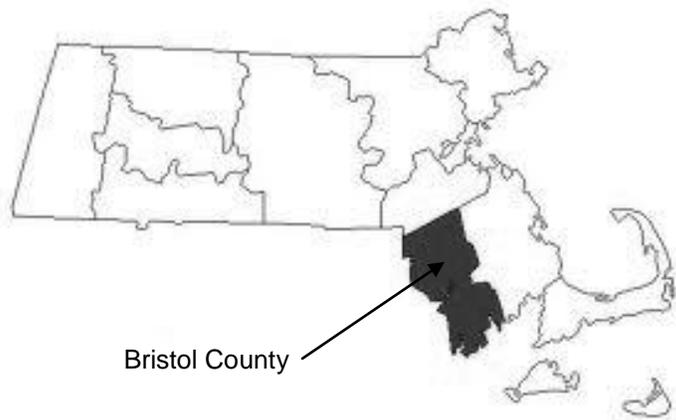


FLOOD INSURANCE STUDY



VOLUME 2 OF 4

BRISTOL COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)



COMMUNITY NAME	COMMUNITY NUMBER
ACUSHNET, TOWN OF	250048
ATTLEBORO, CITY OF	250049
BERKLEY, TOWN OF	250050
DARTMOUTH, TOWN OF	250051
DIGHTON, TOWN OF	250052
EASTON, TOWN OF	250053
FAIRHAVEN, TOWN OF	250054
FALL RIVER, CITY OF	250055
FREETOWN, TOWN OF	250056
MANSFIELD, TOWN OF	250057
NEW BEDFORD, CITY OF	255216
NORTH ATTLEBOROUGH, TOWN OF	250059
NORTON, TOWN OF	250060
RAYNHAM, TOWN OF	250061
REHOBOTH, TOWN OF	250062
SEEKONK, TOWN OF	250063
SOMERSET, TOWN OF	255220
SWANSEA, TOWN OF	255221
TAUTON, CITY OF	250066
WESTPORT, TOWN OF	255224

REVISED
JULY 16, 2014



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
25005CV002B

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Selected Flood Insurance Rate Map panels for the community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

<u>Old Zone</u>	<u>New Zone</u>
A1 through A30	AE
V1 through V30	VE (shaded)
B	X
C	X

Part or all of this Flood Insurance Study may be revised and republished at any time. In addition, part of this Flood Insurance Study may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the Flood Insurance Study. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current Flood Insurance Study components.

Initial Countywide FIS Effective Date: July 7, 2009

Revised Countywide FIS Effective Date: July 16, 2014

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4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent-annual-chance floodplains; and a 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

In order to provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community.

For unrevised streams in Bristol County, data was taken from previously printed FISs for each individual community and are compiled below.

For each stream studied by detailed methods, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:25,000, with a contour interval of 10 feet (Reference 90), at a scale of 1:25,000, with a contour interval of 3 meters (Reference 91), at a scale of 1:24,000, with a contour interval of 20 feet (Reference 92), at a scale of 1:24,000, with a contour interval of 10 feet (Reference 29), at a scale of 1:4,800, with a contour interval of 5 feet (References 93 and 94), at a scale of 1:4,800, with a contour interval of 4 feet (Reference 61), at a scale of 1:4,800, with a contour interval of 2 feet (Reference 67), at a scale of 1:2,400, with a contour interval of 5 feet (Reference 95), at a scale of 1:2,400, with a contour interval of 2 feet (Reference 96), and at a scale of 1:960, with a contour interval of 5 feet (Reference 97).

In Seekonk, aerial photographs taken in 1975 were also utilized in delineating the 1- and 0.2-percent-annual-chance floodplain boundaries (Reference 98). Flood boundaries on the downstream side of School Street on the Runnins River were obtained from the Flood Insurance Study for Providence County, Rhode Island (Reference 99). These flood boundaries were delineated using revised topographic data and aerial photographs available for the 2012 Coastal Study Update.

For areas studied by approximate methods in the Town of Berkley, the boundary of the 1-percent-annual-chance floodplain was delineated both by correlating field inspection and manual calculations of flood profiles with topographic mapping (Reference 29) and from the Flood Hazard Boundary Map for the Town of Berkley (Reference 100).

For the areas studied by approximate methods in the Town of Dartmouth, the boundary of the 1-percent-annual-chance floodplain was delineated using USGS topographic maps and the previous Flood Insurance Study for Dartmouth (References 92 and 101).

In Easton, the 1-percent-annual-chance floodplain for streams studied by approximate methods were delineated using U.S. Army Corps of Engineer Flooded Area Maps (Reference 102)

For the areas studied by approximate methods in Norton and Mansfield, the boundaries of the 1-percent-annual-chance floodplains were delineated using SCS flood-prone area maps (Reference 103), information from town officials and residents in Mansfield, and the previous Flood Insurance Study for the Town of Norton (Reference 104).

One-percent-annual-chance floodplain boundaries of the areas studied by approximate methods in Rehoboth were determined by plotting the water-surface elevations in relation to map contours (Reference 29).

In Seekonk, the 1-percent-annual-chance floodplain boundaries were delineating using topographic maps and aerial photos (References 29 and 105).

For the areas studied by approximate methods, the 1-percent-annual-chance floodplain boundaries were delineated using the original Flood Insurance Study for Swansea (Reference 39).

For flooding sources studied by approximate methods, the boundaries of the 1-percent-annual-chance floodplain were delineated using the Flood Hazard Boundary Maps for the Town of Acushnet (Reference 106), City of Attleboro (Reference 107), Town of Dighton, also using USGS topographic maps (References 29 and 108), Town of North Attleborough (Reference 109), Town of Raynham (Reference 110), and the Town of Westport (Reference 111).

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM. On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AO, AH, V, and VE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations, but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM.

4.2 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 this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the base flood can be carried without substantial

increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodway recommended for this study was computed on the basis of equal conveyance reduction from each side of the flood plain, except in instances where there was extensive stream channel meander, in wetland areas, and for two areas in Seekonk: the Runnins River south of Highland Avenue, and the Ten Mile River from Pawtucket, Rhode Island, to Attleboro, Massachusetts.

Floodway widths were computed at cross sections. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (see Table 16, "Floodway Data"). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

In Taunton, a small lake forms on the Mill River behind Dam Number I. Because there is no pronounced impoundment effect, the floodway is shown through this lake. A portion of the floodway along the Segreganset River was deleted because of ponding.

All significant flooding in Berkley, Fairhaven, Fall River, Westport, along the Taunton River in Freetown, and the lower portions of the Taunton River in Taunton, is due to tidal flooding; therefore, floodway delineations are not applicable.

The main stem of the Palmer River is subject to tidal influence. Utilizing the corporate limit as the downstream limit, the entire river was studied using Method I of the HEC-2 program (Reference 46); however, results for those areas downstream of the tidal interface location are not meaningful because of the higher flood tide elevation and extensive stream meander. The values listed in Table 16 for this area are based on riverine flows, and are considered to be minimum values that can result in floodway widths narrower than the stream's natural channel. For these reasons, the Flood Boundary and Floodway Map more readily reflect the tidal situation from the corporate limit upstream to the tidal interface.

In New Bedford, no floodway was computed for the portion of the Acushnet River studied in detail since flooding on it is governed by ponding behind the hurricane barrier and the concept of a floodway is not appropriate in ponded areas.

No floodway was recommended for Oak Hill Stream in Seekonk. The 1-percent-annual-chance flood boundary is confined to the channel at several locations with overbank flooding generally in the vicinity of road crossings.

Portions of the computed floodway widths extend beyond the corporate limits for Whitman Brook in Easton, the Taunton River in Raynham and Taunton, the Runnins River in Seekonk, and the Three Mile River and Three Mile River – West Channel in Taunton.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections is

provided in Table 16, Floodway Data. In order to reduce the risk of property damage in areas where the stream velocities are high, the community may wish to restrict development in areas outside the floodway.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, “Without Floodway” elevations are presented in Table 16 for certain downstream cross sections of applicable flooding sources. These elevations are lower than the regulatory flood elevations in that area, which must take into account the 1-percent-annual-chance flooding due to backwater from other sources.

A floodway generally is not appropriate in areas such as those that may be inundated by floodwaters from reservoirs or other impoundments, or natural storage areas. For these reasons, no floodway was recommended or developed for the entire flood plain area along Chartley Brook and the entire wetland area upstream of Holden Street along the Bungay River in Attleboro, and the Ten Mile River along the Massachusetts-Rhode Island state line in Seekonk. At the first coordination meeting for the Seekonk FIS, it was agreed that the Runnins River would be studied by detailed methods north of School Street; therefore, no floodway is recommended south of School Street. At the request of the City of Attleboro and with the approval of the FIA, the 1-percent-annual-chance floodplain boundaries were designated as the floodways for the following flooding sources: Dodgeville Pond, Mechanics Pond, Farmers Pond, Sweedens Swamp area, Lake Como, Orrs Pond, Luther Reservoir, and upstream of Luther Reservoir

However, analysis of these natural storage areas as only 1-percent-annual-chance flooding would neglect the serious downstream effects which might be caused by filling the flood plain. As flood storage is lost in these upstream areas, downstream discharges for a given frequency flood would increase. For this reason, floodways were recommended in some parts of North Attleborough, including the entire wetland area downstream of Bungay Road along the Bungay River, Whiting Pond, and Falls Pond.

Portions of the Assonet River and Fall Brook floodways have irregular boundaries due to impoundment effects of swampy areas having storage capabilities.

Protection against the filling of flood storage areas is possible under the Massachusetts Wetlands Protection Act (General Laws Chapter 131, Section 40). This act controls, but does not ban development on wetlands. Wetlands are defined here, for the purpose of brevity, as inland wetlands-- marshes, swamps bordering on rivers, streams, and ponds-- most any land which is periodically wet. The law requires that any person or governmental agency intending to remove, fill, dredge, or alter a wetland must ensure, by following various procedural and technical steps, that the activity will have no adverse effect on water supplies, storm and flood prevention, pollution prevention, or fisheries. In effect, the owner must develop his wetlands in accordance with the public's interest and safety.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation (WSEL) of the base 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 15, “Floodway Schematic”.

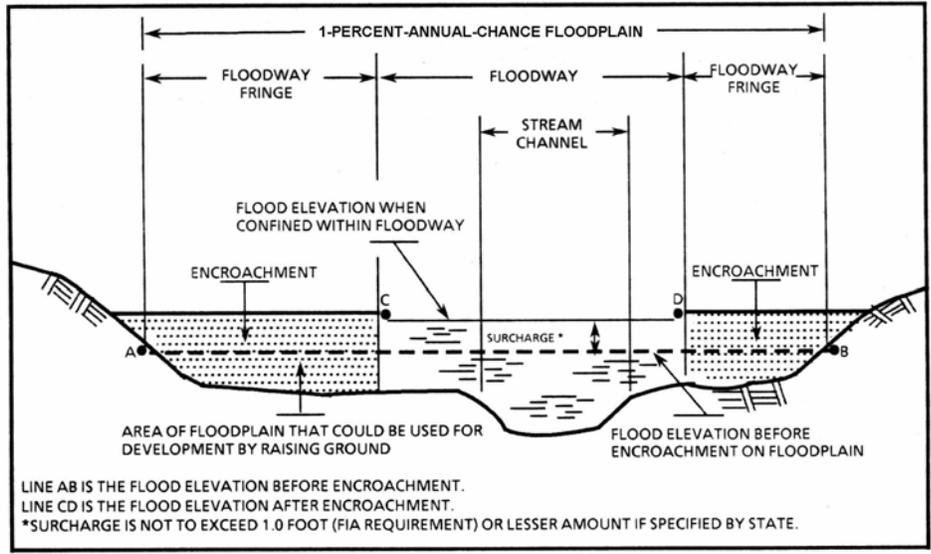


Figure 15. Floodway Schematic

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	12778	66	267	5.1	77.0	77.0	78.0	1.0
B	13728	39	266	5.1	79.2	79.2	80.2	1.0
C	14890	28	155	8.8	87.1	87.1	88.1	1.0
D	20381	70	513	2.6	92.5	92.5	93.5	1.0
E	20539	238	1568	0.8	95.3	95.3	96.3	1.0
F	25819	97	408	3.0	100.0	100.0	101.0	1.0

¹ FEET ABOVE CONFLUENCE WITH SEEKONK RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BRISTOL COUNTY, MA
(ALL JURISDICTIONS)**

FLOODWAY DATA

ABBOTT RUN

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1500	*	162	3.8	5.5 ²	3.0 ³	4.0	1.0
B	1980	*	152	4.1	5.5 ²	4.2 ³	4.6	0.4
C	3750	*	106	5.9	11.2	11.2	11.2	0.0
D	4890	*	233	2.7	11.9	11.9	12.8	0.9
E	6440	*	156	4.0	13.4	13.4	14.1	0.7
F	8540	*	599	0.8	19.9	19.9	19.9	0.0
G	9620	*	765	0.7	20.0	20.0	20.0	0.0
H	10840	*	273	1.9	20.0	20.0	20.1	0.1
I	12550	100	299	1.7	20.4	20.4	20.8	0.4
J	13890	160	194	1.5	21.9	21.9	22.3	0.4
K	15260	*	96	3.0	23.9	23.9	24.3	0.4
L	16020	*	727	0.4	27.4	27.4	27.4	0.0
M	17440	100	337	0.8	27.4	27.4	27.4	0.0
N	19230	*	174	1.6	27.5	27.5	27.7	0.2
O	20370	*	153	1.9	28.0	28.0	28.6	0.6
P	22370	*	45	6.4	30.3	30.3	30.6	0.3
Q	22960	45	116	2.5	32.0	32.0	33.0	1.0
R	23770	*	77	2.2	41.6	41.6	41.6	0.0

¹ FEET ABOVE SLOCUM ROAD

^{*} FLOODWAY COINCIDENT WITH CHANNEL BANKS

² COMPUTED FROM THE CITY OF NEW BEDFORD AND TOWN OF FAIRHAVEN, MAY 2011 HURRICANE DIKE AND BARRIER SYSTEM ACCREDITATION PACKAGE

³ ELEVATION COMPUTED WITHOUT CONSIDERATION OF TIDAL EFFECT FROM NEW BEDFORD HARBOR

TABLE 16	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	BRISTOL COUNTY, MA (ALL JURISDICTIONS)	ACUSHNET RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	4013	60	130	1.2	55.5	55.5	56.5	1.0

¹ FEET ABOVE CONFLUENCE WITH EAST BRANCH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ANAWAN BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	475	39	166	0.3	126.4	126.4	127.4	1.0
B	2587	8	21	1.1	129.5	129.5	130.5	1.0

¹ FEET ABOVE CONFLUENCE WITH BUNGAY RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ARMSTRONG BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	101	889	1.4	13.8 ²	5.2 ³	6.2	1.0
B	3150	121	880	1.4	13.8 ²	6.3 ³	7.2	0.9
C	4200	100	531	2.2	13.8 ²	6.5 ³	7.4	0.9
D	4350	140	636	1.9	13.8 ²	13.4 ³	14.3	0.9
E	5400	51	187	6.1	14.4	14.4	14.7	0.3
F	6450	51	127	8.9	20.5	20.5	20.5	0.0
G	6600	132	854	1.2	31.8	31.8	31.8	0.0
H	8750	64	346	3.0	35.6	35.6	36.6	1.0
I	8850	65	689	1.5	41.0	41.0	41.9	0.9
J	14440	80	401	2.6	42.0	42.0	43.0	1.0
K	15950	183	1050	0.8	45.8	45.8	46.3	0.5
L	16050	135	788	1.1	45.8	45.8	46.3	0.5
M	17050	187	881	0.9	46.7	46.7	47.2	0.5

¹ FEET ABOVE CONFLUENCE WITH ASSONET BAY

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

³ ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF TIDAL EFFECT FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ASSONET RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	898	53	227	0.1	89.8	89.3 ²	90.3	1.0
B	1162	51	149	0.2	89.8	89.3 ²	90.3	1.0
C	1848	28	73	0.3	89.8	89.5 ²	90.5	1.0
D	3485	13	16	0.5	105.6	105.6	106.6	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

² ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ATTLEBORO INDUSTRIAL STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	53	180	750	0.4	52.0	52.0	53.0	1.0
B	1954	50	130	2.3	52.4	52.4	53.4	1.0
C	2270	65	180	1.6	58.8	58.8	58.8	0.0
D	3274	75	65	4.2	58.8	58.8	58.8	0.0
E	3379	50	125	2.1	61.0	61.0	61.0	0.0
F	8976	55	20	7.1	88.8	88.8	88.8	0.0
G	9029	55	35	4.5	98.7	98.7	98.7	0.0

¹ FEET ABOVE CONFLUENCE WITH EAST BRANCH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BAD LUCK BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	10500	170	826	0.7	73.8	73.8	74.8	1.0
B	10565	100	662	0.8	76.0	76.0	76.4	0.4
C	11500	100	523	0.8	76.0	76.0	76.5	0.5
D	11530	100	492	0.8	76.0	76.0	76.5	0.5
E	11800	100	492	0.8	76.0	76.0	76.5	0.5
F	11830	100	359	1.1	76.0	76.0	76.5	0.5
G	11865	100	388	1.1	76.0	76.0	76.5	0.5
H	12875	100	369	1.1	76.0	76.0	76.6	0.6
I	12895	100	403	1.0	76.0	76.0	76.6	0.6
J	13600	100	410	1.0	76.1	76.1	76.7	0.6
K	13620	100	331	1.2	76.1	76.1	76.7	0.6
L	13925	100	312	1.3	76.1	76.1	76.8	0.7
M	13975	40	138	3.0	77.8	77.8	77.8	0.0
N	14925	40	178	2.3	78.1	78.1	78.6	0.5
O	14955	40	181	2.3	78.1	78.1	78.7	0.6
P	15375	350	132	3.1	81.2	81.2	81.2	0.0
Q	15440	150	788	0.5	86.0	86.0	86.9	0.9
R	15625	70	256	1.6	86.0	86.0	86.9	0.9
S	15665	70	309	1.3	87.2	87.2	87.7	0.5
T	16925	200	814	0.5	87.3	87.3	87.9	0.6
U	18175	200	528	0.8	87.3	87.3	88.2	0.9
V	20475	200	705	0.6	87.9	87.9	88.9	1.0
W	22275	40	40	5.7	107.0	107.0	107.0	0.0
X	22295	40	169	1.4	110.0	110.0	110.7	0.7
Y	23225	40	36	5.0	114.8	114.8	114.9	0.1
Z	23275	40	231	0.8	120.5	120.5	120.5	0.0
AA	24425	40	35	5.2	123.8	123.8	123.8	0.0

¹ FEET ABOVE TURNPIKE STREET

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BLACK BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	25625	40	79	2.3	135.8	135.8	136.2	0.4
AC	26675	40	65	2.8	139.2	139.2	140.1	0.9
AD	27675	40	105	1.7	141.6	141.6	142.5	0.9
AE	28475	40	85	2.1	142.8	142.8	143.8	1.0
AF	29275	40	69	2.0	145.5	145.5	145.6	0.1
AG	29345	15	42	3.4	145.8	145.8	145.8	0.0
AH	30245	40	66	2.1	147.7	147.7	148.3	0.6
AI	31145	40	30	4.7	157.9	157.9	157.9	0.0
AJ	31190	40	135	1.0	161.8	161.8	162.2	0.4
AK	32475	40	29	4.9	168.7	168.7	168.7	0.0

¹ FEET ABOVE TURNPIKE STREET

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BLACK BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0.54	50	705	0.4	115.8	115.8	116.5	0.7
B	0.55	55	185	1.7	116.3	116.3	116.6	0.3
C	1.28	105	240	1.3	129.2	129.2	130.2	1.0
D	1.29	105	240	1.3	129.9	129.9	130.3	0.4

¹ FEET ABOVE CONFLUENCE WITH WEST BRANCH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BLISS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	26	129	1.2	120.9	120.9 ²	121.9	1.0
B	264	30	143	1.1	120.9	120.9 ²	121.9	1.0
C	950	259	1005	0.2	120.9	120.9 ²	121.9	1.0
D	1373	33	125	1.2	120.9	120.9 ²	121.9	1.0
E	1901	43	220	0.7	122.5	122.5	123.5	1.0
F	2006	37	176	0.9	122.5	122.5	123.5	1.0
G	2323	37	186	0.8	122.6	122.6	123.6	1.0
H	2693	68	286	0.5	122.6	122.6	123.6	1.0
I	3802	176	554	0.3	122.7	122.7	123.7	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

² ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BUNGAY RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1565	98	372	2.9	24.0	24.0	24.7	0.7
B	3385	414	2348	0.3	44.2	44.2	45.0	0.8
C	5328	269	1202	0.6	54.4	54.4	55.1	0.7
D	10380	91	222	2.3	81.4	81.4	82.2	0.8
E	12710	102	102	2.0	84.4	84.4	84.4	0.0
F	14740	66	82	1.5	103.1	103.1	104.0	0.9

¹ FEET ABOVE CONFLUENCE WITH APPONAGANSETT BAY

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BUTTONWOOD BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2500	78	99	2.4	56.5	56.5	57.1	0.6
B	3930	261	2284	0.1	70.5	70.5	71.5	1.0
C	5030	175	892	0.2	70.5	70.5	71.5	1.0
D	7340	260	569	0.2	70.7	70.7	71.7	1.0

¹ FEET ABOVE CONFLUENCE WITH BUTTONWOOD BROOK

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BUTTONWOOD BROOK EAST

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1080	100	268	0.7	38.9	38.9	39.9	1.0
B	1460	81	90	2.0	42.2	42.2	42.2	0.0
C	3560	106	506	0.3	61.3	61.3	61.7	0.4
D	4713	102	421	0.4	78.9	78.9	78.9	0.0
E	5664	135	47	3.4	85.3	85.3	85.3	0.0
F	7510	104	57	2.8	116.2	116.2	116.2	0.0

¹ FEET ABOVE CONFLUENCE WITH BUTTONWOOD BROOK

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BUTTONWOOD BROOK WEST

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	420	1110	10980	0.1	73.4	73.4	74.4	1.0
B	1910	700	5730	0.1	73.4	73.4	74.4	1.0
C	2830	650	5357	0.2	73.4	73.4	74.4	1.0
D	4100	400	1830	0.4	73.4	73.4	74.4	1.0
E	4215	400	1482	0.6	73.5	73.5	74.5	1.0
F	4800	735	5640	0.1	73.5	73.5	74.5	1.0
G	6530	780	6928	0.1	73.5	73.5	74.5	1.0
H	8200	620	4689	0.2	73.5	73.5	74.5	1.0
I	9300	405	2839	0.3	73.5	73.5	74.5	1.0
J	10360	320	1992	0.4	73.5	73.5	74.5	1.0
K	11160	110	609	1.3	73.5	73.5	74.5	1.0
L	12335	43	224	3.6	75.8	75.8	76.3	0.5
M	13905	76	271	3.0	79.3	79.3	80.2	0.9
N	14945	84	348	2.3	81.2	81.2	82.2	1.0
O	16840	120	474	1.3	82.7	82.7	83.6	0.9
P	17600	125	346	1.8	83.1	83.1	84.1	1.0
Q	17880	80	281	2.2	83.5	83.5	84.4	0.9
R	18300	44	218	2.8	83.9	83.9	84.7	0.8
S	19480	95	539	1.2	84.4	84.4	85.4	1.0
T	21400	185	897	0.7	84.6	84.6	85.6	1.0
U	22910	175	879	0.7	84.8	84.8	85.8	1.0

¹ FEET ABOVE CONFLUENCE WITH WINNECUNNET POND

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

CANOE RIVER (LOWER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	31830	35	150	2.7	89.0	89.0	90.0	1.0
B	33678	45	90	4.2	93.9	93.9	94.3	0.4
C	36054	120	350	1.1	99.0	99.0	100.0	1.0
D	38219	75	50	7.9	108.3	108.3	108.3	0.0
E	38272	70	60	6.4	112.0	112.0	112.0	0.0
F	38324	160	350	1.1	112.6	112.6	112.6	0.0
G	39064	160	380	1.0	112.8	112.8	112.8	0.0
H	39539	90	170	2.2	113.0	113.0	113.0	0.0
I	41756	170	400	0.9	114.0	114.0	114.5	0.5
J	43710	55	190	1.9	115.0	115.0	116.0	1.0
K	46614	115	400	0.9	119.3	119.3	120.1	0.8
L	49412	55	190	1.9	121.7	121.7	122.7	1.0

¹ FEET ABOVE CONFLUENCE WITH WINNECUNNET POND

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BRISTOL COUNTY, MA
(ALL JURISDICTIONS)**

FLOODWAY DATA

CANOE RIVER (UPPER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1270	27	179	2.2	12.6	10.9 ²	11.8	0.9
B	1345	8	47	8.2	12.6	12.3 ²	12.3	0.0
C	1440	30	118	3.3	12.6	12.5 ²	13.2	0.7
D	1498	35	118	3.3	12.8	12.8	13.3	0.5
E	1640	45	165	2.4	13.1	13.1	13.9	0.8
F	2200	80	399	1.0	13.1	13.1	14.1	1.0
G	2740	48	176	2.2	13.2	13.2	14.2	1.0
H	2960	13	39	10.0	14.6	14.6	14.6	0.0
I	3130	12	59	6.6	16.6	16.6	17.5	0.9
J	3185	16	126	3.1	21.1	21.1	21.1	0.0
K	3280	20	154	2.5	21.2	21.2	21.2	0.0
L	3720	10	82	4.7	21.2	21.2	21.5	0.3
M	4220	75	617	0.5	21.2	21.2	21.9	0.7
N	4240	50	355	0.9	21.2	21.2	21.9	0.7
O	4430	50	338	1.0	21.2	21.2	21.9	0.7
P	4699	50	144	2.3	21.6	21.6	22.2	0.6
Q	4785	50	267	1.2	21.7	21.7	22.3	0.6
R	5170	50	242	1.3	21.7	21.7	22.4	0.7
S	5640	45	154	2.1	21.7	21.7	22.6	0.9
T	5800	15	44	7.4	22.4	22.4	23.0	0.6
U	5850	20	122	2.7	25.6	25.6	26.1	0.5
V	6830	25	104	3.1	26.5	26.5	27.3	0.8
W	6880	50	244	1.3	29.3	29.3	30.2	0.9
X	7400	17	72	4.6	29.4	29.4	30.4	1.0
Y	7480	50	172	1.9	30.2	30.2	30.9	0.7
Z	7830	50	166	2.0	30.3	30.3	31.0	0.7
AA	8050	100	393	0.8	30.7	30.7	31.5	0.8

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

COBB BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	8600	100	446	0.5	30.7	30.7	31.5	0.8
AC	8650	100	620	0.4	30.7	30.7	31.6	0.9
AD	8970	100	335	0.6	30.7	30.7	31.6	0.9
AE	9200	50	134	1.4	31.2	31.2	31.9	0.7
AF	9364	9	34	5.6	31.2	31.2	31.9	0.7
AG	9460	25	106	1.8	33.2	33.2	33.8	0.6
AH	10300	25	147	1.3	33.2	33.2	33.9	0.7
AI	10950	15	43	3.0	33.2	33.2	34.0	0.8
AJ	11030	25	34	3.8	34.0	34.0	34.8	0.8
AK	11400	25	54	2.4	35.1	35.1	35.7	0.6
AL	11450	20	74	1.8	36.0	36.0	36.6	0.6
AM	11755	20	55	2.4	36.2	36.2	36.8	0.6
AN	11850	25	110	1.2	38.6	38.6	39.4	0.8
AO	12860	25	70	1.4	38.6	38.6	39.6	1.0
AP	12910	30	77	1.2	41.0	41.0	41.0	0.0
AQ	14000	24	21	4.6	42.0	42.0	42.0	0.0
AR	14730	7	16	5.9	47.4	47.4	47.8	0.4

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

COBB BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2313	46 ²	120	2.0	51.7	51.7	52.0	0.3
B	2497	15 ²	97	2.4	55.8	55.8	55.9	0.1
C	4204	35 ²	159	1.3	56.3	56.3	56.8	0.5
D	4825	25 ²	95	2.1	58.0	58.0	58.7	0.7
E	6089	25 ²	88	2.1	59.0	59.0	59.6	0.6

¹ FEET ABOVE CONFLUENCE WITH CENTRAL POND

² FLOODWAY COFINED TO CHANNEL IN THIS AREA AND NOT SHOWN ON MAP

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BRISTOL COUNTY, MA
(ALL JURISDICTIONS)**

FLOODWAY DATA

COLES BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	350	27	96	3.3	12.0	3.2 ²	4.2	1.0
B	420	25	92	3.5	12.0	3.5 ²	4.3	0.8
C	1250	15	40	8.0	12.0	7.7 ²	7.7	0.0
D	1280	25	112	2.9	12.0	8.3 ²	8.6	0.3
E	3050	15	59	5.4	12.0	11.3 ²	11.9	0.6
F	3110	30	100	3.2	12.0	11.6 ²	12.4	0.8
G	4750	20	66	4.9	16.0	16.0	16.0	0.0
H	4785	7	30	10.8	16.8	16.8	16.8	0.0
I	4820	50	258	1.2	19.6	19.6	19.7	0.1
J	6350	40	137	2.3	19.8	19.8	20.2	0.4

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

DAM LOT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	450	*	47	6.5	22.3	22.3	22.6	0.3
B	1430	*	65	4.7	27.0	27.0	27.6	0.6
C	1815	*	419	0.4	43.4	43.4	43.4	0.0
D	2060	*	377	0.8	43.4	43.4	43.4	0.0
E	2238	*	254	1.2	44.5	44.5	44.5	0.0
F	2735	*	280	1.1	44.5	44.5	44.5	0.0
G	3800	104	354	0.5	46.9	46.9	47.8	0.9
H	4420	11	22	7.5	50.4	50.4	50.5	0.1
I	5150	22	24	6.9	57.2	57.2	57.2	0.0

¹ FEET ABOVE CONFLUENCE WITH ACUSHNET RIVER

* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

DEEP BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1637	95	475	2.1	34.8	34.8	35.7	0.9
B	1690	55	110	8.8	35.3	35.3	35.9	0.6
C	2798	250	2095	0.4	36.9	36.9	37.5	0.6
D	4277	60	100	9.2	37.1	37.1	38.1	1.0
E	4488	100	975	0.9	42.7	42.7	42.8	0.1
F	4541	165	1090	0.9	44.1	44.1	44.1	0.0
G	7814	55	290	3.2	49.0	49.0	49.7	0.7
H	12250	55	285	2.7	54.2	54.2	55.1	0.9
I	16051	160	320	2.4	61.6	61.6	62.7	1.1
J	16157	200	755	1.0	62.0	62.0	63.0	1.0
K	16368	180	700	1.0	63.0	63.0	64.0	1.0
L	17160	80	2030	0.3	65.8	65.8	66.4	0.6
M	17213	80	1325	0.5	65.8	65.8	66.6	0.8
N	17899	100	465	1.5	65.9	65.9	66.8	0.9
O	17952	70	2355	0.3	65.9	65.9	66.9	1.0
P	21331	105	490	1.4	78.7	78.7	79.5	0.8
Q	21490	300	985	0.7	81.3	81.3	81.4	0.1

¹ FEET ABOVE CONFLUENCE WITH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

EAST BRANCH PALMER RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	264	57	293	0.1	89.3	89.3 ²	90.3	1.0
B	739	218	1110	0.0	89.3	89.3 ²	90.3	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

² ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

EAST JUNCTION STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	950	18	19	1.3	200.8	200.8	201.8	1.0
B	2587	5	10	1.4	287.9	287.9	288.9	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ELMWOOD STREET BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	119	285	2.9	54.5	54.5	55.5	1.0
B	1850	84	445	1.9	66.9	66.9	66.9	0.0
C	2000	85	479	1.7	72.1	72.1	72.1	0.0
D	3200	59	271	3.1	73.7	73.7	73.7	0.0
E	3550	90	489	1.4	78.2	78.2	78.2	0.0
F	4850	120	469	1.4	81.8	81.8	81.8	0.0
G	6400	176	991	0.7	81.9	81.9	81.9	0.0
H	7750	64	345	1.9	82.0	82.0	82.0	0.0
I	9000	95	265	2.5	82.0	82.0	83.0	1.0
J	10650	240	667	1.0	83.0	83.0	84.0	1.0
K	12200	205	625	1.1	83.4	83.4	84.4	1.0
L	13300	220	716	0.9	83.7	83.7	84.7	1.0
M	14350	225	384	1.1	84.1	84.1	85.1	1.0
N	15250	42	152	2.6	86.0	86.0	86.6	0.6
O	15350	10	79	5.1	88.3	88.3	88.6	0.3

¹ FEET ABOVE CONFLUENCE WITH LONG POND

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

FALL BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	60	236	2.9	11.9	1.8 ²	2.8	1.0
B	900	30	105	6.6	11.9	4.6 ²	4.6	0.0
C	970	30	82	8.5	11.9	5.0 ²	5.0	0.0
D	1870	30	181	3.8	11.9	9.0 ²	9.3	0.3
E	1910	30	161	4.3	11.9	11.9	12.0	0.1
F	2124	30	170	4.1	11.9	11.9	12.0	0.1
G	2150	20	123	5.6	11.9	11.9	12.0	0.1
H	2250	20	114	6.0	12.0	12.0	12.0	0.0
I	3350	70	219	3.2	13.1	13.1	13.6	0.5
J	4950	40	152	4.6	15.8	15.8	16.5	0.7
K	5030	35	112	6.2	16.1	16.1	16.6	0.5
L	5470	30	131	5.3	18.5	18.5	18.5	0.0
M	5500	90	561	1.2	20.9	20.9	20.9	0.0
N	6310	90	401	1.7	21.0	21.0	21.1	0.1
O	7210	100	401	1.7	21.2	21.2	21.5	0.3
P	8210	100	231	3.0	21.9	21.9	22.6	0.7
Q	9250	100	398	1.2	22.7	22.7	23.7	1.0
R	10250	40	72	6.7	24.8	24.8	25.1	0.3
S	11550	40	206	2.3	28.2	28.2	28.8	0.6
T	12700	20	64	7.5	30.1	30.1	30.8	0.7
U	12800	100	1250	0.4	43.4	43.4	43.4	0.0
V	14200	80	728	0.7	43.4	43.4	43.4	0.0
W	15600	20	91	5.3	43.4	43.4	43.6	0.2
X	15635	20	93	5.2	47.1	47.1	47.1	0.0
Y	16250	30	103	4.7	47.2	47.2	47.2	0.0
Z	17350	100	870	0.3	52.7	52.7	52.7	0.0
AA	18600	30	70	2.0	52.7	52.7	52.8	0.1

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

FORGE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	19765	25	21	6.7	57.3	57.3	57.6	0.3
AC	19850	35	146	1.0	60.9	60.9	60.9	0.0
AD	19930	20	139	1.0	64.2	64.2	64.2	0.0
AE	21600	13	13	5.7	69.2	69.2	69.2	0.0
AF	21640	20	68	1.1	72.6	72.6	73.2	0.6
AG	23100	14	17	4.2	74.6	74.6	74.9	0.3
AH	23170	20	80	0.9	79.6	79.6	79.6	0.0

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

FORGE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	530	25	116	3.4	82.2	77.8 ³	78.3	0.5
B	670	25	120	3.2	82.3	82.3	82.3	0.0
C	1120	35	425	3.1	82.9	82.9	83.4	0.5
D	1225	55	408	1.0	86.9	86.9	87.6	0.7
E	1870	60	455	0.9	87.0	87.0	87.7	0.7
F	2420	60	451	0.9	87.0	87.0	87.7	0.7
G	3000	60	300	1.3	87.0	87.0	87.8	0.8
H	3640	60	153	2.5	87.0	87.0	87.9	0.9
I	3760	155	653	0.6	90.2	90.2	91.0	0.8
J	5020	31	143	2.7	91.0	91.0	91.6	0.6
K	5160	431	1995	0.2	93.6	93.6	94.6	1.0
L	5930	151	376	1.0	93.7	93.7	94.7	1.0
M	6650	50	199	2.0	95.4	95.4	95.6	0.2
N	7290	62	221	1.8	96.3	96.3	96.9	0.6
O	8300	90	460	0.8	96.9	96.9	97.5	0.6
P	9235	89	326	1.2	97.5	97.5	97.9	0.4
Q	9900	89	163	2.4	99.1	99.1	99.1	0.0
R	10500	149	218	1.8	102.9	102.9	102.9	0.0
S	10640	150	1018	0.4	106.1	106.1	107.0	0.9

¹ FEET ABOVE CONFLUENCE WITH WADING RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERING OF BACKWATER EFFECTS FROM WADING RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

GOOSE BRANCH BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2225	55	107	2.3	93.1	93.1	93.5	0.4
B	2655	92	209	1.2	93.8	93.8	94.5	0.7
C	2880	36	179	1.2	97.8	97.8	98.4	0.6
D	7410	108	1028	0.2	140.0	140.0	140.5	0.5
E	9580	411	2069	0.1	140.4	140.4	141.0	0.6

¹ FEET ABOVE CONFLUENCE WITH CANOE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

GOWARDS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2150	25	80	2.0	*	110.8	111.8	1.0
B	3100	50	110	1.6	*	115.0	114.6	-0.4
C	3153	50	120	1.5	*	115.0	114.7	-0.3
D	4209	125	470	0.4	*	122.5	122.5	0.0
E	4288	125	390	0.4	*	125.2	125.2	0.0
F	5054	45	120	1.4	*	125.4	125.4	0.0
G	10704	90	310	0.5	*	134.0	134.9	0.9
H	13291	35	130	1.3	*	135.5	136.3	0.8

¹ FEET ABOVE CONFLUENCE WITH WADING RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

HODGES BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2059	22	53	3.3	90.3	90.3	91.3	1.0
B	2323	32	157	1.1	94.3	94.3	95.3	1.0
C	2746	36	114	0.3	95.0	95.0	96.0	1.0
D	3854	17	31	0.8	96.6	96.6	97.6	1.0

¹ FEET ABOVE CONFLUENCE WITH SEVENMILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

LAKE COMO STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	898	12	25	2.0	133.5	133.5	134.5	1.0
B	1162	29	101	0.5	137.1	137.1	138.1	1.0
C	3168	34	24	1.8	151.5	151.5	152.5	1.0
D	3274	24	39	1.1	153.0	153.0	154.0	1.0
E	5174	13	22	1.9	173.4	173.4	174.4	1.0
F	6600	29	36	1.1	183.4	183.4	184.4	1.0
G	7445	15	35	1.1	187.0	187.0	188.0	1.0
H	7709	22	56	0.6	189.9	189.9	190.9	1.0

¹ FEET ABOVE CONFLUENCE WITH BUNGAY RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

LANDRY AVENUE BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2904	49	160	0.5	131.8	131.8	132.8	1.0
B	3221	28	71	1.1	136.9	136.9	137.9	1.0

¹ FEET ABOVE CONFLUENCE WITH BUNGAY RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MARY KENNEDY BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	686	46	158	0.5	148.7	148.7 ²	149.7	1.0
B	1320	169	902	0.1	150.2	150.2	151.2	1.0
C	2112	63	276	0.2	150.2	150.2	151.2	1.0
D	3802	35	106	0.3	178.8	178.8	179.8	1.0
E	4805	4	8	2.9	195.3	195.3	196.3	1.0
F	6072	10	12	0.9	204.9	204.9	205.9	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

² ELEVATION WITHOUT CONSIDERING BACKWATER EFFECT FROM TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MASON PARK BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	350	90	965	2.2	12.3	9.3 ³	9.8	0.5
B	420	80	840	2.5	12.3	10.1 ³	10.6	0.5
C	1270	100	1385	1.5	12.3	10.4 ³	10.9	0.5
D	1340	100	1050	2.0	12.3	12.1 ³	12.5	0.4
E	2050	150	1521	1.4	12.3	12.2 ³	12.7	0.5
F	2850	180	1063	2.0	12.3	12.2 ³	12.8	0.6
G	2900	180	1016	2.1	12.3	12.2 ³	12.8	0.6
H	3450	180	837	2.5	12.3	12.3	13.1	0.8
I	3540	180	888	2.4	12.9	12.9	13.9	1.0
J	4500	56	412	5.1	13.8	13.8	14.5	0.7
K	4650	30	313	6.7	15.8	15.8	16.5	0.7
L	4780	50	276	7.6	16.1	16.1	16.7	0.6
M	4920	75	423	5.0	17.0	17.0	17.5	0.5
N	5740	50	368	5.7	18.1	18.1	18.4	0.3
O	5900	36	350	6.0	18.1	18.1	18.6	0.5
P	6000	45	389	5.4	18.5	18.5	18.9	0.4
Q	6100	55	374	5.6	18.6	18.6	19.0	0.4
R	6240	40	299	7.0	19.1	19.1	19.3	0.2
S	7300	44	239	8.8	23.2	23.2	23.3	0.1
T	7400	60	354	5.9	24.5	24.5	24.6	0.1
U	7780	55	340	6.2	25.8	25.8	25.8	0.0
V	8900	100	521	4.0	28.9	28.9	29.1	0.2
W	9950	230	745	2.8	30.0	30.0	30.7	0.7
X	11500	130	831	2.5	31.0	31.0	31.9	0.9
Y	12700	130	975	2.2	31.5	31.5	32.5	1.0
Z	12900	33	165	12.7	34.7	34.7	34.7	0.0
AA	12970	33	241	8.7	41.5	41.5	41.5	0.0

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MILL RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	13150	185	2427	0.9	42.7	42.7	42.7	0.0
AC	13700	125	1710	1.2	42.7	42.7	42.7	0.0
AD	14170	40	366	5.7	42.7	42.7	42.7	0.0
AE	14250	40	364	5.8	42.7	42.7	42.7	0.0
AF	14320	50	434	4.8	42.7	42.7	42.9	0.2
AG	14660	42	343	6.1	43.2	43.2	43.4	0.2
AH	14980	44	270	7.8	44.1	44.1	44.3	0.2
AI	15070	75	605	3.5	47.7	47.7	47.7	0.0
AJ	15150	100	518	4.1	48.8	48.8	49.2	0.4
AK	15480	100	637	3.3	49.3	49.3	49.7	0.4
AL	16920	100	513	4.1	50.0	50.0	50.8	0.8
AM	17020	100	640	3.3	51.4	51.4	51.7	0.3
AN	17770	100	437	4.8	52.1	52.1	52.4	0.3
AO	17860	60	288	7.3	52.1	52.1	52.5	0.4

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MILL RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MULBERRY BROOK								
A	17297	70	217	3.5	88.6	88.6	89.6	1.0
B	17352	70	599	1.3	93.4	93.4	94.2	0.8
C	18067	40	248	2.2	93.4	93.4	94.4	1.0
D	18112	40	228	2.4	94.6	94.6	95.2	0.6
POQUANTICUT BROOK								
E	20117	30	79	7.0	99.8	99.8	100.1	0.3
F	20417	30	66	8.4	109.2	109.2	109.2	0.0
G	21317	30	84	6.6	124.2	124.2	125.0	0.8
H	21417	250	3900	0.1	137.6	137.6	138.3	0.7
I	23117	250	700	0.8	137.6	137.6	138.3	0.7
J	25517	400	199	2.8	142.7	142.7	142.7	0.0
K	26867	400	710	0.7	145.6	145.6	145.8	0.2
L	26902	200	841	0.6	147.1	147.1	148.1	1.0
M	27967	200	581	0.8	147.2	147.2	148.2	1.0
N	29217	70	83	5.9	153.4	153.4	154.1	0.7
O	29237	70	110	4.4	154.2	154.2	154.6	0.4
P	30467	100	170	2.9	162.7	162.7	162.7	0.0
Q	30517	110	434	1.1	162.7	162.7	163.7	1.0
R	32067	40	53	6.6	171.5	171.5	171.5	0.0
S	32817	50	83	4.2	178.0	178.0	178.2	0.2
T	32867	50	200	1.8	181.0	181.0	181.8	0.8
U	33867	25	47	7.4	186.0	186.0	186.0	0.0

¹ FEET ABOVE PLAIN STREET

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MULBERRY BROOK AND POQUANTICUT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1848	65	315	1.0	15.5	15.5	16.3	0.8
B	4171	60	75	4.1	15.6	15.6	16.6	1.0
C	4224	50	65	4.6	19.6	19.6	19.6	0.0
D	5702	50	170	1.6	20.3	20.3	20.9	0.6

¹ MEASURED ABOVE CONFLUENCE WITH ROCKY RUN

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

OAK SWAMP BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION ² (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-106	105	1380	2.1	11.3 ³	3.0 ⁵	4.0	1.0
B	0	60	925	3.2	11.3 ³	3.0 ⁵	4.0	1.0
C	1954	100	1305	2.1	11.3 ³	3.3 ⁵	4.3	1.0
D	2165	100	1345	2.1	9.2 ^{3,4}	3.4 ⁵	4.3	0.9
E	11141	675	1225	1.7	9.2 ^{3,4}	6.9 ⁵	7.6	0.7
F	16262	115	750	2.8	9.2 ^{3,4}	7.6 ⁵	8.5	0.9
G	16368	135	315	6.7	9.2 ^{3,4}	8.8 ⁵	9.1	0.3
H	22282	235	1040	1.9	10.0	10.0	10.3	0.3
I	22546	90	510	3.9	11.0	11.0	11.7	0.7
J	22651	220	725	2.8	14.1	14.1	14.1	0.0
K	24658	60	585	3.3	21.4	21.4	21.4	0.0
L	30624	110	855	2.2	21.6	21.6	22.4	0.8
M	34320	435	3970	0.5	21.7	21.7	22.7	1.0
N	37013	165	1105	1.6	25.3	25.3	25.3	0.0
O	37066	165	1105	1.6	25.8	25.8	25.8	0.0
P	39600	410	3315	0.5	26.1	26.1	27.1	1.0
Q	39653	400	3290	0.4	26.1	26.1	27.1	1.0
R	41448	215	1405	1.1	26.3	26.3	27.3	1.0
S	44933	260	1695	0.9	26.6	26.6	27.6	1.0
T	44986	110	795	1.9	28.1	28.1	28.6	0.5
U	49685	300	325	4.7	34.7	34.7	35.6	0.9

¹ FEET ABOVE FALL RIVER AVENUE BRIDGE

² BASE FLOOD WATER SURFACE COMPUTATIONS ARE BASED ON FLUVIAL FLOODING

³ ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

⁴ SWEL ELEVATION FROM JULY 7, 2009 COUNTYWIDE ANALYSIS

⁵ ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECT FROM UPPER WARREN RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

PALMER RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	31390	40	167	3.3	37.5	37.5	37.5	0.0
B	33880	23	131	4.2	41.7	41.7	42.5	0.8
C	34320	109	375	1.5	49.1	49.1	49.1	0.0

¹ FEET ABOVE CONFLUENCE WITH SLOCUMS RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

PASKAMANSET RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1700	90	258	3.2	81.3	81.3	82.2	0.9
B	1750	50	276	3.0	86.5	86.5	86.5	0.0
C	2600	100	423	1.9	86.5	86.5	86.5	0.0
D	3900	145	112	4.7	88.2	88.2	88.3	0.1
E	4250	350	959	0.8	95.4	95.4	95.4	0.0
F	4870	24	109	5.5	97.2	97.2	98.2	1.0
G	4987	20	117	5.1	98.6	98.6	99.0	0.4
H	6196	68	273	2.2	100.7	100.7	101.3	0.6
I	6284	90	226	2.7	101.0	101.0	101.5	0.5
J	11960	63	108	5.2	106.9	106.9	107.4	0.5
K	16380	137	409	1.2	112.2	112.2	112.8	0.6
L	17119	110	1469	0.3	120.8	120.8	121.4	0.6
M	19673	13	38	9.7	125.3	125.3	125.4	0.1
N	21585	121	527	0.7	142.5	142.5	143.3	0.8
O	22273	15	73	5.0	146.9	146.9	147.4	0.5
P	24077	17	60	5.8	161.8	161.8	162.8	1.0
Q	25470	59	160	1.7	168.4	168.4	168.8	0.4
R	26145	21	66	4.2	169.5	169.5	170.5	1.0
S	26431	141	696	0.4	173.2	173.2	174.2	1.0
T	27790	117	108	2.6	181.7	181.7	181.7	0.0

¹ FEET ABOVE WALNUT STREET

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

QUESET BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	50	196	703	9.0	13.8 ²	8.2 ³	8.7	0.5
B	300	200	1345	0.5	15.0	15.0	15.8	0.8
C	1700	163	746	0.9	15.1	15.1	16.1	1.0
D	2400	264	167	4.0	23.4	23.4	24.4	1.0
E	3000	25	99	6.7	31.1	31.1	31.5	0.4
F	3350	44	215	3.1	35.7	35.7	35.7	0.0
G	3700	25	54	7.9	38.0	38.0	38.0	0.0

¹ FEET ABOVE CONFLUENCE WITH PAYNES COVE

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

³ ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF TIDAL EFFECT FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RATTLESNAKE BROOK (FREETOWN)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	370	25	62	1.7	140.8	140.8	141.8	1.0
B	1109	23	39	2.6	144.4	144.4	145.4	1.0
C	1478	10	27	3.6	149.9	149.9	150.9	1.0
D	1637	26	98	1.0	152.4	152.4	153.4	1.0
E	2534	13	35	2.6	161.2	161.2	162.2	1.0
F	3696	18	40	2.2	172.1	172.1	173.1	1.0
G	4013	84	360	0.2	179.5	179.5	180.5	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RATTLESNAKE BROOK (NORTH ATTLEBOROUGH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	422	17	36	0.9	125.2	125.2	126.2	1.0
B	1478	14	27	1.1	131.7	131.7	132.7	1.0
C	1584	37	26	1.1	133.7	133.7	134.7	1.0
D	1848	7	29	1.0	137.5	137.5	138.5	1.0

¹ FEET ABOVE CONFLUENCE WITH SEVENMILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ROCKLAWN AVENUE STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	686	380	2000	7.0	9.2	9.2	9.2	0.0
B	739	375	2285	0.5	9.6	9.6	9.9	0.3
C	2323	80	490	2.2	9.9	9.9	10.1	0.2
D	5702	250	235	4.3	15.2	15.2	15.3	0.1
E	9029	60	240	3.4	23.8	23.8	24.4	0.6
F	13042	180	260	3.1	29.1	29.1	29.2	0.1
G	13147	177	153	5.3	30.6	30.6	30.6	0.0
H	16526	65	360	2.0	33.4	33.4	34.2	0.8
I	16579	70	315	2.3	33.5	33.5	34.2	0.7
J	20803	60	435	1.7	35.2	35.2	36.1	0.9
K	24552	50	85	7.3	46.1	46.1	46.1	0.0
L	24605	55	290	2.2	47.2	47.2	47.2	0.0
M	29515	65	205	3.1	59.2	58.6	59.2	0.6
N	29621	70	230	0.7	61.1	61.0	61.1	0.1

¹ FEET ABOVE CONFLUENCE WITH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

ROCKY RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	800	135	617	1.5	61.4	61.4	62.2	0.8
B	1750	360	1420	0.6	61.9	61.9	62.8	0.9
C	2900	300	1370	0.7	62.1	62.1	63.0	0.9
D	3700	150	302	3.0	63.6	63.6	63.9	0.3
E	4800	150	751	1.2	66.4	66.4	67.0	0.6
F	5650	150	630	1.5	66.9	66.9	67.7	0.8
G	7050	100	375	2.4	69.1	69.1	69.7	0.6
H	7100	100	374	2.4	72.2	72.2	72.4	0.2
I	8100	100	769	1.2	72.6	72.6	73.0	0.4
J	9100	100	517	1.8	72.7	72.7	73.2	0.5
K	9750	120	725	1.3	72.8	72.8	73.6	0.8
L	9850	120	564	1.6	73.1	73.1	74.0	0.9
M	10850	160	604	1.5	73.8	73.8	74.5	0.7
N	11800	160	543	1.7	74.3	74.3	75.2	0.9
O	13000	100	251	3.6	77.6	77.6	78.1	0.5
P	13500	300	2330	0.4	87.8	87.8	87.9	0.1
Q	14450	100	531	1.7	87.9	87.9	88.0	0.1
R	15350	150	631	1.4	88.5	88.5	89.0	0.5
S	16300	170	787	1.2	89.1	89.1	89.8	0.7
T	17250	170	734	1.2	89.7	89.7	90.4	0.7
U	18350	120	545	1.7	90.6	90.6	91.5	0.9
V	18900	60	287	3.2	92.1	92.1	92.8	0.7

¹ FEET ABOVE CONFLUENCE WITH THREE MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BRISTOL COUNTY, MA
(ALL JURISDICTIONS)**

FLOODWAY DATA

RUMFORD RIVER (LOWER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	30	170	4.6	103.1	103.1	104.1	1.0
B	391	20	170	4.6	104.2	104.2	104.9	0.7
C	449	50	290	2.7	104.7	104.7	105.2	0.5
D	2270	80	560	1.4	105.9	105.9	106.7	0.8
E	4752	100	220	3.6	110.0	110.0	110.2	0.2
F	6706	100	290	2.7	116.5	116.5	117.5	1.0
G	8147	100	110	7.4	125.4	125.4	125.7	0.3
H	8210	200	370	2.1	128.4	128.4	128.4	0.0
I	9979	100	320	2.5	130.4	130.4	131.1	0.7
J	10877	45	100	8.3	134.7	134.7	134.4	-0.3
K	10945	50	210	3.7	136.3	136.3	136.4	0.1
L	11246	105	130	6.1	138.0	138.0	138.0	0.0
M	11304	40	110	7.0	139.7	139.7	139.7	0.0
N	11373	125	390	2.0	140.4	140.4	140.3	-0.1
O	12830	45	110	6.9	144.3	144.3	144.9	0.6
P	12910	55	250	3.2	145.1	145.1	145.3	0.2
Q	14520	25	70	9.8	155.1	155.1	155.1	0.0
R	14583	20	80	8.5	155.4	155.4	155.4	0.0
S	14863	55	180	3.7	157.9	157.9	158.2	0.3
T	14916	60	210	3.3	158.4	158.4	158.6	0.2
U	15259	15	100	7.2	159.4	159.4	159.5	0.1
V	16368	15	90	7.6	160.4	160.4	160.4	0.0
W	17635	80	300	2.3	169.3	169.3	170.3	1.0
X	19351	90	530	1.1	170.7	170.7	171.5	0.8
Y	19378	40	310	1.8	171.0	171.0	171.6	0.6
Z	19980	290	2030	0.3	171.6	171.6	172.2	0.6
AA	20038	290	1860	0.3	171.6	171.6	172.2	0.6

¹ FEET ABOVE NORTON RESERVOIR

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RUMFORD RIVER (UPPER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	20434	80	1340	0.4	171.6	171.6	172.2	0.6

¹ FEET ABOVE NORTON RESERVOIR

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RUMFORD RIVER (UPPER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2750	185 / 20 ²	741	0.7	9.2	6.1 ³	6.3	0.2
B	3570	200 / 40 ²	953	0.5	9.2	7.0 ³	7.2	0.2
C	6570	200 / 60 ²	609	0.8	9.2	7.4 ³	8.0	0.6
D	9570	200 / 80 ²	370	1.2	9.4	9.4	10.1	0.7
E	10560	63 / 30 ²	175	2.1	10.8	10.8	11.2	0.4
F	10870	71 ⁴	193	1.9	11.9	11.9	12.3	0.4
G	11825	60 ⁴	152	2.5	13.1	13.1	13.4	0.3
H	12318	40 ⁴	241	1.6	16.3	16.3	16.4	0.1
I	13268	39 ⁴	213	1.6	16.3	16.3	16.7	0.4
J	14061	59 ⁴	142	2.4	16.9	16.9	17.2	0.3
K	15083	42 ⁴	199	1.7	28.8	28.8	29.3	0.5
M	16612	40 ⁴	75	4.4	40.9	40.9	41.1	0.2
N	17462	40 ⁴	131	1.8	41.3	41.3	41.6	0.3
O	18357	28 ⁴	97	2.4	42.2	42.2	42.4	0.2
P	18933	35 ⁴	118	2.0	45.3	45.3	45.5	0.2
Q	19750	48 ⁴	147	1.6	46.4	46.4	46.7	0.3
R	21198	65 ⁴	190	1.6	46.5	46.5	47.3	0.8
S	22028	35 ⁴	118	1.8	47.1	47.1	47.8	0.7
T	23278	28 ⁴	88	2.2	48.3	48.3	49.0	0.7
U	24418	16 ⁴	78	2.5	56.1	56.1	56.3	0.2
W	25561	38 ⁴	106	1.9	59.0	59.0	59.5	0.5
X	26126	16 ⁴	63	2.5	59.1	59.1	59.8	0.7

¹ FEET ABOVE MOBILE COMPANY DAM

² TOTAL WIDTH/WIDTH WITHIN BRISTOL COUNTY

³ ELEVATIONS WITHOUT CONSIDERING TIDAL EFFECT FROM BARRINGTON RIVER

⁴ FLOODWAY COFINED TO CHANNEL IN THIS AREA AND NOT SHOWN ON MAP

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RUNNINS RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	211	125	505	0.3	21.7	21.7	22.7	1.0
B	1162	100	160	0.7	25.5	25.5	25.5	0.0
C	2218	50	105	1.3	25.6	25.6	25.6	0.0
D	2323	50	95	1.4	26.0	26.0	26.0	0.0
E	4382	140	295	0.5	34.5	34.5	34.5	0.0

¹ FEET ABOVE CONFLUENCE WITH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SABIN POND BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1056	16	38	5.6	188.4	188.4	189.4	1.0
B	1531	13	35	6.0	199.2	199.2	200.2	1.0
C	2165	6	30	6.6	216.2	216.2	217.2	1.0
D	2587	14	36	5.4	224.1	224.1	225.1	1.0
E	3115	9	32	5.9	233.4	233.4	234.4	1.0
F	3960	23	47	3.8	244.9	244.9	245.9	1.0
G	4277	52	209	0.8	252.5	252.5	253.5	1.0
H	5386	28	106	1.6	252.9	252.9	253.9	1.0
I	7233	127	432	0.4	270.0	270.0	271.0	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SCOTTS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1600	195	232	6.0	13.8 ²	8.2 ³	9.1	0.9
B	3050	289	1893	0.7	13.8 ²	9.1 ³	10.1	1.0
C	4200	438	2680	0.5	13.8 ²	9.2 ³	10.2	1.0
D	4750	275	1052	1.3	13.8 ²	9.2 ³	10.2	1.0
E	6050	430	2262	0.6	13.8 ²	9.6 ³	10.5	0.9
F	6750	149	980	1.3	13.8 ²	9.7 ³	10.6	0.9
G	8150	118	525	2.5	13.8 ²	10.5 ³	11.2	0.7
H	10050	152	617	2.1	13.8 ²	12.6 ³	13.1	0.5
I	11500	80	335	3.2	14.9	14.9	15.4	0.5
J	12600	66	354	3.0	16.6	16.6	17.2	0.6
K	14850	164	324	3.3	24.1	24.1	24.5	0.4
L	16250	219	443	2.4	39.3	39.3	39.3	0.0
M	18850	313	518	2.0	45.4	45.4	45.9	0.5

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

³ ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF TIDAL EFFECT FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SEGREGANSET RIVER (LOWER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	39200	50	191	3.7	82.8	82.8	83.6	0.8
B	39381	60	303	2.1	84.7	84.7	85.3	0.6
C	40245	67	339	1.9	84.8	84.8	85.7	0.9
D	40376	60	525	1.2	89.2	89.2	89.8	0.6
E	41471	100	397	1.6	89.4	89.4	90.1	0.7
F	41579	80	457	1.4	89.5	89.5	90.3	0.8
G	42065	100	435	1.0	89.5	89.5	90.4	0.9
H	42210	210	1992	0.2	89.6	89.6	90.6	1.0
I	42990	181	821	0.5	89.6	89.6	90.6	1.0
J	43130	290	1298	0.3	92.0	92.0	92.0	0.0
K	46200	46	74	4.7	92.2	92.2	92.2	0.0
L	47131	65	137	1.9	94.9	94.9	94.9	0.0

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SEGREGANSET RIVER (UPPER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1584	176	1064	1.0	68.0	68.0	69.0	1.0
B	2587	191	1014	1.1	69.3	69.3	70.3	1.0
C	4118	24	217	4.8	71.6	71.6	72.6	1.0
D	4382	44	377	2.8	71.9	71.9	72.9	1.0
E	5491	169	838	1.2	72.2	72.2	73.2	1.0
F	6072	93	459	2.2	72.6	72.6	73.6	1.0
G	6653	174	1174	0.9	73.3	73.3	74.3	1.0
H	7445	119	709	1.4	73.4	73.4	74.4	1.0
I	8342	118	520	1.8	73.8	73.8	74.8	1.0
J	8870	135	593	1.6	74.1	74.1	75.1	1.0
K	9029	114	388	2.4	74.3	74.3	75.3	1.0
L	10032	200	843	1.1	74.5	74.5	75.5	1.0
M	11246	50	261	3.4	76.5	76.5	77.5	1.0
N	11563	67	369	2.4	76.8	76.8	77.8	1.0
O	12989	150	661	1.3	79.9	79.9	80.9	1.0
P	16474	81	304	2.2	84.5	84.5	85.5	1.0
Q	17530	23	128	5.2	87.0	87.0	88.0	1.0
R	17582	54	346	1.9	89.4	89.4	90.4	1.0
S	18269	28	149	4.4	90.9	90.9	91.9	1.0
T	20275	25	118	4.4	106.9	106.9	107.9	1.0
U	20698	30	79	2.0	107.1	107.1	108.1	1.0
V	22229	31	86	1.8	115.5	115.5	116.5	1.0
W	22810	38	113	4.4	121.3	121.3	122.3	1.0
X	23179	119	170	2.8	124.6	124.6	125.6	1.0
Y	25661	82	173	2.5	140.9	140.9	141.9	1.0
Z	25766	152	1104	0.4	144.6	144.6	145.6	1.0
AA	26347	58	219	1.9	145.2	145.2	146.2	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SEVEN MILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	27456	18	72	5.6	150.3	150.3	151.3	1.0
AC	27562	20	63	6.3	151.0	151.0	152.0	1.0
AD	29357	43	176	2.1	154.2	154.2	155.2	1.0
AE	30254	76	304	1.2	160.1	160.1	161.1	1.0
AF	30994	34	95	3.6	163.0	163.0	164.0	1.0
AG	31627	78	354	0.9	167.2	167.2	168.2	1.0
AH	32050	27	89	3.7	168.2	168.2	169.2	1.0
AI	32842	19	55	5.6	174.1	174.1	175.1	1.0
AJ	33106	28	135	2.3	176.6	176.6	177.6	1.0
AK	34003	27	115	2.6	177.2	177.2	178.2	1.0
AL	37646	33	69	2.5	184.9	184.9	185.9	1.0
AM	38280	22	84	2.0	187.8	187.8	188.8	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SEVEN MILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	422	38	265	1.3	110.8	110.8	111.8	1.0
B	1795	118	614	0.4	110.9	110.9	111.9	1.0
C	3062	27	126	1.6	110.9	110.9	111.9	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SPEEDWAY BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1050	151	612	0.4	14.6	14.6	15.5	0.9
B	2550	124	459	0.5	14.7	14.7	15.6	0.9
C	3800	63	146	1.5	15.1	15.1	16.1	1.0
D	4900	109	243	0.9	16.0	16.0	17.0	1.0

¹ FEET ABOVE CONFLUENCE WITH SEGREGANSET RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SUNKEN BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	10250	170	2644	2.3	11.9	11.5 ²	12.1	0.6
B	10900	170	2254	2.6	11.9	11.6 ²	12.3	0.7
C	13550	170	2296	2.6	12.0	12.0	12.6	0.6
D	14550	170	2260	2.6	12.1	12.1	12.8	0.7
E	16050	170	2520	2.3	12.3	12.3	13.0	0.7
F	16400	170	2229	2.7	12.4	12.4	13.1	0.7
G	17200	170	2384	2.5	12.5	12.5	13.2	0.7
H	18150	170	2232	2.6	12.6	12.6	13.3	0.7
I	19250	400	4394	1.3	12.8	12.8	13.5	0.7
J	21450	400	3754	1.6	12.9	12.9	13.7	0.8
K	23450	600	5714	1.0	13.0	13.0	13.8	0.8
L	25550	600	4935	1.2	13.2	13.2	14.0	0.8
M	26750	600	4625	1.3	13.3	13.3	14.2	0.9
N	28100	600	4885	1.2	13.4	13.4	14.3	0.9
O	29200	300	2332	2.5	13.6	13.6	14.4	0.8
P	30750	130	1565	3.8	14.2	14.2	14.9	0.7
Q	30900	130	1653	2.6	14.3	14.3	15.3	1.0
R	31850	150	1878	3.1	14.8	14.8	15.7	0.9
S	32650	170	2076	2.8	15.2	15.2	16.0	0.8
T	33650	170	2303	2.6	15.4	15.4	16.3	0.9
U	35050	170	2164	2.7	15.7	15.7	16.6	0.9
V	36450	170	2143	2.8	16.1	16.1	16.9	0.8
W	37650	200	2252	2.6	16.4	16.4	17.2	0.8
X	39020	200	2391	2.5	16.9	16.9	17.7	0.8
Y	39200	200	2244	2.6	17.0	17.0	17.8	0.8
Z	40550	200	2457	2.4	17.5	17.5	18.2	0.7
AA	41850	200	2908	2.0	17.8	17.8	18.5	0.7

¹ FEET ABOVE CONFLUENCE WITH MILL RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM ASSONET BAY

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TAUNTON RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	43250	200	2375	2.5	18.0	18.0	18.7	0.7
AC	43420	200	2413	2.5	18.0	18.0	18.7	0.7
AD	44400	450	4464	1.3	18.3	18.3	18.9	0.6
AE	45500	450 ³	5194	1.1	18.4	18.4	19.1	0.7
AF	46600	450 ³	4268	1.3	18.5	18.5	19.2	0.7
AG	47800	450 ³	4285	1.3	18.6	18.6	19.3	0.7
AH	50150	450 ³	3780	1.5	18.8	18.8	19.6	0.8
AI	51350	300 ³	2515	2.2	19.0	19.0	19.8	0.8
AJ	52650	300 ³	2880	1.9	19.2	19.2	19.9	0.7
AK	53070	300 ³	2996	1.9	19.4	19.4	20.2	0.8
AL	54070	300 ³	3043	1.8	19.5	19.5	20.4	0.9
AM	55670	300 ³	2894	1.9	19.8	19.8	20.7	0.9

¹ FEET ABOVE CONFLUENCE WITH MILL RIVER

³ TOTAL WIDTH BRISTOL AND PLYMOUTH COUNTY

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TAUNTON RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	35520	81	725	2.9	66.7	66.7	67.7	1.0
B	39580	34 ²	175	7.8	68.4	68.4	69.4	1.0
C	39780	44 ²	203	6.8	69.9	69.9	70.9	1.0
D	42451	108	722	1.9	78.0	78.0	79.0	1.0
E	44458	38	225	5.8	79.6	79.6	80.6	1.0
F	44986	118	1051	1.3	89.3	89.3	90.3	1.0
G	53434	79	727	1.7	90.3	90.3	91.3	1.0
H	53909	74	639	1.9	93.1	93.1	94.1	1.0
I	55070	143	955	1.3	93.4	93.4	94.4	1.0
J	56338	68	208	5.8	94.9	94.9	95.9	1.0
K	56654	57	299	4.0	96.0	96.0	97.0	1.0
L	59717	100	946	1.2	110.2	110.2	111.2	1.0
M	62832	372	1775	0.6	110.6	110.6	111.6	1.0
N	63043	65	669	1.5	112.0	112.0	113.0	1.0
O	63413	93	781	1.3	112.0	112.0	113.0	1.0
P	64099	358	1405	0.7	112.0	112.0	113.0	1.0
Q	64310	49	416	2.3	112.3	112.3	113.3	1.0
R	64838	101	613	1.6	112.5	112.5	113.5	1.0
S	65208	52	412	2.3	112.6	112.6	113.6	1.0
T	66000	103	716	1.3	112.7	112.7	113.7	1.0
U	66211	38	308	3.0	112.7	112.7	113.7	1.0
V	66370	47	345	2.7	113.0	113.0	114.0	1.0
W	66845	175	380	2.5	113.3	113.3	114.3	1.0
X	68006	181	946	1.0	114.3	114.3	115.3	1.0
Y	68218	77	674	1.4	114.5	114.5	115.5	1.0
Z	68534	67	556	1.7	114.5	114.5	115.5	1.0
AA	68798	92	709	1.3	114.5	114.5	115.5	1.0

¹ FEET ABOVE CONFLUENCE WITH SEEKONK RIVER

² FLOODWAY COFINED TO CHANNEL IN THIS AREA AND NOT SHOWN ON MAP

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BRISTOL COUNTY, MA
(ALL JURISDICTIONS)**

FLOODWAY DATA

TEN MILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	69010	187	1172	0.8	114.7	114.7	115.7	1.0
AC	69432	321	1553	0.6	114.8	114.8	115.8	1.0
AD	69696	133	757	1.2	114.9	114.9	115.9	1.0
AE	72547	100	518	1.8	120.1	120.1	121.1	1.0
AF	73339	32	242	3.3	121.4	121.4	122.4	1.0
AG	74184	127	540	1.5	123.0	123.0	124.0	1.0
AH	76718	63	324	2.4	130.1	130.1	131.1	1.0
AI	79253	55	280	2.7	133.9	133.9	134.9	1.0
AJ	80045	61	351	2.1	137.9	137.9	138.9	1.0
AK	81259	79	344	2.1	139.4	139.4	140.4	1.0
AL	82368	61	235	2.8	141.1	141.1	142.1	1.0
AM	82685	27	167	3.9	141.7	141.7	142.7	1.0
AN	82843	125	672	1.0	143.2	143.2	144.2	1.0
AO	83477	54	316	2.0	143.5	143.5	144.5	1.0
AP	83794	80	383	2.0	143.6	143.6	144.6	1.0
AQ	84691	105	604	1.0	145.7	145.7	146.7	1.0
AR	86381	50	213	2.7	149.6	149.6	150.6	1.0
AS	86750	22	119	4.9	156.2	156.2	157.2	1.0
AT	90710	47	161	3.2	174.8	174.8	175.8	1.0
AU	91186	47	197	2.5	176.6	176.6	177.6	1.0
AV	92453	46	143	3.3	177.7	177.7	178.7	1.0
AW	92717	24	112	3.4	178.3	178.3	179.3	1.0
AX	93086	26	135	2.8	178.9	178.9	179.9	1.0
AY	93614	77	371	1.0	180.0	180.0	181.0	1.0
AZ	94037	174	793	0.5	180.0	180.0	181.0	1.0
BA	94142	173	606	0.6	180.0	180.0	181.0	1.0
BB	94618	64	277	1.3	180.2	180.2	181.2	1.0

¹ FEET ABOVE CONFLUENCE WITH SEEKONK RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TEN MILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BC	94934	140	586	0.6	180.9	180.9	181.9	1.0
BD	95568	167	1102	0.3	182.7	182.7	183.7	1.0
BE	95990	512	2461	0.1	182.7	182.7	183.7	1.0
BF	96518	98	525	0.7	182.8	182.8	183.8	1.0
BG	96941	441	2898	0.1	182.8	182.8	183.8	1.0
BH	98155	83	234	1.4	183.0	183.0	184.0	1.0
BI	98894	190	613	0.5	183.7	183.7	184.7	1.0
BJ	99317	136	614	0.4	183.7	183.7	184.7	1.0
BK	99581	17	90	2.2	183.7	183.7	184.7	1.0

¹ FEET ABOVE CONFLUENCE WITH SEEKONK RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TEN MILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	700	130	1844	1.7	13.1	5.6 ²	6.6	1.0
B	765	130	1395	2.3	13.1	5.6 ²	6.6	1.0
C	2050	130	1159	2.7	13.1	5.8 ²	6.7	0.9
D	2225	85	766	4.1	13.1	5.9 ²	6.8	0.9
E	2360	100	912	3.5	13.1	6.1 ²	6.9	0.8
F	3400	100	876	3.6	13.1	6.5 ²	7.3	0.8
G	3500	90	746	4.3	13.1	6.5 ²	7.3	0.8
H	4400	90	847	3.7	13.1	7.1 ²	7.9	0.8
I	4600	90	837	3.8	13.1	7.2 ²	8.0	0.8
J	5300	85	716	4.4	13.1	7.6 ²	8.3	0.7
K	5500	160	1072	3.0	13.1	7.9 ²	8.6	0.7
L	5700	112	327	9.7	13.1	9.4 ²	9.4	0.0
M	5900	79	519	6.1	13.1	10.4 ²	10.7	0.3
N	6550	44	385	3.8	15.0	15.0	15.8	0.8
O	6650	70	533	2.8	17.0	17.0	17.6	0.6
P	6800	58	254	5.8	17.3	17.3	17.9	0.6
Q	6950	80	582	2.5	18.5	18.5	18.8	0.3
R	7600	80	411	7.7	19.1	19.1	19.3	0.2
S	8150	80	656	4.8	20.6	20.6	20.9	0.3
T	8300	80	651	4.9	20.7	20.7	21.1	0.4
U	8800	80	696	4.6	21.3	21.3	21.5	0.2
V	9250	80	722	4.4	21.7	21.7	21.9	0.2
W	9330	80	741	4.3	21.8	21.8	22.0	0.2
X	9450	125	1107	2.9	25.8	25.8	26.7	0.9
Y	9600	375	2347	1.4	25.9	25.9	26.8	0.9
Z	10000	370	3003	1.1	25.9	25.9	26.8	0.9
AA	10800	440	2882	1.1	26.0	26.0	26.9	0.9

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

THREEMILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	12000	300	2311	1.4	26.0	26.0	26.9	0.9
AC	12750	300	2230	1.4	26.1	26.1	27.0	0.9
AD	13850	350	1627	2.0	26.2	26.2	27.1	0.9
AE	15350	75	691	4.6	26.8	26.8	27.8	1.0
AF	16200	75	498	6.4	28.0	28.0	28.7	0.7
AG	16550	70	270	11.7	32.2	32.2	32.3	0.1
AH	16870	75	510	6.2	35.9	35.9	35.9	0.0
AI	16950	65	731	4.3	38.5	38.5	38.5	0.0
AJ	17250	65	865	3.7	38.6	38.6	38.6	0.0
AK	17370	80	781	4.1	39.8	39.8	39.8	0.0
AL	18650	200	1521	2.1	40.0	40.0	40.3	0.3
AM	20050	200	1851	1.7	40.1	40.1	40.5	0.4
AN	21450	200	1247	2.5	40.2	40.2	40.8	0.6
AO	22420	225	2415	1.3	40.3	40.3	41.0	0.7
AP	22500	225	1843	1.7	41.5	41.5	42.2	0.7
AQ	22950	450	4646	0.7	41.7	41.7	42.3	0.6
AR	23350	650	6094	0.5	41.7	41.7	42.3	0.6
AS	25050	650	4165	0.8	41.7	41.7	42.4	0.7
AT	26650	650	4599	0.7	41.8	41.8	42.5	0.7
AU	28250	650	4088	0.8	41.8	41.8	42.6	0.8
AV	29650	150	1776	1.8	41.9	41.9	42.7	0.8

¹ FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BRISTOL COUNTY, MA
(ALL JURISDICTIONS)**

FLOODWAY DATA

THREEMILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	125	77	520	3.3	13.1	11.7 ²	11.8	0.1
B	290	60	169	10.0	16.4	16.4	16.4	0.0

¹ FEET ABOVE CONFLUENCE WITH THREEMILE RIVER

² ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

THREEMILE RIVER - WEST CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	950	20	30	2.9	23.1	23.1	23.5	0.4
B	1750	20	27	3.3	26.3	26.3	26.4	0.1
C	1800	20	139	0.6	31.7	31.7	32.4	0.7
D	3000	20	105	0.8	31.7	31.7	32.5	0.8

¹ FEET ABOVE CONFLUENCE WITH DAM LOT BROOK

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TRIBUTARY TO DAM LOT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	450	40	144	1.5	22.4	22.4	23.4	1.0
B	1450	15	28	7.8	26.3	26.3	26.3	0.0
C	1550	100	719	0.3	36.4	36.4	36.4	0.0
D	2750	70	415	0.5	36.4	36.4	36.4	0.0
E	4100	40	129	1.7	36.4	36.4	36.5	0.1
F	6150	20	54	3.8	38.9	38.9	39.7	0.8
G	6200	20	65	3.1	39.8	39.8	39.9	0.1
H	6255	10	26	8.0	39.8	39.8	39.9	0.1
I	6340	10	39	5.3	41.2	41.2	41.2	0.0
J	7500	50	108	1.9	44.6	44.6	45.4	0.8
K	8950	40	76	2.7	50.4	50.4	50.8	0.4
L	10100	15	67	3.1	54.3	54.3	54.9	0.6

¹ FEET ABOVE CONFLUENCE WITH FORGE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TRIBUTARY TO FORGE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	235	996	1.5	61.0 ²	60.6	61.4	0.8
B	950	200	927	1.6	61.7	61.7	62.4	0.7
C	1850	200	924	1.6	63.1	63.1	63.8	0.7
D	2800	200	1000	1.5	64.1	64.1	64.9	0.8
E	3750	200	1130	1.3	64.8	64.8	65.7	0.9
F	4450	200	908	1.6	65.4	65.4	66.3	0.9
G	4800	50	376	3.9	66.0	66.0	66.8	0.8
H	4900	50	263	5.5	66.5	66.5	67.2	0.7
I	6150	200	1260	1.2	69.5	69.5	70.2	0.7
J	6650	200	1200	1.2	69.7	69.7	70.4	0.7
K	7550	200	1300	1.1	69.9	69.9	70.7	0.8
L	8650	50	349	4.2	70.9	70.9	71.9	1.0
M	9450	50	386	3.8	75.7	75.7	75.9	0.2
N	10650	125	578	2.5	81.1	81.1	81.8	0.7
O	12500	125	1010	1.3	82.6	82.6	83.6	1.0
P	13400	125	678	1.9	82.8	82.8	83.8	1.0
Q	14300	80	463	2.8	83.7	83.7	84.6	0.9
R	14900	80	553	2.3	84.4	84.4	85.2	0.8
S	15000	100	777	1.7	85.6	85.6	86.0	0.4
T	15400	100	587	2.2	85.6	85.6	86.2	0.6
U	16900	425	3100	0.4	91.6	91.6	91.6	0.0
V	18130	150	1070	1.2	91.6	91.6	91.6	0.0
W	18200	150	795	1.6	91.6	91.6	91.7	0.1
X	19500	500	2380	0.5	91.9	91.9	91.9	0.0
Y	20900	120	524	2.5	92.3	92.3	92.5	0.2
Z	22050	120	709	1.8	93.5	93.5	94.3	0.8
AA	23080	70	345	2.8	95.2	95.2	95.7	0.5

¹ FEET ABOVE CONFLUENCE WITH THREE MILE RIVER

² ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM RUMFORD RIVER (LOWER)

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

WADING RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	23150	150	1030	1.0	96.1	96.1	96.6	0.5
AC	24250	150	723	1.4	96.2	96.2	96.9	0.7
AD	24600	150	599	1.6	96.4	96.4	97.1	0.7
AE	25400	180	1080	0.9	96.5	96.5	97.5	1.0
AF	26200	190	962	1.0	96.7	96.7	97.7	1.0
AG	26900	180	676	1.5	96.9	96.9	97.9	1.0
AH	26950	180	389	2.5	96.9	96.9	97.9	1.0
AI	27300	115	560	1.7	97.5	97.5	98.1	0.6
AJ	27400	115	614	1.6	97.7	97.7	98.7	1.0
AK	28110	410	2709	0.3	97.8	97.8	98.8	1.0
AL	28700	155	877	1.0	97.8	97.8	98.8	1.0
AM	29580	198	639	1.4	98.3	98.3	99.0	0.7
AN	29745	220	1653	0.5	103.2	103.2	103.4	0.2
AO	30800	50	396	2.3	103.2	103.2	103.4	0.2
AP	31850	40	314	2.9	103.3	103.3	103.7	0.4
AQ	32900	35	270	3.3	103.5	103.5	104.2	0.7
AR	33800	400	1296	0.7	103.7	103.7	104.5	0.8
AS	34100	260	240	3.7	103.7	103.7	104.5	0.8
AT	35150	50	284	3.2	104.9	104.9	105.4	0.5
AU	35910	125	472	1.4	106.1	106.1	106.6	0.5
AV	36060	175	1206	0.5	108.1	108.1	108.4	0.3
AW	36660	175	899	0.7	108.1	108.1	108.4	0.3
AX	39511	75	470	1.3	110.4	110.4	111.4	1.0
AY	39564	215	790	0.8	110.8	110.8	111.8	1.0
AZ	40937	30	90	7.3	112.6	112.6	113.4	0.8
BA	41042	30	100	6.2	113.6	113.6	114.5	0.9
BB	42098	80	380	1.6	117.3	117.3	118.0	0.7

¹ FEET ABOVE CONFLUENCE WITH THREE MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

WADING RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BC	42204	80	2960	0.2	122.8	122.8	123.6	0.8
BD	42257	635	2960	0.2	122.9	122.9	122.9	0.0
BE	43946	110	190	3.2	123.0	123.0	122.9	-0.1
BF	45319	195	700	0.9	125.0	125.0	125.6	0.6
BG	46903	60	210	2.9	127.2	127.2	127.7	0.5
BH	46956	75	210	2.8	127.6	127.6	128.0	0.4
BI	47431	50	190	3.1	128.4	128.4	128.7	0.3
BJ	47801	75	280	2.1	129.8	129.8	130.0	0.2
BK	47854	80	260	2.3	131.1	131.1	132.0	0.9
BL	48804	75	130	4.7	134.3	134.3	134.3	0.0
BM	51127	206	545	1.1	140.9	140.9	141.2	0.3
BN	51286	159	221	2.0	144.1	144.1	144.1	0.0
BO	51391	344	2528	0.2	150.0	150.0	150.0	0.0
BP	52975	67	236	2.5	150.0	150.0	150.0	0.0
BQ	54559	60	233	2.5	151.6	151.6	152.1	0.5
BR	54718	60	268	2.2	152.4	152.4	152.7	0.3

¹ FEET ABOVE CONFLUENCE WITH THREE MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

WADING RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1584	175	770	1.1	34.8	34.8	35.8	1.0
B	4171	80	120	7.2	48.6	48.6	48.6	0.0
C	4541	260	810	1.1	53.6	53.4	53.6	0.2
D	6547	150	495	1.8	54.8	54.6	54.8	0.2
E	8818	130	145	5.5	79.2	79.2	79.2	0.0
F	8976	300	350	2.3	84.9	84.9	84.9	0.0
G	10243	80	270	2.9	87.8	87.3	87.8	0.5
H	12038	75	215	3.7	94.3	94.3	94.3	0.0
I	12091	95	435	1.4	94.4	94.4	94.4	0.0
J	15734	140	195	3.2	101.3	101.3	101.6	0.3
K	15787	170	210	2.6	101.6	101.6	102.6	1.0
L	16949	85	420	1.3	102.2	102.2	103.2	1.0
M	17002	70	270	2.0	103.6	103.6	104.2	0.6
N	18955	290	745	0.7	108.4	108.4	108.5	0.1
O	19008	300	1445	0.3	108.5	108.5	108.6	0.1
P	22598	70	350	0.5	117.7	117.7	117.7	0.0

¹ FEET ABOVE CONFLUENCE WITH PALMER RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

WEST BRANCH PALMER RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	264	16	63	1.2	183.7	183.7	184.7	1.0
B	792	12	29	2.3	184.3	184.3	185.3	1.0
C	1690	17	33	2.0	186.4	186.4	187.4	1.0

¹ FEET ABOVE CONFLUENCE WITH TEN MILE RIVER

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

WHITING POND BYPASS

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	822	133	364	0.8	120.9	120.9	120.9	0.0
B	2310	16	33	8.0	125.6	125.6	125.7	0.1
C	3310	115	409	0.6	126.5	126.5	127.0	0.5
D	5300	129	237	0.9	130.9	130.9	131.3	0.4
E	6890	80 ²	257	0.7	133.7	133.7	133.9	0.2

¹ FEET ABOVE CONFLUENCE WITH QUESET BROOK

² WIDTH EXTENDS BEYOND BRISTOL COUNTY

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

BRISTOL COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

WHITMAN BROOK

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by detailed methods. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to areas of 1-percent-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 detailed hydraulic analyses are shown within this zone.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile (sq. mi.), and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Bristol County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community are presented in Table 17, “Community Map History.”

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Acushnet, Town of	September 6, 1974	October 15, 1976	July 19, 1982	None
Attleboro, City of	August 16, 1974	December 10, 1976	September 29, 1978	May 29, 1981
Berkley, Town of	July 26, 1974	None	July 3, 1978	None
Dartmouth, Town of	February 28, 1975	None	August 15, 1977	June 1, 1983 October 1, 1983 July 3, 1985 July 2, 1992
Dighton, Town of	August 2, 1974	September 3, 1976	June 18, 1980	None
Easton, Town of	September 20, 1974	November 19, 1976	February 3, 1982	September 28, 1990 May 16, 1995 August 9, 2000
Fairhaven, Town of	May 31, 1974	None	March 16, 1976	October 1, 1983 June 5, 1985 February 6, 1991 July 2, 1992
Fall River, City of	May 13, 1977	March 7, 1978	September 30, 1981	January 5, 1984
Freetown, Town of	August 2, 1974	October 8, 1976	June 18, 1980	None
Mansfield, Town of	June 28, 1974	None	April 1, 1977	None

*No Special Flood Hazard Areas Identified

T A B L E 17	FEDERAL EMERGENCY MANAGEMENT AGENCY BRISTOL COUNTY, MA (ALL JURISDICTIONS)	COMMUNITY MAP HISTORY
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COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
New Bedford, City of	July 6, 1973	None	July 6, 1973	July 1, 1974 July 9, 1976 January 5, 1984
North Attleborough, Town of	March 15, 1974	August 27, 1976	September 14, 1979	None
Norton, Town of	June 28, 1974	May 10, 1977	June 1, 1979	June 18, 1987
Raynham, Town of	August 9, 1974	July 30, 1976	July 2, 1980	None
Rehoboth, Town of	January 24, 1975	None	September 1, 1977	None
Seekonk, Town of	July 26, 1974	None	September 5, 1979	None
Somerset, Town of	March 17, 1972	None	March 17, 1972	July 1, 1974 April 23, 1976 June 5, 1985
Swansea, Town of	June 20, 1970	None	August 7, 1971	July 1, 1974 July 30, 1976 July 17, 1986
Taunton, City of	December 5, 1974	February 11, 1977	June 18, 1980	June 18, 1987
Westport, Town of	July 16, 1971	None	July 16, 1971	July 1, 1974 May 14, 1976 October 1, 1983 March 18, 1985 July 15, 1992

*No Special Flood Hazard Areas Identified

7.0 OTHER STUDIES

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Bristol County has been compiled in this FIS. Therefore, this FIS supersedes all previously printed FIS reports, FIRMs, and/or FHBMs for all of the incorporated jurisdictions within Bristol County.

Bristol County is bordered by Plymouth County, MA and Norfolk County, MA, as well as by the State of Rhode Island. At the time of this revision, both of the Massachusetts counties were undergoing revisions, as well as Providence and Bristol County, Rhode Island. They will all be in agreement with this countywide FIS.

This FIS report either supersedes or is compatible with all previous studies published on flooding sources studied in this report and should be considered authoritative for the purposes of the NFIP.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting FEMA Region I, 99 High Street, 6th Floor, Boston, MA 02110.

9.0 BIBLIOGRAPHY AND REFERENCES

1. Massachusetts Geographic Information System (MassGIS), collected April 2008 and March and April 2009.
2. U.S. Census Bureau (2010): Retrieved November 2012.
<http://quickfacts.census.gov/qfd/states/09/09007.html>.
3. Taunton Gazette, Newspapers, courtesy of Dighton Library.
4. U.S. Geological Survey, Water Resources Data for Massachusetts, New Hampshire, Rhode Island, and Vermont, Part 1, Surface Water Records, 1962-1974.
5. Fall River Development and Industrial Commission, "A Survey of Fall River Shoreline" (Unpublished).
6. U.S. Army Corps of Engineers, New England Division, Hurricane Survey, Frequency of Tidal Flooding from Hurricanes and Storms at Fall River, Massachusetts, Waltham, Massachusetts, July 1964.
7. NOAA Satellite and Information Service, National Climatic Data Center, US Department of Commerce, retrieved July 2012 from
<http://www.ncdc.noaa.gov/oa/satellite/satelliteseye/cyclones/pfctstorm91/pfctstorm.html>

8. Massachusetts Emergency Management Agency, Department of Conservation and Recreation, Commonwealth of Massachusetts, State Hazard Mitigation Plan, October 2010.
9. NOAA Satellite and Information Service, National Climatic Data Center, US Department of Commerce, retrieved July 2012 from <http://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=217955>
10. Boston Globe, Strain on roofs, roads, spirits, retrieved July 2012 from, http://www.boston.com/news/local/massachusetts/articles/2011/02/03/slush_collapses_roofs_floods_roads/?page=2
11. http://www.thesunchronicle.com/news/top-snow-snow-and-more-snow/article_030257fd-0e8a-5dca-a280-82a47ffdb59b.html
12. Boston Globe, Tired Irene slaps N.E., retrieved July 2012 from http://articles.boston.com/2011-08-29/news/29941847_1_flood-waters-hurricane-irene-vermont-town/
13. USGS, Hurricane Irene Storm Tide Mapper, <http://wim.usgs.gov/stormtidemapper/stormtidemapper.html#>
14. U.S. Army Corps of Engineers, New England District, Design Memorandum No. 1, Hurricane Protection Project, New Bedford-Fairhaven Barrier, Hydrology and Hydraulics, Waltham, Massachusetts, June 1961.
15. Norton, Massachusetts, Zoning By-Law, Article V, "Wetland Protection Districts," 1974.
16. New England River Basins Commission, Report of the Southeastern New England Study, Boston, Massachusetts, 1977.
17. U.S. Department of the Interior, Geological Survey, Water Resources Investigations 77-39, Estimating the Magnitude and Frequency of Floods on Natural-Flow Streams in Massachusetts, by S.W. Wandle, Jr., Washington, D.C., 1977.
18. Don Johnstone and W.P. Cross, Elements of Applied Hydrology, New York, Ronald Press Co., 1949.
19. U.S. Department of the Interior, Geological Survey, Water Supply Paper 1526, Hydraulic and Hydrologic Aspects of Flood Plain Planning, by S.W. Wiitala, K.R. Jetter, and A.J. Summerville, Washington, D.C., 1961.

20. U.S. Department of the Interior, Geological Survey, Water Supply Paper 2214, Estimating Peak Discharges of Small, Rural Streams in Massachusetts, by S.W. Wandle, Jr., Washington, D.C., 1983.
21. U.S. Department of Agriculture, Soil Conservation Service, National Engineering Handbook, Washington, D.C., 1964.
22. U.S. Department of Agriculture, Soil Conservation Service, Engineering Division, National Engineering Handbook, Section 4, Hydrology, Washington, D.C., 1972.
23. U.S. Department of Agriculture, Soil Conservation Service, Engineering Division, Technical Release No. 20, Computer Program for Project Formulation-Hydrology, Washington, D.C., 1965.
24. U.S. Weather Bureau, Technical Paper No. 40, Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years, Washington, D.C., 1961.
25. U.S. Weather Bureau, Technical Paper No. 49, 2- to 10-Day Precipitation for Return Periods of 2 to 100 Years in the Contiguous United States, Washington, D.C., 29P.
26. U.S. Geological Survey, Water Resources Division, Flood Magnitude and Frequency of Massachusetts Streams, March 1974.
27. Ven Te Chow, ed., Handbook of Applied Hydrology, New York, McGraw-Hill, 1964.
28. U.S. Geological Survey, Water Resources Division, Progress Report on Flood Magnitude and Frequency of Massachusetts Streams, Carl G. Johnson and Gary D. Tasker, March 1974.
29. U.S. Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Interval 10 feet: Norton, 1964; Somerset, 1967; Assonet, 1963; Assawompset Pond, 1963; Fall River East, 1963; New Bedford North, 1964; Attleboro, 1964; Pawtucket, Rhode Island, 1970; East Providence, Rhode Island, 1971; Wrentham, 1964; Brockton, 1975; Brockton, 1963; Mansfield, 1964; Taunton, 1962; Bridgewater, 1962; Bristol, Rhode Island-Massachusetts, 1955, Photo revised 1975.
30. U.S. Department of Commerce, Weather Bureau, Technical Paper No. 40, Rainfall Frequency Atlas of the United States, Washington, D.C., 1961, Revised January 1963.
31. U.S. Army Corps of Engineers, New England Division, Southeastern New England Study of Water and Related Land Resources, September 1972.

32. Water Resources Council, "Guidelines for Determining Flood Flow Frequency," Bulletin 17, Washington, D.C., March 1976.
33. U.S. Army Corps of Engineers, New England Division, Hurricane Survey Report, Narragansett Bay Area, Appendix B, Hydrology and Hydraulics, Waltham, Massachusetts, 1965.
34. Water Resources Council, "A Uniform Technique for Determining Flood Flow Frequencies," Bulletin 15, December 1967.
35. Bradford/Everett & Associates, Inc., The Rehoboth Study, Wetlands Maps, Providence, Rhode Island, February 1975.
36. U.S. Army Corps of Engineers, New England Division, Flood Insurance Study: Warren, Rhode Island, October 1971.
37. American Society of Civil Engineers, Paper No. 2248, Flood Formulas Based on Drainage Basin Characteristics by H.B. Kinnison and B.R. Colby.
38. Personal Communication with the U.S. Department of the Interior, Geological Survey, Water Resources Division, Boston, Massachusetts.
39. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Town of Swansea, Bristol County, Massachusetts, Washington, D.C., February 6, 1971.
40. Federal Emergency Management Agency, Flood Insurance Study, Town of Warren, Bristol County, Rhode Island, Washington, D.C., December 1, 1982.
41. U.S. Department of the Interior, Geological Survey, Water-Supply Paper 2207, Flood Characteristics of Urban Watersheds in the United States by V.B. Sauer, W.O. Thomas, Jr., V.A. Stricker, and K.V. Wilson, Washington, D.C., 1983.
42. U.S. Department of Agriculture, Soil Conservation Service, Central Technical Unit, Technical Release No. 61 WSP 2 Computer Program, Hyattsville, Maryland, 1976.
43. U.S. Army Corps of Engineers, Hurricane Survey, Frequency of Tidal Flooding from Hurricanes and Storms at Fall River and Somerset, Massachusetts, Waltham, Massachusetts, July 1964.
44. U.S. Army Corps of Engineers, Hurricane Survey, Narragansett Bay, February, 1957.

45. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis, California, November 1974.
46. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis, California, October 1973.
47. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Application of the HEC-2 Bridge Routines, Training Document No. 6, Davis, California, June 1974.
48. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of New Bedford, Bristol County, Massachusetts, Washington, D.C., December 1, 1982.
49. McDonnell Douglas Automation Company, Computer Program, HEC-2, Water-Surface Profiles, St. Louis, Missouri, August 1977.
50. U.S. Geological Survey, Open File Report 76-499, Computer Program E431, User's Manual, Computer Applications for Step-Backwater and Floodway Analyses, by James O. Shearman, Washington, D.C., 1976.
51. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Town of Berkley, Massachusetts, July 1978.
52. U.S. Army Corps of Engineers, New England Division, Flood Plain and Streamflow Management Study, Taunton River Basin, June 1973.
53. U.S. Army Corps of Engineers, New England Division, Unpublished Profile of 1938, 1954, and 1968, Flooding on the Taunton River.
54. U.S. Army Corps of Engineers, HEC-2 Water Surface Profiles, Computer Program and User's Manual, September 1990.
55. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Freetown, Massachusetts, August 1974, (revised) October 1976.
56. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles, Users Manual, February 1972.
57. James W. Sewell Co., of Old Town, Maine, Aerial Photographs, Scale 1:12,000: Norton, Massachusetts, April 1984.

58. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis, California, September 1982.
59. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, East Providence, Rhode Island, (in progress).
60. DeLeuw, Cather and Co., Regional Curves for Massachusetts - Stage vs. Drainage Areas (six regions), Boston, Massachusetts, 1974.
61. James W. Sewell Co., of Old Town, Maine, Topographic Maps compiled from aerial photographs, Scale 1:4,800, Contour Interval 4 Feet: Norton, Massachusetts, March 1974; Taunton, Massachusetts, 1984.
62. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-1 Flood Hydrograph Package, Computer Program, Davis, California, September 1981.
63. U.S. Army Corps of Engineers, Galveston District, Guidelines for Identifying Coastal High Hazard Zones, Galveston, Texas, June 1975.
64. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-1 Flood Hydrograph Package, Users Manual, Davis, California, January 1973.
65. U.S. Department of the Interior, Bureau of Reclamation, Design of Small Dams, Second Edition, Washington, D.C., 1974.
66. U.S. Department of the Interior, Geological Survey, Water-Supply Paper 2000, Model Hydrographs, by W.D. Mitchell, Washington, D.C., 1972.
67. Arrow Service Corporation of Philadelphia, Pennsylvania, Topographic Maps, Scale 1:4,800, Contour Interval 2 Feet: City of New Bedford, Bristol County, Massachusetts, May 1966.
68. U.S. Army Corps of Engineers, New England Division, Hurricane Survey, Frequency of Tidal Flooding from Hurricanes and Storms at Newport, Rhode Island, Waltham, Massachusetts, July 1964.
69. Personal Communication with the New England Division Regional Office of the U.S. Army Corps of Engineers and Mr. John Tramburro, Barrington, Rhode Island, October 12, 1977.
70. National Academy of Sciences, Methodology for Calculating Wave Action Effects Associated with Storm Surges, Washington, D.C., 1977.

71. Stone and Webster Engineering Corporation, Manual for Wave Runup Analysis, Coastal Flood Insurance Studies, Boston, Massachusetts, Boston, Massachusetts, November 1981.
72. Federal Emergency Management Agency, Users Manual for Wave Height Analysis, Washington, D.C., January 19, 1982.
73. Federal Emergency Management Agency. (April 2003). Guidelines and Specifications for Flood Hazard Mapping Partners. Appendix D: Guidance for Coastal Flooding Analyses and Mapping. Washington, D.C.
74. Federal Emergency Management Agency, Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update, February 2007.
75. U.S. Army Corps of Engineers, New England Division, Hydraulics and Water Quality Section, Tidal Flood Profiles, New England Coastline, September 1988.
76. Van der Meer, J.W. Technical Report: Wave Run-up and Wave Overtopping at Dikes, Technical Advisory Committee of Flood Defense, The Netherlands, 2000.
77. U.S. Army Corps of Engineers, Coastal Engineering Research Center. Shore Protection Manual. (Volumes I and II, 4th Edition). Washington, D.C., 1984
78. Sanborn Map Company, Inc., LiDAR data for Bristol County, MA, collected November 2006.
79. U.S. Department of Commerce, Coast and Geodetic Survey, Boston Harbor Coastal Chart, #246, 37th Edition, February 10, 1973.
80. Massachusetts Geographic Information System (MassGIS), collected April 2005.
81. Federal Emergency Management Agency, Flood Insurance Study, Bristol County, Rhode Island (preliminary version), Washington, D.C., 2012.
82. Parametric Technology Corporation, Mathcad Version 14.0, Website: <http://www.ptc.com/products/mathcad/>, copyright 2007.
83. U.S. Army Corps Of Engineers, Coastal Engineering Manual, Washington, D.C., August 2008.
84. U.S. Army Corps of Engineers, Coastal and Hydraulics Laboratory, Steady State Spectral Wave Version 3.0, <http://chl.erdc.usace.army.mil/>, February 2001.

85. Goda, Y. Random Seas and Design of Marine Structures. Singapore: World Scientific, 2000.
86. Wave Height Analysis for Flood Insurance Studies (WHAFIS), Version 4.0
87. Federal Emergency Management Agency, Coastal Hazard Analysis Modeling Program (CHAMP), Version 2.0, Washington, D.C., August 2007.
88. Federal Emergency Management Agency, Coastal Hazard Analysis Modeling Program (CHAMP), Users Guide, Version 2.0, Washington, D.C., August 2007.
89. Federal Emergency Management Agency, Procedure Memorandum No. 50 – Policy and Procedure for Identifying and Mapping Areas Subject to Wave Heights Greater than 1.5 feet as an Information Layer on Flood Insurance Rate Maps (FIRMs), Washington, D.C., December 3, 2008.
90. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:25,000, Contour Interval 10 Feet: Fall River, Massachusetts, 1979; Fall River East, Massachusetts; Assonet, Massachusetts, 1977; Somerset, Massachusetts, 1967.
91. U.S. Geological Survey, 7.5 x 15 Minute Quadrangle Metric Topographic Map, Scale 1:25,000, Contour Interval 3 meters, 1987.
92. U.S. Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Interval 20 feet: Fall River East, Massachusetts, 1963; New Bedford South, Massachusetts, 1977; Westport, Massachusetts, 1963.
93. James W. Sewell Co., of Old Town, Maine, Topographic Maps compiled from aerial photographs, Scale 1:4,800, Contour Interval 5 Feet: Dartmouth, Fairhaven, Swansea, Somerset, and Westport, Massachusetts, December 1982.
94. Col-East, Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Acushnet, Massachusetts, July 1979.
95. Lockwood, Keffler, & Bartlett of Taunton, Massachusetts, photogrammetric maps at a scale of 1:2,400, contour interval 5 feet: Taunton River and Dam Lot Brook areas (Unpublished).
96. Commonwealth of Massachusetts, Department of Public Works, Project Division Fall River, Western Expressway and Relocation of Route 6, compiled by J. E. Sewell Co., Scale 1:2,400, Contour Interval 2 Feet: Fall River, Massachusetts, April 1966.

97. City of Attleboro, Public Works Department, Topographic Map Survey, Scale 1:960, Contour Interval five feet: Attleboro, Massachusetts, 1964.
98. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, East Providence, Rhode Island, August 1972.
99. Federal Emergency Management Agency, Flood Insurance Study, Providence County, Rhode Island (preliminary version), Washington, D.C., 2012.
100. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Berkley, Massachusetts, Scale 1:12,000, October 1976.
101. Federal Emergency Management Agency, Flood Insurance Study, Town of Dartmouth, Bristol County, Massachusetts, Washington, D.C., December 1, 1982.
102. U.S. Army Corps of Engineers, New England Division, Flood Plain Information, Easton, Massachusetts, Waltham, Massachusetts, April 1977.
103. U.S. Department of Agriculture, Soil Conservation Service, Maps of Flood-Prone Areas, Mansfield, Brockton, Attleboro, and Norton, Massachusetts, March 1974.
104. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Norton, Bristol County, Massachusetts, Washington, D.C., June 1, 1979.
105. U.S. Department of Agriculture, Soil Conservation Service, Aerial Photography, Scale 1:48000: Northern Bristol County, Massachusetts, flown in 1975.
106. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Acushnet, Massachusetts, September 1974.
107. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Attleboro, Massachusetts, August 1974, (Revised) December 1976.
108. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Dighton, Massachusetts, September 1976.

109. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, North Attleborough, Massachusetts, March 1974.
110. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Raynham, Bristol County, Massachusetts, Washington, D.C., August 9, 1974, Revised July 30, 1976.
111. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Westport, Bristol County, Massachusetts, May 14, 1976.