | Approximately 180ft downstream of Dows Lane | 01060003 | 0.8 |  | N | | AE | 2013 |
| Flatrock Brook | Derry, Town of; Windham, Town of | At confluence of Seavey Pond | At confluence of Ezekial Pond | 0107006 | 2.9 |  | N | | A | 2005 |
| Flatrock Brook | Windham, Town of | At confluence of Shadow Lake | At confluence of Seavey Pond | 0107006 | 1.7 |  | Y | | AE | 2005 |
| Follets Brook | Newmarket, Town of | At confluence of Piscassic River | Strafford County Boundary | 01060003 | 0.6 |  | N | | A | 2013 |
| Foss Brook | Greenland, Town of | At confluence of Great Bay | Approximately 220ft downstream of Great Bay Road | 01060003 | 1.5 |  | N | | A | 2013 |
| Fresh River | Brentwood, Town of; Epping, Town of; Exeter, Town of; | At approximately 150 feet downstream of the Epping-Exeter boundary | Points of one square mileage of drainage area | 01060003 | 2.7 |  | N | | A | 2017 |
| Garland Brook | North Hampton, Town of | At confluence of Little River #2 | Woodland Road | 01060003 | 0.9 |  | N | | AE | 2013 |
| Golden Brook | Windham, Town of | Hillsborough County Boundary | At confluence of Moekel Pond | 01070006 | 3.7 |  | Y | | AE | 2005 |
| Grapevine Run | Hampton, Town of; Hampton Falls, Town of | At confluence of Taylor River | Points of one square mileage of drainage area | 01060003 | 0.7 |  | N | | A | 2013 |
| Grassy Brook | South Hampton, Town of | At confluence of Taylor River | Massachusetts State Boundary | 01070006 | 2.3 |  | N | | A | 2005 |
| Great Bay | Greenland, Town of; Newington, Town of; Newmarket, Town of; Stratham, Town of | At confluence of Piscataqua River | At confluence of Squamscott River | 01060003 | 4.6 | 21.4 | N | | AE | 2013 |
| Great Brook | Exeter, Town of; East Kingston, Town of; Kensington, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 5.6 |  | N | | A | 2017 |
| Great Meadows Brook | Kensington, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Great Pond | Kingston, Town of, | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.42 | N | | AE | 2005 |
| Griffin Brook | Deerfield, Town of, | Merrimack County Boundary | Approximately 0.3 miles downstream of James Road | 0107006 | 0.9 |  | N | | A | 2005 |
| Halfmoon Pond | Kingston, Town of, | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.03 | N | | A | 2005 |
| Hall Mtn Marsh | Candia, Town of | Merrimack County Boundary | Town of Deerfield Corporate limits | 01070006 | 0.3 |  | N | | A | 2005 |
| Hampton Falls River | Hampton Falls, Town of; Seabrook, Town of | At confluence with Exeter River | Confluence with Great Brook | 01060003 | 4.5 |  | N | | A | 2013 |
| Hampton River | Hampton, Town of; Hampton Falls, Town of | Outlet into Atlantic Ocean | At confluence of Taylor River | 01060003 | 4.1 |  | N | | AE | 2013 |
| Harantis Lake | Chester, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.03 | N | | A | 2005 |
| Hartford Brook | Deerfield, Town of | At confluence with Lamprey River | At Mudd Pond | 01060003 | 7.5 |  | N | | A | 2017 |
| Harvey Lake | Northwood, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.02 | N | | A | 2005 |
| Hidden Valley Brook | Londonderry, Town of; Windham, Town of | Approximately 120 feet downstream of Londonderry Road | At Gertrude Road | 01070006 | 0.8 |  | N | | A | 2005 |
| Hidden Valley Brook | Londonderry, Town of; Windham, Town of | At confluence of Beaver Brook | Approximately 120 feet downstream of Londonderry Road | 01070006 | 1.8 |  | Y | | AE | 2005 |
| Hill Brook | Hampstead, Town of | At Sherry Lane | At Route 111 | 01070006 | 0.4 |  | N | | AE | 2005 |
| Hittytity Brook | Salem, Town of | At confluence of Shadow Lake | At Millville Street | 0107006 | 2.0 |  | N | | A | 2005 |
| Hodges Mill Pond | Atkinson, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.004 | N | | A | 2005 |
| Hog Hill Brook | Atkinson, Town of | Town of Salem Corporate limits | At Island Pond Road | 01070006 | 1.7 |  | N | | AE | 2005 |
| Hog Hill Brook | Salem, Town of | At confluence of Providence Hill Brook | Town of Atkinson Corporate limits | 01070006 | 0.4 |  | N | | A | 2005 |
| Hog Hill Pond | Hampstead, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.01 | N | | A | 2005 |
| Hoods Pond | Derry, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.008 | Y | | AE | 2005 |
| Hook Brook | Auburn, Town of | At confluence of Little Massabesic Lake | Approximately 325 feet downstream of Chester Turnpike | 01070006 | 0.7 |  | N | | A | 2005 |
| Hornes Brook | Derry, Town of | At confluence of Hornes Pond | At confluence of Beaver Brook | 01070006 | 0.8 |  | Y | | AE | 2005 |
| Hornes Pond | Derry, Town of | At confluence of Little Massabesic Lake | Approximately 325 feet downstream of Chester Turnpike | 0107006 |  | 0.003 | Y | | AE | 2005 |
| Hunts Island Creek | Seabrook, Town of | At confluence with Brown River | Limit of coastal study | 01060003 | 0.9 |  | N | | AE | 2013 |
| Island Pond | Atkinson, Town of; Derry, Town of; Hampstead, Town of | Entire Shoreline | Entire Shoreline | 0107006 |  | 0.83 | N | | AE | 2005 |
| Kelly Brook | Plaistow, Town of; Hampstead, Town of | Approximately 80 feet upstream of Main Street | Approximately 170 feet upstream of the Town of Hampstead Corporate limits | 0107006 | 1.4 |  | N | | A | 2005 |
| Kelly Brook | Plaistow, Town of | At confluence of Little River No. 3 | Approximately 80 feet upstream of Main Street | 0107006 | 1.7 |  | Y | | AE | 2005 |
| Kelsey Brook | Northwood, Town of | At confluence of Narrows Brook | At confluence of Harvey Lake | 0107006 | 2.4 |  | N | | A | 2005 |
| Kenney Brook | Hampton Falls, Town of | At confluence with Taylor River | Limit of coastal study | 01060003 | 0.5 |  | N | | AE | 2013 |
| Knight Brook | Newington, Town of | At confluence with Little Bay | Limit of coastal study | 01060003 | 0.2 |  | N | | AE | 2013 |
| Lamprey River | Epping, Town of; Raymond, Town of | At the Strafford County Boundary | At approximately 950 feet upstream of the Deerfield-Raymond boundary | 01060003 | 23. |  | Y | | AE | 2017 |
| Lamprey River | Newmarket, Town of | At confluence of Great Bay | Strafford County Boundary | 01060003 | 2.6 |  | Y | | AE | 2013 |
| Lamprey River and Zone A Tributaries | Deerfield, Town of; Northwood, Town of; | At confluence of Stream252 | Points of one square mileage of drainage area | 01060003 | 10 |  | N | | A | 2017 |
| Little Bay | Newington, Town of | At confluence of Piscataqua River | At confluence of Great Bay | 01060003 | 7 | 21.4 | N | | AE | 2013 |
| Little Cohas Brook | Londonderry, Town of | Hillsborough County Boundary | Approximately 75 feet downstream of Industrial Drive | 01070006 | 1.0 |  | N | | A | 2005 |
| Little Cohas Brook | Londonderry, Town of | Approximately 75 feet downstream of Industrial Drive | At Litchfield Road | 01070006 | 3.2 |  | Y | | AE | 2005 |
| Little Harbor | New Castle, Town of; Rye, Town of | Atlantic Ocean | Outlet for Sagamore Creek | 01060003 |  |  | N | | VE | 2013 |
| Little Massabesic Lake | Auburn, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.08 | N | | A | 2005 |
| Little River | Nottingham, Town of | Strafford County Boundary | Outlet for Nottingham Lake | 01060003 | 0.5 |  | N | | A | 2017 |
| Little River 1 | Brentwood, Town of; | Just downstream from the Exeter – Brentwood boundary | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2013 |
| Little River 1 | Exeter, Town of | At confluence of Exeter River | At Brentwood Road | 01060003 | 2.5 |  | Y | | AE | 2013 |
| Little River 2 | Brentwood, Town of; Kingston, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 3.2 |  | N | | A | 2013 |
| Little River 3 | Nottingham, Town of | At the Town of Barrington corporate limits | Strafford County Boundary | 01060003 | 5.2 |  | N | | A | 2017 |
| Little River 3 | Plaistow, Town of; Newton, Town of | Massachusetts State Boundary | Town of Kingston corporate limits | 01070006 | 4.7 |  | Y | | AE | 2005 |
| Locke Pond | Rye, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.01 | N | | A | 2013 |
| Lower Beaver Lake | Derry, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.27 | N | | AE | 2005 |
| Lower Shields Pond | Derry, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.009 | N | | A | 2005 |
| Lubberland Creek | Newmarket, Town of | At confluence of Great Bay | Points of one square mileage of drainage area | 01060003 | 2.1 |  | N | | A | 2013 |
| Lucas Pond | Northwood, Town of; Nottingham, Town of | At confluence of North River | Lucas Pond | 01060003 | 0.5 | 0.16 | N | | A | 2013 |
| Maple Falls Brook | Candia, Town of | Merrimack County Boundary | At confluence of Tower Hill Pond | 01070006 | 1.1 |  | N | | A | 2013 |
| Marsh Brook | Greenland, Town of | At confluence of Winnicut River | Points of one square mileage of drainage area | 01060003 | 0.7 |  | N | | A | 2013 |
| Massabesic Brook | Auburn, Town of | At confluence of Clark Pond | At confluence of Little Massabesic Lake | 01070006 | 1.4 |  | N | | A | 2005 |
| Massabesic Lake | Auburn, Town of | Entire Shoreline | Hillsborough County Boundary | 01070006 |  | 4.0 | N | | A | 2005 |
| Meadow Pond | Hampton, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.21 | N | | AE | 2013 |
| Mile Brook | Nottingham, Town of | At confluence of Bean River | At confluence of Back Creek | 01060003 | 1.6 |  | N | | A | 2017 |
| Mill Brook | Kensington, Town of | At confluence of Great Brook 1 | Points of one square mileage of drainage area | 01060003 | 2.8 |  | N | | A | 2017 |
| Mill Pond | North Hampton, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.05 | N | | A | 2013 |
| Mill Pond | Kingston, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.025 | N | | A | 2005 |
| Mitchell Pond | Windham, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.021 | N | | A | 2005 |
| Moeckel Pond | Windham, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.05 | N | | A | 2005 |
| Moonlight Brook | Newmarket, Town of | Points of one square mileage of drainage area | Points of one square mileage of drainage area | 01060003 | 0.3 |  | N | | A | 2013 |
| Moose Meadow Brook | Candia, Town of | Merrimack County Boundary | Points of one square mileage of drainage area | 01070006 | 2. 1 |  | N | | A | 2005 |
| Mountain Brook | Deerfield, Town of; Nottingham, Town of | At confluence of Mile Brook | Points of one square mileage of drainage area | 01060003 | 7.4 |  | N | | A | 2017 |
| Mudds Canal | Hampton, Town of | At confluence of Hampton River | At confluence of Taylor River | 01060003 | 0.6 |  | N | | AE | 2013 |
| Murray Mill Brook | Candia, Town of | Points of one square mileage of drainage area | Points of one square mileage of drainage area | 01070006 | 1.1 |  | N | | A | 2005 |
| Narrows Brook | Northwood, Town of | At confluence of Northwood Lake | At Main Street | 01070006 | 0.9 |  | N | | A | 2005 |
| Nesenkeag Brook | Londonderry, Town of | Hillsborough County Boundary | Points of one square mileage of drainage area | 01070006 | 3.2 |  | Y | | AE | 2005 |
| Nicholls Brook | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 5.5 |  | N | | A | 2017 |
| North Branch River and Zone A Tributaries | Candia, Town of; Deerfield, Town of; Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 16 |  | N | | A | 2017 |
| North Brook | North Hampton, Town of | At confluence of Little River # 2 | Points of one square mileage of drainage area | 01060003 | 0.3 |  | N | | A | 2013 |
| North Mill Pond | Portsmouth, City of | At confluence of Piscataqua River | Bartlett Street Bridge | 01060003 |  | 0.32 | N | | AE | 2013 |
| North River and Zone A Tributaries | Epping, Town of; Nottingham, Town of | At confluence of Lamprey River | At confluence of Stream056 | 01060003 | 10 |  | N | | A | 2017 |
| Northwood Lake | Northwood, Town of; Deerfield, Town of | Merrimack County Boundary | Entire Shoreline | 01070006 |  | 1.0 | N | | A | 2005 |
| Norton Brook | Greenland, Town of | At confluence of Winnicut River | Points of one square mileage of drainage area | 01060003 | 1.3 |  | N | | A | 2013 |
| Nottingham Lake | Nottingham, Town of | Entire Shoreline | Strafford County Boundary | 01060003 |  | 0.14 | N | | A | 2017 |
| Old River | Hampton, Town of | At confluence of Taylor River | Points of one square mileage of drainage area | 01060003 | 2.6 |  | N | | A | 2013 |
| Pawtuckaway Pond | Nottingham, Town of | Entire Shoreline | Entire Shoreline | 01060003 |  | 3.2 | N | | A | 2017 |
| Pawtuckaway River | Epping, Town of; Raymond, Town of; Nottingham, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 3.0 |  | N | | A | 2017 |
| Packer Brook | Greenland, Town of; Portsmouth, City of | At confluence of Winnicut River | Points of one square mileage of drainage area | 01060003 | 3.5 |  | N | | A | 2013 |
| Parting Brook | Newfields, Town of | At confluence of Squamscott River | At confluence of Piscassic River | 01060003 | 2.3 |  | N | | A | 2013 |
| Pickering Brook | Epping, Town of; Nottingham, Town of; Raymond, Town of | At confluence of Great Bay | Points of one square mileage of drainage area | 01060003 | 2.3 |  | N | | A | 2013 |
| Piscassic River and Zone A Tributaries | Brentwood, Town of; Exeter, Town of; Epping, Town of; Fremont, Town of; Newfields, Town of; Newmarket, Town of | At the Epping-Newfields Town boundary | Points of one square mileage of drainage area | 01060003 | 15.5 |  | N | A | | 2013, 2017 |
| Piscataqua River | New Castle, Town of; Portsmouth, City of | At confluence of Atlantic Ocean | Strafford County Boundary | 01060003 | 4.8 |  | N | AE | | 2017 |
| Pleasant Lake | Northwood, Town of; Deerfield, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.75 | N | A | | 2005 |
| Policy Brook | Salem, Town of | At confluence of Spicket River | Approximately 1000 feet upstream of Rockingham Park Blvd | 01070006 | 2.5 |  | N | A | | 2005 |
| Policy Brook | Salem, Town of | Approximately 600 feet downstream of Main Street | Approximately 1000 feet upstream of Rockingham Park Blvd | 01070006 | 0.8 |  | Y | AE | | 2005 |
| Porcupine Brook | Salem, Town of | At Route 93 | Approximately 1200 feet downstream of Pelham Road | 01070006 | 0.9 |  | N | A | | 2005 |
| Porcupine Brook | Salem, Town of | Approximately 1200 feet downstream of Pelham Road | Approximately 1500 feet upstream of Pelham Road | 01070006 | 0.5 |  | N | AE | | 2005 |
| Porcupine Brook Tributary | Salem, Town of | At confluence of Porcupine Brook | Approximately 75 feet upstream of Quill Lane | 01070006 | 0.4 |  | N | AE | | 2005 |
| Powwow Pond | East Kingston, Town of; Kingston, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.4 | N | AE | | 2005 |
| Powwow River | Kingston, Town of | Town of Newton corporate limits | At confluence of Great Pond | 01070006 | 2.8 |  | N | AE | | 2005 |
| Powwow River (Downstream Reach) | South Hampton, Town of | Massachusetts State Boundary | Massachusetts State Boundary | 01070006 | 0.7 |  | N | AE | | 2005 |
| Powwow River (Upstream Reach) | South Hampton, Town of | At confluence of Tuxbury Pond | Approximately 100 feet upstream of Chase Road |  | 2.4 |  | N | AE | | 2005 |
| Preston Brook | Auburn, Town of | At confluence of Little Massabesic Lake | Points of one square mileage of drainage area | 01070006 | 0.9 |  | N | A | | 2005 |
| Rainbow Lake | Derry, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.018 | N | A | | 2005 |
| Red Brook | Fremont, Town of | At confluence of Stream565 | Points of one square mileage of drainage area | 01060003 | 2.3 |  | N | A | | 2017 |
| Rock Hill Brook | Exeter, Town of | At confluence of Stream565 | Approximately 150ft downstream of Newfields Road | 01060003 | 0.5 |  | N | AE | | 2013 |
| Rock Pond | Windham, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.052 | N | AE | | 2005 |
| Rollins Brook | Epping, Town of; Nottingham, Town of | Strafford County Boundary | Points of one square mileage of drainage area | 01060003 | 3.9 |  | N | A | | 2017 |
| Sagamore Creek | Portsmouth, City of; Town of Rye | At confluence of Piscataqua River | Approximately 120ft downstream of Peverly Hill Road | 01060003 | 3.3 |  | N | AE | | 2017 |
| Scamen Brook | Exeter, Town of | At confluence of Little River 1 | Approximately 320ft downstream of Tamarind Lane | 01060003 | 0.4 |  | N | AE | | 2013 |
| Seavey Pond | Windham, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.017 | N | A | | 2005 |
| Shadow Lake | Salem, Town of; Windham, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.056 | N | | A | 2005 |
| Shaw Brook | Greenland, Town of | At confluence of Great Bay | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2013 |
| Shields Brook | Derry, Town of, Londonderry, Town of | At confluence of Hoods Pond | At confluence of Lower Shields Pond | 01070006 | 3.2 |  | Y | | AE | 2005 |
| Simpson Mill Brook | Windham, Town of | Town of Exeter Corporate limits | Hillsborough County Boundary | 01070006 | 1.4 |  | N | | A | 2005 |
| South Mill Pond | Portsmouth, City of | Entire Shoreline | Entire Shoreline | 01060003 |  | 0.36 | N | | AE | 2013 |
| Spicket River and Zone A Tributaries | Salem, Town of | Massachusetts State Boundary | At confluence of Wilson Lake | 01070006 | 7.8 |  | Y | | AE | 2005 |
| Spring Brook | Kensington, Town of | At confluence of Great Brook | Approximately 300ft upstream of N. Haverhill Road | 01060003 | 0.3 |  | N | | A | 2017 |
| Spruce Swamp | Auburn, Town of | At confluence of Preston Brook | Points of one square mileage of drainage area | 01070006 | 1.3 |  | N | | A | 2005 |
| Squamscott River | Exeter, Town of; Newfields, Town of; Newmarket, Town of; Stratham, Town of | At confluence of Great Bay | At confluence of Exeter River | 01060003 | 6.5 |  | N | | AE | 2013 |
| Stream 1000 | Epping, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream 1001 | Fremont, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 0.4 |  | N | | AE | 2017 |
| Stream025 | Deerfield, Town of | At confluence of Hartford Brook | Approximately 300ft upstream of Middle Road | 01060003 | 0.9 |  | N | | A | 2017 |
| Stream03 | Deerfield, Town of | At confluence of Back Creek | Points of one square mileage of drainage area | 01060003 | 0.4 |  | N | | A | 2017 |
| Stream036 | Raymond, Town of | At confluence of Dudley Brook 2 | Points of one square mileage of drainage area | 01060003 | 0.3 |  | N | | A | 2017 |
| Stream039 | Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 0.9 |  | N | | A | 2017 |
| Stream054 | Northwood, Town of | At confluence of Lucas Pond | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream056 | Nottingham, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream059 | Nottingham, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 1.3 |  | N | | A | 2017 |
| Stream067 | Nottingham, Town of | At confluence of Little River 3 | Points of one square mileage of drainage area | 01060003 | 2.6 |  | N | | A | 2017 |
| Stream068 | Nottingham, Town of | At confluence of Stream297 | Strafford County Boundary | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream080 | Chester, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream082 | Sandown, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.5 |  | N | | A | 2017 |
| Stream085 | Sandown, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream087 | Chester, Town of | At confluence of Stream310 | Points of one square mileage of drainage area | 01060003 | 0.3 |  | N | | A | 2017 |
| Stream090 | Chester, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 2.4 |  | N | | A | 2017 |
| Stream098 | East Kingston, Town of; Kingston, Town of | At confluence of Little River 2 | Points of one square mileage of drainage area | 01060003 | 1.3 |  | N | | A | 2017 |
| Stream10 | Raymond, Town of | At confluence of Stream262 | Points of one square mileage of drainage area | 01060003 | 0.30 |  | N | | A | 2017 |
| Stream109 | Exeter, Town of | At confluence of Dudley Brook | At the downstream side of State Route 101 | 01060003 | 1.0 |  | N | | A | 2013 |
| Stream202 | Northwood, Town of | Strafford County Boundary | Points of one square mileage of drainage area | 01060003 | 1.6 |  | N | | A | 2017 |
| Stream245 | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.0 |  | N | | A | 2017 |
| Stream247 | Deerfield, Town of | At confluence of Nicholls Brook | Points of one square mileage of drainage area | 01060003 | 0.52 |  | N | | A | 2017 |
| Stream249 | Deerfield, Town of | At confluence of Hartford Brook | At Hidden Drive | 01060003 | 2.36 |  | N | | A | 2017 |
| Stream251 | Deerfield, Town of | At confluence of Hartford Brook | Points of one square mileage of drainage area | 01060003 | 1.60 |  | N | | A | 2017 |
| Stream252 | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream253 | Deerfield, Town of | At confluence of Stream252 | Points of one square mileage of drainage area | 01060003 | 0.80 |  | N | | A | 2017 |
| Stream254 | Deerfield, Town of; Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream255 | Candia, Town of | At confluence of North Branch River | Points of one square mileage of drainage area | 01060003 | 5.0 |  | N | | A | 2017 |
| Stream256 | Candia, Town of | At confluence of Stream255 | Points of one square mileage of drainage area | 01060003 | 1.5 |  | N | | A | 2017 |
| Stream257 | Candia, Town of | At confluence of Stream255 | Points of one square mileage of drainage area | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream259 | Candia, Town of | At confluence of North Branch River | Points of one square mileage of drainage area | 01060003 | 2.5 |  | N | | A | 2017 |
| Stream262 | Candia, Town of; Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 8.3 |  | N | | A | 2017 |
| Stream263 | Candia, Town of | At confluence of Stream262 | Points of one square mileage of drainage area | 01060003 | 1.6 |  | N | | A | 2017 |
| Stream264 | Raymond, Town of | At confluence of Stream262 | Upstream end of Onway Lake | 01060003 | 0.61 |  | N | | A | 2017 |
| Stream266 | Fremont, Town of | At confluence of Stream639 | Points of one square mileage of drainage area | 01060003 | 0.76 |  | N | | A | 2017 |
| Stream270 | Nottingham, Town of | At confluence of Pawtuckaway River | Town of Epping corporate limits | 01060003 | 0.6 |  | N | | A | 2017 |
| Stream272 | Epping, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.8 |  | N | | A | 2017 |
| Stream274 | Epping, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 2.7 |  | N | | A | 2017 |
| Stream276 | Deerfield, Town of | At confluence of Back Creek | Points of one square mileage of drainage area | 01060003 | 1.7 |  | N | | A | 2017 |
| Stream277 | Deerfield, Town of | At confluence of Stream276 | Points of one square mileage of drainage area | 01060003 | 1.8 |  | N | | A | 2017 |
| Stream278 | Nottingham, Town of | At confluence of Back Creek | Points of one square mileage of drainage area | 01060003 | 0.9 |  | N | | A | 2017 |
| Stream281 | Deerfield, Town of | At confluence of Bean River | Points of one square mileage of drainage area | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream284 | Northwood, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 2.9 |  | N | | A | 2017 |
| Stream285 | Nottingham, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream286 | Nottingham, Town of | At confluence of North River | Points of one square mileage of drainage area | 01060003 | 2.4 |  | N | | A | 2017 |
| Stream289 | Nottingham, Town of | At confluence of Rollins Brook | Approximately 300 feet downstream from Stage Road | 01060003 | 1.9 |  | N | | A | 2017 |
| Stream292 | Newfields, Town of; Newmarket, Town of | Strafford County Boundary | Points of one square mileage of drainage area | 01060003 | 4.0 |  | N | | A | 2017 |
| Stream297 | Nottingham, Town of | At confluence of Little River 3 | Points of one square mileage of drainage area | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream310 | Chester, Town of; Sandown, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 6.3 |  | N | | A | 2017 |
| Stream313 | Chester, Town of; Fremont, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream318 | Raymond, Town of | At confluence of Stream662 | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream328 | Brentwood, Town of | At confluence of Dudley Brook | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream436 | Seabrook, Town of | At confluence of Winkley Brook | Points of one square mileage of drainage area | 01060003 | 0.1 |  | N | | A | 2013 |
| Stream553 | Kingston, Town of | At confluence of Little River 2 | At Bean Road | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream554 | Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream565 | Fremont, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.6 |  | N | | A | 2017 |
| Stream566 | Exeter, Town of; Kensington, Town of | At confluence of Great Brook | Approximately 200 feet upstream of Drinkwater Road | 01060003 | 0.7 |  | N | | A | 2017 |
| Stream572 | Candia, Town of | At confluence of North Branch River | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream573 | Raymond, Town of | At confluence of Fardway Brook | Approximately 0.4 miles upstream of Fardway Brook confluence | 01060003 | 0.4 |  | N | | A | 2017 |
| Stream576 | Deerfield, Town of | At confluence of Stream276 | Approximately 0.5 miles upstream of Stream276 | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream578 | Candia, Town of | At confluence of Stream257 | Approximately 1,800ft upstream of State Route 27 | 01060003 | 0.7 |  | N | | A | 2017 |
| Stream580 | Brentwood, Town of; Fremont, Town of | At confluence of Piscassic River | Approximately 100ft downstream of Karlin Road | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream583 | Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 2.2 |  | N | | A | 2017 |
| Stream586 | Fremont, Town of | At confluence of Piscassic River | Points of one square mileage of drainage area | 01060003 | 0.6 |  | N | | A | 2017 |
| Stream588 | Raymond, Town of; Candia, Town of | At confluence of Fardway Brook | At Town of Candia corporate limits | 01060003 | 1.9 |  | N | | A | 2017 |
| Stream597 | Chester, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream599 | Chester, Town of | At confluence of Piscassic River | Points of one square mileage of drainage area | 01060003 | 0.5 |  | N | | A | 2017 |
| Stream603 | Kensington, Town of | At confluence of Great Brook | Points of one square mileage of drainage area | 01060003 | 0.7 |  | N | | A | 2017 |
| Stream609 | Danville, Town of; Sandown, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.9 |  | N | | A | 2017 |
| Stream612 | Candia, Town of | At confluence of Stream262 | At Patten Hill Road | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream626 | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 0.9 |  | N | | A | 2017 |
| Stream629 | Epping, Town of; Fremont, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 0.7 |  | N | | A | 2017 |
| Stream639 | Fremont, Town of; Raymond, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream646 | Northwood, Town of | Rockingham County boundary | At Bow Lake Road | 01060003 | 0.2 |  | N | | A | 2017 |
| Stream651 | Candia, Town of | At confluence of Stream255 | Approximately 0.7 miles upstream of North Road | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream655 | Epping, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.5 |  | N | | A | 2017 |
| Stream657 | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.0 |  | N | | A | 2017 |
| Stream658 | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream661 | Deerfield, Town of | At confluence of North Branch River | Points of one square mileage of drainage area | 01060003 | 0.4 |  | N | | A | 2017 |
| Stream662 | Raymond, Town of | At confluence of Fardway Brook | Points of one square mileage of drainage area | 01060003 | 1.6 |  | N | | A | 2017 |
| Stream667 | Epping, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.4 |  | N | | A | 2017 |
| Stream669 | Candia, Town of | At confluence of Stream255 | At Currier Road | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream676 | Deerfield, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.1 |  | N | | A | 2017 |
| Stream696 | Fremont, Town of | At confluence of Piscassic River | Points of one square mileage of drainage area | 01060003 | 0.8 |  | N | | A | 2017 |
| Stream8004 | Northwood, Town of | At confluence of Stream284 | Points of one square mileage of drainage area | 01060003 | 0.3 |  | N | | A | 2017 |
| Stream9079 | Chester, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.3 |  | N | | A | 2017 |
| Stream919 | Fremont, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 1.7 |  | N | | A | 2017 |
| Stream9272 | Epping, Town of | At confluence of Lamprey River | Points of one square mileage of drainage area | 01060003 | 1.2 |  | N | | A | 2017 |
| Stream952 | Deerfield, Town of  Nottingham, Town of; Northwood, Town of | At confluence of Bean River | Points of one square mileage of drainage area | 01060003 | 4.0 |  | N | | A | 2017 |
| Stream9659 | Danville, Town of | At confluence of Exeter River | Points of one square mileage of drainage area | 01060003 | 0.9 |  | N | | A | 2017 |
| Taylor Brook | Derry, Town of | At confluence of Island Pond | At confluence of Ballard Pond | 01070006 | 1.4 |  | Y | | AE | 2005 |
| Taylor Brook | Derry, Town of | At confluence of Ballard Pond | Points of one square mileage of drainage area | 01070006 | 0.6 |  | N | | A | 2005 |
| Taylor River | Hampton, Town of; Hampton Falls, Town of | At confluence of Winkley Brook | Approximately 350 feet upstream of Kensington Road | 01060003 | 9.6 |  | N | | A | 2013 |
| Taylors Reservoir | Salem, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.013 | N | | A | 2005 |
| Thompson Brook | Greenland, Town of; Stratham, Town of | At confluence of Winkley Brook | Approximately 350ft upstream of Kensington Road | 01060003 | 1.5 |  | N | | A | 2013 |
| Tower Hill Pond | Auburn, Town of; Candia, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.29 | N | | A | 2005 |
| Tributary A | Windham, Town of | At confluence of Golden Brook | Points of one square mileage of drainage area | 01070006 | 1.6 |  | N | | A | 2005 |
| Tributary B | Windham, Town of | At confluence of Golden Brook | Approximately 800 feet upstream of London Bridge Road | 01070006 | 1.0 |  | N | | A | 2005 |
| Tributary C | Windham, Town of | At confluence of Cobbetts Pond | Points of one square mileage of drainage area | 01070006 | 0.3 |  | N | | A | 2005 |
| Tributary C to Beaver Brook | Londonderry, Town of | At confluence of Beaver Brook | At Pillsbury Road | 01070006 | 2.1 |  | Y | | AE | 2005 |
| Tributary E to Little Cohas Brook | Londonderry, Town of | At confluence of Little Cohas Brook | Approximately 100 feet downstream of Rail Trail | 01070006 | 1.5 |  | Y | | AE | 2005 |
| Tributary F to Beaver Lake | Derry, Town of | At confluence of Beaver Lake | At confluence of Adams Pond | 01070006 | 1.0 |  | Y | | AE | 2005 |
| Tributary F to Beaver Lake | Derry, Town of | At confluence of Adams Pond | Points of one square mileage of drainage area | 01070006 | 1.1 |  | N | | A | 2005 |
| Tributary G to Beaver Brook | Derry, Town of | At confluence of Beaver Brook | Approximately 700 feet upstream of Bowers Road | 01070006 | 1.7 |  | Y | | AE | 2005 |
| Tributary H to Drew Brook | Derry, Town of | At confluence of Drew Brook | Approximately 950 feet upstream of Hampstead Road | 01070006 | 1.1 |  | Y | | AE | 2005 |
| Tributary H to Nesenkeag Brook | Londonderry, Town of | At confluence of Nesenkeag Brook | At Wiley Hill Road | 01070006 | 1.1 |  | Y | | AE | 2005 |
| Tributary J to Black Brook | Londonderry, Town of | At confluence of Black Brook | Approximately 100 feet upstream of Mammoth Road | 01070006 | 1.0 |  | Y | | AE | 2005 |
| Tributary J to Black Brook | Londonderry, Town of | Approximately 100 feet upstream of Mammoth Road | Hillsborough County corporate limits | 01070006 | 1.1 |  | N | | A | 2005 |
| Tributary O to Beaver Brook | Londonderry, Town of | At confluence of Beaver Brook | At Interstate 93 | 01070006 | 0.5 |  | Y | | AE | 2005 |
| Tributary to Adams Pond | Derry, Town of | At confluence of Adams Pond | Points of one square mileage of drainage area | 01070006 | 1.0 |  | N | | A | 2005 |
| Tucker Brook | Northwood, Town of | At confluence of Harvey Lake | Approximately 900 feet upstream of Main Street | 01070006 | 0.8 |  | N | | A | 2005 |
| Tuxbury Pond | South Hampton, Town of | Massachusetts State Boundary | Entire Shoreline | 01070006 |  | 0.12 | N | | A | 2005 |
| Unnamed Brook | Salem, Town of | Approximately 600 feet downstream of Main Street | Approximately 1000 feet upstream of Main Street | 01070006 | 0.3 |  | Y | | AE | 2005 |
| Unnamed Brook | Salem, Town of | Approximately 1000 feet upstream of Main Street | Approximately 850 feet upstream of Main Street | 01070006 | 0.6 |  | N | | A | 2005 |
| Upper Beaver Brook | Londonderry, Town of | At confluence of Shields Brook | At Rail Trail | 01070006 | 1.4 |  | Y | | AE | 2005 |
| Wash Pond | Hampstead, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.27 | N | | AE | 2005 |
| Watts Brook | Londonderry, Town of | Hillsborough County Boundary | Points of one square mileage of drainage area | 01070006 | 2.4 |  | N | | A | 2005 |
| West Channel Policy Brook | Salem, Town of | At confluence of Canobie Lake | Approximately 330 feet downstream of Northeastern Blvd | 01070006 | 0.9 |  | N | | AE | 2005 |
| West Channel Policy Brook | Salem, Town of | Approximately 330 feet downstream of Northeastern Blvd | Approximately 150 feet upstream of Pleasant Street | 01070006 | 0.8 |  | N | | A | 2005 |
| West Running Brook | Derry, Town of | At confluence of Tributary G to Beaver Brook | Points of one square mileage of drainage area | 01070006 | 0.6 |  | N | | A | 2005 |
| Wheelwright Creek | Exeter, Town of | At confluence of Winnicut River | Approximately 400ft upstream of Greenland | 01060003 | 0.7 |  | N | | A | 2013 |
| Winkley Brook | Hampton Falls, Town of; Kensington, Town of | At confluence of Hampton Falls River | Points of one square mileage of drainage area | 01060003 | 2.5 |  | N | | A | 2013, 2017 |
| Winniconic Brook | Greenland, Town of; Stratham, Town of | At confluence of Winnicut River | Approximately 350ft upstream of Union Road | 01060003 | 0.6 |  | N | | A | 2013 |
| Winnicut River | Greenland, Town of; North Hampton, Town of; Stratham, Town of | At confluence of Great Bay | At Exeter-Hampton Expressway | 01060003 | 8.3 |  | N | | A, AE | 2013 |
| World End Brook | Salem, Town of | At Lawrence Road | At confluence of World End Pond | 01070006 | 0.3 |  | N | | AE | 2005 |
| World End Brook | Salem, Town of | Massachusetts State Boundary | At Lawrence Road | 01070006 | 0.8 |  | N | | A | 2005 |
| World End Pond | Salem, Town of | Entire Shoreline | Entire Shoreline | 01070006 |  | 0.15 | N | | AE | 2005 |

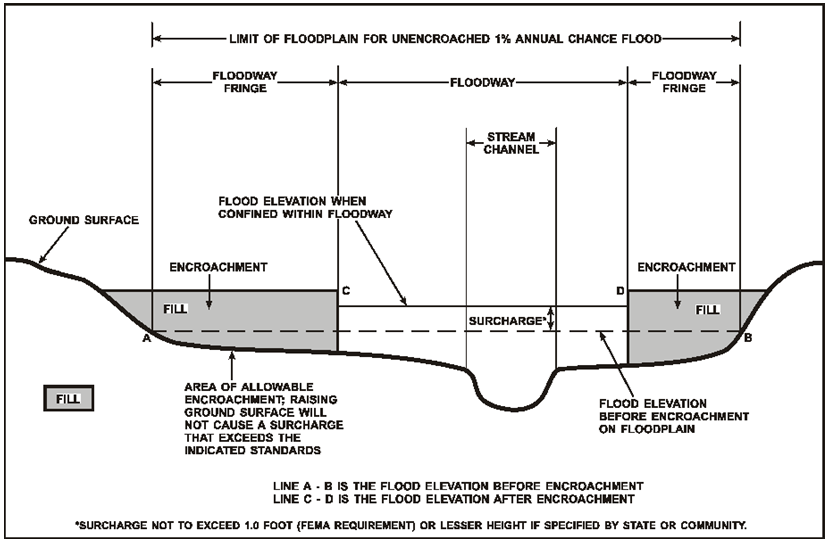
## 2.2 Floodways

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% 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% annual chance flood. The floodway fringe is the area between the floodway and the 1% 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% 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 Rockingham 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% 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% 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.

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. BFEs 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.

## 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% 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 an 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 Rockingham 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% annual chance floodplain boundaries mapped as Zone AE on the FIRM but no floodways.

## 2.5 Coastal Flood Hazard Areas

For most areas along rivers, streams, and small lakes, BFEs and floodplain boundaries

are based on the amount of water expected to enter the area during a 1% annual chance flood and the geometry of the floodplain. Floods in these areas are typically caused by storm events. However, for areas on or near ocean coasts, large rivers, or large bodies of water, BFE and floodplain boundaries may need to be based on additional components, including storm surges and waves. Communities on or near ocean coasts face flood hazards caused by offshore seismic events as well as storm events.

Coastal flooding sources that are included in this Flood Risk Project are shown in Table

2.

### 2.5.1 Water Elevations and the Effects of Waves

Specific terminology is used in coastal analyses to indicate which components have been included in evaluating flood hazards.

The stillwater elevation (SWEL or still water level) is the surface of the water resulting from astronomical tides, storm surge, and freshwater inputs, but excluding wave setup

contribution or the effects of waves.

* Astronomical tides are periodic rises and falls in large bodies of water caused by

the rotation of the earth and by the gravitational forces exerted by the earth, moon and sun.

* Storm surge is the additional water depth that occurs during large storm events.

These events can bring air pressure changes and strong winds that force water up against the shore.

* Freshwater inputs include rainfall that falls directly on the body of water, runoff from surfaces and overland flow, and inputs from rivers.

The 1% annual chance stillwater elevation is the stillwater elevation that has been

calculated for a storm surge from a 1% annual chance storm. The 1% annual chance

storm surge can be determined from analyses of tidal gage records, statistical study of

regional historical storms, or other modeling approaches. Stillwater elevations for storms

of other frequencies can be developed using similar approaches.

The total stillwater elevation (also referred to as the mean water level) is the stillwater

elevation plus wave setup contribution but excluding the effects of waves.

* Wave setup is the increase in stillwater elevation at the shoreline caused by the

reduction of waves in shallow water. It occurs as breaking wave momentum is transferred to the water column.

Like the stillwater elevation, the total stillwater elevation is based on a storm of a particular frequency, such as the 1% annual chance storm. Wave setup is typically estimated using standard engineering practices or calculated using models, since tidal gages are often sited in areas sheltered from wave action and do not capture this information.

Coastal analyses may examine the effects of overland waves by analyzing storm-induced erosion, overland wave propagation, wave runup, and/or wave overtopping.

* Storm-induced erosion is the modification of existing topography by erosion

caused by a specific storm event, as opposed to general erosion that occurs at a

more constant rate.

* Overland wave propagation describes the combined effects of variation in ground

elevation, vegetation, and physical features on wave characteristics as waves

move onshore.

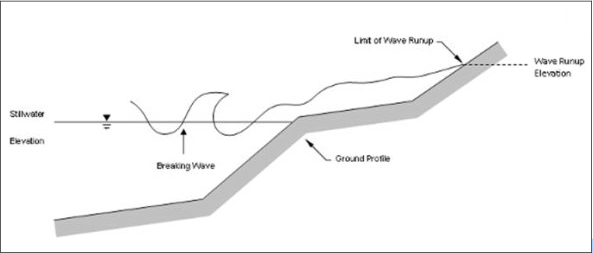
* Wave runup is the uprush of water from wave action on a shore barrier. It is a

function of the roughness and geometry of the shoreline at the point where the

stillwater elevation intersects the land.

* Wave overtopping refers to wave runup that occurs when waves pass over the crest of a barrier.

Figure 5: Wave Runup Transect Schematic



### 2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

For coastal communities along the Atlantic and Pacific Oceans, the Gulf of Mexico, the

Great Lakes, and the Caribbean Sea, flood hazards must take into account how storm

surges, waves, and extreme tides interact with factors such as topography and vegetation. Storm surge and waves must also be considered in assessing flood risk for certain communities on rivers or large inland bodies of water.

Beyond areas that are affected by waves and tides, coastal communities can also have

riverine floodplains with designated floodways, as described in previous sections.

**Floodplain Boundaries**

In many coastal areas, storm surge is the principle component of flooding. The extent of

the 1% annual chance floodplain in these areas is derived from the total stillwater elevation (stillwater elevation including storm surge plus wave setup) for the 1% annual chance storm. The methods that were used for calculation of total stillwater elevations for coastal areas are described in Section 5.3 of this FIS Report. Location of total stillwater elevations for coastal areas are shown in Figure 8, “1% Annual Chance Total Stillwater Levels for Coastal Areas.”

In some areas, the 1% annual chance floodplain is determined based on the limit of wave runup or wave overtopping for the 1% annual chance storm surge. The methods that were used for calculation of wave hazards are described in Section 5.3 of this FIS Report.

Table 26 presents the types of coastal analyses that were used in mapping the 1% annual chance floodplain in coastal areas.

**Coastal BFEs**

Coastal BFEs are calculated as the total stillwater elevation (stillwater elevation including

storm surge plus wave setup) for the 1% annual chance storm plus the additional flood

hazard from overland wave effects (storm-induced erosion, overland wave propagation,

wave runup and wave overtopping). Where they apply, coastal BFEs are calculated along transects extending from offshore to the limit of coastal flooding onshore. Results of these analyses are accurate until local topography, vegetation, or development type and density within the community undergoes major changes.

Parameters that were included in calculating coastal BFEs for each transect included in

this FIS Report are presented in Table 17, “Coastal Transect Parameters.” The locations

of transects are shown in Figure 9, “Transect Location Map.” More detailed information

about the methods used in coastal analyses and the results of intermediate steps in the

coastal analyses are presented in Section 5.3 of this FIS Report. Additional information

on specific mapping methods is provided in Section 6.4 of this FIS Report.

### 2.5.3 Coastal High Hazard Areas

Certain areas along the open coast and other areas may have higher risk of experiencing structural damage caused by wave action and/or high-velocity water during the 1% annual chance flood. These areas will be identified on the FIRM as Coastal High Hazard Areas (CHHAs).

CHHAs are designated as “V” zones (for “velocity wave zones”) and are subject to more

stringent regulatory requirements and a different flood insurance rate structure. The areas of greatest risk are shown as VE on the FIRM. Zone VE is further subdivided into elevation zones and shown with BFEs on the FIRM.

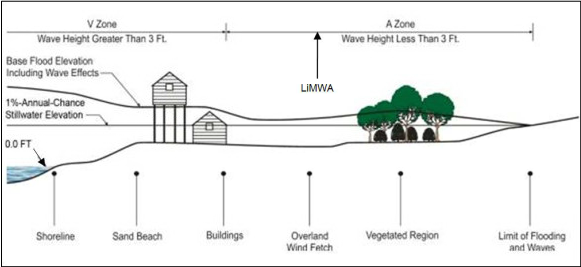
The landward limit of the Primary Frontal Dune (PFD) occurs at a point where there is a distinct change from a relatively steep slope to a relatively mild slope; this point represents the landward extension of Zone VE. Areas of lower risk in the CHHA are designated with Zone V on the FIRM. More detailed information about the identification and designation of Zone VE is presented in Section 6.4 of this FIS Report.

Areas that are not within the CHHA but are SFHAs may still be impacted by coastal

flooding and damaging waves; these areas are shown as “A” zones on the FIRM.

Figure 6, “Coastal Transect Schematic,” illustrates the relationship between the base flood elevation, the 1% annual chance stillwater elevation, and the ground profile as well as the location of the Zone VE and Zone AE areas in an area without a PFD subject to overland wave propagation. This figure also illustrates energy dissipation and regeneration of a wave as it moves inland.

Figure 6: Coastal Transect Schematic



### 2.5.4 Limit of Moderate Wave Action (LIMWA)

Laboratory tests and field investigations have shown that wave heights as little as 1.5 feet can cause damage to and failure of typical Zone AE building construction. Wood-frame, light gage steel, or masonry walls on shallow footings or slabs are subject to damage when exposed to waves less than 3 feet in height. Other flood hazards associated with coastal waves (floating debris, high velocity flow, erosion, and scour) can also damage Zone AE construction.

Therefore, a LiMWA boundary may be shown on the FIRM as an informational layer to

assist coastal communities in safe rebuilding practices. The LiMWA represents the

approximate landward limit of the 1.5-foot breaking wave. The location of the LiMWA

relative to Zone VE and Zone AE is shown in Figure 6.

The effects of wave hazards in Zone AE between Zone VE (or the shoreline where Zone

VE is not identified) and the limit of the LiMWA boundary are similar to, but less severe

than, those in Zone VE where 3-foot or greater breaking waves are projected to occur

during the 1% annual chance flooding event. Communities are therefore encouraged to

adopt and enforce more stringent floodplain management requirements than the minimum NFIP requirements in the LiMWA. The NFIP Community Rating System provides credits for these actions.

Where wave runup elevations dominate over wave heights, there is no evidence to date

of significant damage to residential structures by runup depths less than 3 feet. Examples of these areas include areas with steeply sloped beaches, bluffs, or flood protection structures that lie parallel to the shore. In these areas, the FIRM shows the LiMWA immediately landward of the VE/AE boundary. Similarly, in areas where the zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA is delineated immediately landward of the Zone VE/AE boundary.

# 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% 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% annual chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood insurance zones in this Flood Risk Project Area within Rockingham County.

Table 3: Flood Zone Designations by Community

| Community | Flood Zone(s) |
| --- | --- |
| Atkinson, Town of | A, AE, X |
| Auburn, Town of | A, X |
| Brentwood, Town of | A, AE, X |
| Candia, Town of | A, AE, X |
| Chester, Town of | A, AE, X |
| Danville, Town of | A, X |
| Deerfield, Town of | A, AE, X |
| Derry, Town of | A, AE, X |
| East Kingston, Town of | A, AE, X |
| Epping, Town of | A, AE, X |
| Exeter, Town of | A, AE, X |
| Fremont, Town of | A, AE, X |
| Greenland, Town of | A, AE, X |
| Hampstead, Town of | A, AE, X |
| Hampton Falls, Town of | A, AE, X |
| Hampton, Town of | A, AE, AO, VE, X |

|  |  |
| --- | --- |
| **Table 3: Flood Zone Designations by Community (continued)** | |
| Community | Flood Zone(s) |
| Kensington, Town of | A, X |
| Kingston, Town of | A, AE, X |
| Londonderry, Town of | A, AE, X |
| New Castle, Town of | A, AE, VE, X |
| Newfields, Town of | A, AE, X |
| Newington, Town of | A, AE, X |
| Newmarket, Town of | A, AE, X |
| Newton, Town of | A, AE, X |
| North Hampton, Town of | A, AE, VE, X |
| Northwood, Town of | A, X |
| Nottingham, Town of | A, X |
| Plaistow, Town of | A, AE, X |
| Portsmouth, City of | A, AE, X |
| Raymond, Town of | A, AE, X |
| Rye, Town of | A, AE, AO, VE, X |
| Salem, Town of | A, AE, X |
| Sandown, Town of | A, X |
| Seabrook Beach, Village District of | A, AE, VE, X |
| Seabrook, Town of | A, AE, VE, X |
| South Hampton, Town of | A, AE, X |
| Stratham, Town of | A, AE, X |
| Windham, 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) |
| --- | --- | --- | --- | --- |
| Piscataqua-Salmon Falls | 01060003 | Exeter River | The watershed is bordered by the Charles, Concord, Contoocook, Miller, Nashua, Pemigewasset, Piscataqua- Salmon Falls and Winnipesaukee 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 |
| Merrimack River | 01070006 | Merrimack River | The watershed is bordered by the Saco River, Winnipesaukee River, and Merrimack River Watersheds. The watershed is the fourth largest in New England and is within Massachusetts and New Hampshire. The Merrimack River is formed by the confluence of the Pemigewasset and Winnipesaukee rivers. There are three counties within the NH portion of the watershed that are residential, rural and urban (Manchester and Concord). | 5010 |

## 4.2 Principal Flood Problems

Table 6 contains a description of the principal flood problems that have been noted for Rockingham County by flooding source.

Table 6: Principal Flood Problems

| Flooding Source | Description of Flood Problems |
| --- | --- |
| Atlantic Ocean | The low-lying areas along the Atlantic coast are subject to the periodic flooding and wave attack that accompany northeasters and hurricanes. The majority of these storms cause damage only to low coastal roads, boats, and seawalls. Occasionally, a major storm accompanied by strong onshore winds and high tides results in surge and wave activity that cause extensive property damage and erosion. Some of the more significant storms include those of December 1909, December 1959, February 1972, and February 1978. The recurrence intervals for these storms were 160 years, 15 years, 10 years, and 70 years, respectively. Other significant storms occurred in the vicinity of North Hampton in November 1945, November 1963, November 1968, and November 1969. These storms damaged harbors, marinas, and commercial and residential developments along the flood-prone coastline (FEMA 1982). Other more recent noteworthy storms causing significant flooding in the area have included May 2006, April 2007, and March 2010. |
| Exeter River | During spring runoff periods, the Exeter River frequently flooded roads on the south side of the Town of Exeter, including Court Street, Crawford Avenue, and Portsmouth Avenue. A USGS surface-water discharge station was active on the Exeter River at the Haigh Road Bridge in Brentwood during a 1996 storm and recorded a peak discharge of 3,060 cfs. This event had a recurrence interval of approximately 100 years. Additional areas were flooded by the Exeter River, due to rainfall associated with hurricanes in 1938 and 1954. The area on the north side of the Exeter River in Tib's Grove is subject to occasional backwater flooding from Phillips dam in the Town of Brentwood. |
| Great Bay | Low-lying areas adjacent to Great Bay are subject to periodic flooding. Little  significant damage occurs in these areas due to the general absence of buildings and other structures. |
| Kelly Brook | Flooding problems have occurred in the past and may be expected to occur in the future at the undersized culvert at State Route 125 crossing of Kelly Brook. Such situations can create backwaters of depth sufficient to inundate extensive areas of land. |
| Lamprey River | Low-lying areas are subject to periodic flooding caused by overflows of the Lamprey River, Exeter River, and Squamscott River. The most severe flooding occurs in early spring as a result of snowmelt and heavy rains. In the past, portions of Prescott Road along Lamprey River have flooded nearly every year. The 1989 replacement of the Prescott Road Bridge over the Lamprey River should help alleviate this condition. During the April 1987 flood, up to two feet of water covered portions of Harriman Hill Road. Old Manchester Road and Main Street were also affected by flooding of the Lamprey River in 1987. |
| Pickering Brook | Areas along Pickering Brook are subject to flooding. Present damage potential is slight due to absence of structures in affected marshes. However, future flood damage could be significant if development upstream of State Route 151 is allowed to lower the road elevation of 31 feet. This road crest is the emergency spillway necessary if debris clogs the only culvert through the dam-like road fill. The extensive upstream beaver action and by-products of urbanization could be sources of flood-creating debris. |

| **Table 6: Principal Flood Problems (continued)** | |
| --- | --- |
| Flooding Source | Description of Flood Problems |
| Piscassic River | Minor damage to Cuba Road frequently occurs due to flooding of the Piscassic River. This flooding usually occurs during March and April during spring rains and snowmelt. Floods occurring during other seasons are often associated with debris clogging culverts. Due to the natural and manmade hydraulic structures along the Piscassic River, and the number of beavers in the watershed, collection of debris generally compounds flooding. |
| Policy Brook | The middle reach of Policy Brook between Rockingham Park Boulevard and  Pleasant Street is subject to periodic flooding due to its flat gradient and the many restrictions caused by inadequately sized pipes and culverts. |
| Powwow Pond | Extensive flooding in the low-lying areas surrounding the Powwow Pond system occurred in March 1983. During the flood, elevations on Great Pond peaked at approximately 2 feet above the dam crest. According to records at the New Hampshire Department of Water Resources, this is the maximum recorded elevation for Great Pond. |
| Spicket River | The major portion of the Spicket River floodplain lies between the Arlington Mill Reservoir and the Massachusetts State line. Because of its flat gradient and the numerous swamps and lakes in the watershed, peak flows and stages on the Spicket River are a function of high-volume rainfall. |
| Squamscott River | The Squamscott River periodically floods the Swasey Parkway and other low-lying areas during unusually high tides. In the past, within the Town of Greenland, little significant damage has occurred in these areas, however, due to the general absence of buildings and other structures. |

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

Table 7: Historic Flooding Elevations

| Flooding Source | Location | Historic Peak (Feet NAVD88) | Event Date | Approximate Recurrence Interval (years) | Source of Data |
| --- | --- | --- | --- | --- | --- |
| Atlantic Ocean | Low-lying areas along Atlantic coast | - | December 1909,  December 1959, February 1972, February 1978 | 160, 15, 10, 70 | FEMA 1982 |
| Exeter River | Town of Exeter | - | 1996 | 100 | USGS |

## 4.3 Non-Levee Flood Protection Measures

Table 8 contains information about non-levee flood protection measures within Rockingham 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 |
| --- | --- | --- | --- | --- |
| Atlantic Ocean | N/A | Seawalls and stone revetments | Along Coastal highway | Constructed by State of New Hampshire |
| Atlantic Ocean | N/A | Shoreline protection measures | Wallis Sands State Beach and Hampton Beach | New England River Basins Commission 1980 |
| Atlantic Ocean | N/A | Timber and sheet piles, bulkheads, stone revetments, concrete seawalls and pre-cast concrete units | Along Coast | Constructed by local municipalities and private property owners to satisfy their individual requirements and financial capabilities. |
| Atlantic Ocean | N/A | Breakwater | Town of Rye | Maintained by the USACE |
| Atlantic Ocean | N/A | Breakwater | North shore of Hampton Harbor Inlet | Protects mouth of Hampton and Seabrook Harbors from wave action. |
| Powwow Pond | Trickling Falls Dam | Dam | Outlet of Powwow Pond | Controlled by the Water Division of the New Hampshire Department of Environmental Services. |
| Squamscott River | N/A | Preventative Zoning | Town of Stratham | 150 feet from the Squamscott River and 100 feet of major freshwater |

## 4.4 Levees

This section is not applicable to this Flood Risk Project.

Table 9: Levees

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

# SECTION 5.0 – ENGINEERING METHODS

For the flooding sources in the county, 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% 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 1 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 county 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 |
| Back Creek | At Town of Brentwood corporate limits | 8.3 | 547 | 732 | 884 | 1,069 | 1,518 |
| Back Creek | Upstream of Pawtuckaway Lake | 7.7 | 503 | 673 | 814 | 985 | 1,400 |
| Back Creek | At Town of Deerfield corporate limits | 6.7 | 484 | 642 | 777 | 939 | 1,332 |
| Back Creek | At Stream276 confluence | 3.0 | 235 | 320 | 390 | 476 | 686 |
| Back Creek | At Stream03 confluence | 2.2 | 195 | 267 | 327 | 400 | 582 |
| Back Creek | Downstream of Perry Road | 1.9 | 176 | 241 | 296 | 362 | 526 |
| Back Creek | Approximately 1.6 miles upstream of Perry Road | 1.0 | 133 | 183 | 226 | 278 | 406 |
| Bean River | Approximately 0.89 miles upstream of North River confluence | 6.3 | 436 | 584 | 706 | 854 | 1,211 |
| Bean River | Approximately 2.54 miles upstream of North River confluence | 6.2 | 435 | 583 | 705 | 853 | 1,210 |
| Bean River | Approximately 3.35 miles upstream of North River confluence | 5.3 | 404 | 542 | 656 | 794 | 1,125 |
| Bean River | Approximately 4.4 miles upstream of North River confluence | 4.3 | 373 | 502 | 610 | 739 | 1,051 |
| Bean River | Approximately 5 miles upstream of North River confluence | 1.2 | 95 | 131 | 162 | 199 | 292 |
| Bean River | Upstream of confluence with Stream281 | 0.7 | 74 | 103 | 128 | 158 | 235 |
| Beaver Brook | At Pelham-Windham corporate limits | 51.0 | 1,500 | \* | 2,560 | 3,180 | 4,930 |
| Beaver Brook | At Pelham-Windham-Hudson corporate limits | 48.6 | 1,450 | \* | 2,470 | 3,070 | 4,750 |
| Beaver Brook | Downstream of Robinson Pond Brook | 48.3 | 1,400 | \* | 2,430 | 3,010 | 4,670 |
| Beaver Brook | Upstream of Robinson Pond Brook | 45.0 | 1,310 | \* | 2,360 | 2,900 | 4,490 |
| Beaver Brook | At Londonderry-Windham-Hudson corporate limits | 44.2 | 1,200 | \* | 2,120 | 2,800 | 4,150 |
| Beaver Brook | At Black Brook confluence | 38.3 | 1,040 | \* | 2,100 | 2,580 | 4,050 |
| Beaver Brook | Upstream of Tributary C to Beaver Brook near Station 20.5 | 32.7 | 860 | \* | 1,760 | 2,160 | 3,600 |
| Beaver Brook | From upstream of Tributary C to Beaver Brook in Londonderry to downstream of Tributary O to Beaver Brook in Derry1 | 32.72 | 800 | \* | 1,660 | 2,050 | 3,500 |
| Beaver Brook | From upstream of Tributary O to Beaver Brook to downstream of Hornes Brook1 | 24.32 | 750 | \* | 1,520 | 1,860 | 3,300 |
| Beaver Brook | At Londonderry-Windham-Derry corporate limits | 27.0 | 720 | \* | 1,510 | 1,860 | 3,300 |
| Beaver Brook | From upstream of Hornes Brook to downstream of Tributary G to Beaver Brook1 | 17.52 | 400 | \* | 1,150 | 1,440 | 2,880 |
| Beaver Brook | At Londonderry-Derry corporate limits | 26.3 | 720 | \* | 1,510 | 1,860 | 3,300 |
| Beaver Brook | From upstream of Tributary G to Beaver Brook to downstream of Tributary B to Beaver Brook | 12.52 | 130 | \* | 510 | 650 | 1,410 |
| Beaver Brook | From upstream of Tributary B to Beaver Brook to approximately 650 feet downstream of outlet of Beaver Lake1 | 12.02 | 65 | \* | 380 | 430 | 960 |
| Beaver Brook | At outlet of Beaver Lake | 11.2 | 32 | \* | 240 | 320 | 730 |
| Black Brook | At mouth | 5.6 | 185 | \* | 345 | 425 | 830 |
| Black Brook | At Adams Road | 2.0 | 20 | \* | 60 | 90 | 290 |
| Bryant Brook | Downstream limit of detailed study | 3.9 | 175 | \* | 290 | 355 | 550 |
| Cohas Brook | At Londonderry-Manchester corporate limits | 12.3 | 410 | \* | 760 | 990 | 1,550 |
| Cunningham Brook | At Drew Brook confluence | 3.4 | 245 | \* | 630 | 775 | 1,540 |
| Cunningham Brook | At Tributary H to Nesenkeag Brook confluence | 2.0 | 145 | \* | 390 | 480 | 1,000 |
| Cunningham Brook | At Hampstead Road | 1.1 | 75 | \* | 215 | 260 | 560 |
| Drew Brook | From Island Pond to confluence of Cunningham Brook1 | 5.02 | 115 | \* | 285 | 350 | 700 |
| Dudley Brook | Approximately 0.85 miles upstream of Little River 1 confluence | 7.11 | 331 | 445 | 540 | 656 | 950 |
| Dudley Brook | Approximately 700 feet upstream of Pickpocket Road | 6.22 | 312 | 407 | 491 | 592 | 852 |
| Dudley Brook | Approximately 400 feet downstream of Middle Road | 5.32 | 312 | 406 | 485 | 576 | 812 |
| Dudley Brook | Downstream of the confluence with Stream107 | 5.06 | 297 | 384 | 458 | 541 | 759 |
| Dudley Brook | Downstream of the confluence with Stream328 | 3.32 | 250 | 282 | 343 | 416 | 604 |
| Dudley Brook | Downstream of North Road | 1.76 | 116 | 161 | 200 | 248 | 360 |
| Dudley Brook | Downstream of the Rockingham County Jail | 1.21 | 81 | 114 | 141 | 175 | 264 |
| Dudley Brook | Approximately 1.5 miles upstream of North Road | 0.89 | 73 | 102 | 127 | 158 | 239 |
| Dudley Brook | At the downstream side of North Road | 0.32 | 45 | 65 | 82 | 103 | 159 |
| Exeter River (Town of Exeter) | At High St. Bridge | 107 | 2,910 | \* | 4,740 | 5,690 | 8,350 |
| Exeter River (Town of Exeter) | At Little River confluence | 107 | 2,905 | \* | 4,730 | 5,670 | 8,330 |
| Exeter River (Town of Exeter) | At Great Brook confluence | 87.8 | 2,510 | \* | 4,080 | 4,890 | 7,190 |
| Exeter River (Town of Exeter) | At Linden St. Bridge | 75.7 | 2,240 | \* | 3,650 | 4,370 | 6,430 |
| Exeter River (Town of Exeter) | At Perkins Brook confluence | 75.3 | 2,230 | \* | 3,630 | 4,360 | 6,410 |
| Exeter River (Town of Exeter) | At Pickpocket Dam | 74.1 | 2,210 | \* | 3,590 | 4,310 | 6,330 |
| Exeter River (Town of Exeter) | At Haigh Road | 63.5 | 1,970 | \* | 3,200 | 3,830 | 5,630 |
| Exeter River | At Haigh Road | 63.3 | 2,695 | 3,809 | 4,787 | 5,933 | 9,x200 |
| Exeter River | Approximately 2 miles upstream of Haigh Road | 63.2 | 2,695 | 3,807 | 4,785 | 5,930 | 9,194 |
| Exeter River | At Crawley Falls Road | 62.4 | 2,630 | 3,639 | 4,570 | 5,668 | 8,800 |
| Exeter River | Approximately 1,800 feet upstream of State Route 125 | 61.5 | 2,616 | 3,606 | 4,529 | 5,612 | 8,688 |
| Exeter River | At the downstream side of Mill Road | 60.51 | 2,600 | 3,577 | 4,486 | 5,553 | 8,570 |
| Exeter River | Approximately 800 feet upstream of confluence with Stream1001 | 59.72 | 2,588 | 3,553 | 4,451 | 5,505 | 8,475 |
| Exeter River | At Stream565 confluence | 59.25 | 2,581 | 3,540 | 4,431 | 5,477 | 8,419 |
| Exeter River | Downstream of Stream919 confluence | 55.3 | 2,517 | 3,372 | 4,193 | 5,158 | 7,820 |
| Exeter River | Approximately 2,000 feet upstream of State Route 111A | 53.6 | 2,391 | 3,310 | 4,103 | 5,033 | 7,569 |
| Exeter River | At upstream side of Rockingham Recreational Trail | 52.9 | 2,381 | 3,292 | 4,076 | 4,996 | 7,496 |
| Exeter River | Approximately 1,000 feet downstream of Scribner Road | 52.86 | 2,380 | 3,289 | 4,072 | 4,991 | 7,487 |
| Exeter River | Approximately 0.39 miles upstream of Scribner Road | 51.8 | 2,319 | 3,199 | 3,955 | 4,845 | 7,244 |
| Exeter River | Approximately 0.43 miles downstream of Sandown Road | 50.8 | 2,302 | 3,168 | 3,910 | 4,784 | 7,126 |
| Exeter River | Approximately 0.43 miles upstream of Sandown Road | 50.2 | 2,266 | 3,101 | 3,822 | 4,669 | 6,937 |
| Exeter River | Town of Fremont corporate limits | 49.5 | 2,255 | 3,026 | 3,725 | 4,546 | 6,735 |
| Exeter River | Approximately 1,500 feet upstream of Town of Fremont corporate limits | 48.6 | 2,241 | 2,982 | 3,662 | 4,461 | 6,571 |
| Exeter River | Approximately 0.81 miles downstream of Blueberry Hill Road | 48.5 | 2,238 | 2,977 | 3,655 | 4,451 | 6,553 |
| Exeter River | Approximately 1 mile downstream of Blueberry Hill Road | 47.5 | 2,222 | 2,865 | 3,510 | 4,268 | 6,256 |
| Exeter River | Approximately 300 feet downstream of Blueberry Hill Road | 46.6 | 2,206 | 2,834 | 3,466 | 4,211 | 6,150 |
| Exeter River | Approximately 4,200 feet upstream of Blueberry Hill Road | 46.1 | 2,197 | 2,813 | 3,435 | 4,165 | 6,055 |
| Exeter River | At Fardway Brook confluence | 45.7 | 2,191 | 2,802 | 3,419 | 4,143 | 6,015 |
| Exeter River | At Stream090 confluence | 35.3 | 1,480 | 1,940 | 2,316 | 2,763 | 3,825 |
| Exeter River | At Stream310 confluence | 31.9 | 1,327 | 1,742 | 2,082 | 2,488 | 3,449 |
| Exeter River | At Stream091 confluence | 25.2 | 921 | 1,193 | 1,417 | 1,684 | 2,304 |
| Exeter River | At Stream313 confluence | 23.1 | 801 | 1,044 | 1,242 | 1,480 | 2,034 |
| Exeter River | Approximately 0.49 miles downstream of Sandown Rd | 20.6 | 732 | 960 | 1,147 | 1,373 | 1,907 |
| Exeter River | Approximately 300 feet downstream of corporate limit of Town of Fremont | 19.9 | 732 | 960 | 1,147 | 1,373 | 1,907 |
| Exeter River | Approximately 1,300 feet downstream of confluence with Stream9659 | 19.3 | 716 | 919 | 1,099 | 1,318 | 1,838 |
| Exeter River | At Stream9659 confluence | 19.1 | 716 | 919 | 1,099 | 1,318 | 1,838 |
| Exeter River | At Stream609 confluence | 18.3 | 712 | 909 | 1,088 | 1,304 | 1,817 |
| Exeter River | At Rockingham Recreational Trail | 17.2 | 673 | 886 | 1,061 | 1,273 | 1,778 |
| Exeter River | Approximately 0.87 miles upstream of Odell Road | 16.4 | 642 | 846 | 1,014 | 1,217 | 1,702 |
| Exeter River | At Stream085 confluence | 15.4 | 620 | 817 | 978 | 1,172 | 1,634 |
| Exeter River | At Stream082 confluence | 13.0 | 599 | 745 | 894 | 1,073 | 1,501 |
| Exeter River | At Stream9081 confluence | 7.7 | 471 | 591 | 715 | 865 | 1,231 |
| Exeter River | At corporate limits of the Town of Sandown | 6.5 | 397 | 534 | 647 | 786 | 1,127 |
| Exeter River | At Stream080 confluence | 6.1 | 364 | 490 | 594 | 721 | 1,034 |
| Exeter River | At Stream9079 confluence | 3.6 | 211 | 286 | 348 | 424 | 610 |
| Exeter River | At Stream597confluence | 1.7 | 119 | 163 | 200 | 245 | 358 |
| Exeter River | Approximately 0.51 miles upstream of Stream597 confluence | 0.5 | 45 | 64 | 79 | 98 | 148 |
| Fardway Brook | At Stream662 confluence | 9.8 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | Approximately 0.41 miles upstream of Stream662 confluence | 7.6 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | At Stream573 confluence | 7.3 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | Approximately 1,600 feet downstream of Lane Road | 6.3 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | Approximately 0.64 miles downstream of Old Bye Road | 5.4 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | Approximately 0.64 miles upstream of Lane Road | 4.4 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | At Stream588 confluence | 3.5 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | Approximately 600 feet upstream of Shatagee Road | 2.7 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Fardway Brook | Approximately 0.49 miles upstream of Shatagee Road | 1.7 | 2,287 | 2,918 | 3,439 | 4,066 | 5,511 |
| Flatrock Brook | At inlet to Shadow Lake | 7.3 | 270 | \* | 640 | 760 | 1,450 |
| Flatrock Brook | Downstream of tributary near Station 0.9 | 6.9 | 220 | \* | 540 | 640 | 1,230 |
| Flatrock Brook | Upstream of tributary near Station 0.9 | 5.9 | 190 | \* | 460 | 550 | 1,030 |
| Flatrock Brook | At outlet to Seavey Pond | 5.3 | 170 | \* | 420 | 495 | 960 |
| Fresh River | At Piscassic River confluence | 3.39 | 75 | 102 | 125 | 153 | 223 |
| Fresh River | At upstream end of confluence with Piscassic River | 2.6 | 62 | 84 | 103 | 127 | 186 |
| Fresh River | At Beech Hill Road | 1.99 | 56 | 77 | 94 | 116 | 171 |
| Fresh River | At Town of Exeter corporate limits | 1.32 | 47 | 65 | 81 | 100 | 148 |
| Fresh River | At upstream end of Town of Brentwood corporate limits | 0.35 | 39 | 57 | 72 | 91 | 142 |
| Golden Brook | At outlet to Moeckel (Simpson – Rock Ponds) | 11.5 | 100 | \* | 550 | 750 | 1,490 |
| Golden Brook | At inlet to Moeckel (Simpson – Rock Ponds) | 10.5 | 340 | \* | 805 | 960 | 1,700 |
| Golden Brook | At downstream confluence of Tributary B | 5.9 | 273 | \* | 665 | 791 | 1,400 |
| Golden Brook | At upstream confluence of Tributary B | 3.1 | 142 | \* | 369 | 439 | 860 |
| Golden Brook | At downstream confluence of Tributary A | 2.4 | 103 | \* | 273 | 325 | 630 |
| Grassy Brook | At Powwow River confluence | 1.67 | \* | \* | \* | 198 | \* |
| Great Brook 1 | At Stream566 confluence | 11.7 | 388 | 456 | 548 | 661 | 929 |
| Great Brook 1 | Approximately 700 feet upstream of Stream566 confluence | 11.0 | 388 | 449 | 541 | 652 | 919 |
| Great Brook 1 | At Mill Brook confluence | 11.0 | 388 | 449 | 541 | 652 | 919 |
| Great Brook 1 | Approximately 0.56 miles upstream of Mill Brook confluence | 7.6 | 262 | 351 | 425 | 514 | 731 |
| Great Brook 1 | Approximately 1,600 feet upstream Amesbury Road | 7.6 | 262 | 351 | 425 | 514 | 731 |
| Great Brook 1 | At Stream603 confluence | 7.2 | 261 | 349 | 423 | 512 | 728 |
| Great Brook 1 | Approximately 0.53 miles upstream Stream603 confluence | 6.5 | 242 | 324 | 393 | 477 | 679 |
| Great Brook 1 | Approximately 0.96 miles downstream of Bioteau Drive | 6.2 | 225 | 303 | 367 | 445 | 636 |
| Great Brook 1 | At Stream101 confluence | 6.0 | 213 | 286 | 347 | 422 | 603 |
| Great Brook 1 | Approximately 1,400 feet upstream of State Route 108 | 3.6 | 122 | 166 | 203 | 248 | 361 |
| Great Brook 1 | At Stream099 confluence | 3.3 | 115 | 156 | 191 | 234 | 341 |
| Great Brook 1 | Approximately 1,300 feet upstream of Stream099 confluence | 1.1 | 47 | 65 | 81 | 100 | 150 |
| Hartford Brook | Approximately 1,000 feet upstream of State Route 43 | 11.1 | 962 | 1,273 | 1,527 | 1,830 | 2,548 |
| Hartford Brook | Approximately 2,000 feet downstream of Stream251 confluence | 10.2 | 924 | 1,213 | 1,456 | 1,748 | 2,439 |
| Hartford Brook | At Stream251 confluence | 9.8 | 924 | 1,194 | 1,434 | 1,721 | 2,401 |
| Hartford Brook | Upstream of Middle Road | 8.8 | 833 | 1,106 | 1,329 | 1,596 | 2,231 |
| Hartford Brook | At Stream025 confluence | 8.0 | 767 | 1,007 | 1,212 | 1,458 | 2,042 |
| Hartford Brook | At Stream249 confluence | 5.6 | 549 | 736 | 890 | 1,074 | 1,516 |
| Hartford Brook | Approximately 0.45 miles upstream of Mount Delight Road | 2.1 | 227 | 310 | 379 | 463 | 669 |
| Hartford Brook | Approximately 1,500 feet upstream of Whittier Road | 1.6 | 175 | 240 | 295 | 361 | 527 |
| Hidden Valley Brook | At Beaver Brook confluence | 2.5 | 150 | \* | 270 | 325 | 540 |
| Hidden Valley Brook | At culvert near Station 1.0 | 1.9 | 120 | \* | 220 | 260 | 430 |
| Hidden Valley Brook | At Londonderry Road culvert | 1.1 | 75 | \* | 135 | 165 | 275 |
| Hill Brook | At State Route 111 | 1.52 | \* | \* | \* | 120 | \* |
| Hog Hill Brook | At Haverhill Road | 8.38 | \* | \* | \* | 680 | \* |
| Hog Hill Brook | At Kathi Lane | 5.52 | \* | \* | \* | 410 | \* |
| Hog Hill Brook | At Island Pond Road in the Town of Atkinson | 4.75 | \* | \* | \* | 380 | \* |
| Hornes Brook | From Beaver Brook to Hornes Pond1 | 6.82 | 260 | \* | 313 | 368 | 500 |
| Kelly Brook | Downstream limit of detailed study | 4.9 | 285 | \* | 405 | 495 | 735 |
| Lamprey River | At Stream274 confluence | 75.6 | 4,327 | 5,561 | 6,559 | 7,761 | 10,532 |
| Lamprey River | Approximately 1,300 feet upstream of State Route 87 | 73.0 | 4,327 | 5,561 | 6,559 | 7,761 | 10,532 |
| Lamprey River | At Stream9272 confluence | 72.6 | 4,327 | 5,561 | 6,559 | 7,761 | 10,532 |
| Lamprey River | Approximately 400 feet downstream of State Route 125 | 70.4 | 4,251 | 5,453 | 6,423 | 7,589 | 10,266 |
| Lamprey River | Approximately 300 feet downstream of Main Street | 69.9 | 4,251 | 5,453 | 6,423 | 7,589 | 10,266 |
| Lamprey River | At Stream272 confluence | 69.3 | 4,238 | 5,427 | 6,392 | 7,552 | 10,215 |
| Lamprey River | At Stream667 confluence | 67.1 | 4,120 | 5,233 | 6,165 | 7,286 | 9,861 |
| Lamprey River | Upstream of Stream667 confluence | 66.1 | 4,048 | 5,195 | 6,121 | 7,233 | 9,789 |
| Lamprey River | Approximately 1,400 feet downstream of Blake Road | 65.3 | 4,047 | 5,138 | 6,054 | 7,155 | 9,684 |
| Lamprey River | At Pawtuckaway River confluence | 64.6 | 4,047 | 5,138 | 6,054 | 7,155 | 9,683 |
| Lamprey River | At State Route 27 | 59.6 | 3,730 | 4,792 | 5,650 | 6,682 | 9,055 |
| Lamprey River | Approximately 0.68 miles upstream of State Route 27 | 58.7 | 3,728 | 4,792 | 5,650 | 6,682 | 9,055 |
| Lamprey River | Approximately 0.72 miles downstream of Rockingham Recreational Trail | 57.8 | 3,691 | 4,742 | 5,590 | 6,608 | 8,948 |
| Lamprey River | Approximately 300 feet downstream of State Route 101 | 57.4 | 3,677 | 4,716 | 5,558 | 6,571 | 8,895 |
| Lamprey River | At Stream629 confluence | 56.8 | 3,677 | 4,700 | 5,541 | 6,551 | 8,870 |
| Lamprey River | At Stream639 confluence | 55.9 | 3,626 | 4,658 | 5,491 | 6,490 | 8,784 |
| Lamprey River | Approximately 2,000 feet upstream Stream639 confluence | 54.7 | 3,599 | 4,623 | 5,447 | 6,436 | 8,699 |
| Lamprey River | At downstream side of State Route 101 | 53.7 | 3,599 | 4,623 | 5,447 | 6,436 | 8,699 |
| Lamprey River | Approximately 1,500 feet upstream of State Route 101 | 53.6 | 3,593 | 4,602 | 5,422 | 6,405 | 8,655 |
| Lamprey River | At Stream039 confluence | 53.0 | 3,593 | 4,595 | 5,414 | 6,395 | 8,640 |
| Lamprey River | At Stream583 confluence | 51.1 | 3,549 | 4,421 | 5,207 | 6,149 | 8,301 |
| Lamprey River | At Stream262 confluence | 49.0 | 3,549 | 4,353 | 5,128 | 6,055 | 8,175 |
| Lamprey River | At downstream side of Landford Road | 38.5 | 2,932 | 3,774 | 4,453 | 5,266 | 7,135 |
| Lamprey River | At Dudley Brook 2 confluence | 38.4 | 2,929 | 3,732 | 4,402 | 5,204 | 7,046 |
| Lamprey River | Approximately 400 feet upstream of Dudley Brook 2 confluence | 35.4 | 2,849 | 3,509 | 4,141 | 4,898 | 6,638 |
| Lamprey River | At Stream554 confluence | 35.3 | 2,849 | 3,495 | 4,127 | 4,882 | 6,620 |
| Lamprey River | Approximately 500 feet upstream of Stream554 confluence | 34.4 | 2,849 | 3,460 | 4,083 | 4,827 | 6,538 |
| Lamprey River | Approximately 1,200 feet upstream of Dudley Road | 34.4 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | Approximately 0.68 miles downstream of Stream254 confluence | 33.9 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | At Stream254 confluence | 33.6 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | Approximately 0.54 miles upstream of Stream254 confluence | 32.3 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | Approximately 0.64 upstream of Stream254 confluence | 32.0 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | Approximately 1,200 feet upstream of Cotton Road | 31.1 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | At Stream252 confluence | 30.4 | 2,101 | 2,595 | 3,084 | 3,670 | 5,045 |
| Lamprey River | Upstream of Stream252 confluence | 27.5 | 2,101 | 2,405 | 2,862 | 3,410 | 4,699 |
| Lamprey River | At Nichols Brook confluence | 16.3 | 1,177 | 1,501 | 1,798 | 2,156 | 3,010 |
| Lamprey River | Approximately 1,300 feet upstream of Nichols Brook confluence | 11.7 | 797 | 1,056 | 1,271 | 1,530 | 2,156 |
| Lamprey River | At Stream676 confluence | 11.4 | 776 | 1,031 | 1,241 | 1,495 | 2,109 |
| Lamprey River | Approximately 900 feet upstream of Stream676 confluence | 9.6 | 668 | 889 | 1,071 | 1,291 | 1,826 |
| Lamprey River | At Stream657 confluence | 9.4 | 663 | 880 | 1,061 | 1,280 | 1,809 |
| Lamprey River | At Stream8277 confluence | 8.5 | 644 | 810 | 978 | 1,180 | 1,671 |
| Lamprey River | At Stream245 confluence | 7.9 | 644 | 775 | 935 | 1,129 | 1,599 |
| Lamprey River | At Stream626 confluence | 6.8 | 539 | 686 | 830 | 1,003 | 1,425 |
| Lamprey River | Approximately 1,100 feet below Blakes Hill Road | 6.2 | 487 | 653 | 790 | 956 | 1,362 |
| Lamprey River | At Stream658 confluence | 5.7 | 482 | 617 | 748 | 907 | 1,294 |
| Lamprey River | Approximately 700 feet upstream of Stream658 confluence | 4.9 | 388 | 523 | 636 | 773 | 1,110 |
| Lamprey River | Approximately 1 mile upstream of Old Coffeetown Road | 4.3 | 335 | 453 | 552 | 672 | 968 |
| Lamprey River | Approximately 0.87 miles downstream of Mountain Road | 3.7 | 302 | 409 | 498 | 606 | 873 |
| Lamprey River | Approximately 0.72 miles upstream of Mountain Road | 2.8 | 225 | 307 | 375 | 458 | 663 |
| Little Cohas Brook | At Industrial Road | 6.7 | 190 | \* | 365 | 480 | 770 |
| Little Cohas Brook | At Harvey Road | 6.3 | 150 | \* | 310 | 385 | 540 |
| Little Cohas Brook | At Litchfield Road | 1.0 | 70 | \* | 135 | 170 | 275 |
| Little River No. 1 | At Exeter River confluence | 13.9 | 345 | \* | 528 | 624 | 874 |
| Little River No. 1 | Approximately 1 mile upstream of Exeter River confluence | 12.69 | 546 | 728 | 881 | 1,067 | 1,526 |
| Little River No. 1 | Approximately 0.43 miles downstream of State Route 111 | 12.07 | 537 | 717 | 868 | 1,051 | 1,505 |
| Little River No. 1 | At Brentwood Road | 11.08 | 481 | 643 | 780 | 947 | 1,360 |
| Little River No. 1 | At Dudley Brook confluence | 10.18 | 439 | 573 | 696 | 847 | 1,223 |
| Little River No. 1 | At Stream109 confluence | 2.27 | 110 | 152 | 187 | 230 | 339 |
| Little River No. 1 | Approximately 0.47 miles upstream of Stream109 confluence | 2.2 | 108 | 149 | 184 | 227 | 335 |
| Little River No. 1 | At State Route 101 | 2.0 | 108 | 149 | 184 | 227 | 335 |
| Little River No. 1 | At Pine Road | 1.0 | 59 | 82 | 102 | 126 | 189 |
| Little River No. 1 | Approximately 0.58 miles upstream of State Route 101 | 0.6 | 28 | 40 | 50 | 62 | 94 |
| Little River No. 2 | Approximately 700 feet upstream of Exeter River confluence | 9.9 | 341 | 454 | 548 | 662 | 938 |
| Little River No. 2 | Approximately 0.66 miles downstream of South Road | 9.69 | 330 | 440 | 531 | 641 | 909 |
| Little River No. 2 | At Little River Road | 8.8 | 290 | 387 | 467 | 565 | 801 |
| Little River No. 2 | Approximately 1.1 miles upstream of Little River Road | 4.9 | 142 | 191 | 232 | 281 | 403 |
| Little River No. 2 | Approximately 1,100 feet downstream of State Route 107 | 4.02 | 127 | 172 | 209 | 254 | 364 |
| Little River No. 2 | Approximately 0.72 miles upstream of Stream553 confluence | 2.06 | 70 | 95 | 116 | 142 | 207 |
| Little River No. 2 | Just downstream of North Road | 1.47 | 52 | 72 | 89 | 109 | 160 |
| Little River No. 3 | Approximately 1,500 feet upstream of Lamprey River confluence | 16.0 | 974 | 1,283 | 1,537 | 1,843 | 2,573 |
| Little River No. 3 | Approximately 0.49 downstream of Stream624 confluence | 16.0 | 969 | 1,277 | 1,530 | 1,835 | 2,561 |
| Little River No. 3 | At Stream624confluence | 15.7 | 964 | 1,269 | 1,520 | 1,823 | 2,541 |
| Little River No. 3 | At Stream633 confluence | 15.1 | 956 | 1,237 | 1,482 | 1,777 | 2,478 |
| Little River No. 3 | At Kelsey Road | 14.0 | 956 | 1,200 | 1,439 | 1,726 | 2,410 |
| Little River No. 3 | Approximately 0.91 miles upstream of Mill Pond Road | 12.2 | 723 | 960 | 1,155 | 1,391 | 1,955 |
| Little River No. 3 | Approximately 0.7 miles downstream of Smoke Street | 11.3 | 702 | 932 | 1,122 | 1,350 | 1,897 |
| Little River No. 3 | Approximately 600 feet upstream of Smoke Street | 10.4 | 636 | 846 | 1,019 | 1,228 | 1,728 |
| Lucas Pond | At Stream054 confluence | 3.94 | 375 | 453 | 553 | 672 | 969 |
| Lucas Pond | Approximately 1,800 feet downstream of Lucas Pond Road | 1.12 | 99 | 137 | 169 | 207 | 305 |
| Lucas Pond | Approximately 0.51 miles upstream of Lucas Pond Road | 1 | 89 | 123 | 152 | 187 | 275 |
| Mile Brook | At Back Creek confluence | 20.35 | 1,051 | 1,260 | 1,505 | 1,799 | 2,494 |
| Mile Brook | Upstream of Back Creek confluence | 7.8 | 395 | 444 | 660 | 806 | 1,170 |
| Mile Brook | Approximately 0.72 miles downstream of State Park Road | 7.8 | 395 | 444 | 660 | 806 | 1,170 |
| Mile Brook | At Stream051 confluence | 6.5 | 395 | 428 | 660 | 806 | 1,170 |
| Mile Brook | Approximately 0.42 miles upstream of Stream051 confluence | 3.8 | 313 | 426 | 520 | 635 | 918 |
| Mile Brook | At confluence with Mountain Brook | 3.7 | 313 | 426 | 520 | 635 | 918 |
| Mill Brook | At Stream102 confluence | 3.18 | 179 | 184 | 225 | 275 | 399 |
| Mill Brook | Approximately 0.77 miles upstream of Osgood Road | 0.99 | 54 | 75 | 93 | 115 | 171 |
| Mountain Brook | Approximately 0.85 miles upstream of State Park Road | 3.6 | 304 | 414 | 506 | 618 | 895 |
| Mountain Brook | At upstream end of Mountain Road | 2.8 | 243 | 332 | 407 | 498 | 725 |
| Mountain Brook | Approximately 1,700 feet upstream of Reservation Road | 1.5 | 130 | 180 | 223 | 276 | 413 |
| Mountain Brook | Approximately 3,100feet upstream Reservation Road | 0.93 | 79 | 111 | 138 | 171 | 258 |
| Nesenkeag Brook | At Londonderry-Litchfield corporate limits | 6.9 | 380 | \* | 720 | 870 | 1,390 |
| Nesenkeag Brook | At confluence of Tributary H to Nesenkeag Brook | 4.8 | 260 | \* | 500 | 625 | 1,000 |
| Nichols Brook | At Stream247 confluence | 4.03 | 380 | 514 | 626 | 761 | 1,092 |
| Nichols Brook | Approximately 1,500 feet downstream of Lang Road | 2.63 | 265 | 361 | 442 | 540 | 785 |
| Nichols Brook | At Babb Road | 1.88 | 188 | 258 | 317 | 388 | 569 |
| Nichols Brook | Approximately 600 feet upstream of Griffin Road | 1.01 | 128 | 177 | 219 | 270 | 399 |
| North Branch River | Approximately 1,500 feet upstream of Lamprey River confluence | 17.55 | 980 | 1,287 | 1,539 | 1,841 | 2,559 |
| North Branch River | Approximately 0.62 miles downstream of State Route 27 | 17.15 | 951 | 1,250 | 1,494 | 1,788 | 2,485 |
| North Branch River | At Stream259confluence | 17.08 | 951 | 1,250 | 1,494 | 1,788 | 2,485 |
| North Branch River | Approximately 1,500 feet upstream of Stream259 confluence | 14.86 | 802 | 1,055 | 1,263 | 1,513 | 2,108 |
| North Branch River | Approximately 1.2 miles upstream of Stream259 confluence | 13.24 | 674 | 887 | 1,062 | 1,273 | 1,777 |
| North Branch River | At Stream572 confluence | 11.11 | 624 | 716 | 860 | 1,034 | 1,451 |
| North Branch River | Approximately 1,400 feet upstream of New Boston Road | 4.63 | 232 | 312 | 379 | 459 | 657 |
| North Branch River | Approximately 1.1 miles upstream of New Boston Road | 4.44 | 232 | 312 | 379 | 459 | 657 |
| North Branch River | At Stream661 confluence | 3.44 | `182 | 245 | 298 | 362 | 518 |
| North Branch River | Approximately 1,600 feet upstream of Stream661 confluence | 2.37 | 114 | 155 | 189 | 230 | 331 |
| North Branch River | At Beaver Pond | 1.9 | 86 | 117 | 142 | 173 | 249 |
| North Branch River | At Spruce Pond | 1.07 | 33 | 46 | 56 | 68 | 98 |
| North River | Approximately 2,200 feet downstream of Calef Highway | 57.79 | 2,673 | 3,453 | 4,085 | 4,847 | 6,618 |
| North River | Approximately 1,800 feet upstream Calef Highway | 56.86 | 2,660 | 3,428 | 4,056 | 4,812 | 6,566 |
| North River | Approximately 0.81 miles upstream of Calef Highway | 56.33 | 2,660 | 3,320 | 3,929 | 4,664 | 6,375 |
| North River | At Stream606 confluence | 55.34 | 2,660 | 3,264 | 3,864 | 4,587 | 6,269 |
| North River | At Rollins Brook confluence | 54.52 | 2,660 | 3,185 | 3,772 | 4,480 | 6,132 |
| North River | Approximately 1,300 feet upstream of Rollins Brook confluence | 46.94 | 2,246 | 2,702 | 3,205 | 3,812 | 5,235 |
| North River | Approximately 0.7 miles downstream of McCrills Road | 46.82 | 2,246 | 2,687 | 3,188 | 3,792 | 5,208 |
| North River | Approximately 0.47 miles downstream of Stage Road | 46.36 | 2,246 | 2,573 | 3,050 | 3,626 | 4,971 |
| North River | Approximately 500 feet upstream of Stage Road | 45.37 | 2,246 | 2,573 | 3,050 | 3,626 | 4,971 |
| North River | At Bean River confluence | 44.45 | 2,246 | 2,504 | 2,967 | 3,525 | 4,826 |
| North River | Approximately 800 feet upstream of logging road | 14.86 | 948 | 1,249 | 1,495 | 1,790 | 2,484 |
| North River | At Stream286 confluence | 14.25 | 936 | 1,204 | 1,442 | 1,727 | 2,398 |
| North River | At Stream285 confluence | 10.59 | 774 | 1,006 | 1,208 | 1,452 | 2,028 |
| North River | Upstream of Stream285 confluence | 9.48 | 696 | 925 | 1,114 | 1,340 | 1,878 |
| North River | Approximately 0.45 miles upstream of Freeman Hall Road | 8.83 | 647 | 861 | 1,037 | 1,248 | 1,753 |
| North River | At Lucas Pond confluence | 8.22 | 610 | 813 | 979 | 1,178 | 1,654 |
| North River | Approximately 500 feet upstream of Lucas Pond confluence | 3.28 | 256 | 346 | 421 | 512 | 731 |
| Pawtuckaway River | Upstream of Folsom Mill Lane | 4.33 | 317 | 431 | 526 | 643 | 931 |
| Pawtuckaway River | Approximately 0.58 miles downstream of Stingy River Road | 4.23 | 311 | 423 | 517 | 632 | 917 |
| Pawtuckaway River | At Stream270 confluence | 3.71 | 285 | 388 | 475 | 580 | 840 |
| Pawtuckaway River | Approximately 0.43 miles upstream of Stream270 confluence | 1.8 | 147 | 203 | 250 | 306 | 449 |
| Pawtuckaway River | At Raymond Road | 0.73 | 68 | 95 | 118 | 146 | 217 |
| Pickering Brook | At Portsmouth Avenue (State Route 151) | 2.45 | 39 | \* | 48 | 53 | 62 |
| Pickering Brook | At access road | 0.8 | \* | \* | \* | 87 | \* |
| Piscassic River | Approximately 1.81 miles upstream of Fresh River confluence | 10.83 | 334 | 446 | 540 | 655 | 940 |
| Piscassic River | Approximately 1,500 feet downstream of Birch Road | 10.36 | 334 | 446 | 540 | 655 | 940 |
| Piscassic River | Approximately 2,000 feet downstream of State Route 27 | 9.4 | 317 | 425 | 516 | 627 | 904 |
| Piscassic River | Approximately 0.56 miles upstream of State Route 27 | 8.43 | 306 | 412 | 501 | 609 | 878 |
| Piscassic River | Approximately 0.47 miles upstream of State Route 101 | 7.45 | 306 | 412 | 501 | 609 | 878 |
| Piscassic River | At State Route 125 | 6.64 | 266 | 359 | 437 | 533 | 772 |
| Piscassic River | At Stream580 confluence | 5.64 | 253 | 314 | 383 | 467 | 679 |
| Piscassic River | Approximately 0.45 miles upstream of Martin Road | 4.63 | 187 | 254 | 310 | 379 | 551 |
| Piscassic River | Approximately 0.60 miles upstream of Martin Road | 3.91 | 149 | 203 | 248 | 304 | 445 |
| Piscassic River | Approximately 0.41 miles downstream of Leavitt Road | 2.92 | 115 | 158 | 194 | 238 | 351 |
| Piscassic River | Approximately 400 feet upstream of Leavitt Road | 2.82 | 113 | 154 | 189 | 232 | 341 |
| Piscassic River | At Stream599 confluence | 1.82 | 81 | 112 | 138 | 170 | 253 |
| Piscassic River | Approximately 600 feet downstream of Beede Hill Road | 1.75 | 76 | 105 | 129 | 160 | 238 |
| Piscassic River | Approximately 900 feet upstream of Beede Hill Road | 1.05 | 64 | 89 | 111 | 137 | 204 |
| Piscassic River | At Stream696 confluence | 0.68 | 51 | 64 | 79 | 98 | 148 |
| Piscassic River | At Stream586 confluence | 0.48 | 44 | 54 | 67 | 84 | 127 |
| Piscassic River | Approximately 0.60 miles upstream of Stream586 confluence | 0.26 | 29 | 42 | 53 | 66 | 103 |
| Policy Brook | At Rockingham Park Inlet | 5.9 | 350 | \* | 550 | 660 | 880 |
| Policy Brook | At State Route 28 | 5.2 | 250 | \* | 390 | 460 | 620 |
| Policy Brook | Approximately 2,000 feet upstream of State Route 28 | 5.0 | 180 | \* | 290 | 330 | 440 |
| Policy Brook | Approximately 700 feet downstream of Main Street | 4.8 | 100 | \* | 190 | 210 | 260 |
| Porcupine Brook | At Interstate Route 93 | 3.1 | \* | \* | \* | 650 | \* |
| Porcupine Brook | At Old Causeway | 2.2 | \* | \* | \* | 450 | \* |
| Porcupine Brook Tributary | At Quill Lane | 0.8 | \* | \* | \* | 210 | \* |
| Powwow River | At Lake Gardner Dam in Amesbury, Massachusetts | 49.1 | \* | \* | \* | 1,720 | \* |
| Powwow River | Downstream reach at corporate limits near Lake Gardner | 48.3 | \* | \* | \* | 1,700 | \* |
| Powwow River | At Tuxbury Pond Dam in Amesbury, Massachusetts | 45.9 | \* | \* | \* | 1,640 | \* |
| Powwow River | Upstream reach at corporate limits in Tuxbury Pond | 41.4 | \* | \* | \* | 1,540 | \* |
| Red Brook | Approximately 0.72 miles upstream of Copp Drive | 1.42 | 5 | 7 | 9 | 11 | 16 |
| Shields Brook | From Hornes Pond to first crossing (looking upstream) of Derry-Londonderry corporate limits1 | 6.72 | 260 | \* | 313 | 368 | 500 |
| Shields Brook | At first Londonderry-Derry corporate limits (looking upstream) | 5.2 | 190 | \* | 465 | 575 | 1,000 |
| Shields Brook | From first crossing (looking upstream) of Derry-Londonderry corporate limits to second crossing (looking upstream) of Derry-Londonderry corporate limits | 5.22 | 146 | \* | 234 | 276 | 362 |
| Shields Brook | At Upper Beaver Brook confluence | 4.6 | 160 | \* | 405 | 500 | 880 |
| Shields Brook | At second Londonderry-Derry corporate limits (looking upstream) | 2.2 | 75 | \* | 200 | 250 | 450 |
| Shields Brook | From second crossing (looking upstream) of Derry-Londonderry corporate limits to upstream study limit1 | 2.22 | 84 | \* | 127 | 146 | 200 |
| Shop Pond | At outlet | 2.52 | \* | \* | \* | 150 | \* |
| Spicket River | At Hampshire Road | 61.6 | 900 | \* | 1,600 | 1,900 | 2,900 |
| Spicket River | At Town Farm Road | 47.9 | 800 | \* | 1,300 | 1,600 | 2,400 |
| Spicket River | At confluence of Providence Hill Brook | 40.0 | 700 | \* | 1,200 | 1,400 | 2,100 |
| Spicket River | At Arlington Mill Reservoir | 26.8 | 350 | \* | 650 | 750 | 1,100 |
| Taylor Brook | At Island Pond | 5.3 | 75 | \* | 365 | 525 | 1345 |
| Taylor Brook | At outlet to Ballard Pond | 4.6 | 10 | \* | 2003 | 3203 | 9603 |
| Taylor Brook | At inlet to Ballard Pond | 3.4 | 320 | \* | 820 | 1,005 | 2,000 |
| Taylor Brook | At confluence of Tributary J to Beaver Brook | 2.5 | 210 | \* | 560 | 690 | 1,400 |
| The Powwow Pond System | At Powwow Pond / Powwow River outlet | 29.6 | \* | \* | \* | 850 | \* |
| The Powwow Pond System | At Country Pond outlet | 14.2 | \* | \* | \* | 410 | \* |
| The Powwow Pond System | At Great Pond outlet | 9.96 | \* | \* | \* | 290 | \* |
| Tributary C to Beaver Brook | At mouth | 2.8 | 185 | \* | 365 | 450 | 740 |
| Tributary C to Beaver Brook | At Chester Road | 2.3 | 120 | \* | 235 | 310 | 490 |
| Tributary D | At Londonderry-Derry corporate limits | 1.5 | 70 | \* | 200 | 245 | 520 |
| Tributary E to Beaver Lake | At mouth | 2.8 | 190 | \* | 350 | 435 | 700 |
| Tributary E to Beaver Lake | At Chester Road | 1.6 | 125 | \* | 235 | 290 | 470 |
| Tributary E to Little Cohas Brook | At Beaver Lake | 1.4 | 110 | \* | 310 | 385 | 820 |
| Tributary E to Little Cohas Brook | At Tsienneto Road | 1.3 | 105 | \* | 295 | 365 | 760 |
| Tributary F to Beaver Lake | At Beaver Lake | 7.2 | 250 | \* | 590 | 725 | 1,350 |
| Tributary F to Beaver Lake | At outlet to Adams Pond | 6.0 | 195 | \* | 475 | 585 | 1,150 |
| Tributary G to Beaver Brook | At confluence with Beaver Brook | 3.6 | 245 | \* | 625 | 770 | 1,500 |
| Tributary G to Beaver Brook | Downstream of confluence of West Running Brook | 3.5 | 210 | \* | 540 | 660 | 1,290 |
| Tributary G to Beaver Brook | Upstream of confluence of West Running Brook | 2.1 | 180 | \* | 495 | 610 | 1,250 |
| Tributary G to Beaver Brook | At Windham Road | 1.3 | 120 | \* | 335 | 410 | 900 |
| Tributary H to Drew Lake | At mouth | 2.5 | 155 | \* | 310 | 390 | 640 |
| Tributary H to Nesenkeag Brook | At confluence with Drew Brook | 1.4 | 110 | \* | 305 | 375 | 795 |
| Tributary H to Nesenkeag Brook | Approximately 1,000 feet upstream of Hampstead Road | 1.0 | 25 | \* | 40 | 120 | 150 |
| Tributary J to Black Brook | At mouth | 1.6 | 110 | \* | 140 | 180 | 285 |
| Tributary O to Beaver Brook | At confluence with Beaver Brook | 1.7 | 75 | \* | 205 | 255 | 535 |
| Tributary O to Beaver Brook | At Derry-Londonderry corporate limits | 1.5 | 70 | \* | 200 | 245 | 520 |
| Unnamed Brook | At State Route 97 bridge | 0.7 | 70 | \* | 100 | 120 | 170 |
| Upper Beaver Brook | At mouth | 2.0 | 65 | \* | 160 | 215 | 430 |
| Wash Pond | At outlet | 2.42 | \* | \* | \* | 150 | \* |
| Wash Pond Tributary | At confluence with Wash Pond | 1.03 | \* | \* | \* | 62 | \* |
| Wash Pond Tributary | At Kent Farm Road | 0.9 | \* | \* | \* | 54 | \* |
| West Channel Policy Brook | At Pleasant Street | 2.8 | \* | \* | \* | 200 | \* |
| West Channel Policy Brook | At Pelham Road | 2.5 | \* | \* | \* | 380 | \* |
| Winkley Brook | At Town of Kensington corporate limits | 2.84 | 128 | 175 | 215 | 264 | 386 |
| Winkley Brook | Approximately 1,000 feet downstream of Amesbury Road | 2.17 | 95 | 130 | 161 | 198 | 292 |
| Winkley Brook | At Stream953 confluence | 2.03 | 87 | 120 | 148 | 183 | 271 |
| Winkley Brook | Approximately 0.72 miles upstream of Stream953 confluence | 1.48 | 51 | 70 | 87 | 108 | 163 |
| Winkley Brook | Approximately 1,200 feet downstream of South Road | 1.03 | 29 | 41 | 51 | 63 | 95 |
| Winnicut River | At the downstream corporate limits of town of North Hampton | 5.97 | 113 | \* | 168 | 198 | 275 |
| 1 Reach Drainage  2 Drainage area at downstream limit of reach  3 Discharges reduced due to Ballard Pond Storage  \* Data not available  \*\* Due to diversion to Oyster River | | | | | | | |

Figure 7: Frequency Discharge-Drainage Area Curves

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

Table 11: Summary of Non-Coastal Stillwater Elevations

|  |  | Elevations (feet NGVD1, NAVD2) | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Flooding Source | Location | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Adams Pond | At Derry | 326.01 | \* | 327.11 | 327.31 | 328.11 |
| Beaver Lake | At Derry | 287.91 | \* | 289.31 | 289.61 | 294.01 |
| Island Pond | At the Towns of Derry and Atkinson’s corporate limits, in Derry, and the entire shoreline within Hampstead | 205.51 | \* | 206.41 | 206.81 | 208.21 |
| Lower Ballard Pond | At Derry | 251.51 | \* | 253.61 | 254.61 | 256.21 |
| Lower Beaver Lake | At Derry | 287.91 | \* | 288.91 | 289.21 | 290.01 |
| Piscataqua River | At Newington | \* | \* | \* | 8.32 | \* |
| Powwow Pond/Powwow River | Upstream of New Boston Road | \* | \* | \* | 120.81 | \* |
| Powwow Pond/Powwow River | Upstream of Boston & Maine Railroad bridge | \* | \* | \* | 119.11 | \* |
| Powwow Pond/Powwow River | Downstream of Boston & Maine Railroad bridge | \* | \* | \* | 118.21 | \* |
| Seavey Pond | At Windham | \* | \* | \* | 248.61 | \* |
| Squamscott River | Entire length within Stratham | 6.22 | \* | 6.82 | 7.02 | 7.52 |
| Upper Ballard Pond | At Derry | 253.71 | \* | 255.51 | 258.41 | 259.21 |
| Wash Pond | Entire shoreline within Hampstead | \* | \* | \* | 234.81 | \* |
| World End Brook and Pond | At Lawrence Road in Salem | \* | \* | \* | 117.01 | \* |

1 NGVD

2 NAVD

\* Data not available

Table 12: Stream Gage Information used to Determine Discharges

|  |  |  |  |  | Period of Record | |
| --- | --- | --- | --- | --- | --- | --- |
| Flooding Source | Gage Identifier | Agency that Maintains Gage | Site Name | Drainage Area (Square Miles) | From | To |
| Dudley Brook | 1073600 | USGS | DUDLEY BROOK NEAR EXETER, NH | 4.97 | 1963 | 2007 |
| Exeter River | 1073587 | USGS | EXETER RIVER AT HAIGH ROAD, NEAR BRENTWOOD, NH | 63.5 | 1997 | 2016 |
| Lamprey River | 10723500 | USGS | LAMPREY RIVER NEAR NEWMARKET, NH | 185 | 1935 | 2016 |

## 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 on 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 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Adams Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | AE |  |
| Arlington Mill Reservoir | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/06/1998 | AE |  |
| Ash Brook | At Taylor River confluence | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Atlantic Ocean | State Boundary with Massachusetts | State Boundary with Maine | USACE Tidal Gage Analysis | WHAFIS, Runup 2.0, TAW and SPM | 04/01/2014 | VE |  |
| Back Creek and Zone A Tributaries | At confluence of Mile Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Bailey Brook | At confluence of Burke Pond | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Ballard Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | HEC 2 | 04/15/1981 | AE |  |
| Barton Brook | At confluence of Winnicut River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Bean River and Zone A Tributaries | At confluence of North River | Approximately 1,500 feet above upstream of confluence with Stream281 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Bear Brook | Merrimack County Boundary | Approximately 0.5 miles upstream of Spruce Pond Road | Regional Flood Frequency Equations | \* | 09/01/1989 | A |  |
| Beaver Brook and Zone A Tributaries | Hillsborough County Boundary | At confluence of Lower Beaver Lake | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Beaver Lake and Zone A Tributaries | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | AE |  |
| Beech Hill Brook | At confluence of Fresh River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Berry’s Brook | At confluence of Seavey Creek | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Black Brook | Approximately 320 feet downstream of Mammoth Road | Approximately 60 feet upstream of Pillsbury Road | Regional Flood Frequency Equations | \* | 11/051980 | A |  |
| Black Brook | At confluence of Beaver Brook | Approximately 320 feet downstream of Mammoth Road | Regional Flood Frequency Equations | \* | 11/051980 | AE w/Floodway |  |
| Blackwater River | At confluence of Hampton River | Massachusetts/New Hampshire Corporate Limits | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Bloody Brook | At confluence of Little River | State Route 101 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Bow Lake | Entire Shoreline | Strafford County Boundary | Regional Flood Frequency Equations | \* | 01/02/1987 | A |  |
| Bracked Brook | At confluence of Great Bay | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Brickyard Brook | At confluence of Great Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Brown River | At confluence of Blackwater River | Springfield Terminal Powerlines | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Bryant Brook | At confluence of Little River No. 3 | At East Road | Regional Flood Frequency Equations | WSPRO | 04/02/1993 | AE w/Floodway |  |
| Bryant Brook | At East Road | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 04/02/1993 | A |  |
| Burke Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Cains Brook | At confluence of Shepherd River | Massachusetts/New Hampshire Corporate Limits | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Camp Brook | At confluence of Little River No. 3 | Massachusetts State Boundary | Regional Flood Frequency Equations | \* | 04/02/1993 | A |  |
| Canobie Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Captain Pond Brook | At confluence of Captain Pond | At Shannon Road | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Chapel Brook | At confluence of Philbrook Pond | At confluence of Little River #2 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Clark Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Cobbetts Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Cohas Brook | Approximately 190 feet downstream of Auburn Road | Town of Exeter Corporate limits | Regional Flood Frequency Equations | \* | 11/05/1980 | A |  |
| Cohas Brook | Town of Exeter Corporate limits | Approximately 190 feet downstream of Auburn Road | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Colby Brook | At confluence of Cub Pond | Approximately 1500 feet upstream of Shadow Lake Road | Regional Flood Frequency Equations | \* | 04/01/1994 | A |  |
| Colcord Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Cornelius Brook | At confluence of Winnicut River | Approximately 650 feet upstream of Lovering Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Country Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1992 | AE |  |
| Cub Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/01/1994 | A |  |
| Cunningham Brook | At confluence of Winnicut River | At Hampstead Road | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Cunningham Brook | At Hampstead Road | Approximately 650 feet upstream of Lovering Road | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Don Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 09/01/1989 | A |  |
| Dearborn Brook | Rollins Farm Drive | Walnut Avenue | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Dodge Ponds | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Drakes River | At confluence of Taylor River | Approximately 650 feet downstream of Towle Farm Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Drew Brook | At confluence of Island Pond | At confluence of Cunningham Brook | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Dudley Brook | Approximately 700 feet above North Road | At North Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Dudley Brook | Town of Exeter Corporate limits | Approximately 600ft above North Road | Gage weighted Regression | HEC-RAS 4.1 | 12/22/2017 | AE w/Floodway | Hydraulic models incorporated field measured  bridge and culvert data. Gage 1073600 used in hydrologic analysis. |
| Dudley Brook 2 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Eel Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Exeter Reservoir | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Exeter River and Zone A Tributaries | Approximately 900 feet miles upstream of confluence with Stream 1001 | Approximately 300 feet downstream of the Raymond - Fremont Town boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Exeter River and Zone A Tributaries | Approximately 1000 feet miles upstream of the Raymond - Chester Town boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Exeter River | At String Bridge | At Exeter – Brentwood Town boundary | Gage weighted Regression | HEC-RAS 4.1 | 2013 |  |  |
| Exeter River | At Exeter – Brentwood Town boundary | Approximately 900 feet miles upstream of confluence with Stream 1001 | Gage weighted Regression | HEC-RAS 4.1 | 12/22/2017 | AE w/Floodway | Hydraulic models incorporated field measured  bridge and culvert data. Gage 1073600 used in hydrologic analysis. |
| Exeter River | Approximately 300 feet downstream of the Raymond - Fremont Town boundary | Approximately 1000 feet miles upstream of the Raymond - Chester Town boundary | Gage weighted Regression | HEC-RAS 4.1 | 12/22/2017 | AE w/Floodway | Hydraulic models incorporated field measured  bridge and culvert data. Gage 1073600 used in hydrologic analysis. |
| Ezekial Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Fardway Brook | At confluence of Exeter River | Approximately 800ft above corporate limit with Town of Chester | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Farm Brook | At confluence of Hunts Island Creek | Approximately 180ft downstream of Dows Lane | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Flatrock Brook | At confluence of Seavey Pond | At confluence of Ezekial Pond | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Flatrock Brook | At confluence of Shadow Lake | At confluence of Seavey Pond | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Follets Brook | At confluence of Piscassic River | Strafford County Boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Foss Brook | At confluence of Great Bay | Approximately 220ft downstream of Great Bay Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Fresh River | At approximately 150 feet downstream of the Epping-Exeter boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Garland Brook | At confluence of Little River #2 | Woodland Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Golden Brook | Hillsborough County Boundary | At confluence of Moekel Pond | Regional Flood Frequency Equations | \* | 11/03/1989 | AE w/Floodway |  |
| Grapevine Run | At confluence of Taylor River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Grassy Brook | At confluence of Taylor River | Massachusetts State Boundary | Regional Flood Frequency Equations | \* | 07/15/1992 | A |  |
| Great Bay | At confluence of Piscataqua River | At confluence with Squamscott River | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Great Brook | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Great Meadows Brook | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Great Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1992 | AE |  |
| Griffin Brook | Merrimack County Boundary | Approximately 0.3 miles downstream of James Road | Regional Flood Frequency Equations | \* | 09/01/1989 | A |  |
| Halfmoon Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1992 | A |  |
| Hall Mtn Marsh | Merrimack County Boundary | Town of Deerfield Corporate limits | Regional Flood Frequency Equations | \* | 06/28/1974 | A |  |
| Hampton Falls River | At confluence with Exeter River | Confluence with Great Brook | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A, AE |  |
| Hampton River | Outlet into Atlantic Ocean | At confluence of Taylor River | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE, VE |  |
| Harantis Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 03/01/2000 | A |  |
| Hartford Brook | At confluence with Lamprey River | At Mudd Pond | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Harvey Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 01/02/1987 | A |  |
| Hidden Valley Brook | Approximately 120 feet downstream of Londonderry Road | At Gertrude Road | Regional Flood Frequency Equations | \* | 11/05/1980 | A |  |
| Hidden Valley Brook | At confluence of Beaver Brook | Approximately 120 feet downstream of Londonderry Road | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Hill Brook | At Sherry Lane | At Route 111 | Regional Flood Frequency Equations | \* | 06/16/1993 | AE |  |
| Hittytity Brook | At confluence of Shadow Lake | At Millville Street | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Hodges Mill Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/02/1993 | A |  |
| Hog Hill Brook | Town of Salem Corporate limits | At Island Pond Road | Regional Flood Frequency Equations | WSPRO | 04/02/1993 | AE |  |
| Hog Hill Brook | At confluence of Providence Hill Brook | Town of Atkinson Corporate limits | Regional Flood Frequency Equations | \* | 04/02/1993 | A |  |
| Hog Hill Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 06/16/1993 | A |  |
| Hoods Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Hook Brook | At confluence of Little Massabesic Lake | Approximately 325 feet downstream of Chester Turnpike | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Hornes Brook | At confluence of Hornes Pond | At confluence of Beaver Brook | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Hornes Pond | At confluence of Little Massabesic Lake | Approximately 325 feet downstream of Chester Turnpike | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Hunts Island Creek | At confluence with Brown River | Limit of coastal study | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Island Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | HEC 2 | 04/02/1993 | AE |  |
| Kelly Brook | Approximately 80 feet upstream of Main Street | Approximately 170 feet upstream of the Town of Hampstead Corporate limits | Regional Flood Frequency Equations | HEC 2 | 06/16/1993 | A |  |
| Kelly Brook | At confluence of Little River No. 3 | Approximately 80 feet upstream of Main Street | Regional Flood Frequency Equations | HEC 2 | 06/16/1993 | AE w/Floodway |  |
| Kelsey Brook | At confluence of Narrows Brook | At confluence of Harvey Lake | Regional Flood Frequency Equations | HEC 2 | 01/02/1987 | A |  |
| Kenney Brook | At confluence with Taylor River | Limit of coastal study | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Knight Brook | At confluence with Little Bay | Limit of coastal study | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Lamprey River | At the Strafford County Boundary | At approximately 950 feet upstream of the Deerfield-Raymond boundary | Gage Weighted Regression | HEC-RAS 4.1 | 12/22/2017 | AE w/Floodway | Hydraulic models incorporated field measured bridge and culvert data. Gage 10723500 used in hydrologic analysis. |
| Lamprey River (Town of Newmarket) | At confluence of Great Bay | Strafford County Boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Lamprey River and Zone A Tributaries | At confluence of Stream252 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Little Bay | At confluence of Piscataqua River | At confluence with Great Bay | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | AE |  |
| Little Cohas Brook | Hillsborough County Boundary | Approximately 75 feet downstream of Industrial Drive | Regional Flood Frequency Equations | HEC 2 | 11/051980 | A |  |
| Little Cohas Brook | Approximately 75 feet downstream of Industrial Drive | At Litchfield Road | Regional Flood Frequency Equations | HEC 2 | 11/051980 | AE w/Floodway |  |
| Little Harbor | Atlantic Ocean | Outlet for Sagamore Creek | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | VE |  |
| Little Massabesic Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Little River | Strafford County Boundary | Outlet for Nottingham Lake | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Little River 1 | Just downstream from the Exeter – Brentwood boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Little River 1 | At confluence of Exeter River | At Brentwood Road | Gage weighted Regression | HEC-RAS 4.1 | 12/22/2017 | AE w/Floodway |  |
| Little River 2 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Little River 3 | At the Town of Barrington corporate limits | At the Strafford County boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Little River 3 | Massachusetts State Boundary | Town of Kingston corporate limits | Regional Flood Frequency Equations | HEC 2 | 04/15/1992 | AE w/Floodway |  |
| Locke Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Lower Beaver Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | AE |  |
| Lower Shields Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | AE |  |
| Lubberland Creek | At confluence of Great Bay | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A, AE |  |
| Lucas Pond | At confluence of North River | Lucas Pond | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Maple Falls Brook | Merrimack County Boundary | At confluence of Tower Hill Pond | Regional Flood Frequency Equations | \* | 06/28/1974 | A |  |
| Marsh Brook | At confluence of Winnicut River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Massabesic Brook | At confluence of Clark Pond | At confluence of Little Massabesic Lake | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Massabesic Lake | Entire Shoreline | Hillsborough County Boundary | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Meadow Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| Mile Brook | At confluence of Bean River | At confluence of Back Creek | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Mill Brook | At confluence of Great Brook 1 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Mill Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Mill Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1992 | A |  |
| Mitchell Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Moeckel Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Moonlight Brook | Points of one square mileage of drainage area | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Moose Meadow Brook | Merrimack County Boundary | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 06/28/1974 | A |  |
| Mountain Brook | At confluence of Mile Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Mudds Canal | At confluence of Hampton River | At confluence of Taylor River | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| Murray Mill Brook | Points of one square mileage of drainage area | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 06/28/1974 | A |  |
| Narrows Brook | At confluence of Northwood Lake | At Main Street | Regional Flood Frequency Equations | \* | 01/02/1987 | A |  |
| Nesenkeag Brook | Hillsborough County Boundary | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 11/051980 | AE w/Floodway |  |
| Nicholls Brook | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| North Branch River and Zone A Tributaries | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| North Brook | At confluence of Little River # 2 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| North Mill Pond | At confluence of Piscataqua River | Bartlett Street Bridge | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| North River and Zone A tributaries | At confluence of Lamprey River | At confluence of Stream056 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Northwood Lake | Merrimack County Boundary | Entire Shoreline | Regional Flood Frequency Equations | \* | 01/02/1987 | A |  |
| Norton Brook | At confluence of Winnicut River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Nottingham Lake | Entire Shoreline | Strafford County Boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Old River | At confluence of Taylor River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Pawtuckaway Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Pawtuckaway River | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Packer Brook | At confluence of Winnicut River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A, AE |  |
| Parting Brook | At confluence of Squamscott River | At confluence of Piscassic River | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A, AE |  |
| Pickering Brook | At confluence of Great Bay | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A, AE |  |
| Piscassic River and Zone A Tributaries | At the Epping-Newfields Town boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Piscataqua River | At confluence of Atlantic Ocean | Strafford County Boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE, VE |  |
| Pleasant Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 09/01/1989 | A |  |
| Policy Brook | At confluence of Spicket River | Approximately 1000 feet upstream of Rockingham Park Blvd | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Policy Brook | Approximately 600 feet downstream of Main Street | Approximately 1000 feet upstream of Rockingham Park Blvd | Regional Flood Frequency Equations | \* | 04/06/1998 | AE w/Floodway |  |
| Porcupine Brook | At Route 93 | Approximately 1200 feet downstream of Pelham Road | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Porcupine Brook | Approximately 1200 feet downstream of Pelham Road | Approximately 1500 feet upstream of Pelham Road | Regional Flood Frequency Equations | \* | 04/06/1998 | AE |  |
| Porcupine Brook Tributary | At confluence of Porcupine Brook | Approximately 75 feet upstream of Quill Lane | Regional Flood Frequency Equations | HEC 2 | 04/06/1998 | AE |  |
| Powwow Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 02/28/1975 | AE |  |
| Powwow River | Town of Newton corporate limits | At confluence of Great Pond | Regional Flood Frequency Equations | \* | 04/15/1992 | AE |  |
| Powwow River (Downstream Reach) | Massachusetts State Boundary | Massachusetts State Boundary | Regional Flood Frequency Equations | \* | 07/15/1992 | AE |  |
| Powwow River (Upstream Reach) | At confluence of Tuxbury Pond | Approximately 100 feet upstream of Chase Road | Regional Flood Frequency Equations | \* | 07/15/1992 | AE |  |
| Preston Brook | At confluence of Little Massabesic Lake | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Rainbow Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Red Brook | At confluence of Stream565 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Rock Hill Brook | At confluence of Stream565 | Approximately 150ft downstream of Newfields Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| Rock Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 11/03/1989 | AE |  |
| Rollins Brook | Strafford County Boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Sagamore Creek | At confluence of Piscataqua River | Approximately 120ft downstream of Peverly Hill Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | AE |  |
| Scamen Brook | At confluence of Little River 1 | Approximately 320ft downstream of Tamarind Lane | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| Seavey Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Shadow Lake | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Shaw Brook | At confluence of Great Bay | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A, AE |  |
| Shields Brook | At confluence of Hoods Pond | At confluence of Lower Shields Pond | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Simpson Mill Brook | Town of Exeter Corporate limits | Hillsborough County Boundary | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| South Mill Pond | Entire Shoreline | Entire Shoreline | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| Spicket River and Zone A Tributaries | Massachusetts State Boundary | At confluence of Wilson Lake | Regional Flood Frequency Equations | \* | 04/06/1998 | AE w/Floodway |  |
| Spring Brook | At confluence of Great Brook | Approximately 300ft upstream of N. Haverhill Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Spruce Swamp | At confluence of Preston Brook | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Squamscott River | At confluence of Great Bay | At confluence of Exeter River | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | AE |  |
| Stream 1000 | At confluence of North River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream 1001 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream025 | At confluence of Hartford Brook | Approximately 300ft upstream of Middle Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream03 | At confluence of Back Creek | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream036 | At confluence of Dudley Brook 2 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream039 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A, AE |  |
| Stream054 | At confluence of Lucas Pond | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream056 | At confluence of North River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream059 | At confluence of North River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream067 | At confluence of Little River 3 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream068 | At confluence of Stream297 | Strafford County Boundary | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream080 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream082 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream085 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream087 | At confluence of Stream310 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream090 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream098 | At confluence of Little River 2 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream10 | At confluence of Stream262 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream109 | At confluence of Dudley Brook | At the downstream side of State Route 101 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Stream 202 | Strafford County Boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream245 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream247 | At confluence of Nicholls Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream249 | At confluence of Hartford Brook | At Hidden Drive | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream251 | At confluence of Hartford Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream252 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream253 | At confluence of Stream252 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream254 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream255 | At confluence of North Branch River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream256 | At confluence of Stream255 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream257 | At confluence of Stream255 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream259 | At confluence of North Branch River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream262 | At confluence of North Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream263 | At confluence of Stream262 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream264 | At confluence of Stream262 | Upstream end of Onway Lake | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream266 | At confluence of Stream639 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream270 | At confluence of Pawtuckaway River | Town of Epping corporate limits | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream272 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream274 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream276 | At confluence of Back Creek | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream277 | At confluence of Stream276 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream278 | At confluence of Back Creek | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream281 | At confluence of Bean River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream284 | At confluence of North River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream285 | At confluence of North River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream286 | At confluence of North River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream289 | At confluence of Rollins Brook | Approximately 300 feet downstream from Stage Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream292 | Strafford County Boundary | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream297 | At confluence of Little River 3 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream310 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream313 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream318 | At confluence of Stream662 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream328 | At confluence of Dudley Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream436 | At confluence of Winkley Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream553 | At confluence of Little River 2 | At Bean Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream554 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream565 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream566 | At confluence of Great Brook | Approximately 200ft upstream of Drinkwater Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream572 | At confluence of North Branch River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream573 | At confluence of Fardway Brook | Approximately 0.4 miles upstream of Fardway Brook confluence | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream576 | At confluence of Stream276 | Approximately 0.5 miles upstream of Stream276 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream578 | At confluence of Stream257 | Approximately 1,800ft upstream of State Route 27 | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream580 | At confluence of Piscassic River | Approximately 100ft downstream of Karlin Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream583 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream586 | At confluence of Piscassic River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream588 | At confluence of Fardway Brook | At Town of Candia corporate limits | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream597 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream599 | At confluence of Piscassic River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream603 | At confluence of Great Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream609 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream612 | At confluence of Stream262 | At Patten Hill Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream626 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream629 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream639 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream646 | Rockingham County boundary | At Bow Lake Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream651 | At confluence of Stream255 | Approximately 0.7 miles upstream of North Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream655 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream657 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream658 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream661 | At confluence of North Branch River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream662 | At confluence of Fardway Brook | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream667 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream669 | At confluence of Stream255 | At Currier Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream676 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream696 | At confluence of Piscassic River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream8004 | At confluence of Stream284 | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream9079 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream919 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream9272 | At confluence of Lamprey River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream952 | At confluence of Bean River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Stream9659 | At confluence of Exeter River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Taylor Brook | At confluence of Island Pond | At confluence of Ballard Pond | \* | \* | 04/15/1981 | AE w/Floodway |  |
| Taylor Brook | At confluence of Ballard Pond | Points of one square mileage of drainage area | \* | \* | 04/15/1981 | A |  |
| Taylor River | At confluence of Winkley Brook | Approximately 350 feet upstream of Kensington Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A, AE |  |
| Taylors Reservoir | Entire Shoreline | Entire Shoreline | \* | \* | 04/06/1998 | A |  |
| Thompson Brook | At confluence of Winkley Brook | Approximately 350ft upstream of Kensington Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Tower Hill Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 02/28/1975 | A |  |
| Tributary A | At confluence of Golden Brook | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Tributary B | At confluence of Golden Brook | Approximately 800 feet upstream of London Bridge Road | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Tributary C | At confluence of Cobbetts Pond | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 11/03/1989 | A |  |
| Tributary C to Beaver Brook | At confluence of Beaver Brook | At Pillsbury Road | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Tributary E to Little Cohas Brook | At confluence of Little Cohas Brook | Approximately 100 feet downstream of Rail Trail | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Tributary F to Beaver Lake | At confluence of Beaver Lake | At confluence of Adams Pond | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Tributary F to Beaver Lake | At confluence of Adams Pond | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Tributary G to Beaver Brook | At confluence of Beaver Brook | Approximately 700 feet upstream of Bowers Road | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Tributary H to Drew Brook | At confluence of Drew Brook | Approximately 950 feet upstream of Hampstead Road | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Tributary H to Nesenkeag Brook | At confluence of Nesenkeag Brook | At Wiley Hill Road | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Tributary J to Black Brook | At confluence of Black Brook | Approximately 100 feet upstream of Mammoth Road | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Tributary J to Black Brook | Approximately 100 feet upstream of Mammoth Road | Hillsborough County corporate limits | Regional Flood Frequency Equations | \* | 11/05/1980 | A |  |
| Tributary O to Beaver Brook | At confluence of Beaver Brook | At Interstate 93 | Regional Flood Frequency Equations | \* | 04/15/1981 | AE w/Floodway |  |
| Tributary to Adams Pond | At confluence of Adams Pond | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Tucker Brook | At confluence of Harvey Lake | Approximately 900 feet upstream of Main Street | Regional Flood Frequency Equations | \* | 01/02/1987 | A |  |
| Tuxbury Pond | Massachusetts State Boundary | Entire Shoreline | Regional Flood Frequency Equations | \* | 07/15/1992 | A |  |
| Unnamed Brook | Approximately 600 feet downstream of Main Street | Approximately 1000 feet upstream of Main Street | Regional Flood Frequency Equations | \* | 04/06/1998 | AE w/Floodway |  |
| Unnamed Brook | Approximately 1000 feet upstream of Main Street | Approximately 850 feet upstream of Main Street | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| Upper Beaver Brook | At confluence of Shields Brook | At Rail Trail | Regional Flood Frequency Equations | \* | 11/05/1980 | AE w/Floodway |  |
| Wash Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 06/16/1993 | AE |  |
| Watts Brook | Hillsborough County Boundary | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 11/05/1980 | A |  |
| West Channel Policy Brook | At confluence of Canobie Lake | Approximately 330 feet downstream of Northeastern Blvd | Regional Flood Frequency Equations | \* | 04/06/1998 | AE |  |
| West Channel Policy Brook | Approximately 330 feet downstream of Northeastern Blvd | Approximately 150 feet upstream of Pleasant Street | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| West Running Brook | At confluence of Tributary G to Beaver Brook | Points of one square mileage of drainage area | Regional Flood Frequency Equations | \* | 04/15/1981 | A |  |
| Wheelwright Creek | At confluence of Winnicut River | Approximately 400ft upstream of Greenland | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 04/01/2014 | A |  |
| Winkley Brook | At confluence of Hampton Falls River | Points of one square mileage of drainage area | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 12/22/2017 | A |  |
| Winniconic Brook | At confluence of Winnicut River | Approximately 350ft upstream of Union Road | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A |  |
| Winnicut River | At confluence of Great Bay | At Exeter-Hampton Expressway | 2008 New Hampshire regression equations | HEC-RAS 4.1 | 2013 | A, AE |  |
| World End Brook | At Lawrence Road | At confluence of World End Pond | Regional Flood Frequency Equations | \* | 04/06/1998 | AE |  |
| World End Brook | Massachusetts State Boundary | At Lawrence Road | Regional Flood Frequency Equations | \* | 04/06/1998 | A |  |
| World End Pond | Entire Shoreline | Entire Shoreline | Regional Flood Frequency Equations | \* | 04/06/1998 | AE |  |

\*Data not available

Table 14: Roughness Coefficients

| Flooding Source | Channel “n” | Overbank “n” |
| --- | --- | --- |
| Back Creek and Zone A Tributaries | 0.035-0.150 | 0.035-0.150 |
| Beaver Brook | 0.020-0.055 | 0.040-0.100 |
| Bean River and Zone A Tributaries | 0.050-0.150 | 0.050-0.150 |
| Black Brook | 0.020-0.055 | 0.040-0.100 |
| Bryant Brook | 0.035-0.040 | 0.060-0.090 |
| Cohas Brook | 0.020-0.055 | 0.040-0.100 |
| Cunningham Brook | 0.035-0.055 | 0.065-1.000 |
| Drew Brook | 0.035-0.055 | 0.065-1.000 |
| Dudley Brook | 0.030-0.155 | 0.030-0.155 |
| Dudley Brook 2 | 0.030-0.150 | 0.050-0.150 |
| Exeter River and Zone A Tributaries | 0.015-0.150 | 0.015-0.150 |
| Fardway Brook | 0.050-0.120 | 0.050-0.120 |
| Flatrock Brook | 0.030-0.040 | 0.050-0.080 |
| Fresh River | 0.050-0.120 | 0.050-0.120 |
| Golden Brook | 0.022-0.045 | 0.060-0.080 |
| Grassy Brook | 0.030-0.040 | 0.140 |
| Great Brook | 0.050-0.120 | 0.050-0.120 |
| Hartford Brook | 0.030-0.120 | 0.050-0.120 |
| Hidden Valley Brook | 0.025-0.045 | 0.045-0.090 |
| Hill Brook | 0.040-0.055 | 0.035-0.110 |
| Hog Hill Brook | 0.035-0.065 | 0.075-0.100 |
| Hornes Brook | 0.035-0.055 | 0.065-1.000 |
| Island Pond | 0.035-0.055 | 0.065-1.000 |
| Kelly Brook | 0.030-0.040 | 0.050-0.090 |
| Lamprey River and Zone A Tributaries | 0.030-0.150 | 0.035-0.150 |
| Little Cohas Brook | 0.020-0.055 | 0.040-0.100 |
| Little River 1 | 0.070 | 0.050-0.120 |
| Little River 2 | 0.030-0.120 | 0.050-0.120 |
| Little River 3 | 0.030-0.120 | 0.050-0.120 |
| Lucas Pond | 0.030-0.120 | 0.050-0.120 |
| Mile Brook | 0.030-0.120 | 0.050-0.120 |
| Mill Brook | 0.030-0.100 | 0.030-0.120 |
| Nesenkeag Brook | 0.020-0.055 | 0.040-0.100 |
| Nicholls Brook | 0.030-0.120 | 0.050-0.120 |
| North Branch River and Zone A Tributaries | 0.030-0.150 | 0.030-0.150 |
| North River and Zone A Tributaries | 0.030-0.120 | 0.050-0.120 |
| Pawtuckaway River | 0.070-0.100 | 0.100 |
| Pickering Brook | 0.040-0.120 | 0.070-0.120 |
| Piscassic River and Zone A Tributaries | 0.040-0.150 | 0.050-0.180 |
| Policy Brook – Unnamed Brook | 0.020-0.060 | 0.100 |
| Porcupine Brook | 0.020-0.060 | 0.100 |
| Porcupine Brook Tributary | 0.020-0.060 | 0.100 |
| Powwow Pond System | 0.025-0.035 | 0.030-0.090 |
| Powwow River | 0.030-0.040 | 0.035-0.140 |
| Red Brook | 0.050-0.120 | 0.050-0.120 |
| Shields Brook | 0.020-0.055 | 0.040-1.000 |
| Spicket River | 0.035 | 0.080 |
| Taylor Brook (including Ballard Pond) | 0.035-0.055 | 0.065-1.000 |
| Tributary C to Beaver Brook | 0.020-0.055 | 0.040-0.100 |
| Tributary E to Beaver Lake | 0.020-0.055 | 0.040-0.100 |
| Tributary E to Little Cohas Brook | 0.035-0.055 | 0.065-1.000 |
| Tributary F to Beaver Lake | 0.035-0.055 | 0.065-1.000 |
| Tributary G to Beaver Brook | 0.035-0.055 | 0.065-1.000 |
| Tributary H to Drew Brook | 0.020-0.055 | 0.040-0.100 |
| Tributary H to Nesenkeag Brook | 0.035-0.055 | 0.065-1.000 |
| Tributary J to Black Brook | 0.020-0.055 | 0.040-0.100 |
| Tributary O to Beaver Brook | 0.035-0.055 | 0.065-1.000 |
| Upper Beaver Brook | 0.020-0.055 | 0.040-0.100 |
| Wash Pond Tributary | 0.035-0.055 | 0.030-0.100 |
| West Channel Policy Brook | 0.020-0.060 | 0.100 |
| Winnicut River | 0.020-0.050 | 0.070 |
| World End Brook and Pond | 0.020-0.060 | 0.100 |

## 5.3 Coastal Analyses

For the areas of Rockingham County that are impacted by coastal flooding processes, coastal flood hazard analyses were performed to provide estimates of coastal BFEs. Coastal BFEs reflect the increase in water levels during a flood event due to extreme tides and storm surge as well as overland wave effects.

The following subsections provide summaries of how each coastal process was considered for this FIS Report. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation. Table 15 summarizes the methods and/or models used for the coastal analyses. Refer to Section 2.5.1 for descriptions of the terms used in this section.

Table 15: Summary of Coastal Analyses

| Flooding Source | Study Limits From | Study Limits To | Hazard Evaluated | Model or Method Used | Date Analysis was Completed |
| --- | --- | --- | --- | --- | --- |
| Atlantic Ocean | Entire coastline of Rockingham County | Entire coastline of Rockingham County | Overland Wave Propagation | WHAFIS | 09/01/2013 |
| Atlantic Ocean | Entire coastline of Rockingham County | Entire coastline of Rockingham County | Wave Runup | TAW/Runup 2.0 | 09/01/2013 |
| Piscataqua River | Estuary | Estuary | Storm Surge | 1-D Model | 09/01/1987 |
| Great Bay | Estuary | Estuary | Storm Surge | 1-D Model | 09/01/1987 |
| Squamscott River | Estuary | Estuary | Storm Surge | 1-D Model | 09/01/1987 |

### 5.3.1 Total Stillwater Elevations

The total stillwater elevations (stillwater including storm surge plus wave setup) for the 1% annual chance flood were determined for areas subject to coastal flooding. The models and methods that were used to determine storm surge and wave setup are listed in Table 17. The stillwater elevation that was used for each transect in the coastal analyses is shown in Table 17, “Coastal Transect Parameters.” Table 17 shows the total stillwater elevations for the 1% annual chance flood that was determined for this coastal analysis.

Figure 8: 1% 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

The 10-, 2-, 1- and 0.2 percent annual chance stillwater elevations for the coastal areas within Rockingham County were derived from FEMA (2008) “Updating Tidal Profiles for the New England Coastline” updating the U.S. Army Corps of Engineers 1988 tidal gage profiles developed for the entire New England Coastline. The New England Tidal Flood Profiles, from Bergen Point, New York, to the Maine border with Canada, were updated by conducting new flood frequency analyses of long-term tide gage records available from the NOS and USACE. Parametric probability distributions were fit to the tide gage data using the method of L moments. The suite of probability distributions applied to the gage records included the original Pearson Type III distribution to enable comparisons between the old tidal flood profiles and the results from the new analyses. The tidal flood profiles were updated using the best fitting probability distribution, as determined by goodness-of-fit criteria.

Areas of coastline subject to significant wave attack are referred to as coastal high hazard zones. The USACE has established the 3-foot breaking wave as the criterion for identifying the limit of coastal high hazard zones (USACE 1975; USACE 1973). The 3-foot wave has been determined as the minimum size wave capable of causing major damage to conventional wood frame or brick veneer structures. Damages to structures from wave heights between 1.5 and 3 feet are similar to, but less severe than, those in areas where wave heights are greater than 3 feet. These areas have been designated as areas of moderate wave action, and areas up to the Limit of Moderate Wave Action (LiMWA) have been mapped on the FIRM.

Overland wave height analyses were performed along each transect using the FEMA Wave Hazard Analysis for Flood Insurance Studies (WHAFIS) model to determine wave heights and corresponding wave crest elevations for the areas inundated by the tidal flooding. A wave runup analysis was performed to determine the height and extent of runup beyond the limit of tidal inundation. The results of these analyses were combined into a wave envelope, which was constructed by extending the wave runup elevation seaward to its intersection with the wave crest profile.

Deepwater wave characteristics used as starting wave conditions to the wave setup, overland and wave runup analyses were derived from the USACE Wave Information Studies (WIS) hindcast stations, located off the New Hampshire coast. The USACE website (<http://wis.usace.army.mil/>) provides an extreme wave analysis performed on the yearly maxima (1980-1999) at the selected stations used as the source of the 1-percent annual chance event significant wave height. The wave period associated with the 1-percent wave significant wave height was derived using a wave steepness factor of 0.035, the average wave steepness of tropical and extra-tropical events. Such wave conditions were applied to all transects facing the Atlantic Ocean shoreline. Starting wave conditions for the New Castle area, located along the Piscataqua River, were derived using a limited fetch approach within the WHAFIS model.

FEMA guidelines for Zone V mapping define *HS* as the significant wave height or the average over the highest one third of waves and *TS* as the significant wave period associated with the significant wave height. Mean wave conditions are described as:

=   0.626

=   0.85

where  is the average wave height of all waves and  is the average wave period.

Wave heights and wave runup were computed along transects which were located perpendicular to the shoreline. The transects were located with consideration given to the physical and cultural characteristics of the land so that they would closely represent conditions in their locality. Transects were spaced close together in areas of complex topography and dense development. In areas having more uniform characteristics, the transects were spaced at larger intervals. It was also necessary to locate transects in areas where unique flooding existed and in areas where computed wave heights varied significantly between adjacent transects.

The transect profiles were obtained using topographic and bathymetric data from various sources.

The NOS Bathymetric data was acquired over several years by various agencies. The data is compiled and distributed by NOAA NOS. The bathymetric data for this project is a compilation of data acquired in 1947, 1950, 1953, 1954, 1955, 1997, 2000 and 2005. The NOS states that the accuracy of the data acquired before 1965 is difficult to determine but data acquired after 1965 must comply with standards set forth in the NOS Hydrographic Surveys Specifications and Deliverables. All bathymetric data received from the NOS has been found to meet these specifications. The data was received in Mean Low Datum and converted to NAD\_1983\_StatePlane\_New Hampshire\_FIPS\_1600\_Feet for use in this project.

LiDAR was collected at a 2.0 meter nominal post spacing (2.0m GSD) for approximately 8,200 mi2 of coastal areas including parts of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York, as part of the American Recovery and Reinvestment Act (ARRA) of 2010. No snow was on the ground and rivers were at or below normal levels. Some areas of the project required 1.0 meter nominal post spacing (1.0m GSD), and a required 9.25cm Vertical Accuracy. The area covered by the Piscataqua/Salmon Falls study area was covered by 1.0 meter post spacing LiDAR data and a portion of the contributing drainage area was covered by the 2.0 meter post spacing LiDAR data. A seamless Digital Elevation Model (DEM) at a 10 ft resolution was created combining the above datasets to create a base elevation for the coastal analyses.

Figure 9, “Transect Location Map”, illustrates the location of the transects for the coastal study area.

Dune erosion was applied as per standard FEMA (2007) Guidelines and Specifications for Flood Hazard Mapping Partners methodology and VE Zones were mapped up to the extent of the Primary Frontal Dune (PFD).

Nearshore wave-induced processes, such as wave setup and wave runup, constitute a greater part of the combined wave envelope than storm surge due to location exposed to ocean waves. The Direct Integrated Method (FEMA 2007) was used to determine wave setup along the coastline.

Wave height calculations used in this study follow the methodology described in the FEMA (2007) Guidelines and Specifications for Flood Hazard Mapping Partners. Overland wave analyses were performed along each transects using the FEMA WHAFIS 4.0 model.

Wave runup was computed in agreement with the FEMA (2005) “Procedure Memorandum No. 37” that recommends the use of the 2% wave runup for determining base flood elevations. For mild sandy beaches, Runup 2.0 was employed using mean wave conditions. Along armored shorelines, wave runup was determined using the Technical Advisory Committee for Water Retaining Structures (TAW) method (van der Meer 2002). The Shore Protection Manual (SPM) Method was applied in cases of wave runup on vertical structures. For wave run-up at the crest of a slope that transitions to a plateau or down-slope, run-up values were determined using the “Methodology for wave run-up on a hypothetical slope” as described in the FEMA (2007) Guidelines and Specifications for Flood Hazard Mapping Partners. In areas where the wave runup overtopped the crest of a structure/bluff, the wave runup elevation was capped at 3 ft above the structure crest.

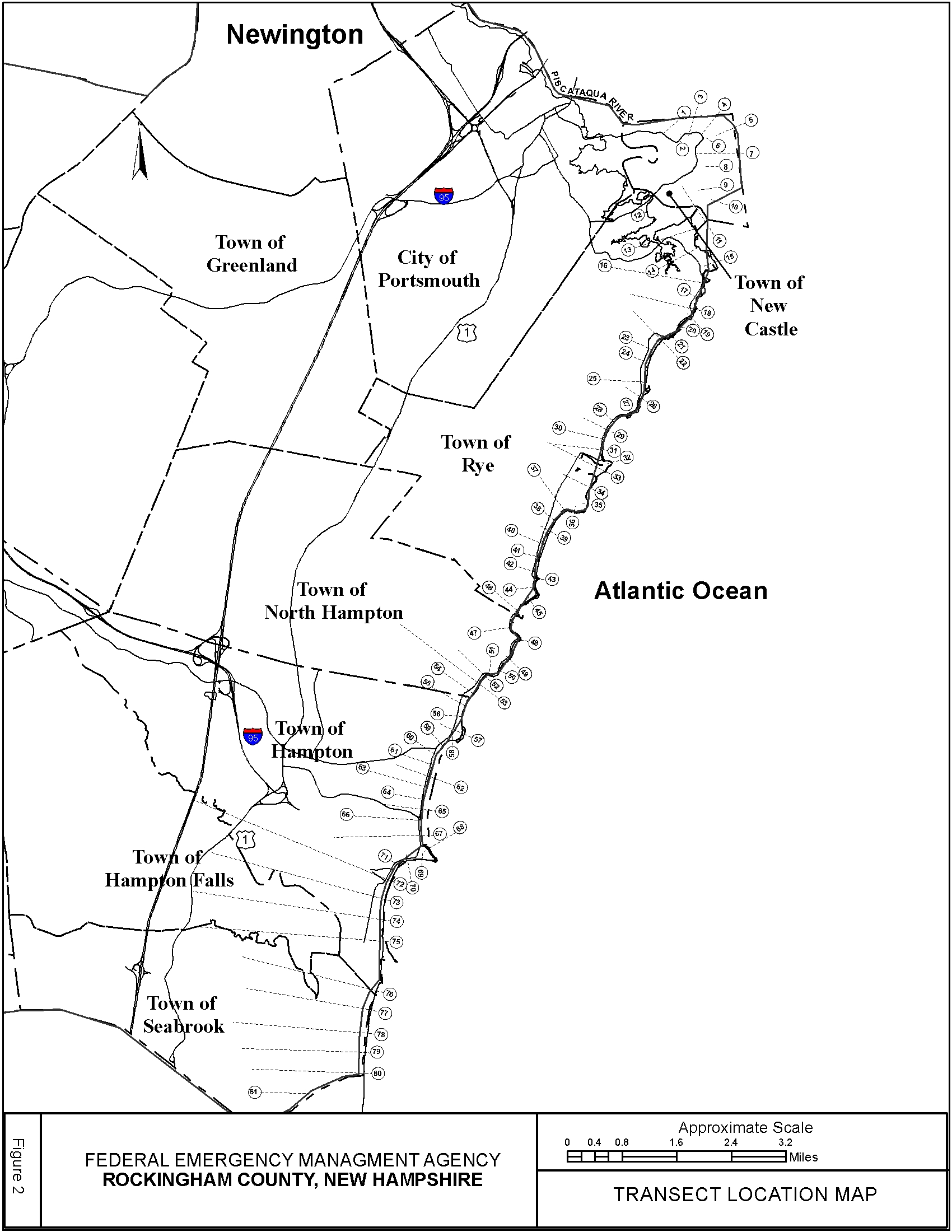
The transect data for Rockingham County is presented in Table 17, “Coastal Transect Parameters,” which describes the location of each transect.

Table 17: Coastal Transect Parameters

| Flood Source | Coastal Transect | Starting Wave Conditions for the 1% Annual Chance | | Starting Stillwater Elevations (ft NAVD88)  Range of Stillwater Elevations   (ft NAVD88) | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Significant Wave Height  Hs (ft) | Peak Wave Period  Tp (sec) | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Atlantic Ocean | 1 | 12.37 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 2 | 11.5 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 3 | 11.82 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 4 | 11.93 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 5 | 18.51 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 6 | 18.42 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 7 | 18.36 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |

| **Table 17: Coastal Transect Parameters (continued)** | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Flood Source | Coastal Transect | Starting Wave Conditions for the 1% Annual Chance | | Starting Stillwater Elevations (ft NAVD88)  Range of Stillwater Elevations   (ft NAVD88) | | | | |
| Significant Wave Height  Hs (ft) | Peak Wave Period  Tp (sec) | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Atlantic Ocean | 8 | 20.1 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 9 | 18.79 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 10 | 17.27 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 11 | 17.16 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 12 | 17.16 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 13 | 16.88 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 14 | 16.83 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 15 | 17.65 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 16 | 17.67 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 17 | 17.79 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 18 | 17.74 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 19 | 18.10 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 20 | 20.1 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 21 | 17.95 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 22 | 17.94 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 23 | 17.83 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 24 | 18.00 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 25 | 20.00 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 26 | 18.8 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 27 | 17.63 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 28 | 19.2 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 29 | 20.7 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 30 | 21.3 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 31 | 19.69 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 32 | 17.98 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 33 | 18.00 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 34 | 18.2 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 35 | 19.4 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 36 | 19.4 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 37 | 17.63 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 38 | 17.70 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 39 | 17.71 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 40 | 17.68 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 41 | 20.90 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 42 | 17.38 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 43 | 17.57 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 44 | 17.90 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 45 | 17.60 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 46 | 20.10 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 47 | 23.60 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 48 | 21.73 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 49 | 18.30 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 50 | 26.91 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 51 | 16.71 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 52 | 17.92 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 53 | 17.92 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 54 | 18.2 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 55 | 18.00 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 56 | 20.00 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 57 | 19.60 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 58 | 17.86 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 59 | 16.70 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 60 | 17.70 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 61 | 17.77 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 62 | 17.74 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 63 | 17.74 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 64 | 17.79 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 65 | 17.70 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 66 | 17.70 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 67 | 17.86 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 68 | 17.74 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 69 | 16.53 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 70 | 17.03 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 71 | 17.62 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 72 | 17.62 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 73 | 17.60 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 74 | 17.60 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 75 | 17.6 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 76 | 17.83 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 77 | 17.82 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 78 | 17.92 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 79 | 17.95 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 80 | 17.76 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| Atlantic Ocean | 81 | 10.04 | \* | 7.24 | \* | 7.98 | 8.36 | 9.43 |
| 1Wave runup elevation  \*Data not available | | | | | | | | |

Figure 9: Transect Location Map



## 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](http://www.ngs.noaa.gov), or contact the National Geodetic Survey (NGS) at the following address:

NGS Information Services

NOAA, N/NGS12

National Geodetic Survey

SSMC-3, #9202

1315 East-West Highway

Silver Spring, Maryland 20910-3282

(301) 713-3242

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 contact the Information Services Branch of the NGS at (301) 713-3242, or visit their website at [www.ngs.noaa.gov](http://www.ngs.noaa.gov).

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

Table 20: Countywide Vertical Datum Conversion

| Quadrangle Name | Quadrangle Corner | Latitude | Longitude | Conversion from NGVD29 to NAVD88 (feet) |
| --- | --- | --- | --- | --- |
| All in Rockingham County | - | - | - | -0.7 |
| Average Conversion from NGVD29 to NAVD88 = -0.7 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](http://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 | 2016 | \* | New Hampshire municipal and county boundaries |

| **Table 22: Base Map Sources (continued)** | | | | |
| --- | --- | --- | --- | --- |
| Data Type | Data Provider | Data Date | Data Scale | Data Description |
| 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 | Rockingham County | 2004 | N/A | Municipal and county boundaries were derived from Rockingham County data |
| Transportation Features | New Hampshire Department of Transportation | 2010 and 2017 | \* | New Hampshire road centerlines |
| Surface Water Features | U.S. Geological Survey | 2016 | 1:12,000 | Streams, rivers, and lakes were derived from National Hydrography Data Set |
| Surface Water Features | Rockingham County | 2004 | N/A | Streams, rivers, and lakes were derived from Rockingham County data |

## 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% annual chance floodplain boundaries are close together, only the 1% 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% 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% 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% 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 | Scale | Contour Interval | Vertical Accuracy | HorizontalAccuracy | Citation |
| Rockingham County | All within Rockingham County | LiDAR | N/A | N/A | 15 cm | \* | USGS 2011 |

BFEs shown at cross sections on the FIRM represent the 1% 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 NGVD29)** | | | | | | | | |  |
|  | | | CROSS SECTION | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | MEAN VELOCITY (FEET/SEC) | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE | | |  |
|  | | | A | | 13.926 | | 135/252 | | 707 | | 4.3 | | 152.0 | | 152.0 | | 152.5 | | 0.5 | | |  |
|  | | | B | | 13.947 | | 50/302 | | 415 | | 7.4 | | 154.7 | | 154.7 | | 154.7 | | 0.0 | | |  |
|  | | | C | | 14.037 | | 85/652 | | 553 | | 5.6 | | 156.5 | | 156.5 | | 157.5 | | 1.0 | | |  |
|  | | | D | | 14.738 | | 85/552 | | 573 | | 5.4 | | 163.5 | | 163.5 | | 164.1 | | 0.6 | | |  |
|  | | | E | | 14.942 | | 180/1202 | | 1,423 | | 2.2 | | 166.9 | | 166.9 | | 167.0 | | 0.1 | | |  |
|  | | | F | | 15.646 | | 210/202 | | 1,266 | | 2.4 | | 167.8 | | 167.8 | | 168.8 | | 1.0 | | |  |
|  | | | G | | 15.990 | | 150/202 | | 463 | | 6.3 | | 172.6 | | 172.6 | | 172.6 | | 0.0 | | |  |
|  | | | H | | 16.417 | | 165/252 | | 1,105 | | 2.6 | | 175.4 | | 175.4 | | 175.9 | | 0.5 | | |  |
|  | | | I | | 17.057 | | 160 | | 663 | | 4.2 | | 176.7 | | 176.7 | | 177.7 | | 1.0 | | |  |
|  | | | J | | 17.964 | | 50 | | 327 | | 8.2 | | 192.1 | | 192.1 | | 193.1 | | 1.0 | | |  |
|  | | | K | | 18.993 | | 110 | | 821 | | 3.3 | | 209.1 | | 209.1 | | 209.1 | | 0.0 | | |  |
|  | | | L | | 20.017 | | 50 | | 444 | | 6.1 | | 210.0 | | 210.0 | | 211.0 | | 1.0 | | |  |
|  | | | M | | 20.482 | | 90 | | 634 | | 4.2 | | 213.5 | | 213.5 | | 214.2 | | 0.7 | | |  |
|  | | | N | | 21.305 | | 80 | | 617 | | 3.7 | | 219.2 | | 219.2 | | 220.2 | | 1.0 | | |  |
|  | | | O | | 21.799 | | 195 | | 560 | | 3.3 | | 219.9 | | 219.9 | | 220.6 | | 0.7 | | |  |
|  | | | P | | 22.802 | | 260 | | 1,565 | | 1.3 | | 226.0 | | 226.0 | | 227.0 | | 1.0 | | |  |
|  | | | Q | | 23.392 | | 40 | | 341 | | 6.0 | | 230.9 | | 230.9 | | 230.9 | | 0.0 | | |  |
|  | | | R | | 23.816 | | 300 | | 1,344 | | 1.5 | | 231.8 | | 231.8 | | 232.7 | | 0.9 | | |  |
|  | | | S | | 24.233 | | 110 | | 606 | | 3.4 | | 235.9 | | 235.9 | | 236.5 | | 0.6 | | |  |
|  | | | T | | 24.694 | | 180 | | 910 | | 2.3 | | 238.0 | | 238.0 | | 238.9 | | 0.9 | | |  |
|  | | | U | | 25.075 | | 100 | | 654 | | 2.2 | | 241.2 | | 241.2 | | 241.3 | | 0.1 | | |  |
|  | | | V | | 25.546 | | 100 | | 598 | | 2.4 | | 242.7 | | 242.7 | | 243.4 | | 0.7 | | |  |
|  | | | W | | 25.789 | | 127 | | 962 | | 1.5 | | 244.4 | | 244.4 | | 245.1 | | 0.7 | | |  |
|  | | | X | | 26.233 | | 230 | | 2,276 | | 0.6 | | 248.0 | | 248.0 | | 248.9 | | 0.9 | | |  |
|  | | | Y | | 26.648 | | 300 | | 2,677 | | 0.2 | | 248.0 | | 248.0 | | 248.9 | | 0.9 | | |  |
|  | | | Z | | 26.870 | | 350 | | 1,801 | | 0.2 | | 248.0 | | 248.0 | | 248.9 | | 0.9 | | |  |
|  | | | 1 Miles above confluence with Merrimack River | | | | | | | | | | | | | | | | | | |  |
|  | | | 2 Width/width within county boundary | | | | | | | | | | | | | | | | | | |  |
| TABLE 24 | | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | | | | | |
| **FLOODING SOURCE: BEAVER BROOK** | | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | |
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|  | | | **LOCATION** | | | | **FLOODWAY** | | | | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | | | | | |  |
|  | | | CROSS SECTION | | DISTANCE1 | | WIDTH (FEET) | | SECTION AREA  (SQ. FEET) | | MEAN VELOCITY (FEET/SEC) | | REGULATORY | | WITHOUT FLOODWAY | | WITH FLOODWAY | | INCREASE | |  |
|  | | | AA | | 27.244 | | 80 | | 437 | | 1.0 | | 248.1 | | 248.1 | | 248.9 | | 0.8 | |  |
|  | | | AB | | 27.580 | | 24 | | 55 | | 7.8 | | 253.6 | | 253.6 | | 253.8 | | 0.2 | |  |
|  | | | AC | | 27.652 | | 32 | | 112 | | 3.8 | | 263.7 | | 263.7 | | 263.9 | | 0.2 | |  |
|  | | | AD | | 27.838 | | 30 | | 59 | | 7.3 | | 282.0 | | 282.0 | | 282.1 | | 0.1 | |  |
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|  | | | 1 Miles above confluence with Merrimack River | | | | | | | | | | | | | | | | | |  |
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| TABLE 24 | | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | | | | | **FLOODWAY DATA** | | | | | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | | | | | |
| **FLOODING SOURCE: BEAVER BROOK** | | | | | | | | | | |
| **(ALL JURISDICTIONS)** | | | | | | | |

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|  | | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | | |  |
|  | | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE | |  |
|  | | A | 0.400 | 115 | 288 | 0.9 | 214.0 | 214.02 | 212.8 | 0.8 | |  |
|  | | B | 1.000 | 30 | 90 | 2.9 | 216.4 | 216.4 | 216.8 | 0.4 | |  |
|  | | C | 1.545 | 20 | 43 | 6.2 | 257.2 | 257.2 | 257.2 | 0.0 | |  |
|  | | D | 1.737 | 20 | 19 | 4.7 | 264.5 | 264.5 | 246.5 | 0.0 | |  |
|  | | E | 2.095 | 30 | 17 | 5.3 | 281.5 | 281.5 | 281.5 | 0.0 | |  |
|  | | F | 2.369 | 20 | 14 | 6.4 | 298.6 | 298.6 | 298.6 | 0.0 | |  |
|  | | G | 3.176 | 25 | 23 | 3.9 | 321.0 | 321.0 | 321.0 | 0.0 | |  |
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|  | | 1 Miles above confluence with Beaver Brook | | | | | | | | | |  |
|  | | 2 Elevation computed without consideration of backwater effects from Beaver Brook | | | | | | | | | |  |
| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: BLACK BROOK** | | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | | |  |
|  | | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE | |  |
|  | | A | 330 | 27 | 59 | 6.4 | 47.8 | 47.8 | 48.8 | 1.0 | |  |
|  | | B | 1,370 | 27 | 41 | 8.7 | 67.3 | 67.3 | 67.3 | 0.0 | |  |
|  | | C | 1,760 | 15 | 37 | 9.6 | 73.3 | 73.3 | 73.7 | 0.4 | |  |
|  | | D | 2,815 | 228 | 473 | 0.8 | 74.7 | 74.7 | 75.7 | 1.0 | |  |
|  | | E | 4,010 | 96 | 193 | 1.8 | 76.3 | 76.3 | 77.3 | 1.0 | |  |
|  | | F | 5,955 | 80 | 240 | 1.5 | 78.7 | 78.7 | 79.7 | 1.0 | |  |
|  | | G | 6,810 | 238 | 395 | 0.9 | 79.3 | 79.3 | 80.3 | 1.0 | |  |
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|  | | 1 Feet above confluence with Little River No. 3 | | | | | | | | | |  |
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| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: BRYANT BROOK** | | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | | |  |
|  | | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE | |  |
|  | | A | 0.000 | 30 | 155 | 6.3 | 227.3 | 227.3 | 28.3 | 1.0 | |  |
|  | | B | 0.312 | 30 | 120 | 8.2 | 233.7 | 233.7 | 234.1 | 0.4 | |  |
|  | | C | 0.700 | 50 | 202 | 4.9 | 245.0 | 245.0 | 246.0 | 1.0 | |  |
|  | | D | 1.032 | 40 | 163 | 6.0 | 249.4 | 249.4 | 250.1 | 0.7 | |  |
|  | | E | 1.350 | 80 | 348 | 2.8 | 259.7 | 259.7 | 260.4 | 0.7 | |  |
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|  | | 1 Miles above county boundary | | | | | | | | | |  |
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| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: COHAS BROOK** | | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | | |  |
|  | | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE | |  |
|  | | A | 0.155 | 31 | 149 | 2.5 | 218.9 | 218.9 | 218.9 | 0.0 | |  |
|  | | B | 0.514 | 24 | 55 | 6.7 | 251.6 | 251.6 | 252.1 | 0.5 | |  |
|  | | C | 1.040 | 276 | 833 | 0.4 | 296.0 | 296.0 | 297.0 | 1.0 | |  |
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|  | | 1 Miles above confluence with Drew Brook | | | | | | | | | |  |
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| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: CUNNINGHAM BROOK** | | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | | |  |
|  | | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE | |  |
|  | | A | 0.100 | 170 | 974 | 0.4 | 206.8 | 206.8 | 207.8 | 1.0 | |  |
|  | | B | 0.425 | 140 | 854 | 0.4 | 207.6 | 207.6 | 208.0 | 0.4 | |  |
|  | | C | 0.705 | 65 | 376 | 0.9 | 208.9 | 208.9 | 208.9 | 0.0 | |  |
|  | | D | 1.043 | 40 | 165 | 2.1 | 209.2 | 209.2 | 209.4 | 0.2 | |  |
|  | | E | 1.800 | 70 | 129 | 2.7 | 213.8 | 213.8 | 214.0 | 0.2 | |  |
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|  | | 1 Miles above confluence with Island Pond | | | | | | | | | |  |
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| TABLE 24 | | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: DREW 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 | 4,939 | 249 | 574 | 1.0 | 80.1 | 80.1 | 80.8 | 0.7 |  |
|  | B | 5,972 | 207 | 574 | 1.0 | 81.6 | 81.6 | 82.3 | 0.7 |  |
|  | C | 8,218 | 483 | 3,331 | 0.2 | 89.7 | 89.7 | 89.7 | 0.0 |  |
|  | D | 11,233 | 316 | 1,682 | 0.3 | 89.7 | 89.7 | 89.8 | 0.1 |  |
|  | E | 14,776 | 43 | 205 | 2.6 | 92.1 | 92.1 | 92.5 | 0.4 |  |
|  | F | 16,979 | 68 | 281 | 1.9 | 94.3 | 94.3 | 95.0 | 0.7 |  |
|  | G | 18,867 | 194 | 533 | 1.0 | 95.5 | 95.5 | 96.2 | 0.7 |  |
|  | H | 22,304 | 36 | 167 | 2.5 | 98.3 | 98.3 | 98.9 | 0.6 |  |
|  | I | 24,159 | 42 | 119 | 2.1 | 100.4 | 100.4 | 100.8 | 0.4 |  |
|  | J | 25,617 | 38 | 145 | 1.7 | 102.3 | 102.3 | 102.9 | 0.6 |  |
|  | K | 26,833 | 34 | 87 | 2.9 | 104.3 | 104.3 | 104.8 | 0.5 |  |
|  | L | 28,551 | 27 | 125 | 1.4 | 108.8 | 108.8 | 109.3 | 0.5 |  |
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|  | 1 Feet above confluence with Little River No. 1 | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: DUDLEY BROOK** | | | | | |
| **(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 | 0 | 269 | 644 | 8.8 | 5.4 | 5.4 | 5.4 | 0.0 |  |
|  | B | 160 | 172 | 555 | 10.2 | 11.5 | 11.5 | 11.5 | 0.0 |  |
|  | C | 411 | 101 | 467 | 12.2 | 20.1 | 20.1 | 20.1 | 0.0 |  |
|  | D | 484 | 135 | 1,531 | 3.7 | 27.9 | 27.9 | 28.8 | 0.9 |  |
|  | E | 842 | 114 | 1,277 | 4.5 | 30.4 | 30.4 | 30.8 | 0.4 |  |
|  | F | 2,420 | 129 | 1,863 | 3.1 | 30.7 | 30.7 | 31.2 | 0.5 |  |
|  | G | 2,667 | 146 | 2,527 | 2.3 | 30.9 | 30.9 | 31.4 | 0.5 |  |
|  | H | 3,851 | 293 | 2,872 | 1.8 | 30.9 | 30.9 | 31.4 | 0.5 |  |
|  | I | 7,296 | 800 | 5,606 | 0.9 | 31.0 | 31.0 | 31.6 | 0.6 |  |
|  | J | 10,964 | 642 | 6,904 | 0.7 | 31.0 | 31.0 | 31.6 | 0.6 |  |
|  | K | 19,698 | 2,5842 | 11,676 | 0.4 | 31.4 | 31.4 | 31.9 | 0.5 |  |
|  | L | 24,394 | 114 | 1,259 | 3.5 | 31.4 | 31.4 | 31.9 | 0.5 |  |
|  | M | 24,478 | 87 | 718 | 6.1 | 31.5 | 31.5 | 32.0 | 0.5 |  |
|  | N | 26,903 | 125 | 1,123 | 3.9 | 33.0 | 33.0 | 33.5 | 0.5 |  |
|  | O | 28,049 | 554 | 3,831 | 1.1 | 33.3 | 33.3 | 33.9 | 0.6 |  |
|  | P | 31,235 | 522 | 3,782 | 1.2 | 33.5 | 33.5 | 34.1 | 0.6 |  |
|  | Q | 31,372 | 649 | 4,531 | 1.0 | 34.0 | 34.0 | 34.8 | 0.8 |  |
|  | R | 32,007 | 690 | 3,635 | 1.2 | 34.1 | 34.1 | 34.9 | 0.8 |  |
|  | S | 36,192 | 98 | 551 | 7.9 | 36.7 | 36.7 | 36.8 | 0.1 |  |
|  | T | 37,245 | 192 | 2,195 | 2.0 | 45.6 | 45.6 | 45.9 | 0.3 |  |
|  | U | 38,306 | 211 | 1,717 | 2.5 | 45.6 | 45.6 | 45.9 | 0.3 |  |
|  | V | 39,790 | 108 | 666 | 6.5 | 45.7 | 45.7 | 46.3 | 0.6 |  |
|  | W | 40,564 | 27 | 340 | 12.7 | 51.7 | 51.7 | 51.7 | 0.0 |  |
|  | X | 40,646 | 42 | 516 | 8.4 | 54.8 | 54.8 | 54.8 | 0.0 |  |
|  | Y | 40,765 | 90 | 918 | 4.7 | 58.2 | 58.2 | 58.9 | 0.7 |  |
|  | Z | 40,782 | 225 | 2,555 | 1.7 | 65.1 | 65.1 | 66.0 | 0.9 |  |
|  | 1 Feet above confluence with Squamscott River | | | | | | | | |  |
|  | 2 Floodway width extends beyond the area of revision. | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: EXETER RIVER (TOWN OF EXETER)** | | | | | |
| **(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 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | AA | 42,700 | 135 | 1,276 | 2.9 | 65.9 | 65.9 | 66.0 | 0.1 |  |
|  | AB | 43,800 | 390 | 2,386 | 1.4 | 65.9 | 65.9 | 66.0 | 0.1 |  |
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|  | 1 Feet above confluence with Squamscott River | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: EXETER RIVER (TOWN OF EXETER)** | | | | | |
| **(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 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | AC | 56,283 | 350 | 3,357 | 0.9 | 68.0 | 68.0 | 68.9 | 0.9 |  |
|  | AD | 58,143 | 99 | 508 | 5.9 | 69.3 | 69.3 | 69.8 | 0.5 |  |
|  | AE | 58,315 | 59 | 327 | 9.2 | 69.6 | 69.6 | 70.0 | 0.4 |  |
|  | AF | 61,175 | 97 | 1,104 | 2.7 | 73.0 | 73.0 | 73.3 | 0.3 |  |
|  | AG | 65,655 | 88 | 682 | 4.4 | 74.7 | 74.7 | 75.1 | 0.4 |  |
|  | AH | 66,895 | 67 | 555 | 5.4 | 76.0 | 76.0 | 76.3 | 0.3 |  |
|  | AI | 69,895 | 74 | 621 | 4.8 | 79.6 | 79.6 | 79.9 | 0.3 |  |
|  | AJ | 71,490 | 73 | 424 | 7.1 | 82.3 | 82.3 | 82.7 | 0.4 |  |
|  | AK | 72,560 | 43 | 233 | 12.9 | 90.7 | 90.7 | 91.3 | 0.6 |  |
|  | AL | 72,763 | 70 | 274 | 11.0 | 99.9 | 99.9 | 99.9 | 0.0 |  |
|  | AM | 72,842 | 70 | 467 | 6.4 | 103.8 | 103.8 | 103.9 | 0.1 |  |
|  | AN | 72,887 | 74 | 503 | 6.0 | 104.0 | 104.0 | 104.1 | 0.1 |  |
|  | AO | 73,031 | 36 | 297 | 10.1 | 104.0 | 104.0 | 104.1 | 0.1 |  |
|  | AP | 73,165 | 164 | 1,218 | 2.5 | 106.5 | 106.5 | 106.5 | 0.0 |  |
|  | AQ | 77,960 | 190 | 1,009 | 3.0 | 115.3 | 115.3 | 116.3 | 1.0 |  |
|  | AR | 78,530 | 64 | 393 | 7.7 | 119.7 | 119.7 | 119.7 | 0.0 |  |
|  | AS | 78,701 | 52 | 760 | 4.0 | 129.0 | 129.0 | 129.0 | 0.0 |  |
|  | AT | 78,751 | 89 | 1,468 | 2.1 | 133.0 | 133.0 | 133.0 | 0.0 |  |
|  | AU | 78,936 | 136 | 1,489 | 2.0 | 133.0 | 133.0 | 133.1 | 0.1 |  |
|  | AV | 80,076 | 109 | 743 | 3.9 | 133.2 | 133.2 | 133.3 | 0.1 |  |
|  | AW | 80,323 | 109 | 760 | 3.8 | 133.3 | 133.3 | 133.4 | 0.1 |  |
|  | AX | 80,360 | 219 | 1,546 | 1.9 | 134.6 | 134.6 | 134.6 | 0.0 |  |
|  | AY | 82,740 | 275 | 2,762 | 1.0 | 134.8 | 134.8 | 134.8 | 0.0 |  |
|  | AZ | 84,960 | 185 | 1,684 | 1.9 | 134.9 | 134.9 | 135.1 | 0.2 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 1 Feet above confluence with Squamscott River | | | | | | | | |  |
|  |  | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: EXETER 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 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | BA | 113,180 | 230 | 2,260 | 2 | 160.7 | 160.7 | 161.5 | 0.8 |  |
|  | BB | 115,640 | 310 | 3,181 | 1.4 | 161.8 | 161.8 | 162.5 | 0.7 |  |
|  | BC | 116,900 | 355 | 3,720 | 1.2 | 162.5 | 162.5 | 163.3 | 0.8 |  |
|  | BD | 118,900 | 830 | 7,085 | 0.6 | 162.8 | 162.8 | 163.6 | 0.8 |  |
|  | BE | 120,660 | 400 | 3,295 | 1.3 | 163.7 | 163.7 | 164.6 | 0.9 |  |
|  | BF | 122,200 | 160 | 1,767 | 2.4 | 166.0 | 166.0 | 166.6 | 0.6 |  |
|  | BG | 123,640 | 145 | 1,444 | 2.9 | 166.6 | 166.6 | 167.4 | 0.8 |  |
|  | BH | 124,570 | 205 | 2,222 | 1.9 | 167.6 | 167.6 | 168.4 | 0.8 |  |
|  | BI | 126,000 | 315 | 2,981 | 1.4 | 168.3 | 168.3 | 169.2 | 0.9 |  |
|  | BJ | 127,140 | 350 | 3,093 | 1.3 | 168.7 | 168.7 | 169.6 | 0.9 |  |
|  | BK | 128,200 | 210 | 2,120 | 2.0 | 168.9 | 168.9 | 169.8 | 0.9 |  |
|  | BL | 130,400 | 270 | 2,191 | 1.3 | 169.7 | 169.7 | 170.4 | 0.7 |  |
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|  | 1 Feet above confluence with Squamscott River | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: EXETER RIVER** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.209 | 35 | 140 | 5.0 | 165.3 | 165.3 | 165.3 | 0.0 |  |
|  | B | 0.447 | 68 | 272 | 2.6 | 169.1 | 169.1 | 170.0 | 0.9 |  |
|  | C | 0.737 | 17 | 130 | 5.4 | 182.4 | 182.4 | 182.4 | 0.0 |  |
|  | D | 0.969 | 37 | 180 | 2.9 | 182.9 | 182.9 | 183.9 | 1.0 |  |
|  | E | 1.325 | 21 | 61 | 8.6 | 232.7 | 232.7 | 232.8 | 0.1 |  |
|  | F | 1.800 | 24 | 89 | 4.0 | 240.1 | 240.1 | 240.8 | 0.7 |  |
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|  | 1 Miles above confluence with Shadow Lake | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: FLATROCK BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 3.705 | 75 | 349 | 3.0 | 139.8 | 139.8 | 139.9 | 0.1 |  |
|  | B | 4.880 | 100 | 524 | 1.4 | 151.4 | 151.4 | 152.3 | 0.9 |  |
|  | C | 5.728 | 110 | 641 | 1.2 | 156.2 | 156.2 | 156.3 | 0.1 |  |
|  | D | 7.390 | 21 | 57 | 6.7 | 177.9 | 177.9 | 177.9 | 0.0 |  |
|  | E | 7.962 | 25 | 51 | 7.5 | 188.8 | 188.8 | 189.1 | 0.3 |  |
|  | F | 8.535 | 21 | 65 | 5.9 | 208.4 | 208.4 | 208.7 | 0.3 |  |
|  | G | 8.649 | 11 | 102 | 3.7 | 221.4 | 221.4 | 221.6 | 0.2 |  |
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|  | 1 Miles above mouth | | | | | | | | |  |
|  |  | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: GOLDEN BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.200 | 17 | 81 | 3.6 | 210.2 | 208.42 | 209.1 | 0.7 |  |
|  | B | 0.500 | 13 | 93 | 3.1 | 218.0 | 218.0 | 218.0 | 0.0 |  |
|  | C | 0.900 | 15 | 38 | 7.5 | 240.1 | 240.1 | 240.3 | 0.2 |  |
|  | D | 1.125 | 20 | 51 | 4.1 | 249.1 | 249.1 | 249.5 | 0.4 |  |
|  | E | 1.383 | 75 | 168 | 1.0 | 251.2 | 251.2 | 252.1 | 0.9 |  |
|  | F | 1.591 | 40 | 63 | 2.7 | 267.7 | 267.7 | 267.9 | 0.2 |  |
|  | G | 2.073 | 17 | 48 | 4.4 | 276.0 | 276.0 | 277.0 | 1.0 |  |
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|  | 1 Miles above confluence with Beaver Brook | | | | | | | | |  |
|  | 2 Elevation computed without consideration of backwater effects from Beaver Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: HIDDEN VALLEY BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.083 | 18 | 91 | 4.0 | 241.0 | 239.42 | 240.1 | 0.7 |  |
|  | B | 0.347 | 16 | 81 | 4.5 | 243.2 | 243.2 | 244.0 | 0.8 |  |
|  | C | 0.620 | 18 | 84 | 4.4 | 250.6 | 250.6 | 251.3 | 0.7 |  |
|  | D | 0.758 | 20 | 92 | 4.0 | 252.8 | 252.8 | 253.7 | 0.9 |  |
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|  | 1 Miles above confluence with Beaver Brook | | | | | | | | |  |
|  | 2 Elevation computed without consideration of backwater effects from Beaver Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: HORNES BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 575 | 25 | 114 | 4.4 | 96.4 | 96.4 | 97.4 | 1.0 |  |
|  | B | 1,160 | 40 | 122 | 4.1 | 98.2 | 98.2 | 98.9 | 0.7 |  |
|  | C | 4,000 | 65 | 697 | 0.7 | 111.9 | 111.9 | 112.0 | 0.1 |  |
|  | D | 5,410 | 40 | 328 | 1.5 | 111.9 | 111.9 | 112.1 | 0.2 |  |
|  | E | 6,930 | 20 | 160 | 3.1 | 116.3 | 116.3 | 117.1 | 0.8 |  |
|  | F | 7,490 | 30 | 143 | 3.5 | 116.7 | 116.7 | 117.6 | 0.9 |  |
|  | G | 8,880 | 45 | 104 | 4.8 | 123.5 | 123.5 | 124.1 | 0.6 |  |
|  | H | 9,135 | 30 | 76 | 6.5 | 125.6 | 125.6 | 125.9 | 0.3 |  |
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|  | 1 Feet above confluence with Little River No. 3 | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: KELLY BROOK** | | | | | |
| **(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 | 61,200 | 358 | 4,427 | 2.0 | 101.6 | 101.6 | 102.3 | 0.7 |  |
|  | B | 72,400 | 374 | 4,331 | 1.8 | 103.4 | 103.4 | 104.1 | 0.7 |  |
|  | C | 80,000 | 309 | 4,538 | 1.7 | 105.7 | 105.7 | 106.5 | 0.8 |  |
|  | D | 87,700 | 450 | 5,368 | 1.5 | 107.3 | 107.3 | 108.2 | 0.9 |  |
|  | E | 95,000 | 175 | 1,964 | 3.9 | 109.6 | 109.6 | 110.5 | 0.9 |  |
|  | F | 100,000 | 180 | 2,379 | 3.2 | 114.1 | 114.1 | 114.8 | 0.7 |  |
|  | G | 105,667 | 486 | 6,873 | 1.1 | 119.7 | 119.7 | 120.3 | 0.6 |  |
|  | H | 113,503 | 88 | 1,224 | 5.9 | 126.0 | 126.0 | 126.9 | 0.9 |  |
|  | I | 119,623 | 232 | 3,388 | 2.0 | 143.3 | 143.3 | 144.1 | 0.8 |  |
|  | J | 123,962 | 775 | 5,529 | 1.2 | 148.6 | 148.6 | 148.9 | 0.3 |  |
|  | K | 129,139 | 205 | 1,805 | 3.6 | 155.0 | 155.0 | 155.1 | 0.1 |  |
|  | L | 131,462 | 95 | 940 | 7.0 | 160.1 | 160.1 | 160.1 | 0.0 |  |
|  | M | 136,050 | 124 | 1,393 | 4.7 | 166.8 | 166.8 | 167.4 | 0.6 |  |
|  | N | 137,735 | 754 | 9,958 | 0.7 | 168.1 | 168.1 | 168.9 | 0.8 |  |
|  | O | 140,141 | 499 | 5,391 | 1.2 | 168.7 | 168.7 | 169.4 | 0.7 |  |
|  | P | 145,455 | 180 | 2,064 | 3.1 | 185.2 | 185.2 | 185.4 | 0.2 |  |
|  | Q | 149,447 | 167 | 2,669 | 2.4 | 189.5 | 189.5 | 189.8 | 0.3 |  |
|  | R | 152,447 | 829 | 11,648 | 0.5 | 189.8 | 189.8 | 190.3 | 0.5 |  |
|  | S | 155,947 | 349 | 5,991 | 1.0 | 190.2 | 190.2 | 190.7 | 0.5 |  |
|  | T | 159,947 | 293 | 2,828 | 1.9 | 190.5 | 190.5 | 191.0 | 0.5 |  |
|  | U | 163,949 | 271 | 1,724 | 3.0 | 198.2 | 198.2 | 198.9 | 0.7 |  |
|  | V | 167,999 | 160 | 2,007 | 2.4 | 205.6 | 205.6 | 206.5 | 0.9 |  |
|  | W | 171,468 | 167 | 1,911 | 2.6 | 208.0 | 208.0 | 208.7 | 0.7 |  |
|  | X | 173,468 | 775 | 6,666 | 0.7 | 208.3 | 208.3 | 209.0 | 0.7 |  |
|  | Y | 176,357 | 59 | 632 | 5.8 | 212.5 | 212.5 | 213.1 | 0.6 |  |
|  | Z | 180,590 | 109 | 1,155 | 3.2 | 215.0 | 215.0 | 215.8 | 0.8 |  |
|  | AA | 185,202 | 130 | 666 | 5.5 | 217.2 | 217.2 | 217.9 | 0.7 |  |
|  | 1 Feet above confluence with Piscassic River | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM 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 |  |
|  | Lamprey River |  |  |  |  |  |  |  |  |  |
|  | A | 0 | 86 | 597 | 14.9 | 10.3 | 10.3 | 10.3 | 0.0 |  |
|  | B | 36 | 140 | 3068 | 2.9 | 33.5 | 33.5 | 34.5 | 1.0 |  |
|  | C | 206 | 139 | 3494 | 2.6 | 33.6 | 33.6 | 34.6 | 1.0 |  |
|  | D | 247 | 92 | 1552 | 5.8 | 33.6 | 33.6 | 34.5 | 0.9 |  |
|  | E | 310 | 68 | 1406 | 6.4 | 34.6 | 34.6 | 35.4 | 0.8 |  |
|  | F | 345 | 132 | 2082 | 4.3 | 34.9 | 34.9 | 35.9 | 1.0 |  |
|  | G | 546 | 135 | 3039 | 2.9 | 35.1 | 35.1 | 36.1 | 1.0 |  |
|  | H | 754 | 195 | 4697 | 1.9 | 35.2 | 35.2 | 36.1 | 0.9 |  |
|  | I | 1764 | 203 | 4276 | 2.1 | 35.3 | 35.3 | 36.2 | 0.9 |  |
|  | J | 1947 | 277 | 5516 | 1.6 | 35.3 | 35.3 | 36.2 | 0.9 |  |
|  | K | 2885 | 385 | 7368 | 1.2 | 35.4 | 35.4 | 36.3 | 0.9 |  |
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|  | 1 Feet above MacCallen Dam | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: LAMPREY RIVER (TOWN OF NEWMARKET)** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.141 | 20 | 52 | 9.2 | 200.4 | 200.4 | 200.4 | 0.0 |  |
|  | B | 0.547 | 30 | 112 | 4.3 | 212.1 | 212.1 | 212.2 | 0.1 |  |
|  | C | 0.678 | 30 | 3 | 6.6 | 229.2 | 229.2 | 229.2 | 0.0 |  |
|  | D | 0.900 | 40 | 56 | 6.9 | 242.7 | 242.7 | 242.7 | 0.0 |  |
|  | E | .165 | 180 | 720 | 0.5 | 261.1 | 261.1 | 261.1 | 0.0 |  |
|  | F | 1.228 | 630 | 3,062 | 0.1 | 263.7 | 263.7 | 263.7 | 0.0 |  |
|  | G | 1.775 | 105 | 487 | 0.8 | 263.7 | 263.7 | 263.7 | 0.0 |  |
|  | H | 2.365 | 30 | 175 | 1.8 | 264.3 | 264.3 | 264.4 | 0.1 |  |
|  | I | 2.717 | 300 | 396 | 0.8 | 264.3 | 264.3 | 265.1 | 0.8 |  |
|  | J | 3.405 | 20 | 25 | 6.8 | 306.8 | 306.8 | 306.8 | 0.0 |  |
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|  | 1 Miles above Industrial Drive | | | | | | | | |  |
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| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: LITTLE COHAS 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 | 400 | 195 | 1,679 | 0.4 | 30.9 | 28.12 | 28.1 | 0.0 |  |
|  | B | 610 | 80 | 803 | 0.8 | 30.9 | 28.12 | 28.1 | 0.0 |  |
|  | C | 2,460 | 70 | 615 | 1.0 | 30.9 | 28.12 | 28.2 | 0.1 |  |
|  | D | 2,604 | 99 | 839 | 0.7 | 30.9 | 28.22 | 28.3 | 0.1 |  |
|  | E | 4,104 | 29 | 183 | 3.4 | 30.9 | 28.32 | 28.4 | 0.1 |  |
|  | F | 5,104 | 44 | 351 | 1.8 | 30.9 | 28.32 | 29.1 | 0.8 |  |
|  | G | 5,234 | 214 | 1,118 | 0.6 | 30.9 | 28.72 | 29.5 | 0.8 |  |
|  | H | 7,634 | 76 | 504 | 1.2 | 30.9 | 29.02 | 29.8 | 0.8 |  |
|  | I | 7,934 | 76 | 696 | 0.9 | 30.9 | 29.12 | 30.0 | 0.9 |  |
|  | J | 8,069 | 78 | 287 | 2.2 | 30.9 | 29.92 | 30.5 | 0.6 |  |
|  | K | 9,219 | 122 | 427 | 1.5 | 30.9 | 30.82 | 31.5 | 0.7 |  |
|  | L | 10,169 | 164 | 800 | 0.8 | 31.0 | 31.0 | 31.7 | 0.7 |  |
|  | M | 10,246 | 21 | 128 | 4.9 | 31.0 | 31.0 | 31.7 | 0.7 |  |
|  | N | 10,566 | 80 | 430 | 1.5 | 31.7 | 31.7 | 32.3 | 0.6 |  |
|  | O | 11,866 | 23 | 173 | 3.6 | 32.0 | 32.0 | 32.7 | 0.7 |  |
|  | P | 12,666 | 55 | 87 | 7.2 | 39.7 | 39.7 | 40.0 | 0.3 |  |
|  | Q | 12,799 | 205 | 1,221 | 0.5 | 46.8 | 46.8 | 46.9 | 0.1 |  |
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|  | 1 Feet above confluence with Exeter River | | | | | | | | |  |
|  | 2 Elevation computed without consideration of backwater effects from Exeter River | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: LITTLE RIVER NO. 1** | | | | | |
| **(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 | 3,048 | 67 | 304 | 0.7 | 9.3 | 9.3 | 9.4 | 0.1 |  |
|  | B | 5,048 | \* | 78 | 2.9 | 9.6 | 9.6 | 10.1 | 0.5 |  |
|  | C | 5,185 | \* | 59 | 3.8 | 10.0 | 10.0 | 10.4 | 0.4 |  |
|  | D | 5,385 | \* | 32 | 7.2 | 11.8 | 11.8 | 11.8 | 0.0 |  |
|  | E | 5,490 | \* | 31 | 7.3 | 13.8 | 13.8 | 14.0 | 0.2 |  |
|  | F | 5,780 | \* | 25 | 9.0 | 20.9 | 20.9 | 21.0 | 0.1 |  |
|  | G | 6,420 | \* | 31 | 7.4 | 26.3 | 26.3 | 26.3 | 0.0 |  |
|  | H | 6,495 | \* | 32 | 7.2 | 30.9 | 30.9 | 31.0 | 0.1 |  |
|  | I | 6,561 | 75 | 410 | 0.6 | 34.6 | 34.6 | 34.8 | 0.2 |  |
|  | J | 6,771 | \* | 25 | 9.0 | 34.8 | 34.8 | 34.8 | 0.0 |  |
|  | K | 6,867 | \* | 49 | 4.6 | 38.3 | 38.3 | 38.3 | 0.0 |  |
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|  | 1Feet above downstream dam in Town of North Hampton | | | | | | | | |  |
|  | \*Floodway coincident with channel banks | | | | | | | | |  |
|  |  | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: LITTLE RIVER NO. 2** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 290 | 40 | 213 | 6.0 | 39.7 | 39.7 | 40.4 | 0.7 |  |
|  | B | 1,600 | 30 | 281 | 4.5 | 42.2 | 42.2 | 42.9 | 0.7 |  |
|  | C | 3,110 | 119 | 614 | 1.8 | 43.1 | 43.1 | 44.1 | 1.0 |  |
|  | D | 3,265 | 85 | 574 | 1.9 | 43.7 | 43.7 | 44.5 | 0.8 |  |
|  | E | 4,640 | 91 | 285 | 3.8 | 45.0 | 45.0 | 45.9 | 0.9 |  |
|  | F | 5,035 | 42 | 243 | 4.4 | 47.4 | 47.4 | 47.5 | 0.1 |  |
|  | G | 5,340 | 35 | 205 | 5.2 | 49.9 | 49.9 | 49.9 | 0.0 |  |
|  | H | 7,490 | 32 | 197 | 5.5 | 54.6 | 54.6 | 55.1 | 0.5 |  |
|  | I | 8,704 | 40 | 120 | 9.0 | 58.4 | 58.4 | 58.4 | 0.0 |  |
|  | J | 10,030 | 135 | 850 | 0.9 | 60.1 | 60.1 | 61.1 | 1.0 |  |
|  | K | 10,480 | 60 | 327 | 2.4 | 61.8 | 61.8 | 62.6 | 0.8 |  |
|  | L | 11,450 | 145 | 880 | 1.0 | 61.9 | 61.9 | 62.8 | 0.9 |  |
|  | M | 12,660 | 70 | 278 | 3.0 | 62.6 | 62.6 | 63.4 | 0.8 |  |
|  | N | 14,850 | 48 | 250 | 3.0 | 64.7 | 64.7 | 65.4 | 0.7 |  |
|  | O | 15,730 | 53 | 163 | 5.0 | 68.3 | 68.3 | 69.1 | 0.8 |  |
|  | P | 16,850 | 20 | 161 | 4.9 | 81.8 | 81.8 | 81.8 | 0.0 |  |
|  | Q | 17,770 | 39 | 91 | 8.7 | 86.4 | 86.4 | 86.4 | 0.0 |  |
|  | R | 19,420 | 33 | 142 | 5.6 | 93.3 | 93.3 | 93.8 | 0.5 |  |
|  | S | 20,690 | 70 | 314 | 2.5 | 95.2 | 95.2 | 96.0 | 0.8 |  |
|  | T | 21,970 | 34 | 153 | 5.2 | 96.3 | 96.3 | 97.1 | 0.8 |  |
|  | U | 23,066 | 50 | 254 | 1.9 | 102.9 | 102.9 | 102.9 | 0.0 |  |
|  | V | 25,410 | 51 | 326 | 1.5 | 103.1 | 103.1 | 103.5 | 0.4 |  |
|  | W | 27,555 | 58 | 225 | 1.5 | 103.5 | 103.5 | 104.2 | 0.7 |  |
|  | X | 28,240 | 22 | 127 | 2.6 | 106.9 | 106.9 | 106.9 | 0.0 |  |
|  | 1Feet above New Hampshire-Massachusetts State boundary | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: LITTLE RIVER NO. 3** | | | | | |
| **(ALL JURISDICTIONS)** | | | |
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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.278 | 150 | 228 | 3.3 | 178.7 | 178.7 | 179.4 | 0.7 |  |
|  | B | 0.730 | 20 | 37 | 5.7 | 190.9 | 190.9 | 191.1 | 0.2 |  |
|  | C | 1.262 | 20 | 62 | 3.4 | 196.1 | 196.1 | 196.6 | 0.5 |  |
|  | D | 1.665 | 30 | 33 | 6.4 | 225.2 | 225.2 | 225.2 | 0.0 |  |
|  | E | 1.900 | 30 | 89 | 2.4 | 229.6 | 229.6 | 229.8 | 0.2 |  |
|  | F | 2.245 | 30 | 30 | 7.0 | 251.9 | 251.9 | 251.9 | 0.0 |  |
|  | G | 3.247 | 30 | 210 | 1.0 | 271.7 | 271.7 | 272.6 | 0.9 |  |
|  | H | 3.381 | 20 | 123 | 1.7 | 273.6 | 273.6 | 273.6 | 0.0 |  |
|  | I | 3.533 | 10 | 137 | 1.5 | 289.6 | 289.6 | 289.6 | 0.0 |  |
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|  | 1Miles above county boundary | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: NESENKEAG 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 | 4,630 | 68.000 | 341 | 1.1 | 91.4 | 91.4 | 92.4 | 1.0 |  |
|  | B | 6,530 | 30 | 177 | 2.1 | 94.2 | 94.2 | 95.2 | 1.0 |  |
|  | C | 7,120 | 26 | 121 | 3.1 | 97.9 | 97.9 | 98.9 | 1.0 |  |
|  | D | 9,575 | 95 | 305 | 1.2 | 100.1 | 100.1 | 101.1 | 1.0 |  |
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|  | 1Feet above Ice Pond Dam | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: PISCASSIC RIVER** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | Policy Brook |  |  |  |  |  |  |  |  |  |
|  | A | 0 | 50 | 160 | 4.1 | 124.0 | 124.0 | 125.0 | 1.0 |  |
|  | B | 1,030 | 50 | 170 | 3.9 | 126.0 | 126.0 | 126.6 | 0.6 |  |
|  | C | 1,105 | 50 | 250 | 1.8 | 126.4 | 126.4 | 127.0 | 0.6 |  |
|  | D | 1,190 | 50 | 230 | 2.0 | 126.5 | 126.5 | 127.1 | 0.6 |  |
|  | E | 1,240.000 | 50 | 400 | 1.1 | 126.5 | 126.5 | 127.1 | 0.6 |  |
|  | F | 3,185.000 | 50 | 300 | 1.1 | 126.6 | 126.6 | 127.3 | 0.7 |  |
|  | G | 4,025.000 | 50 | 280 | 0.7 | 126.6 | 126.6 | 127.3 | 0.7 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Unnamed Brook |  |  |  |  |  |  |  |  |  |
|  | H | 4,075.000 | 50 | 210 | 0.6 | 126.6 | 126.6 | 127.3 | 0.7 |  |
|  | I | 4,750.000 | 50 | 95 | 1.3 | 127.0 | 127.0 | 127.7 | 0.7 |  |
|  | J | 4,965 | 50 | 170 | 0.7 | 127.1 | 127.1 | 127.8 | 0.7 |  |
|  | K | 5,755 | 50 | 95 | 0.6 | 127.1 | 127.1 | 127.9 | 0.8 |  |
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|  | 1Feet above Rockingham park culvert | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: POLICY BROOK – UNNAMED BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 1.149 | 20 | 45 | 8.2 | 263.8 | 263.8 | 263.8 | 0.0 |  |
|  | B | 1.415 | 16 | 96 | 3.8 | 276.3 | 276.3 | 276.3 | 0.0 |  |
|  | C | 1.815 | 45 | 47 | 5.9 | 294.0 | 294.0 | 294.0 | 0.0 |  |
|  | D | 1.949 | 30 | 41 | 6.7 | 297.9 | 297.9 | 297.9 | 0.0 |  |
|  | E | 2.030 | 47 | 158 | 1.7 | 301.6 | 301.6 | 302.2 | 0.6 |  |
|  | F | 2.116 | 18 | 157 | 1.8 | 307.1 | 307.1 | 307.1 | 0.0 |  |
|  | G | 2.170 | 40 | 240 | 1.2 | 307.3 | 307.3 | 307.3 | 0.0 |  |
|  | H | 2.669 | 94 | 167 | 1.7 | 307.7 | 307.7 | 308.6 | 0.9 |  |
|  | I | 2.852 | 20 | 92 | 3.0 | 313.1 | 313.1 | 314.1 | 1.0 |  |
|  | J | 3.008 | 8 | 27 | 10.2 | 333.6 | 333.6 | 333.6 | 0.0 |  |
|  | K | 3.178 | 9 | 86 | 1.7 | 351.6 | 351.6 | 352.0 | 0.4 |  |
|  | L | 3.372 | 20 | 123 | 1.2 | 352.7 | 352.7 | 353.3 | 0.6 |  |
|  | M | 3.953 | 20 | 82 | 1.8 | 366.0 | 366.0 | 366.9 | 0.9 |  |
|  | N | 4.488 | 16 | 96 | 1.6 | 374.2 | 374.2 | 374.2 | 0.0 |  |
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|  | 1Miles above confluence with Beaver Creek | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: SHIELDS BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 33.12 | 300 | 1,710 | 1.1 | 112.0 | 112.0 | 113.0 | 1.0 |  |
|  | B | 33.78 | 300 | 1,440 | 1.1 | 112.3 | 112.3 | 113.3 | 1.0 |  |
|  | C | 34.60 | 250 | 1,310 | 1.2 | 113.0 | 113.0 | 113.9 | 0.9 |  |
|  | D | 34.74 | 140 | 630 | 2.5 | 114.4 | 114.4 | 115.3 | 0.9 |  |
|  | E | 35.05 | 250 | 1,680 | 1.0 | 114.9 | 114.9 | 115.7 | 0.8 |  |
|  | F | 35.62 | 250 | 1,560 | 1.0 | 115.0 | 115.0 | 115.8 | 0.8 |  |
|  | G | 36.45 | 250 | 1,420 | 1.1 | 115.5 | 115.5 | 116.2 | 0.7 |  |
|  | H | 36.92 | 190 | 1,180 | 1.4 | 115.7 | 115.7 | 116.4 | 0.7 |  |
|  | I | 36.97 | 300 | 1,500 | 1.1 | 116.5 | 116.5 | 117.2 | 0.7 |  |
|  | J | 38.05 | 300 | 2,040 | 0.8 | 117.3 | 117.3 | 118.0 | 0.7 |  |
|  | K | 38.46 | 300 | 980 | 1.6 | 117.5 | 117.5 | 118.2 | 0.7 |  |
|  | L | 38.93 | 100 | 620 | 2.6 | 119.0 | 119.0 | 119.3 | 0.3 |  |
|  | M | 38.98 | 100 | 560 | 2.9 | 119.6 | 119.6 | 119.7 | 0.1 |  |
|  | N | 39.27 | 200 | 1,320 | 1.2 | 119.7 | 119.7 | 120.2 | 0.5 |  |
|  | O | 39.59 | 130 | 730 | 2.2 | 119.8 | 119.8 | 120.3 | 0.5 |  |
|  | P | 39.64 | 250 | 1,340 | 1.2 | 119.9 | 119.9 | 120.4 | 0.5 |  |
|  | Q | 40.66 | 250 | 1,380 | 1.2 | 120.6 | 120.6 | 121.1 | 0.5 |  |
|  | R | 40.82 | 250 | 1,500 | 1.2 | 120.7 | 120.7 | 121.3 | 0.6 |  |
|  | S | 40.87 | 250 | 1,840 | 0.8 | 121.8 | 121.8 | 122.5 | 0.7 |  |
|  | T | 41.87 | 180 | 760 | 1.8 | 122.3 | 122.3 | 122.9 | 0.6 |  |
|  | U | 42.47 | 200 | 1,350 | 1.0 | 126.3 | 126.3 | 126.3 | 0.0 |  |
|  | V | 42.74 | 60 | 460 | 1.6 | 126.4 | 126.4 | 126.5 | 0.1 |  |
|  | W | 43.11 | 100 | 450 | 1.7 | 127.1 | 127.1 | 127.2 | 0.1 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 1Miles above Newburyport Light | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: SPICKET RIVER** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.225 | 30 | 110 | 3.9 | 207.0 | 207.0 | 207.8 | 0.8 |  |
|  | B | 0.933 | 19 | 87 | 4.9 | 218.2 | 218.2 | 218.9 | 0.7 |  |
|  | C | 1.638 | 20 | 58 | 7.3 | 238.5 | 238.5 | 238.9 | 0.4 |  |
|  | D | 2.950 | 208 | 1,085 | 0.8 | 258.4 | 258.4 | 259.4 | 1.0 |  |
|  | E | 3.153 | 49 | 553 | 1.5 | 262.9 | 262.9 | 262.9 | 0.0 |  |
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|  | 1Miles above confluence with Island Pond | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TAYLOR BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.092 | 70 | 290 | 1.3 | 223.4 | 219.4 | 220.3 | 0.9 |  |
|  | B | 0.571 | 25 | 52 | 7.3 | 234.3 | 234.3 | 234.3 | 0.0 |  |
|  | C | 0.755 | 30 | 51 | 7.5 | 247.1 | 247.1 | 247.1 | 0.0 |  |
|  | D | 0.960 | 20 | 187 | 1.3 | 279.0 | 279.0 | 279.0 | 0.0 |  |
|  | E | 1.310 | 40 | 47 | 5.1 | 292.3 | 292.3 | 292.3 | 0.0 |  |
|  | F | 1.800 | 80 | 202 | 1.2 | 299.6 | 299.6 | 300.1 | 0.5 |  |
|  | G | 2.215 | 160 | 230 | 1.0 | 304.6 | 304.6 | 305.6 | 1.0 |  |
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|  | 1Miles above confluence with Beaver Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY C TO BEAVER BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.395 | 50 | 489 | 1.5 | 248.0 | 243.7 | 244.7 | 1.0 |  |
|  | B | 0.822 | 18 | 532 | 1.0 | 265.4 | 265.4 | 265.8 | 0.4 |  |
|  | C | 1.181 | 81 | 547 | 0.9 | 273.2 | 273.2 | 274.0 | 0.8 |  |
|  | D | 1.735 | 16 | 567 | 0.9 | 281.9 | 281.9 | 282.8 | 0.9 |  |
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|  | 1 Miles above confluence with Beaver Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY G TO BEAVER BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.019 | 30 | 48 | 5.2 | 239.1 | 235.0 | 235.3 | 0.3 |  |
|  | B | 0.184 | 35 | 104 | 2.4 | 239.1 | 237.9 | 238.7 | 0.8 |  |
|  | C | 0.387 | 20 | 38 | 6.1 | 245.9 | 245.9 | 246.2 | 0.3 |  |
|  | D | 0.585 | 20 | 107 | 2.2 | 283.6 | 283.6 | 283.6 | 0.0 |  |
|  | E | 0.726 | 350 | 2,576 | 0.1 | 285.4 | 285.4 | 285.4 | 0.0 |  |
|  | F | 0.926 | 20 | 38 | 6.1 | 286.1 | 286.1 | 286.1 | 0.0 |  |
|  | G | 1.009 | 30 | 114 | 2.0 | 290.4 | 290.4 | 291.2 | 0.8 |  |
|  | H | 1.12 | 10 | 92 | 2.5 | 292.1 | 292.1 | 292.9 | 0.8 |  |
|  | I | 1.23 | 20 | 101 | 2.3 | 305.4 | 305.4 | 305.4 | 0.0 |  |
|  | J | 1.453 | 10 | 29 | 7.9 | 320.3 | 320.3 | 320.5 | 0.2 |  |
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|  | 1Miles above confluence with Beaver Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY O TO BEAVER BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | Tributary E to Beaver Lake |  |  |  |  |  |  |  |  |  |
|  | A | 0.000 | 28 | 162 | 2.3 | 289.6 | 289.6 | 290.6 | 1.0 |  |
|  | B | 0.184 | 36 | 467 | 0.8 | 293.6 | 293.6 | 294.3 | 0.7 |  |
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|  | Tributary F to Beaver Lake |  |  |  |  |  |  |  |  |  |
|  | A | 0.169 | 102 | 589 | 1.1 | 297.6 | 297.6 | 298.6 | 1.0 |  |
|  | B | 0.471 | 311 | 1,133 | 0.6 | 299.3 | 299.3 | 300.2 | 0.9 |  |
|  | C | 0.770 | 59 | 226 | 2.9 | 303.5 | 303.5 | 304.5 | 1.0 |  |
|  | D | 1.064 | 19 | 65 | 10.1 | 320.7 | 320.7 | 320.7 | 0.0 |  |
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|  | 1Miles above confluence with Beaver Lake | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY E TO BEAVER LAKE – TRIBUTARY F TO BEAVER LAKE** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.191 |  | 33 | 5.0 | 215.4 | 215.4 | 216.0 | 0.6 |  |
|  | B | 0.400 | 20 | 94 | 1.8 | 221.1 | 221.1 | 221.5 | 0.4 |  |
|  | C | 0.613 | 60 | 207 | 0.8 | 221.2 | 221.2 | 221.9 | 0.7 |  |
|  | D | 0.951 | 30 | 103 | 1.6 | 221.8 | 221.8 | 222.8 | 1.0 |  |
|  | E | 1.145 | 30 | 75 | 2.2 | 224.5 | 224.5 | 225.4 | 0.9 |  |
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|  | 1Miles above confluence with Black Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY J TO BLACK BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.235 | 26 | 52 | 4.8 | 216.9 | 216.9 | 217.3 | 0.4 |  |
|  | B | 0.503 | 10 | 60 | 4.2 | 226.1 | 226.1 | 226.4 | 0.3 |  |
|  | C | 0.810 | 14 | 30 | 8.4 | 245.1 | 245.1 | 245.3 | 0.2 |  |
|  | D | 1.030 | 13 | 33 | 7.6 | 263.6 | 263.6 | 264.1 | 0.5 |  |
|  | E | 1.156 | 17 | 40 | 6.3 | 277.3 | 277.3 | 277.6 | 0.3 |  |
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|  | 1Miles above confluence with Drew Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY H TO DREW BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.240 | 60 | 205 | 2.1 | 264.1 | 262.42 | 263.2 | 0.8 |  |
|  | B | 0.700 | 40 | 118 | 2.8 | 264.1 | 262.52 | 263.5 | 1.0 |  |
|  | C | 0.950 | 30 | 107 | 3.1 | 266.1 | 266.1 | 266.1 | 0.0 |  |
|  | D | 1.083 | 20 | 127 | 2.3 | 272.5 | 272.5 | 272.7 | 0.2 |  |
|  | E | 1.300 | 100 | 538 | 0.5 | 276.9 | 276.9 | 277.3 | 0.4 |  |
|  | F | 1.535 | 25 | 168 | 1.7 | 279.6 | 279.6 | 280.1 | 0.5 |  |
|  | G | 1.596 | 10 | 63 | 4.6 | 281.3 | 281.3 | 281.3 | 0.0 |  |
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|  | 1Miles above confluence with Little Cohas Brook | | | | | | | | |  |
|  | 2Elevation computed without consideration of backwater effects from Little Cohas Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY E TO LITTLE COHAS BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.065 | 30 | 69 | 5.4 | 185.0 | 185.0 | 185.0 | 0.0 |  |
|  | B | 0.350 | 20 | 21 | 7.6 | 202.1 | 202.1 | 202.1 | 0.0 |  |
|  | C | 0.700 | 20 | 23 | 7.0 | 232.3 | 232.3 | 232.3 | 0.0 |  |
|  | D | 1.151 | 35 | 121 | 1.3 | 236.2 | 236.2 | 237.0 | 0.8 |  |
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|  | 1Miles above confluence with Nesenkeag Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: TRIBUTARY H TO NESENKEAG BROOK** | | | | | |
| **(ALL JURISDICTIONS)** | | | |

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|  | **LOCATION** | | **FLOODWAY** | | | **1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NGVD29)** | | | |  |
|  | CROSS SECTION | DISTANCE1 | WIDTH (FEET) | SECTION AREA  (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |  |
|  | A | 0.120 | 20 | 38 | 5.7 | 314.3 | 314.3 | 314.3 | 0.0 |  |
|  | B | 0.300 | 20 | 68 | 3.2 | 319.4 | 319.4 | 319.5 | 0.1 |  |
|  | C | 0.592 | 20 | 45 | 4.8 | 331.6 | 331.6 | 331.6 | 0.0 |  |
|  | D | 0.900 | 150 | 390 | 0.6 | 331.6 | 331.6 | 332.5 | 0.9 |  |
|  | E | 1.415 | 300 | 824 | 0.3 | 331.7 | 331.7 | 332.7 | 1.0 |  |
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|  | 1Miles above confluence with Shields Brook | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: UPPER BEAVER 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 | 1200 | 32 | 112 | 1.8 | 40.9 | 40.9 | 40.9 | 0.0 |  |
|  | B | 3040 | \* | 112 | 1.8 | 41.8 | 41.8 | 42.6 | 0.8 |  |
|  | C | 4240 | 97 | 261 | 0.8 | 42.3 | 42.3 | 43.3 | 1.0 |  |
|  | D | 4372 | 51 | 239 | 0.8 | 44.5 | 44.5 | 44.5 | 0.0 |  |
|  | E | 6272 | \* | 74 | 2.7 | 44.6 | 44.6 | 45.1 | 0.5 |  |
|  | F | 7472 | 54 | 223 | 0.9 | 44.8 | 44.8 | 45.5 | 0.7 |  |
|  | G | 7662 | \* | 126 | 1.6 | 48.7 | 48.7 | 48.9 | 0.2 |  |
|  | H | 9762 | 505 | 2,667 | 0.1 | 48.7 | 48.7 | 48.9 | 0.2 |  |
|  | I | 12322 | 90 | 581 | 0.3 | 48.7 | 48.7 | 49.0 | 0.3 |  |
|  | J | 13842 | 256 | 630 | 0.3 | 48.7 | 48.7 | 49.0 | 0.3 |  |
|  | K | 14056 | 250 | 1,866 | 0.1 | 52.5 | 52.5 | 52.6 | 0.1 |  |
|  | L | 15056 | 240 | 1,060 | 0.2 | 52.5 | 52.5 | 52.6 | 0.1 |  |
|  | M | 15,279 | 340 | 3,607 | 0.1 | 55.8 | 55.8 | 55.8 | 0.0 |  |
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|  |  |  |  |  |  |  |  |  |  |  |
|  | 1Feet above Town of North Hampton corporate limits | | | | | | | | |  |
|  | \*Floodway coincident with channel banks | | | | | | | | |  |
| TABLE 24 | **FEDERAL EMERGENCY MANAGEMENT AGENCY** | | | | **FLOODWAY DATA** | | | | | |
| **ROCKINGHAM COUNTY, NEW HAMPSHIRE** | | | |
| **FLOODING SOURCE: WINNICUT 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](http://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](http://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](http://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/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions](https://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions) 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 Rockingham County FIRM are listed in Table 27. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

Table 27: Incorporated Letters of Map Change

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

### 6.5.4 Physical Map Revisions

A Physical Map Revision (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](http://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](http://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 Rockingham 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 Rockingham County FIRMs in countywide format was 05/17/2005.

Table 28: Community Map History

| Community Name | Initial Identification Date  (First NFIP  Map Published) | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s) |
| --- | --- | --- | --- | --- | --- |
| Atkinson, Town of | 1/03/1975 | 1/03/1975 | 11/29/1977 | 4/21993 | 5/17/2005 |
| Auburn, Town of | 2/28/1975 | 2/28/1975 | None | 4/2/1986 | 5/17/2005 |
| Brentwood, Town of | 6/28/1974 | 6/28/1974 | 12/10/1976 | 4/15/1981 | 5/4/2000 |
| Candia, Town of | 2/21/1975 | 2/21/1975 | 11/19/1976 | 5/17/2005 | 5/17/2005 |
| Chester, Town of | 2/21/1975 | 2/21/1975 | None | 3/1/2000 | 5/17/2005 |
| Danville, Town of | 1/17/1975 | 1/17/1975 | None | 4/1/1994 | 5/17/2005 |
| Deerfield, Town of | 2/21/1975 | 2/21/1975 | 11/12/1976 | 9/1/1989 | 5/17/2005 |
| Derry, Town of | 9/13/1974 | 9/13/1974 | 3/4/1977 | 4/15/1981 | 5/17/2005 |
| East Kingston, Town of | 2/28/1975 | 2/28/1975 | None | 4/2/1986 | 5/17/2005 |
| Epping, Town of | 7/19/1974 | 7/19/1974 | 11/15/1977 | 4/15/1982 | 5/17/2005 |
| Exeter, Town of | 9/20/1974 | 9/20/1974 | 3/11/1977 | 5/17/1982 | 5/17/2005 |
| Fremont, Town of | 8/9/1974 | 8/9/1974 | 10/29/1976  8/17/1979 | 4/15/1981 | 6/19/1989  5/17/2005 |
| Greenland, Town of | 2/21/1974 | 2/21/1974 | 9/17/1976 | 5/17/1989 | 5/17/2005 |
| Hampstead, Town of | 2/28/1975 | 2/28/1975 | None | 6/16/1993 | 5/17/2005 |
| Hampton Falls, Town of | 12/6/1974 | 12/6/1974 | 6/11/1976 | 4/15/1982 | 5/17/2005 |
| Hampton, Town of | 7/19/1974 | 7/19/1974 | 12/10/1976 | 7/3/1986 | 5/17/2005 |
| Kensington, Town of | 1/31/1975 | 1/31/1975 | 9/6/1977 | 5/17/2005 | None |
| Kingston, Town of | 1/17/1975 | 1/17/1975 | 3/6/1979 | 9/1/1988 | 4/15/1992  5/17/2005 |
| Londonderry, Town of | 8/9/1974 | 8/9/1974 | 7/16/1976 | 11/5/1980 | 5/17/2005 |
| New Castle, Town of | 5/31/1974 | 5/31/1974 | 12/3/1976 | 8/5/1986 | 5/17/2005 |
| Newfields, Town of | 1/03/1975 | 1/03/1975 | 3/12/1976 | 6/5/1989 | 5/17/2005 |
| Newington, Town of | 2/21/1975 | 2/21/1975 | None | 5/17/2005 | None |
| Newmarket, Town of | 6/28/1974 | 6/28/1974 | 12/10/1976 | 5/2/1991 | 5/17/2005 |

| **Table 28: Community Map History (continued)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Community Name | Initial Identification Date  (First NFIP  Map Published) | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s) |
| Newton, Town of | None | None | None | 5/17/2005 | None |
| North Hampton, Town of | 2/27/1979 | 2/27/1979 | None | 6/3/1986 | 5/17/2005 |
| Northwood, Town of | 1/2/1987 | 1/2/1987 | None | 1/2/1987 | 5/17/2005 |
| Nottingham, Town of | 6/28/1974 | 6/28/1974 | 11/19/1976  9/7/1979 | 4/2/1986 | 5/17/2005 |
| Plaistow, Town of | 10/18/1974 | 10/18/1974 | 8/26/1976 | 4/15/1981 | 5/17/2005 |
| Portsmouth, City of | 7/19/1974 | 7/19/1974 | 7/23/1976 | 5/17/1982 | 5/17/2005 |
| Raymond, Town of | 8/9/1974 | 8/9/1974 | 7/2/1976 | 4/15/1982 | 4/15/1992   |  | | --- | | 5/2/1995 | | 5/17/2005 | |
| Rye, Town of | 6/28/1974 | 6/28/1974 | 9/3/1976 | 6/17/1986 | 5/17/2005 |
| Salem, Town of | 4/29/1977 | 4/29/1977 | None | 6/15/1979 | 4/6/1998  5/17/2005 |
| Sandown, Town of | 1/3/1975 | 1/3/1975 | None | 5/17/2005 | None |
| Seabrook, Town of | 8/2/1974 | 8/2/1974 | 11/26/1976 | 7/17/1986 | 5/17/2005 |
| Seabrook Beach Village District | 8/2/1974 | 8/2/1974 | 11/26/1976 | 8/5/1986 | 5/17/2005 |
| South Hampton, Town of | 2/28/1975 | 2/28/1975 | None | 6/1/1989 | 7/15/1992  5/17/2005 |
| Stratham, Town of | 2/28/1975 | 2/28/1975 | None | 5/17/1989 | 5/17/2005 |
| Windham, Town of | 8/16/1974 | 8/16/1974 | 1/23/1976 | 4/1/1980 | 11/03/1989  5/17/2005 |

# 

# 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 |
| --- | --- | --- | --- | --- | --- |
| Atlantic Ocean | 2014 | AECOM | EMB-2010-CA-0916 | 2014 | Hampton, Town of’ New Castle, Town of; North Hampton, Town of; Rye, Town of; Seabrook, Town of |
| Back Creek and Zone A Tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of; Nottingham, Town of |
| Bean River and Zone A Tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of; Nottingham, Town of |
| Dudley Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Brentwood, Town of; Exeter, Town of |
| Dudley Brook 2 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Nottingham, Town of; Raymond, Town of |
| Exeter River and Zone A Tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Brentwood, Town of; Chester, Town of; Danville, Town of; Exeter, Town of; Fremont, Town of; Raymond, Town of; Sandown, Town of |
| Fardway Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Chester, Town of; Raymond, Town of |
| Fresh River | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Epping, Town of; Exeter, Town of; Newfields, 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 |
| Great Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Kingston, Town of; Exeter, Town of; Kensington, Town of |
| Hartford Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| Lamprey River and Zone A Tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of; Deerfield, Town of; Epping, Town of; Northwood, Town of; Raymond, Town of |
| Little River No 1 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Brentwood, Town of; Exeter, Town of |
| Little River 2 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Brentwood, Town of; Danville, Town of; Kingston, Town of |
| Little River 3 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Nottingham, Town of |
| Lucas Pond | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Northwood, Town of; Nottingham, Town of |
| Meadow Pond | 2014 | AECOM | EMB-2010-CA-0916 | 2014 | Hampton, Town of |
| Mile Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Nottingham, Town of |
| Mill Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Kensington, Town of |
| Mountain Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of; Nottingham, Town of |
| Nicholls Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| North Branch River and Zone A Tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of; Deerfield, Town of |
| North Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2014 | Greenland, Town of |
| North River and Zone A tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Nottingham, Town of |
| Pawtuckaway River | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Epping, Town of; Nottingham, Town of; Raymond, Town of |
| Piscassic River and Zone A Tributaries | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Brentwood, Town of; Epping, Town of; Fremont, Town of |
| Red Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Fremont, Town of |
| Stream036 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Raymond, Town of |
| Stream10 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Raymond, Town of |
| Stream247 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| Stream249 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| Stream251 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| Stream253 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| Stream256 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Stream257 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Stream263 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Stream264 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Raymond, Town of |
| Stream266 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Fremont, Town of |
| Stream270 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Nottingham, Town of |
| Stream277 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Hampton Falls, Town of |
| Stream318 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Raymond, Town of |
| Stream328 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Brentwood, Town of |
| Stream553 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Seabrook, Town of |
| Stream566 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Exeter, Town of; Kensington |
| Stream573 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Raymond, Town of |
| Stream576 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Deerfield, Town of |
| Stream578 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Stream588 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of; Raymond, Town of |
| Stream612 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Stream646 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Northwood, Town of |
| Stream651 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Stream662 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Raymond, Town of |
| Stream669 | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Candia, Town of |
| Winkley Brook | 2018 | AECOM | EMB-2016-CA-00001 | 2018 | Hampton, Town of; Hampton Falls, Town of’ Kensington, Town of |

## 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 |
| Atkinson, Town of | 05/17/2005 | 3/23/2003 | Final CCO | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials and the study contractor |
| Auburn, Town of | 05/17/2005 | 3/23/2003 | Final CCO | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials and the study contractor |
| Brentwood, Town of | TBD | 12/03/2015 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Candia, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Chester, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |

| **Table 30: Community Meetings (continued)** | | | | |
| --- | --- | --- | --- | --- |
| Community | FIS Report Dated | Date of Meeting | Meeting Type | Attended By |
| Danville, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Deerfield, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Derry, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| East Kingston, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Epping, Town of | TBD | 12/03/2015 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Exeter, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Fremont, Town of | TBD | 12/03/2015 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Greenland, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Hampstead, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Hampton Falls, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Hampton, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Kensington, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Kingston, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Londonderry, Town of | TBD | 05/17/2005 | 3/23/2003 | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials and the study contractor |
| New Castle, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Newfields, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Newington, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Newmarket, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Newton, Town of | TBD | 3/23/2003 | Final CCO | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials and the study contractor |
| North Hampton, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials and the study contractor |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Northwood, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Nottingham, Town of | TBD | 12/03/2015 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials , and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Plaistow, Town of | TBD | 3/23/2003 | Final CCO | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials and the study contractor |
| Portsmouth, City of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Raymond, Town of | TBD | 12/03/2015 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Rye, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Salem, Town of | 05/17/2005 | 3/23/2003 | Final CCO | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials and the study contractor |
| Sandown, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Seabrook, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Seabrook Beach, Village District | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| South Hampton, Town of | TBD | 05/06/2016 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials, and AECOM |
| 08/21/2018 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| TBD | Final CCO | TBD |
| Stratham, Town of | TBD | 09/22/2011 | Discovery | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials, and AECOM |
| 08/01/2013 | Work Map | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Community Officials and the study contractor |
| TBD | Final CCO | TBD |
| Windham, Town of | 05/17/2005 | 3/23/2003 | Final CCO | FEMA, NH GRANIT, NH Office of Strategic Initiatives (OSI) Floodplain Management Division, Rockingham Regional Planning Commission, Community Officials 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](http://www.fema.gov).

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Rockingham County, New Hampshire and Incorporated Areas (FEMA 2012).

Table 31 is a list of the locations where FIRMs for Rockingham 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 |
| --- | --- | --- | --- | --- |
| Town of Atkinson | Town Office 21 Academy Avenue | Atkinson | New Hampshire | 03811 |
| Town of Auburn | Town Office 47 Chester Road | Auburn | New Hampshire | 03032 |
| Town of Brentwood | Town Hall 1 Dalton Road | Brentwood | New Hampshire | 03833 |
| Town of Candia | Town Office 74 High Street | Candia | New Hampshire | 03034 |
| Town of Chester | Municipal Office Building 84 Chester Street | Chester | New Hampshire | 03036 |
| Town of Danville | Town Office 210 Main Street | Danville | New Hampshire | 03819 |
| Town of Deerfield | Town Office 8 Raymond Road | Deerfield | New Hampshire | 03037 |
| Town of Derry | Municipal Center 14 Manning Street | Derry | New Hampshire | 03038 |
| Town of East Kingston | Town Office 24 Depot Road | East Kingston | New Hampshire | 03827 |
| Town of Epping | Town Hall 157 Main Street | Epping | New Hampshire | 03042 |
| Town of Exeter | Town Office 10 Front Street | Exeter | New Hampshire | 03833 |
| Town of Fremont | Town Hall 295 Main Street | Fremont | New Hampshire | 03044 |
| Town of Greenland | Town Office 575 Portsmouth Avenue | Greenland | New Hampshire | 03840 |

| **Table 31: Map Repositories (continued)** | | | | |
| --- | --- | --- | --- | --- |
| Community | Address | City | State | Zip Code |
| Town of Hampstead | Town Hall 11 Main Street | Hampstead | New Hampshire | 03841 |
| Town of Hampton | Town Office 100 Winnacunnet Road | Hampton | New Hampshire | 03842 |
| Town of Hampton Falls | Town Hall 1 Drinkwater Road | Hampton Falls | New Hampshire | 03844 |
| Town of Kensington | Town Hall 95 Amesbury Road | Kensington | New Hampshire | 03833 |
| Town of Kingston | Town Office 163 Main Street | Kingston | New Hampshire | 03848 |
| Town of Londonderry | Town Office 268B Mammoth Road | Londonderry | New Hampshire | 03053 |
| Town of New Castle | Town Office 49 Main Street | New Castle | New Hampshire | 03854 |
| Town of Newfields | Town Hall 65 Main Street | Newfields | New Hampshire | 03856 |
| Town of Newington | Town Office 205 Nimble Hill Road | Newington | New Hampshire | 03801 |
| Town of Newmarket | Town Hall 186 Main Street | Newmarket | New Hampshire | 03857 |
| Town of Newton | Town Hall 2 Town Hall Road | Newton | New Hampshire | 03858 |
| Town of North Hampton | Town Office 233 Atlantic Avenue | North Hampton | New Hampshire | 03862 |
| Town of Northwood | Town Hall 818 First New Hampshire Turnpike | Northwood | New Hampshire | 03261 |
| Town of Nottingham | Town Hall 139 Stage Road | Nottingham | New Hampshire | 03290 |
| Town of Plaistow | Town Office 145 Main Street | Plaistow | New Hampshire | 03865 |
| City of Portsmouth | City Hall 1 Junkins Avenue | Portsmouth | New Hampshire | 03801 |
| Town of Raymond | Town Office 4 Epping Street | Raymond | New Hampshire | 03077 |
| Town of Rye | Town Office 10 Central Road | Rye | New Hampshire | 03870 |
| Town of Salem | Town Office 33 Geremonty Drive | Salem | New Hampshire | 03079 |
| Town of Sandown | Town Office 320 Main Street | Sandown | New Hampshire | 03873 |
| Town of Seabrook | Town Office 99 Lafayette Road | Seabrook | New Hampshire | 03874 |
| Seabrook Beach Village District | Warren H. West Memorial Building 210 Ocean Boulevard | Seabrook | New Hampshire | 03874 |
| Town of South Hampton | Town Office 3 Hilldale Avenue | South Hampton | New Hampshire | 03827 |
| Town of Stratham | Town Office 10 Bunker Hill Avenue | Stratham | New Hampshire | 03885 |
| Town of Windham | Windham Town Administrative Offices 4 North Lowell Road | Windham | New Hampshire | 03087 |

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](http://www.fema.gov/national-flood-insurance-program) |
| NFHL Dataset | [msc.fema.gov](http://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](http://www.usgs.gov) |
| Hydraulic Engineering Center website | [www.hec.usace.army.mil](http://www.hec.usace.army.mil) |
| **Table 32: Additional Information (continued)** | |
| State Agencies and Organizations | |
| State NFIP Coordinator | Jennifer Gilbert, CFM, ANFI NH Office of Strategic Initiatives  Floodplain Management Program 107 Pleasant Street  Concord, NH 03301 (603) 271-1755 [jennifer.gilbert@osi.nh.gov](mailto:jennifer.gilbert@osi.nh.gov) |
| State GIS Coordinator | Ken Gallager, GISP Statewide GIS Coordinator  NH Office of Strategic Initiatives  Governor H J. Gallen State Office Park Johnson Hall, 3rd Floor  107 Pleasant Street Concord, NH 03301-3834 Phone: (603) 271-1773 [ken.gallager@osi.nh.gov](mailto:ken.gallager@osi.nh.gov) |
| State Hazard Mitigation Officer | Whitney Welch  State Hazard Mitigation Officer  NH Homeland Security & Emergency Management  110 Smokey Bear Blvd  Concord, NH 03301  Phone: (603) 271-2231  [whitney.welch@dos.nh.gov](mailto:whitney.welch@dos.nh.gov) |

# 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 1982 | Federal Emergency Management Agency | *Flood Insurance Study, City of Portsmouth, Rockingham County, New Hampshire* |  | Washington, D.C. | May 17, 1982 | FEMA Flood Map Service Center  [msc.fema.gov](http://msc.fema.gov) |
| FEMA 2005 | Federal Emergency Management Agency | *Procedure Memorandum No. 37 – Protocol for Atlantic and Gulf Coast Coastal Flood Insurance Studies* |  | Washington, D.C. | August 2005 |  |
| FEMA 2007 | Federal Emergency Management Agency | *Atlantic Ocean and Gulf of Mexico Coastal Guideline Update. Final Draft.* |  | Washington, D.C. | May 2, 2007 |  |
| FEMA 2008 | Federal Emergency Management Agency | *Updating Tidal Profiles for the New England Coastline* |  | Washington, D.C. | 2008 |  |
| FEMA 2012 | Federal Emergency Management Agency | *Flood Insurance Study, Rockingham County, New Hampshire, All Jurisdictions* |  | Washington, D.C. | 2012 | FEMA Flood Map Service Center  [msc.fema.gov](http://msc.fema.gov) |
| USACE 1973 | U.S. Army Corps of Engineers, Coastal Engineering Research Center | *Shore Protection Manual, Volume I* |  | Fort Belvoir, Virginia | 1973 |  |
| USACE 1975 | U.S. Army Corps of Engineers, Galveston District | *Guidelines for Identifying Coastal Hazard Zones* |  | Galveston, Texas | June 1975 |  |
| USGS 2011 | U.S. Army Corps of Engineers | *LiDAR data* |  |  | 2011 |  |
| van der Meer 2002 |  | *Technical Advisory Committee for Water Retaining Structures* | van der Meer |  | 2002 |  |