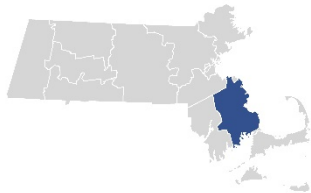


# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 3 OF 5



### PLYMOUTH COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
ABINGTON, TOWN OF	250259	MARSHFIELD, TOWN OF	250273
BRIDGEWATER, TOWN OF	250260	MATTAPOISETT, TOWN OF	255214
BROCKTON, CITY OF	250261	MIDDLEBOROUGH, TOWN OF	250275
CARVER, TOWN OF	250262	NORWELL, TOWN OF	250276
DUXBURY, TOWN OF	250263	PEMBROKE, TOWN OF	250277
EAST BRIDGEWATER, TOWN OF	250264	PLYMOUTH, TOWN OF	250278
HALIFAX, TOWN OF	250265	PLYMPTON, TOWN OF	250279
HANOVER, TOWN OF	250266	ROCHESTER, TOWN OF	250280
HANSON, TOWN OF	250267	ROCKLAND, TOWN OF	250281
HINGHAM, TOWN OF	250268	SCITUATE, TOWN OF	250282
HULL, TOWN OF	250269	WAREHAM, TOWN OF	255223
KINGSTON, TOWN OF	250270	WEST BRIDGEWATER, TOWN OF	250284
LAKEVILLE, TOWN OF	250271	WHITMAN, TOWN OF	250285
MARION, TOWN OF	255213		

**REVISED:**

**JULY 22, 2020**

FLOOD INSURANCE STUDY NUMBER  
25023CV003D

Version Number 2.6.3.5



**FEMA**

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**Published Separately**

Flood Insurance Rate Map (FIRM)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V W	22,069 23,149	50 90	117 195	1.9 1.1	87.4 90.2	87.4 90.2	88.4 91.1	1.0 0.9

<sup>1</sup>Feet above Central Street

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)

## FLOODWAY DATA

FLOODING SOURCE: MEADOW BROOK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	180	12	35	3.0	77.9	77.9	78.4	0.5
B	1,310	10	27	3.9	78.9	78.9	79.3	0.4
C	2,030	20	50	2.1	81.0	81.0	81.7	0.7
D	3,160	25	55	1.9	86.6	86.6	86.6	0.0
E	4,270	9	31	3.4	88.8	88.8	89.5	0.7
F	5,740	8	21	5.1	90.4	90.4	90.8	0.4
G	7,200	39	109	1.0	93.2	93.2	94.1	0.9

<sup>1</sup>Feet above confluence with Meadow Brook

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: MEADOW BROOK TRIBUTARY**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	*	58	1.7	24.2	21.3 <sup>2</sup>	22.3	1.0
B	602	*	31	3.1	24.2	22.5 <sup>2</sup>	22.7	0.2
C	803	*	47	2.1	24.2	23.8 <sup>2</sup>	23.9	0.1
D	1,220	*	14	7.0	24.4	24.4	24.4	0.0
E	1,779	*	26	3.2	27.1	27.1	27.7	0.6
F	2,661	*	212	0.4	34.9	34.9	35.9	1.0
G	3,263	*	22	3.8	34.9	34.9	35.9	1.0
H	3,601	*	112	0.8	34.9	34.9	39.9	0.0
I	3,701	*	80	1.1	39.9	39.9	39.9	0.0
J	4,103	*	15	3.9	40.2	40.2	40.2	0.0
K	4,303	193	903	0.1	53.1	53.1	53.1	0.0

<sup>1</sup>Feet above confluence with Halls Brook

<sup>2</sup>Elevation computed without consideration of backwater effects from Halls Brook

\*Floodway coincident with channel banks

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: MILE BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	925	838	2,788	0.5	24.9	16.3 <sup>2</sup>	17.3	1.0
B	3,079	152	703	1.8	24.9	16.8 <sup>2</sup>	17.6	0.8
C	3,635	96	562	2.2	24.9	17.4 <sup>2</sup>	18.3	0.9
D	3,977	120	863	1.5	24.9	17.5 <sup>2</sup>	18.5	1.0
E	7,414	103	905	1.4	24.9	18.0 <sup>2</sup>	19.0	1.0
F	9,872	137	1,009	1.2	24.9	18.4 <sup>2</sup>	19.3	0.9
G	12,594	180	1,182	1.1	24.9	18.8 <sup>2</sup>	19.7	0.9
H	14,418	126	784	1.6	24.9	19.2 <sup>2</sup>	19.9	0.7
I	14,463	70	300	4.2	24.9	19.1 <sup>2</sup>	19.9	0.8
J	14,620	50	377	3.3	24.9	21.3 <sup>2</sup>	21.3	0.0
K	15,418	181	1,447	0.9	24.9	21.4 <sup>2</sup>	21.5	0.1
L	17,345	203	1,296	1.0	24.9	21.5 <sup>2</sup>	21.7	0.2
M	18,894	137	715	1.7	24.9	21.7 <sup>2</sup>	21.9	0.2
N	20,403	58	409	3.0	24.9	22.4 <sup>2</sup>	22.7	0.3
O	20,595	55	478	2.6	24.9	24.5 <sup>2</sup>	24.7	0.2
P	21,751	154	1,391	0.9	24.9	24.7 <sup>2</sup>	25.0	0.3
Q	23,107	202	1,532	0.8	24.9	24.7 <sup>2</sup>	25.0	0.3
R	24,270	243	2,363	0.5	24.9	24.7 <sup>2</sup>	25.1	0.4
S	26,055	181	1,565	0.8	24.9	24.8 <sup>2</sup>	25.1	0.3
T	28,600	70	632	1.9	24.9	24.9	25.3	0.4
U	29,558	60	478	2.5	25.1	25.1	25.6	0.5

<sup>1</sup>Feet above confluence with Taunton River

<sup>2</sup>Elevation computed without consideration of backwater effects from Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: NEMASKET RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	29,708	57	433	2.8	25.1	25.1	25.7	0.6
W	29,929	175	805	1.5	25.7	25.7	28.2	0.5
X	30,738	220	1,080	1.1	29.2	29.2	29.2	0.0
Y	31,024	190	116	1.1	29.2	29.2	29.2	0.0
Z	31,610	180	826	1.4	29.3	29.3	29.3	0.0
AA	34,766	180	741	1.5	30.3	30.3	30.3	0.3
AB	36,596	180	716	1.6	31.1	31.1	31.4	0.3
AC	37,552	150	665	1.7	31.5	31.5	31.9	0.4
AD	38,321	77	375	3.1	31.9	31.9	32.6	0.7
AE	38,570	59	380	3.0	33.4	33.4	34.1	0.7
AF	39,126	58	339	3.4	33.8	33.8	34.6	0.8
AG	39,309	96	444	2.6	34.5	34.5	35.5	1.0
AH	39,410	95	448	2.6	34.6	34.6	35.5	0.9
AI	40,992	99	310	3.7	36.9	36.9	37.1	0.2
AJ	42,154	53	129	8.9	41.7	41.7	41.8	0.1
AK	42,169	91	437	2.6	44.5	44.5	45.4	0.9
AL	42,267	90	418	2.7	45.2	45.2	46.2	1.0
AM	42,300	77	391	2.9	45.2	45.2	46.2	1.0
AN	42,315	41	210	5.4	45.2	45.2	46.1	0.9
AO	42,332	42	219	5.2	45.6	45.6	46.4	0.8
AP	42,372	42	227	5.0	45.9	45.9	46.6	0.7

<sup>1</sup>Feet above confluence with Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: NEMASKET RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AQ	42,592	275	1,721	0.7	53.3	53.3	53.3	0.0
AR	42,752	260	1,043	1.1	53.3	53.3	53.3	0.0
AS	44,200	87	496	2.3	53.6	53.6	53.7	0.1
AT	45,793	49	386	2.7	54.1	54.1	54.5	0.4
AU	46,109	67	441	2.4	54.7	54.7	55.0	0.3
AV	47,265	250	1,375	0.8	54.8	54.8	55.3	0.5
AW	48,117	54	402	2.6	54.9	54.9	55.3	0.4
AX	48,797	86	566	1.9	55.2	55.2	55.8	0.6
AY	50,311	99	1,089	1.0	55.2	55.2	56.0	0.8
AZ	50,485	87	756	1.4	55.5	55.5	56.2	0.7
BA	52,598	194	1,257	0.8	55.6	55.6	56.3	0.7
BB	52,803	148	1,539	0.7	55.9	55.9	56.6	0.7
BC	52,986	196	1,475	0.7	56.0	56.0	56.6	0.6
BD	53,285	77	734	1.4	56.2	56.2	56.8	0.6
BE	53,976	201	1,299	0.8	56.2	56.2	57.0	0.8
BF	56,175	450	3,005	0.3	56.2	56.2	57.1	0.9
BG	57,894	450	2,497	0.4	56.3	56.3	57.1	0.8
BH	60,116	71	549	1.4	56.4	56.4	57.3	0.9
BI	60,417	64	518	1.5	56.8	56.8	57.6	0.8
BJ	61,936	270	1,721	0.5	56.8	56.8	57.8	1.0
BK	63,321	270	1,541	0.5	56.8	56.8	57.8	1.0
BL	63,487	1,434	11,986	0.1	56.8	56.8	57.8	1.0

<sup>1</sup>Feet above confluence with Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: NEMASKET RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	190	40	75	6.8	28.1	24.1 <sup>2</sup>	24.3	0.2
B	2,000	20	95	3.5	28.1	26.0 <sup>2</sup>	26.7	0.7
C	3,100	140	459	0.7	28.4	28.0 <sup>2</sup>	28.6	0.6
D	3,840	170	290	1.1	28.5	28.0 <sup>2</sup>	28.9	0.9

<sup>1</sup>Feet above confluence with Winnetuxet River

<sup>2</sup>Elevation computed without consideration of coincident flow with Winnetuxet River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: PALMER MILL BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	48	61	6.0	47.9	47.9	47.9	0.0
B	998	50	639	0.6	48.5	48.5	48.5	0.0
C	2,117	34	192	1.9	48.5	48.5	48.5	0.0
D	3,696	71	178	1.7	48.9	48.9	49.0	0.1
E	5,064	175	1,038	0.3	54.7	54.7	55.0	0.3
F	5,164	46	383	0.8	54.7	54.7	55.0	0.3
G	6,463	60	217	1.4	54.8	54.8	55.4	0.6
H	7,223	24	101	3.0	57.6	57.6	57.7	0.1
I	7,323	35	159	1.9	57.6	57.6	57.7	0.1
J	8,274	72	339	0.9	57.7	57.7	58.2	0.5
K	9,425	70	242	1.3	58.0	58.0	58.7	0.7
L	10,523	28	67	4.6	61.5	61.5	61.5	0.0
M	10,623	94	309	0.5	61.9	61.9	61.9	0.0
N	11,590	48	213	0.8	63.5	63.5	63.5	0.0
O	11,960	113	320	1.7	63.5	63.5	63.5	0.0
P	12,593	18	25	3.8	64.0	64.0	65.0	1.0

<sup>1</sup>Feet above Cushing Pond Dam

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: PLYMOUTH RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-7,530	135	518	1.5	45.9	45.9	46.9	1.0
B	-6,320	129	555	1.4	46.7	46.7	47.5	0.8
C	-4,520	134	488	1.6	47.4	47.4	48.2	0.8
D	-3,000	285	1,278	0.6	47.6	47.6	48.5	0.9
E	-78	72	294	2.5	48.6	48.6	49.5	0.9
F	60	93	455	1.6	49.7	49.7	50.1	0.4
G	2,740	90	394	1.7	50.3	50.3	50.9	0.6
H	5,030	100	334	2.0	50.9	50.9	51.8	0.9
I	5,908	130	802	0.8	51.5	51.5	52.4	0.9
J	8,645	150	680	0.4	51.7	51.7	52.5	0.8
K	9,850	45	134	1.8	51.7	51.7	52.5	0.8
L	11,118	40	119	2.0	52.7	52.7	53.5	0.8
M	11,280	77	392	0.5	56.6	56.6	56.6	0.0
N	14,510	16	49	3.9	56.8	56.8	57.5	0.7
O	15,200	50	126	1.5	58.2	58.2	59.2	1.0
P	15,890	18	38	5.1	60.9	60.9	61.1	0.2

<sup>1</sup>Feet above Main Street

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: POOR MEADOW BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	250	200	650	0.4	76.7	76.7	77.7	1.0
B	1,890	59	195	1.5	77.0	77.0	77.9	0.9

<sup>1</sup>Feet above confluence with Weweantic River

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)

## FLOODWAY DATA

FLOODING SOURCE: ROCKY MEADOW BROOK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,020	18	175	4.2	102.4	102.4	102.4	0.0
B	2,620	22	232	3.2	103.8	103.8	104.0	0.2
C	3,050	21	192	3.9	103.9	103.9	104.1	0.2
D	3,290	86	594	1.3	104.1	104.1	104.6	0.5
E	6,190	15	149	4.6	120.4	120.4	121.3	0.9
F	7,600	125	658	2.2	120.9	120.9	121.9	1.0
G	7,975	65	314	3.2	121.2	121.2	122.2	1.0
H	8,395	110	616	2.1	122.3	122.3	123.0	0.7
I	9,200	35	221	3.6	122.4	122.4	123.3	0.8

<sup>1</sup>Feet above Perkins Street bridge

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: SALISBURY BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-720	32	195	4.7	60.9	60.9	61.9	1.0
B	-85	30	166	5.6	62.9	62.9	63.4	0.5
C	798	36	237	3.9	65.0	65.0	65.3	0.3
D	1,860	31	253	3.6	65.9	65.9	66.5	0.6
E	3,000	29	249	3.6	66.6	66.6	67.5	0.9
F	4,220	33	287	3.2	67.4	67.4	68.4	1.0
G	5,660	45	346	3.2	70.0	70.0	71.0	1.0
H	8,960	64	344	6.3	70.3	70.3	71.3	1.0
I	9,660	45	293	7.4	72.6	72.6	73.2	0.6
J	11,162	168	689	5.1	76.8	76.8	77.2	0.4
K	11,655	25	318	6.8	78.1	78.1	78.4	0.3
L	12,027	38	452	4.3	79.5	79.5	79.8	0.3
M	12,670	21	282	6.9	81.6	81.6	81.6	0.0
N	12,966	35	606	3.2	82.5	82.5	82.5	0.0
O	13,624	122	150	3.1	83.0	83.0	83.0	0.0
P	14,483	60	853	2.3	83.2	83.2	83.3	0.1
Q	15,281	44	567	3.5	83.2	83.2	83.5	0.3
R	15,580	79	810	2.4	83.3	83.3	83.9	0.6
S	16,422	22	349	5.6	83.4	83.4	84.1	0.7
T	17,422	224	1,260	1.6	83.5	83.5	84.4	0.9
U	18,522	140	1,066	1.8	83.6	83.6	84.5	0.9
V	19,516	115	1,094	1.2	83.6	83.6	87.5	0.9

<sup>1</sup>Feet above Belmont Street

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: SALISBURY PLAIN RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-671	79	983	1.8	32.8	32.8	33.8	1.0
B	-75	104	847	1.7	32.9	32.9	33.9	1.0
C	-25	79	573	2.5	38.8	38.8	38.9	0.1
D	1,003	90	1,186	1.6	40.0	40.0	40.1	0.1

<sup>1</sup>Feet above Plymouth Street

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SATUCKET RIVER (LOWER REACH)**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	107	347	5.7	39.6	39.6	40.6	1.0
B	1,840	254	971	2.6	41.9	41.9	42.9	1.0
C	2,720	1,245	4,533	0.6	42.1	42.1	43.1	1.0
D	4,320	1,133	2,893	1.0	42.2	42.2	43.2	1.0
E	4,880	253	793	0.4	42.2	42.2	43.2	1.0
F	6,445	130	284	0.8	42.3	42.3	43.3	1.0

<sup>1</sup>Feet above confluence with Black Brook

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SATUCKET RIVER (UPPER REACH)**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,100	54	192	3.2	*	10.2	11.2	1.0
B	2,298	39	166	0.7	20.1	20.1	21.1	1.0
C	2,457	122	510	0.2	21.9	21.9	22.1	0.2
D	3,455	68	180	0.6	22.0	22.0	22.2	0.2
E	4,453	26	50	2.2	22.4	22.4	23.0	0.6
F	5,287	202	492	0.2	24.4	24.4	24.8	0.4
G	6,285	103	296	0.4	24.4	24.4	24.9	0.5
H	7,864	100	625	0.4	31.0	31.0	31.0	0.0
I	8,862	115	586	0.4	31.0	31.0	31.1	0.1
J	9,860	199	723	0.3	31.0	31.0	31.2	0.2
K	10,562	96	494	0.3	32.7	32.7	32.7	0.0

<sup>1</sup>Feet above Front Street

\*Controlled by coastal flooding – see Flood Insurance Rate Map for regulatory base flood elevation

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: SATUIT BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	518	60	285	1.2	22.1	18.9 <sup>2</sup>	19.8	0.9
B	4,236	29	52	4.7	22.1	20.2 <sup>2</sup>	20.8	0.6
C	4,404	294	1,621	0.1	25.1	25.1	25.1	0.0
D	9,180	15	69	3.5	28.3	28.3	28.9	0.6

<sup>1</sup>Feet above confluence with Taunton River

<sup>2</sup>Elevation computed without consideration of backwater effects from Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SAWMILL BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	50	31	164	2.3	8.1	3.9 <sup>2</sup>	4.9	1.0
B	720	48	193	1.9	8.1	4.4 <sup>2</sup>	5.2	0.8
C	820	48	211	1.8	8.1	5.0 <sup>2</sup>	5.6	0.6
D	1,090	24	89	4.2	8.1	5.2 <sup>2</sup>	5.8	0.6
E	1,390	83	259	1.4	8.1	6.4 <sup>2</sup>	7.1	0.7
F	1,500	205	1,411	0.3	11.7	11.7	12.0	0.3
G	1,850	240	1,452	0.3	11.7	11.7	12.0	0.3
H	2,270	109	519	0.7	11.7	11.7	12.0	0.3
I	2,385	120	557	0.7	11.7	11.7	12.0	0.3
J	2,490	200	947	0.4	11.7	11.7	12.0	0.3
K	2,800	350	1,006	0.4	11.7	11.7	12.0	0.3
L	3,200	120	342	1.1	11.7	11.7	12.0	0.3
M	3,600	28	62	5.9	11.9	11.9	12.2	0.3
N	4,320	30	64	4.9	17.8	17.8	18.1	0.3
O	4,575	285	1,657	0.2	27.9	27.9	28.1	0.2
P	4,800	85	374	0.8	27.9	27.9	28.1	0.2
Q	5,110	16	68	4.5	27.9	27.9	28.1	0.2
R	5,265	14	58	5.4	29.3	29.3	29.3	0.0
S	5,410	45	158	2.0	31.3	31.3	32.2	0.9
T	5,700	20	62	5.0	31.7	31.7	32.6	0.9

<sup>1</sup>Feet above confluence with North River

<sup>2</sup>Elevation computed without consideration of backwater effects from Massachusetts Bay

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: SECOND HERRING BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	330	577	1.1	63.8	63.8	64.8	1.0
B	1,320	240	342	1.6	65.5	65.5	66.4	0.9
C	2,710	12	51	10.3	68.2	68.2	68.5	0.3
D	2,840	26	152	3.5	70.4	70.4	70.8	0.4
E	3,220	22	144	3.7	70.4	70.4	70.8	0.4
F	3,590	83	68	7.8	71.6	71.6	71.6	0.0
G	6,020	27	223	2.2	77.9	77.9	78.4	0.5
H	6,980	30	217	2.3	78.1	78.1	78.9	0.8

<sup>1</sup>Feet above confluence with Shumatuscacant Tributary

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SHUMATUSCACANT RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	140	15	54	2.6	64.0	63.8 <sup>2</sup>	64.7	0.9
B	2,480	100	240	0.6	65.6	65.6	66.2	0.6
C	3,350	10	32	4.3	65.8	65.8	66.7	0.9
D	3,680	18	35	4.1	70.3	70.3	70.3	0.0
E	4,000	15	38	3.7	72.0	72.0	72.2	0.2
F	4,400	15	37	3.8	73.8	73.8	74.3	0.5

<sup>1</sup>Feet above confluence with Shumatuscacant River

<sup>2</sup>Elevation computed without consideration of backwater effects from Shumatuscacant River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SHUMATUSCACANT TRIBUTARY**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	30	*	43	4.3	11.1	11.1	11.1	0.0
B	130	*	48	3.9	11.4	11.4	11.4	0.0
C	440	*	46	1.8	11.4	11.4	12.3	0.9
D	600	*	58	1.4	12.1	12.1	13.0	0.9
E	780	*	52	3.6	26.7	26.7	26.7	0.0
F	880	217	2,572	0.1	26.8	26.8	26.8	0.0
G	2,110	246	1,358	0.1	26.8	26.8	26.8	0.0
H	2,980	*	46	4.1	28.1	28.1	28.5	0.4
I	4,200	*	29	6.5	43.6	43.6	43.6	0.0
J	4,780	*	29	6.5	51.7	51.7	52.5	0.8
K	5,030	*	18	10.2	54.5	54.5	54.5	0.0
L	5,270	*	27	7.0	57.3	57.3	57.3	0.0
M	5,370	*	28	6.8	58.3	58.3	58.3	0.0

<sup>1</sup>Feet above State Route 3A

\*Floodway coincident with channel banks

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: SMELT BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	300	41	159	1.7	22.3	22.3	23.3	1.0
B	1,880	162	648	0.3	30.2	30.2	30.5	0.3
C	3,580	39	73	2.9	31.9	31.9	31.9	0.0
D	4,700	40	65	3.3	35.6	35.6	35.6	0.0
E	6,340	39	78	2.5	42.7	42.7	42.8	0.1
F	7,600	16	41	3.0	52.5	52.5	53.2	1.0
G	9,010	16	48	2.5	57.4	57.4	58.4	1.0
H	10,240	28	50	2.4	61.0	61.0	61.5	0.5

<sup>1</sup>Feet above confluence with Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SNOWS BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,664	29	119	2.1	29.7	28.1 <sup>2</sup>	29.1	1.0
B	2,611	206	772	0.3	29.7	29.6 <sup>2</sup>	29.8	0.2
C	3,533	19	33	7.6	29.7	29.6 <sup>2</sup>	29.8	0.2
D	4,025	395	417	0.6	33.6	33.6	33.7	0.1
E	4,941	378	669	0.4	33.7	33.7	33.8	0.1
F	6,003	18	33	7.7	34.4	34.4	34.4	0.0
G	7,341	202	519	0.4	40.2	40.2	40.2	0.0
H	8,791	55	44	4.3	40.4	40.4	40.4	0.0
I	9,880	49	120	1.3	49.9	49.9	49.9	0.0
J	13,510	29	30	3.9	53.9	53.9	53.9	0.0
K	14,908	19	54	2.2	56.5	56.5	56.7	0.2

<sup>1</sup>Feet above confluence with Town River

<sup>2</sup>Elevation computed without consideration of backwater effects from Town River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: SOUTH BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,740	200	630	0.9	77.1	77.1	78.0	0.9
B	4,760	209	535	1.0	78.5	78.5	79.5	1.0
C	6,900	71	265	2.1	79.8	79.8	80.5	0.7

<sup>1</sup>Feet above confluence with Weweantic River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: SOUTH MEADOW BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,085	17	51	3.7	81.3	81.3	81.9	0.6
B	2,685	46	123	1.4	102.1	102.1	102.6	0.5
C	4,190	15	42	3.3	115.9	115.9	116.0	0.1
D	5,310	421	862	0.2	121.9	121.9	122.0	0.1
E	7,860	386	1,862	0.0	126.1	126.1	126.7	0.6

<sup>1</sup>Feet above Walnut Street

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: STREAM RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BD <sup>2</sup>	57,814	512	4,583	1.3	18.4	18.4	19.2	0.8
BE	59,146	356	3,217	1.8	18.5	18.5	19.4	0.9
BF	60,313	300	2,776	2.1	18.6	18.6	19.6	1.0
BG	62,424	882	7,855	0.7	18.9	18.9	19.9	1.0
BH	64,419	282	2,663	2.2	19.1	19.1	20.0	0.9
BI	65,921	222	2,626	2.2	19.3	19.3	20.3	1.0
BJ	66,257	141	1,941	3.0	19.6	19.6	20.4	0.8
BK	67,190	211	2,307	2.5	19.7	19.7	20.7	1.0
BL	68,837	546	3,160	1.9	20.1	20.1	21.0	0.9
BM	70,873	810	6,820	0.9	20.4	20.4	21.4	1.0
BN	72,473	305	3,190	1.8	20.6	20.6	21.5	0.9
BO	72,693	255	2,559	2.3	21.0	21.0	21.9	0.9
BP	74,464	341	2,877	2.0	21.4	21.4	22.3	0.9
BQ	75,306	156	2,219	2.5	21.6	21.6	22.4	0.8
BR	75,535	519	4,112	1.4	21.9	21.9	22.8	0.9
BS	76,591	157	2,157	2.6	22.0	22.0	22.9	0.9
BT	77,993	193	2,395	2.3	22.2	22.2	23.1	0.9
BU	79,104	312	3,595	1.6	22.3	22.3	23.3	1.0
BV	81,082	838	5,739	1.0	22.5	22.5	23.5	1.0
BW	82,380	808	6,334	0.9	22.6	22.6	23.6	1.0
BX	82,693	415	4,381	1.2	22.8	22.8	23.8	1.0

<sup>1</sup>Feet above Taunton/Berkley corporate limit

<sup>2</sup>Cross sections A-BC in floodway data table for Bristol County, Massachusetts

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TAUNTON RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BY	83,790	359	3,909	1.4	22.9	22.9	23.9	1.0
BZ	85,115	618	6,336	0.9	23.0	23.0	24.0	1.0
CA	85,437	224	3,544	1.5	24.3	24.3	24.9	0.6
CB	87,228	160	1,843	2.9	24.4	24.4	25.2	0.8
CC	88,254	507	5,139	1.1	24.6	24.6	25.6	1.0
CD	91,271	221	2,585	1.9	25.1	25.1	26.0	0.9
CE	91,551	861	8,297	0.6	25.4	25.4	26.4	1.0
CF	93,195	783	6,516	0.7	25.5	25.5	26.4	0.9
CG	94,572	286	4,781	1.0	25.5	25.5	26.5	1.0
CH	94,853	623	6,681	0.8	25.9	25.9	26.9	1.0
CI	96,411	476	5,024	1.0	26.0	26.0	27.0	1.0
CJ	98,106	549	5,651	0.9	26.1	26.1	27.1	1.0
CK	99,194	672	6,560	0.7	26.2	26.2	27.2	1.0
CL	100,260	748	8,362	0.6	26.2	26.2	27.2	1.0
CM	102,175	1,421	12,912	0.4	26.3	26.3	27.3	1.0
CN	103,799	1,238	11,539	0.4	26.3	26.3	27.3	1.0
CO	105,227	969	10,219	0.5	26.3	26.3	27.3	1.0
CP	107,452	614	8,149	0.6	26.4	26.4	27.4	1.0
CQ	107,578	793	5,231	0.9	26.4	26.4	27.4	1.0
CR	107,644	625	6,322	0.8	26.4	26.4	27.4	1.0
CS	109,211	681	6,645	0.7	26.5	26.5	27.5	1.0

<sup>1</sup>Feet above Taunton/Berkley corporate limit

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TAUNTON RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CT	109,992	1,134	9,945	0.5	26.5	26.5	27.5	1.0
CU	111,998	495	3,928	1.1	26.7	26.7	27.6	0.9
CV	113,455	677	5,104	0.8	26.9	26.9	27.8	0.9
CW	114,748	529	4,356	1.1	27.0	27.0	27.9	0.9
CX	114,925	265	3,098	1.4	27.4	27.4	28.3	0.9
CY	116,103	71	1,106	3.8	27.6	27.6	28.5	0.9
CZ	117,323	396	3,841	1.1	28.0	28.0	28.9	0.9
DA	118,775	423	3,556	1.2	28.2	28.2	29.1	0.9
DB	120,044	305	3,565	1.2	28.3	28.3	29.2	0.9
DC	121,515	822	8,078	0.5	28.4	28.4	29.4	1.0
DD	122,283	585	5,448	0.8	28.5	28.5	29.4	0.9
DE	125,287	742	7,069	0.6	28.7	28.7	29.6	0.9
DF	126,369	390	3,017	1.4	28.7	28.7	29.7	1.0
DG	127,857	280	3,309	1.3	28.9	28.9	29.9	1.0
DH	128,188	141	1,540	2.8	29.1	29.1	30.0	0.9
DI	128,409	215	2,379	1.8	29.6	29.6	30.5	0.9
DJ	129,231	101	2,107	1.7	29.4	29.4	30.3	0.9

<sup>1</sup>Feet above Taunton/Berkley corporate limit

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TAUNTON RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	42	33	154	4.1	10.0	10.0	11.0	1.0
B	438	42	200	2.6	11.0	11.0	12.0	1.0
C	739	44	88	7.5	12.0	12.0	12.3	0.3
D	1,267	45	558	0.9	15.6	15.6	16.1	0.5
E	1,468	44	313	1.8	16.6	16.6	16.6	0.0
F	1,500	140	306	1.6	16.6	16.6	16.8	0.2
G	1,880	134	267	2.0	16.6	16.6	16.8	0.2
H	1,922	164	785	0.8	16.7	16.7	16.9	0.2
I	2,281	196	540	1.2	16.7	16.7	16.9	0.2
J	2,492	228	1,737	0.1	16.7	16.7	16.9	0.2
K	2,814	270	1,709	0.1	16.7	16.7	16.9	0.2
L	3,004	430	733	0.4	16.7	16.7	17.0	0.3
M	3,316	197	374	0.5	16.8	16.8	17.0	0.2
N	3,712	4	570	0.9	18.9	18.9	18.9	0.0
O	3,897	3	550	1.0	19.1	19.1	19.1	0.0
P	4,097	3	180	4.0	20.3	20.3	20.3	0.0
Q	4,636	12	26	1.2	21.6	21.6	21.7	0.1

<sup>1</sup>Feet above culvert to Hingham Harbor

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

**FLOODWAY DATA**

**FLOODING SOURCE: TOWN BROOK (TOWN OF HINGHAM)**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	49	15	102	1.8	*	4.8 <sup>2</sup>	5.7	0.9
B	192	39	76	2.4	*	5.7 <sup>2</sup>	6.1	0.4
C	395	24	60	3.0	*	6.5 <sup>2</sup>	6.6	0.1
D	708	28	64	2.8	*	7.7 <sup>2</sup>	7.7	0.0
E	950	26	30	6.0	11.6	11.6	11.6	0.0
F	1,052	28	70	2.5	13.1	13.1	13.1	0.0
G	1,347	27	76	2.4	13.5	13.5	13.5	0.0
H	1,646	67	219	0.8	21.2	21.2	21.2	0.0
I	1,987	31	31	5.7	21.5	21.5	21.5	0.0
J	2,151	32	70	2.6	23.7	23.7	23.8	0.1
K	2,344	23	32	5.5	24.3	24.3	24.4	0.1
L	2,754	154	666	0.3	51.5	51.5	51.5	0.0
M	2,915	169	2,051	0.1	51.5	51.5	51.5	0.0
N	4,006	52	192	0.9	51.5	51.5	51.5	0.0
O	4,092	50	83	2.2	51.6	51.6	51.6	0.0
P	4,862	19	27	6.7	58.2	58.2	58.2	0.0
Q	5,162	37	34	5.3	61.1	61.1	61.1	0.0
R	5,637	29	39	4.6	67.4	67.4	67.4	0.0
S	6,093	35	33	5.5	73.6	73.6	73.6	0.0
T	6,490	46	98	1.8	79.9	79.9	79.9	0.0
U	6,781	85	229	0.8	80.3	80.3	80.3	0.0

<sup>1</sup>Feet above limit of detailed study, approximately 100 feet downstream of Water Street

<sup>2</sup>Elevation computed without consideration of backwater effects from Plymouth Harbor

\*Controlled by coastal flooding – see Flood Insurance Rate Map for regulatory base flood elevation

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TOWN BROOK (TOWN OF PLYMOUTH)**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	7,206	328	1,668	0.1	80.3	80.3	80.4	0.1
W	7,692	48	170	1.1	80.3	80.3	80.3	0.0
X	8,028	51	324	0.9	82.8	82.8	82.8	0.0
Y	8,170	151	582	0.3	83.6	83.6	83.6	0.0
Z	8,517	28	152	1.2	83.6	83.6	83.6	0.0
AA	8,895	32	138	1.3	83.6	83.6	83.7	0.1
AB	9,064	96	494	0.4	83.7	83.7	83.8	0.1

<sup>1</sup>Feet above limit of detailed study, approximately 100 feet downstream of Water Street

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)

## FLOODWAY DATA

FLOODING SOURCE: TOWN BROOK (TOWN OF PLYMOUTH)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	720	455	5,621	0.4	29.4	29.4	30.3	0.9
B	3,420	60	790	2.5	29.4	29.4	30.3	0.9
C	6,619	292	1,634	1.2	30.1	30.1	31.0	0.9
D	8,169	116	1,250	1.5	30.5	30.5	31.4	0.9
E	10,649	659	5,109	0.4	30.6	30.6	31.5	0.9
F	12,629	51	436	4.4	30.6	30.6	31.5	0.9
G	13,559	669	3,466	0.5	30.9	30.9	31.9	1.0
H	16,700	62	612	3.1	31.2	31.2	32.0	0.8
I	17,130	54	522	3.6	32.4	32.4	32.9	0.5
J	18,000	161	1,253	1.5	32.9	32.9	33.6	0.7
K	18,340	48	466	4.0	33.4	33.4	33.9	0.5
L	20,785	100	856	2.2	36.4	36.4	36.8	0.4
M	21,420	45	313	6.0	38.8	38.8	39.4	0.6
N	21,548	80	777	2.4	45.1	45.1	45.7	0.6
O	21,795	90	852	2.2	46.8	46.8	47.3	0.5
P	22,870	105	1,096	1.7	46.9	46.9	47.4	0.5
Q	23,120	333	2,333	0.8	48.2	48.2	49.2	1.0
R	25,390	590	5,626	0.3	48.2	48.2	49.2	1.0
S	26,970	720	3,498	0.5	48.2	48.2	49.2	1.0
T	28,550	259	2,673	0.7	48.3	48.3	49.3	1.0
U	30,680	263	1,602	1.1	48.5	48.5	49.5	1.0

<sup>1</sup>Feet above confluence with Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TOWN RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	32,100	487	2,442	0.7	48.7	48.7	49.7	1.0
W	33,120	76	535	3.4	48.9	48.9	49.8	0.9
X	35,251	156	558	3.2	56.8	56.8	56.8	0.0
Y	36,001	69	459	3.9	58.1	58.1	58.2	0.1
Z	37,095	105	759	2.3	60.9	60.9	61.1	0.2
AA	38,224	56	722	2.5	62.2	62.2	62.4	0.2
AB	39,904	50	643	2.8	62.3	62.3	62.8	0.5
AC	42,576	560	3,178	0.5	62.3	62.3	63.3	1.0
AD	45,422	2,845	12,322	0.1	62.3	62.3	63.3	1.0
AE	47,478	1,712	4,767	0.3	62.3	62.3	63.3	1.0
AF	48,891	1,555	5,960	0.3	62.4	62.4	63.4	1.0

<sup>1</sup>Feet above confluence with Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TOWN RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	*	51	2.5	70.6	67.4 <sup>2</sup>	68.1	0.7
B	600	55	150	0.9	70.6	70.6 <sup>2</sup>	71.0	0.4
C	1,690	55	134	1.0	70.8	70.8	71.5	0.7
D	2,330	*	39	8.9	76.6	76.6	77.5	0.9

<sup>1</sup>Feet above confluence with Drinkwater River

<sup>2</sup>Elevation computed without consideration of backwater effects from French Stream

\*Floodway coincident with channel banks

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TRIBUTARY A**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,300	315	1,782	0.1	74.6	74.6	75.6	1.0

<sup>1</sup>Feet above confluence with Meadow Brook

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)

## FLOODWAY DATA

FLOODING SOURCE: TRIBUTARY TO MEADOW BROOK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	472	20	229	5.3	89.0	89.0	89.6	0.6
B	2,442	18	190	6.4	92.7	92.7	92.7	0.0
C	3,275	34	338	3.6	93.9	93.9	93.9	0.0
D	4,790	16	150	8.1	94.1	94.1	94.4	0.3
E	8,060	260	2,278	0.6	96.4	96.4	97.1	0.7

<sup>1</sup>Feet above confluence with Salisbury Plain River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TROUT BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	359	20	28	6.6	*	8.4 <sup>2</sup>	8.4	0.0
B	491	44	175	1.3	*	9.2 <sup>2</sup>	9.2	0.0
C	760	20	76	7.1	17.4	17.4	17.4	0.0
D	5,512	880	5,550	0.1	34.7	34.7	35.1	0.4
E	6,030	102	410	0.5	34.7	34.7	35.1	0.4
F	6,130	58	266	0.7	34.8	34.8	35.2	0.4
G	6,352	142	1,564	0.1	38.1	38.1	38.2	0.1

<sup>1</sup>Feet above confluence with Weir River

<sup>2</sup>Elevation computed without consideration of backwater effects from Weir River

\*Controlled by coastal flooding – see Flood Insurance Rate Map for regulatory base flood elevation

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: TURKEY HILL RUN**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	106	371	1,408	0.6	14.9	14.9	14.9	0.0
B	744	13	74	11.2	14.9	14.9	14.9	0.0
C	1,584	18	99	8.5	18.8	18.8	18.8	0.0
D	1,684	63	336	2.5	19.8	19.8	19.8	0.0
E	1,774	36	278	3.0	20.9	20.9	20.9	0.0
F	1,954	41	310	2.7	21.0	21.0	21.0	0.0
G	2,086	48	151	5.5	21.7	21.7	21.7	0.0
H	2,365	25	234	3.6	22.7	22.7	23.5	0.8
I	2,466	53	383	2.2	22.9	22.9	23.7	0.8
J	3,986	130	750	1.1	23.4	23.4	24.2	0.8
K	5,739	50	411	2.0	23.7	23.7	24.6	0.9
L	6,774	22	214	3.9	25.5	25.5	26.4	0.9
M	6,875	52	477	1.8	25.8	25.8	26.6	0.8
N	7,973	171	1,177	0.7	25.9	25.9	26.8	0.9
O	9,071	215	1,477	0.6	26.0	26.0	26.9	0.9
P	9,583	130	930	0.6	26.0	26.0	26.9	0.9
Q	10,386	170	998	0.5	26.0	26.0	26.9	0.9
R	11,621	30	212	2.5	27.2	27.2	27.5	0.3
S	11,727	116	788	0.7	27.2	27.2	27.8	0.6
T	12,825	413	2,923	0.2	27.2	27.2	27.9	0.7

<sup>1</sup>Feet above Foundry Pond Dam

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: WEIR RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,560	25	147	2.8	62.2	57.8 <sup>2</sup>	58.8	1.0
B	3,937	24	85	4.9	62.2	60.0 <sup>2</sup>	60.7	0.7
C	4,063	48	205	2.0	64.3	64.3	64.3	0.0
D	7,428	39	176	2.2	68.7	68.7	68.7	0.0
E	9,004	299	530	0.7	69.6	69.6	70.0	0.4
F	10,432	33	95	4.0	73.8	73.8	73.8	0.0
G	10,567	79	515	0.7	79.1	79.1	79.2	0.1
H	16,848	32	163	2.2	84.0	84.0	84.8	0.8
I	19,029	840	1,848	0.2	90.4	90.4	90.6	0.2
J	19,929	130	519	0.4	90.4	90.4	90.6	0.2
K	21,129	120	302	0.4	90.4	90.4	90.7	0.3
L	22,999	19	49	2.1	95.2	95.2	95.7	0.5
M	24,194	21	19	5.4	101.4	101.4	101.4	0.0

<sup>1</sup>Feet above confluence with Town River

<sup>2</sup>Elevation computed without consideration of backwater effects from Town River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: WEST MEADOW BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-5,700	60	335	3.5	62.9	62.9	63.9	1.0
B	-3,360	90	600	1.9	64.4	64.4	65.1	0.7
C	-100	41	425	2.7	66.1	66.1	66.8	0.7
D	450	315	1,540	0.8	66.4	66.4	67.3	0.9
E	4,380	570	2,260	0.5	66.6	66.6	67.6	1.0
F	7,380	300	1,015	0.9	66.8	66.8	67.8	1.0
G	10,130	185	600	1.5	67.5	67.5	68.2	0.7
H	10,950	183	1,065	0.8	67.9	67.9	68.5	0.6
I	12,620	36	340	2.6	70.2	70.2	70.8	0.6
J	17,350	270	1,035	0.9	70.9	70.9	71.9	1.0
K	20,680	32	210	3.3	72.0	72.0	72.7	0.7
L	23,120	74	355	2.0	73.5	73.5	74.5	1.0
M	27,030	474	990	0.7	74.2	74.2	75.1	0.9
N	31,180	30	195	3.5	76.2	76.2	76.8	0.6
O	32,400	105	465	1.5	76.5	76.5	77.4	0.9

<sup>1</sup>Feet above Tremont Street

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: WEWEANTIC RIVER**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,245	88	143	1.1	48.7	46.5 <sup>2</sup>	47.5	1.0
B	2,360	30	144	0.9	50.1	50.1	50.6	0.5
C	3,080	9	28	4.9	55.4	55.4	56.0	0.6
D	3,735	71	131	1.0	57.7	57.7	58.6	0.9
E	3,968	7	39	3.5	60.4	60.4	61.1	0.7
F	4,961	11	83	1.6	63.2	63.2	64.0	0.8

<sup>1</sup>Feet above confluence with Town River

<sup>2</sup>Elevation computed without consideration of backwater effects from Town River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: WILLOW BROOK**

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,120	50	269	6.4	26.3	19.0 <sup>2</sup>	19.6	0.6
B	4,530	80	635	2.7	26.3	21.6 <sup>2</sup>	22.6	1.0
C	6,780	300	2,277	0.8	26.5	22.0 <sup>2</sup>	23.0	1.0
D	9,200	620	3,710	0.4	26.5	22.1 <sup>2</sup>	23.1	1.0
E	13,200	300	1,599	1.0	26.6	22.6 <sup>2</sup>	23.5	0.9
F	16,400	600	3,035	0.5	26.7	22.9 <sup>2</sup>	23.8	0.9
G	22,280	325	1,515	1.0	26.7	23.5 <sup>2</sup>	24.5	1.0
H	27,380	320	1,530	1.0	26.9	24.7 <sup>2</sup>	25.6	0.9
I	28,670	180	589	2.5	26.9	25.2 <sup>2</sup>	26.1	0.9
J	29,970	120	617	1.6	28.2	27.5 <sup>2</sup>	28.4	0.9
K	30,760	350	2,158	0.5	28.5	28.2 <sup>2</sup>	28.9	0.7
L	34,810	210	707	1.4	28.7	28.4 <sup>2</sup>	29.1	0.7
M	37,180	310	1,085	0.9	29.1	29.0	29.9	0.9
N	39,740	350	1,002	1.0	29.9	29.9	30.8	0.9
O	43,600	830	698	1.4	32.5	32.5	33.4	0.9
P	47,000	530	916	0.8	36.4	36.4	37.4	1.0
Q	49,950	150	401	1.5	39.6	39.6	39.8	0.2
R	53,540	24	126	5.6	67.0	67.0	67.3	0.3
S	55,060	60	207	3.4	72.4	72.4	72.5	0.1
T	57,170	200	691	1.0	74.1	74.1	74.7	0.6
U	59,700	280	798	0.9	75.0	75.0	75.9	0.9

<sup>1</sup>Feet above confluence with Taunton River

<sup>2</sup>Elevation computed without consideration of backwater effects from Taunton River

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
PLYMOUTH COUNTY, MASSACHUSETTS  
(ALL JURISDICTIONS)**

## FLOODWAY DATA

**FLOODING SOURCE: WINNETUXET RIVER**

**Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams**

[Not Applicable to this Flood Risk Project]

#### **6.4 Coastal Flood Hazard Mapping**

Flood insurance zones and BFEs including the wave effects were identified on each transect based on the results from the onshore wave hazard analyses. Between transects, elevations were interpolated using topographic maps, land-use and land-cover data, and knowledge of coastal flood processes to determine the aerial extent of flooding. Sources for topographic data are shown in Table 22.

Zone VE is subdivided into elevation zones and BFEs are provided on the FIRM.

The limit of Zone VE shown on the FIRM is defined as the farthest inland extent of any of these criteria (determined for the 1% annual chance flood condition):

- The *primary frontal dune zone* is defined in 44 CFR Section 59.1 of the NFIP regulations. The primary frontal dune represents a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes that occur immediately landward and adjacent to the beach. The primary frontal dune zone is subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune zone occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.
- The *wave runoff zone* occurs where the (eroded) ground profile is 3.0 feet or more below the 2-percent wave runoff elevation.
- The *wave overtopping splash zone* is the area landward of the crest of an overtopped barrier, in cases where the potential 2-percent wave runoff exceeds the barrier crest elevation by 3.0 feet or more.
- The *breaking wave height zone* occurs where 3-foot or greater wave heights could occur (this is the area where the wave crest profile is 2.1 feet or more above the total stillwater elevation).
- The *high-velocity flow zone* is landward of the overtopping splash zone (or area on a sloping beach or other shore type), where the product of depth of flow times the flow velocity squared ( $h v^2$ ) is greater than or equal to 200 ft<sup>3</sup>/sec<sup>2</sup>. This zone may only be used on the Pacific Coast.

The SFHA boundary indicates the limit of SFHAs shown on the FIRM as either “V” zones or “A” zones.

Table 25 indicates the coastal analyses used for floodplain mapping and the criteria used to determine the inland limit of the open-coast Zone VE and the SFHA boundary at each transect.

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
1		VE 13.76	VE 16 AE 10	Wave height	SWEL
2		VE 15.01	VE 14	Wave height	SWEL
3		VE 15.01	VE 14	Wave height	SWEL
4		VE 16.25	VE 30	Wave height	SWEL
5		VE 16.16	VE 13-16	Wave height	SWEL
6		VE 14.66	VE 15	Wave height	SWEL
7		VE 15.29	VE 22 AE 10	Wave height	SWEL
8		VE 14.28	VE 14 AE 10	Wave height	SWEL
9		VE 16.84	VE 23	Wave height	SWEL
10		VE 15.22	VE 14 AE 11	Wave height	SWEL
11		VE 15.01	VE 13	Wave height	SWEL
12		VE 16.5	VE 22 AE 10	Wave height	SWEL
13		VE 15.49/15.01	VE 15-24	Wave height	SWEL
14		VE 15.55	VE 24	Wave height	SWEL
15		VE 16.39	VE 33	Wave height	SWEL
16		VE 16.22	VE 18	Wave height	SWEL
17		VE 16.95/15.97	VE 16-18 AE 11-13	Wave height	N/A
18		VE 16.39	VE 20	Wave height	SWEL
19		VE 16.87/14.67	AE 13 VE 15	Wave height	N/A
20		VE 17.57	VE 21	Wave height	Overtopping
21		VE 23.28	VE 32	Wave height	SWEL
22		VE 21.91/16.8	VE 17-23 AE 10-14	Wave height	N/A

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
23		VE 21.61/14.8	VE 15-22 AE 10-15	Wave height	SWEL
24		VE 22.06	VE 20-22	Wave height	Overtopping
25		VE 23.43	VE 36	Wave height	SWEL
26		VE 22.37	VE 20-22 AE 10-17	Wave height	SWEL
27		VE 26.01	VE 21-26 AE 10-15	Wave height	N/A
28		VE 23.73	VE 25	Wave height	SWEL
29	Yes	VE 18.8	AE 13-14 VE 14	PFD	SWEL
30		VE 16.21	AE 14-15 VE 15	Wave height	N/A
31		VE 23.4	AE 14 VE 20	Wave height	SWEL
32		VE 23.8	AE 13-15 VE 20	Wave height	SWEL
33		VE 23.1	AE 14-15 VE 19	Wave height	SWEL
34		VE 22.8	VE 21	Wave height	SWEL
35		VE 22.9	AE 11-16 AO 3 VE 16	Wave height	SWEL
36	Yes	VE 20.9	AE 14 VE 16	PFD	SWEL
37	Yes	VE 20.2	AE 14 VE 16	PFD	SWEL
38	Yes	VE 20.9	AE 15 VE 16-17	PFD	SWEL
39		VE 22.9	VE 18	Wave height	SWEL
40		VE 23.4	AE 15 VE 18	Wave height	SWEL
41		VE 22.4	AE 16 VE 19	Wave height	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
42		VE 21.7	AE 15-16 VE 16	Wave height	SWEL
43		VE 19.4	AE 14 VE 18	Wave height	SWEL
44		VE 22.1	AE 15-16 VE 19	Wave height	SWEL
45		VE 24.4	VE 21	Wave height	SWEL
46		VE 22.8	AE 15-16 VE 18	Wave height	SWEL
47		VE 23.4	AE 15 VE 21	Wave height	SWEL
48	Yes	VE 21.2	AE 14 VE 17	PFD	SWEL
49		VE 23.9	AE 14 VE 19	Wave height	N/A
50		VE 23.4	AE 14 VE 22	Wave height	SWEL
51	Yes	VE 22.2	AE 16 VE 17	PFD	SWEL
52		VE 19.4	AE 13-15 VE 17	Wave height	SWEL
53		VE 23.3	AE 14-15 VE 23	Wave height	SWEL
54	Yes	VE 23.1	AE 13-15 VE 16-18	PFD	SWEL
55	Yes	VE 20.7	AE 10-14 VE 13-15	PFD	SWEL
56		VE 20.7	AE 10-13 VE 16	Wave height	SWEL
57	Yes	VE 22.2	AE 10-14 VE 17	PFD	SWEL
58	Yes	VE 20.7	AE 9-15 VE 17	PFD	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
59	Yes	VE 22.0	AE 9-15 VE 18	PFD	SWEL
60	Yes	VE 20.8	AE 9 VE 17	PFD	SWEL
61		VE 20.9	AE 14-15 AO 3 VE 17	Wave height	SWEL
62		VE 22.4	AE 15 VE 18	Wave height	SWEL
63		VE 22.9	VE 19	Wave height	SWEL
64		VE 21.8	AE 16 VE 18	Wave height	SWEL
65		VE 23.6	AE 16 VE 20	Wave height	N/A
66	Yes	VE 23.5	AE 16 VE 22	PFD	SWEL
67	Yes	VE 20.9	AE 16 VE 16	PFD	SWEL
68		VE 22.9	AE 16 VE 17	Wave height	SWEL
69		VE 9.9	AE 10 VE 10-13	Wave height	SWEL
70		VE 10.0	AE 10 VE 11-13	Wave height	SWEL
71		VE 22.5	AO 3 VE 10-17	Wave height	N/A
72		VE 10.0	VE 10-13	Wave height	SWEL
73	Yes	VE 21.3	AE 10-16 VE 12-16	PFD	N/A
74	Yes	VE 21.3	AE 16 VE 16	PFD	N/A
75	Yes	VE 21.2	AE 15-16 VE 16-17	PFD	N/A

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
76		VE 22.5	AE 15 VE 17	Wave height	SWEL
77		VE 22.9	VE 18	Wave height	SWEL
78	Yes	VE 20.1	AE 14 VE 15	PFD	N/A
79	Yes	VE 20.4	AE 14 VE 15	PFD	SWEL
80	Yes	VE 21.2	AE 16 VE 16	PFD	N/A
81		VE 12.3	VE 13-15	Wave height	SWEL
82		VE 12.1	VE 12	Wave height	SWEL
83		VE 11.0	AE 10 VE 12	Wave height	SWEL
84		VE 11.1	AE 10-11 VE 12	Wave height	SWEL
85		VE 11.0	AE 10 VE 12	Wave height	SWEL
86		VE 11.2	AE 10 VE 12	Wave height	SWEL
87		VE 11.4	VE 12	Wave height	SWEL
88		VE 11.8	AE 10 VE 12	Wave height	SWEL
89		VE 12.3	VE 15	Wave height	SWEL
90		VE 12.0	VE 12-17	Wave height	SWEL
91		VE 12.3	VE 12	Wave height	SWEL
92		VE 12.2	AE 11 VE 12	Wave height	SWEL
93		VE 14.0	AE 11-13 VE 12-14	Wave height	SWEL
94		VE 12.6	AE 11 VE 12-14	Wave height	SWEL
95	Yes	VE 16.0	VE 13-17	PFD	Runup

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
96		VE 16.4	AE 11 VE 13-17	Wave height	SWEL
97		VE 16.6	AE 11 VE 12-13	Wave height	SWEL
98		VE 13.9	VE 15	Wave height	SWEL
99		VE 13.7	AE 11 VE 12-15	Wave height	SWEL
100		VE 13.7	AE 11 VE 12-15	Wave height	SWEL
101		VE 13.7	AE 11 VE 12	Wave height	SWEL
102		VE 12.9	AE 10 VE 12-17	Wave height	SWEL
103		VE 11.8	AE 11 VE 12	Wave height	SWEL
104		VE 13.2	VE 12	Wave height	SWEL
105		VE 13.1	VE 13-15	Wave height	SWEL
106		VE 16.8	VE 13-17	Wave height	SWEL
107		VE 16.4	AE 11 VE 13	Wave height	SWEL
108		VE 16.4	VE 13	Wave height	SWEL
109		VE 16.4	VE 15	Wave height	SWEL
110		VE 17.6	VE 14	Wave height	SWEL
111		VE 16.8	AE 11 VE 15	Wave height	SWEL
112		VE 16.5	VE 15-17	Wave height	SWEL
113	Yes	VE 20.2	AE 13-14 VE 15	PFD	SWEL
114	Yes	VE 19.0	AE 13 VE 15	PFD	SWEL
115		VE 19.3	AE 14 VE 15	Wave height	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
116		VE 21.5	AE 15-16 VE 16	Wave height	SWEL
117		VE 20.3	AE 15 VE 15	Wave height	SWEL
118		VE 22.9	AE 10-15 VE 17	Wave height	SWEL
119		VE 23.3	VE 18	Wave height	SWEL
120		VE 23.2	VE 23	Wave height	SWEL
121		VE 20.8	VE 16	Wave height	SWEL
122		VE 22.8	VE 17	Wave height	SWEL
123		VE 21.9	VE 16	Wave height	SWEL
124		VE 19.9	VE 15	Wave height	SWEL
125		VE 21.5	VE 16	Wave height	SWEL
126		VE 21.4	AE 14 VE 16	Wave height	SWEL
127	Yes	VE 20.2	AE 14-15 VE 15	PFD	SWEL
128	Yes	VE 21.5	AE 14 VE 16	PFD	SWEL
129	Yes	VE 20.4	AE 13 VE 15	PFD	SWEL
130		VE 24.1	VE 17	Wave height	SWEL
131		VE 25.0	VE 17	Wave height	SWEL
132		VE 20.3	VE 15	Wave height	SWEL
133		VE 20.2	VE 15	Wave height	SWEL
134		VE 21.5	VE 16	Wave height	SWEL
135		VE 23.3	VE 18	Wave height	SWEL
136		VE 22.6	VE 17	Wave height	SWEL
137	Yes	VE 19.6	AE 14 VE 15	PFD	SWEL
138		VE 21.2	VE 16	Wave height	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
139	Yes	VE 20.0	AE 14 VE 15	PFD	SWEL
140		VE 21.5	AE 14-15 VE 16	Wave height	SWEL
141	Yes	VE 19.8	AE 13-15 VE 15	PFD	N/A
142	Yes	VE 19.9	AE 14-15 VE 15	PFD	Runup
143		VE 20.5	VE 16	Wave height	SWEL
144		VE 20.5	VE 16	Wave height	SWEL
145		VE 21.8	VE 16	Wave height	SWEL
146		VE 18.71	VE 21	Wave height	SWEL
147		VE 21.89	VE 17 AE 17	Wave height	N/A
148		VE 21.04	VE 18-21 AE 14-15	Wave height	SWEL
149		VE 18.97	VE 20 AE 15	Wave height	SWEL
150		VE 20.44	VE 18-20 AE 14-16	Wave height	SWEL
151		VE 17.7	VE 17-18 AE 16	Wave height	N/A
152		VE 17.34	VE 20	Wave height	SWEL
153		VE 18.11	VE 19	Wave height	SWEL
154		VE 19.08	VE 22	Wave height	SWEL
155		VE 21.64	VE 23	Wave height	SWEL
156		VE 20.24	VE 18-20 AE 16	Wave height	SWEL
157		VE 22.3	VE 30	Wave height	SWEL
158		VE 21.51	VE 19-22 AE 15	Wave height	SWEL
159		VE 22.3	VE 22	Wave height	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
160		VE 22.21	VE 18-22 AE 16	Wave height	SWEL
161		VE 19.13	VE 17-19 AE 15	Wave height	SWEL
162		VE 24.93	VE 16-25 AE 14-15	Wave height	SWEL
163		VE 21.96	VE 18-22 AE 15-16	Wave height	SWEL
164		VE 21.37	VE 17-21 AE 14-16	Wave height	SWEL
165		VE 21.37	VE 20-21 AE 15	Wave height	N/A
166		VE 21.37	VE 19-21 AE 15-16	Wave height	SWEL
167		VE 20.57	VE 18-21	Wave height	N/A
168		VE 20.98	VE 19-21 AE 18	Wave height	SWEL
169		VE 21.34	VE 15-21	Wave height	SWEL
170		VE 20.79	VE 18-21	Wave height	SWEL
171		VE 20.91	VE 17-21 AE 15	Wave height	SWEL
172		VE 21.06	VE 17-21 AE 15	Wave height	N/A
173		VE 22.1	VE 16-21	Wave height	N/A
174		VE 23.41	VE 32	Wave height	SWEL
175		VE 21.53	VE 16-22	Wave height	SWEL
176		VE 22.67	VE 17-23 AE 16	Wave height	SWEL
177		VE 21.82	VE 16-22	Wave height	SWEL
178		VE 21.09	VE 17-21 AE 15-16	Wave height	SWEL
179		VE 21.09	VE 17-21 AE 15-16	Wave height	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
180		VE 20.72	VE 17-21 AE 15	Wave height	SWEL
181		VE 21.3	VE 17-21 AE 15	Wave height	SWEL
182		VE 21.07	VE 17-21 AE 15	Wave height	SWEL
183		VE 21.05	VE 18 AE 16	Wave height	SWEL
184		VE 20.7	VE 17-21 AE 15-16	Wave height	SWEL
185		VE 20.67	VE 17-21 AE 15-16	Wave height	SWEL
186		VE 21.79	VE 22 AE 22	Wave height	SWEL
187		VE 20.77	VE 17-21 AE 15	Wave height	SWEL
188		VE 20.81	VE 17-21 AE 15	Wave height	SWEL
189		VE 20.95	VE 17-21 AE 15	Wave height	SWEL
190		VE 20.03	VE 17-20 AE 15-16	Wave height	SWEL
191		VE 20.96	VE 15-16 AE 17-21	Wave height	SWEL
192		VE 20.79	VE 17-21 AE 14-15	Wave height	SWEL
193		VE 20.67	VE 16-21 AE 15-16	Wave height	SWEL
194		VE 20.96	VE 16-21 AE 16	Wave height	SWEL
195		VE 20.39	VE 17-20 AE 15-16	Wave height	SWEL
196		VE 20.17	VE 17-20 AE 15	Wave height	SWEL

**Table 25: Summary of Coastal Transect Mapping Considerations**

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
197		VE 20.1	VE 15-20 AE 14	Wave height	SWEL
198		VE 20.1	VE 16-20 AE 14-15	Wave height	SWEL
199		VE 20.45	VE 17-20	Wave height	SWEL
200		VE 18.98	VE 19 AE 14	Wave height	SWEL

A LiMWA boundary has also been added in coastal areas subject to wave action for use by local communities in safe rebuilding practices. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave.

## 6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 30, “Map Repositories”).

### 6.5.1 Letters of Map Amendment

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

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

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

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

### **6.5.2 Letters of Map Revision Based on Fill**

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

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

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

### **6.5.3 Letters of Map Revision**

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

To obtain an application for a LOMR, visit [www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions](http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions) and download the form "MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision". Visit the "Flood Map-Related Fees" section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Plymouth County FIRM are listed in Table 26. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

**Table 26: Incorporated Letters of Map Change**

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
12-01-2089P	02-22-2013	Atlantic Ocean	25023C0567L
13-01-2102P	06-06-2014	Buzzards Bay	25023C0559L
14-01-1304P	06-06-2014	Buzzards Bay	25023C0559L
15-01-2489P	03-25-2016	Black Brook, Great Quitticas Pond, Snipatuit Brook	25023C0441L, 25023C0442K, 25023C0461K
16-01-2154P	09-08-2017	Atlantic Ocean	25023C0106L, 25023C0128L, 25023C0136L, 25023C0138L, 25023C0139L, 25023C0227L, 25023C0239L, 25023C0241L, 25023C0352L, 25023C0356L, 25023C0358L, 25023C0387L, 25023C0391L, 25023C0393L, 25023C0489L, 25023C0494K, 25023C0506L, 25023C0508L, 25023C0516L, 25023C0557K, 25023C0559L, 25023C0562K, 25023C0566K, 25023C0567L
19-01-0221P	09-23-2019	Cape Cod Bay	25023C0117L, 25023C0138L, 25023C0139L, 25023C0227L, 25023C0229L

#### 6.5.4 Physical Map Revisions

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

The community's chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if

warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

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

#### **6.5.5 Contracted Restudies**

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

#### **6.5.6 Community Map History**

The current FIRM presents flooding information for the entire geographic area of Plymouth County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBM) and/or Flood Boundary and Floodway Maps (FBFMs) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 27, “Community Map History.” A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or “pending” (for Preliminary FIS Reports) is shown. If the community is listed in Table 27 but not identified on the map, the community is treated as if it were unmapped.
- *Initial FHBM Effective Date* is the effective date of the first FHBM. This date may be the same date as the Initial NFIP Map Date.
- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.

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

The initial effective date for the Plymouth County FIRMs in countywide format was 07/17/2012.

**Table 27: Community Map History**

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Abington, Town of	08/02/1974	08/02/1974	10/29/1976	09/30/1977	07/22/2020 07/17/2012 06/02/1993
Bridgewater, Town of	07/19/1974	07/19/1974	09/24/1976	05/17/1982	07/16/2015 07/17/2012 09/08/1999
Brockton, City of	06/28/1974	06/28/1974	06/11/1976	03/01/1979	07/17/2012 12/26/1980
Carver, Town of	06/28/1974	06/28/1974	03/04/1977	07/19/1982	07/22/2020 07/17/2012
Duxbury, Town of	08/30/1974	08/30/1974	N/A	05/02/1977	07/22/2020 11/04/2016 07/17/2012 05/17/2005 07/02/1992 05/15/1986
East Bridgewater, Town of	09/06/1974	09/06/1974	10/22/1976	07/02/1981	07/16/2015 07/17/2012
Halifax, Town of	07/26/1974	07/26/1974	10/29/1976	07/05/1982	07/22/2020 07/16/2015 07/17/2012
Hanover, Town of	07/26/1974	07/26/1974	08/23/1977	12/15/1982	07/22/2020 07/17/2012
Hanson, Town of	11/08/1974	11/08/1974	N/A	01/20/1982	07/22/2020 07/17/2012 12/18/1986

**Table 27: Community Map History**

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Hingham, Town of	09/06/1974	09/06/1974	10/15/1976	06/03/1986	07/22/2020 07/17/2012
Hull, Town of	12/10/1976	12/10/1976	02/22/1980	05/02/1983	07/17/2012 07/02/1992
Kingston, Town of	06/28/1974	06/28/1974	10/29/1976	08/05/1985	07/22/2020 11/04/2016 07/17/2012 07/02/1992
Lakeville, Town of	09/06/1974	09/06/1974	08/20/1976	06/04/1980	07/22/2020 07/16/2015 07/17/2012 05/15/1984
Marion, Town of	04/06/1973	N/A	N/A	04/06/1973	07/22/2020 02/05/2014 07/17/2012 07/15/1992 02/17/1988 10/01/1983 03/15/1982 01/02/1976 07/01/1974
Marshfield, Town of	08/30/1974	08/30/1974	N/A	10/14/1977	07/22/2020 11/04/2016 07/17/2012 06/16/2006 07/02/1992 07/03/1986 10/01/1983
Mattapoisett, Town of	03/16/1973	N/A	N/A	03/16/1973	07/22/2020 02/05/2014 07/17/2012 09/30/1995 12/15/1994 07/15/1992 07/02/1987 10/01/1983 06/01/1982 01/09/1976 06/01/1974
Middleborough, Town of	11/01/1974	11/01/1974	03/04/1977	09/16/1981	07/22/2020 07/16/2015 07/17/2012 08/01/1983

**Table 27: Community Map History**

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Norwell, Town of	08/16/1974	08/16/1974	10/22/1976	07/19/1982	07/22/2020 11/04/2016 07/17/2012
Pembroke, Town of	07/26/1974	07/26/1974	09/03/1976	11/15/1979	07/22/2020 11/04/2016 07/17/2012 02/19/1982
Plymouth, Town of	06/28/1974	06/28/1974	10/01/1983 05/24/1977	07/17/1986	07/22/2020 11/04/2016 07/17/2012 12/19/2006 07/02/1992
Plympton, Town of	09/13/1974	09/13/1974	05/24/1977	07/05/1982	07/22/2020 07/17/2012
Rochester, Town of	07/19/1974	07/19/1974	11/26/1976	07/05/1982	07/22/2020 07/16/2015 07/17/2012
Rockland, Town of	06/28/1974	06/28/1974	07/30/1976	07/19/1982	07/22/2020 07/17/2012
Scituate, Town of	09/06/1974	09/06/1974	N/A	09/30/1977	07/22/2020 11/04/2016 07/17/2012 10/16/2003 07/02/1992 09/29/1986 10/01/1983
Wareham, Town of	05/28/1971	N/A	N/A	05/28/1971	07/22/2020 02/05/2014 07/17/2012 07/15/1992 08/04/1987 10/01/1983 05/21/1976 07/01/1974
West Bridgewater, Town of	08/09/1974	08/09/1974	07/30/1976	07/15/1982	07/17/2012
Whitman, Town of	10/18/1974	10/18/1974	06/11/1976	07/02/1981	07/22/2020 07/17/2012

## SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

### 7.1 Contracted Studies

Table 28 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Aaron River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hingham, Town of; Norwell, Town of; Scituate, Town of
Accord Brook	6/3/1986	PRC Harris	H-4776	July 1983	Hingham, Town of
Agawam River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of; Wareham, Town of
Agawam River Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Wareham, Town of
Ashley Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Rochester, Town of
Assawompset Pond	7/16/2015	USGS	HSFE01-11-X-0083	July 2014	Lakeville, Town of; Middleborough, Town of
Aucot Creek	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marion, Town of
Bares Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marshfield, Town of
Beaver Brook	1/2/1981	Sverdrup and Parcel	H-4037	November 1977	East Bridgewater, Town of
Beaver Dam Brook	7/17/1986	PRC Harris	H-4776	June 1983	Plymouth, Town of
Beaver Dam Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Beaver Dam Brook Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Benson Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marion, Town of
Billington Sea	7/22/2020	USGS	HSFE01-15-X-0043	February 2017	Plymouth, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Billington Sea Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Black Betty Brook	12/15/1981	Sverdrup and Parcel	H-4037	March 1979	West Bridgewater, Town of
Black Brook	1/2/1981	Sverdrup and Parcel	H-4037	November 1977	East Bridgewater, Town of
Black Pond Brook	1/19/1982	PJR Consulting	H-4795	July 1980	Norwell, Town of
Black Pond Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Norwell, Town of
Bluefish River Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of
Bound Brook	9/29/1986	PRC Harris	H-4776	August 1983	Scituate, Town of
Bourne Wharf River, Eel River, Little Wood Island River, Pine Point River	11/4/2016	STARR	HSFEHQ-09-D-0370	May 2013	Duxbury, Town of; Kingston, Town of; Marshfield, Town of; Plymouth, Town of; Scituate, Town of
Branch of Eel River	7/17/1986	PRC Harris	H-4776	June 1983	Plymouth, Town of
Branch of Eel River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Branch of Eel River Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Buzzards Bay	7/17/2012	CDM	EME-2003-CO-0340	March 2008	Marion, Town of; Mattapoisett, Town of; Wareham, Town of
Cape Cod Bay	11/4/2016	STARR	HSFEHQ-09-D-0370	May 2013	Duxbury, Town of; Kingston, Town of; Marshfield, Town of; Plymouth, Town of; Scituate, Town of
Coastal Tributary A and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Coastal Tributary C	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Coastal Tributary D	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Coastal Tributary E	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Coastal Tributary F	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Coastal Tributary G	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Coastal Tributary H	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marion, Town of; Mattapoisett, Town of
Coastal Tributary I	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Mattapoisett, Town of
Coastal Tributary J	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Mattapoisett, Town of
Crane Brook	1/19/1982	PJR Consulting	H-4795	July 1980	Carver, Town of
Crooked Meadow River	6/3/1986	PRC Harris	H-4776	July 1983	Hingham, Town of
Cushing Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of; Rockland, Town of
Doggett Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marion, Town of; Mattapoisett, Town of; Rochester, Town of
Drinkwater River	6/15/1982	PJR Consulting	H-4795	July 1980	Hanover, Town of
Drinkwater River	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of
Drinkwater River Tributary	6/15/1982	PJR Consulting	H-4795	July 1980	Hanover, Town of
Drinkwater River Tributary A and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of
Eel River (Hingham)	6/3/1986	PRC Harris	H-4776	July 1983	Hingham, Town of
Eel River (Plymouth)	7/17/1986	PRC Harris	H-4776	June 1983	Plymouth, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Eel River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
First Herring Brook	9/29/1986	PRC Harris	H-4776	August 1983	Scituate, Town of
First Herring Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Norwell, Town of
First Herring Brook Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Scituate, Town of
French Stream	1/19/1982	PJR Consulting	H-4795	March 1980	Abington, Town of; Hanover, Town of; Rockland, Town of
French Stream Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Abington, Town of; Rockland, Town of
Furnace Brook No. 2	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of
Furnace Pond	2/19/1982	CDM	H-3861	January 1978	Pembroke, Town of
Great Quittacas Pond	7/16/2015	USGS	HSFE01-11-X-0083	July 2014	Lakeville, Town of; Middleborough, Town of; Rochester, Town of
Green Harbor Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of; Marshfield, Town of
Halls Brook	2/5/1985	PRC Harris	H-4776	May 1983	Kingston, Town of
Halls Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of
Hanna Eames Brook	7/3/1986	PRC Harris	H-4776	June 1983	Marshfield, Town of
Harlow Brook No. 2 and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of; Wareham, Town of
Herring Brook	2/19/1982	CDM	H-3861	January 1978	Pembroke, Town of
Herring Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanson, Town of; Pembroke, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Herring River	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Hingham Bay and Massachusetts Bay	7/17/2012	CDM	EME-2003-CO-0340	March 2008	Hingham, Town of; Hull, Town of
Hockomock River	12/15/1981	Sverdrup and Parcel	H-4037	March 1979	West Bridgewater, Town of
Indian Brook	7/17/1986	PRC Harris	H-4776	June 1983	Plymouth, Town of
Indian Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of
Indian Head Brook	12/18/1986	CDM	EMW-94-C-1601	June 1985	Hanson, Town of
Indian Head Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanson, Town of
Indian Head River	2/19/1982	CDM	H-3861	January 1978	Hanover, Town of; Hanson, Town of; Pembroke, Town of
Iron Mine Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of
Island Creek and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of
Jones River	2/5/1985	PRC Harris	H-4776	May 1983	Kingston, Town of
Jones River	7/22/2020	USGS	HSFE01-15-X-0043	February 2017	Kingston, Town of
Jones River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of; Pembroke, Town of; Plympton, Town of
Jones River Brook	2/5/1985	PRC Harris	H-4776	May 1983	Kingston, Town of
Jones River Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of; Plympton, Town of
Jones River Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of
Jones River Tributary B	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Kings Pond	7/17/1986	PRC Harris	H-4776	June 1983	Plymouth, Town of
Little Pudding Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Pembroke, Town of
Littles Creek	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marshfield, Town of
Long Pond	7/16/2015	USGS	HSFE01-11-X-0083	July 2014	Lakeville, Town of
Longwater Brook	6/15/1982	PJR Consulting	H-4795	July 1980	Hanover, Town of
Longwater Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of; Norwell, Town of
Maple Springs Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of; Wareham, Town of
Matfield River	9/8/1999	Green International	EMW-93-C-4144	November 1996	Bridgewater, Town of
Mattapoisett River	1/5/1982	PJR Consulting	H-4795	May 1980	Rochester, Town of
Mattapoisett River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Mattapoisett, Town of; Middleborough, Town of; Rochester, Town of
Meadow Brook (East Bridgewater)	1/2/1981	Sverdrup and Parcel	H-4037	November 1977	East Bridgewater, Town of
Meadow Brook (Whitman)	1/2/1981	PJR Consulting	H-4795	January 1980	Whitman, Town of
Meadow Brook Tributary	1/2/1981	PJR Consulting	H-4795	January 1980	Whitman, Town of
Mile Brook	2/5/1985	PRC Harris	H-4776	May 1983	Kingston, Town of
Mile Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of
Nemasket River	7/16/2015	USGS	HSFE01-11-X-0083	July 2014	Lakeville, Town of; Middleborough, Town of
North River Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marshfield, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
North Tributary to Shumatuscacant River	9/30/1977	CDM	H-3861	September 1977	Abington, Town of
Northern Branch of Ben Mann Brook	N/A	N/A	N/A	June 2008	Rockland, Town of
Oldham Pond	2/19/1982	CDM	H-3861	January 1978	Hanson, Town of; Pembroke, Town of
Palmer Mill Brook	1/5/1982	PJR Consulting	H-4795	March 1980	Halifax, Town of
Pine Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of; Kingston, Town of; Pembroke, Town of
Plymouth River	6/3/1986	PRC Harris	H-4776	July 1983	Hingham, Town of
Pocksha Pond	7/16/2015	USGS	HSFE01-11-X-0083	July 2014	Lakeville, Town of; Middleborough, Town of
Poor Meadow Brook	12/18/1986	CDM	EMW-94-C-1601	June 1985	Hanson, Town of
Pudding Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of; Pembroke, Town of
Red Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Plymouth, Town of; Wareham, Town of
Robinson Creek	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Pembroke, Town of
Rocky Meadow Brook	1/19/1982	PJR Consulting	H-4795	July 1980	Carver, Town of
Rose Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Wareham, Town of
Salisbury Brook	9/15/1978	CDM	H-3861	August 1977	Brockton, City of
Salisbury Plain River (Brockton)	9/15/1978	CDM	H-3861	August 1977	Brockton, City of
Salisbury Plain River (West Bridgewater)	12/15/1981	Sverdrup and Parcel	H-4037	March 1979	West Bridgewater, Town of
Satucket River	1/2/1981	Sverdrup and Parcel	H-4037	November 1977	East Bridgewater, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Satuit Brook	9/29/1986	PRC Harris	H-4776	August 1983	Scituate, Town of
Sawmill Brook	9/8/1999	Green International	EMW-93-C-4144	November 1996	Bridgewater, Town of
Second Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of
Second Herring Brook	1/19/1982	PJR Consulting	H-4795	July 1980	Norwell, Town of
Second Herring Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Norwell, Town of
Shinglemill Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of
Shinglemill Brook	7/17/2012	N/A	N/A	December 2007	Hanover, Town of
Shumatuscacant River (Abington)	9/30/1977	CDM	H-3861	September 1977	Abington, Town of
Shumatuscacant River (Whitman)	1/2/1981	PJR Consulting	H-4795	January 1980	Whitman, Town of
Shumatuscacant Tributary	1/2/1981	PJR Consulting	H-4795	January 1980	Whitman, Town of
Sippican River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Middleborough, Town of; Rochester, Town of
Sippican River Tributary A	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Marion, Town of; Rochester, Town of
Smelt Brook	2/5/1985	PRC Harris	H-4776	May 1983	Kingston, Town of
Smelt Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Kingston, Town of
Snows Brook	11/17/1981	Sverdrup and Parcel	H-4037	March 1978	Bridgewater, Town of
South Brook	11/17/1981	Sverdrup and Parcel	H-4037	March 1978	Bridgewater, Town of
South Meadow Brook	1/19/1982	PJR Consulting	H-4795	July 1980	Carver, Town of
South River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of; Marshfield, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Stream Channel to Unnamed Tributary to Third Herring Brook	7/17/2012	N/A	N/A	September 2005	Hanover, Town of
Stream River	6/2/1993	Green International	EMW-89-C-2820	December 1990	Abington, Town of
Taunton River	7/16/2015	USGS	HSFE01-11-X-0083	July 2014	Bridgewater, Town of; Halifax, Town of; Middleborough, Town of
Third Herring Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of; Norwell, Town of
Torrey Brook and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Hanover, Town of
Town Brook (Hingham)	6/3/1986	PRC Harris	H-4776	July 1983	Hingham, Town of
Town Brook (Plymouth)	7/22/2020	USGS	HSFE01-15-X-0043	February 2017	Plymouth, Town of
Town River	12/15/1981	Sverdrup and Parcel	H-4037	March 1979	Bridgewater, Town of; West Bridgewater, Town of
Tributary 1 to Stream Channel to Unnamed Tributary to Third Herring Brook	7/17/2012	N/A	N/A	September 2005	Hanover, Town of
Tributary 1 to Unnamed Tributary to Iron Mine Brook	7/17/2012	N/A	N/A	September 2005	Hanover, Town of
Tributary 2 to Stream Channel to Unnamed Tributary to Third Herring Brook	7/17/2012	N/A	N/A	September 2005	Hanover, Town of
Tributary 2 to Unnamed Tributary to Iron Mine Brook	7/17/2012	N/A	N/A	September 2005	Hanover, Town of

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Tributary A	1/19/1982	PJR Consulting	H-4795	March 1980	Rockland, Town of
Tributary A to Sawmill Brook	9/8/1999	Green International	EMW-93-C-4144	November 1996	Bridgewater, Town of
Tributary to Meadow Brook	1/2/1981	Sverdrup and Parcel	H-4037	November 1977	East Bridgewater, Town of
Trout Brook	9/15/1978	CDM	H-3861	August 1977	Brockton, City of
Turkey Hill Run	6/4/1987	PRC Harris	H-4776	August 1983	Hingham, Town of
Unnamed Tributary 2 to Shinglemill Brook	7/17/2012	N/A	N/A	December 2007	Hanover, Town of
Unnamed Tributary 3 to Shinglemill Brook	7/17/2012	N/A	N/A	December 2007	Hanover, Town of
Wankinco River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Carver, Town of; Plymouth, Town of; Wareham, Town of
Weir River	6/3/1986	PRC Harris	H-4776	July 1983	Hingham, Town of
West Brook	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Duxbury, Town of
West Meadow Brook	12/15/1981	Sverdrup and Parcel	H-4037	March 1979	West Bridgewater, Town of
Weweantic River	1/19/1982	PJR Consulting	H-4795	July 1980	Carver, Town of; Middleborough, Town of; Wareham, Town of
Weweantic River and Zone A tributaries	7/22/2020	USGS	HSFE01-15-X-0043	May 2017	Carver, Town of; Middleborough, Town of; Plymouth, Town of; Wareham, Town of
Willow Brook	12/15/1981	Sverdrup and Parcel	H-4037	March 1979	West Bridgewater, Town of
Winnetuxet River	1/5/1982	PJR Consulting	H-4795	March 1980	Halifax, Town of; Plympton, Town of

## **7.2 Community Meetings**

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 29. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Abington, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Bridgewater, Town of	7/16/2015	12/06/2011	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, STARR, this community, and the study contractor
		09/16/2013	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		06/24/2014	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, STARR, this community, and the study contractor
Brockton, City of	6/17/2012	03/08/2005	Initial CCO	FEMA, SRPEDD, this community, and the study contractor
		06/26/2008	Final CCO	FEMA, RMC, MADCR, CBRB, SRPEDD, this community, and the study contractor
Carver, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Duxbury, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
East Bridgewater, Town of	6/17/2012	03/08/2005	Initial CCO	FEMA, SRPEDD, this community, and the study contractor
		06/26/2008	Final CCO	FEMA, RMC, MADCR, CBRB, SRPEDD, this community, and the study contractor
Halifax, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Hanover, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Hanson, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Hingham, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Hull, Town of	6/17/2012	03/08/2005	Initial CCO	FEMA, SRPEDD, this community, and the study contractor
		06/26/2008	Final CCO	FEMA, RMC, MADCR, CBRB, SRPEDD, this community, and the study contractor
Kingston, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Lakeville, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Marion, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Marshfield, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Mattapoisett, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Middleborough, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Norwell, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Pembroke, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Plymouth, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Plympton, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Rochester, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Rockland, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
Scituate, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Wareham, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
West Bridgewater, Town of	6/17/2012	03/08/2005	Initial CCO	FEMA, SRPEDD, this community, and the study contractor
		06/26/2008	Final CCO	FEMA, RMC, MADCR, CBRB, SRPEDD, this community, and the study contractor
Whitman, Town of	7/22/2020	11/17/2015	Discovery	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		07/11/2017	Work map	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor
		05/23/2018	Final CCO	FEMA, Massachusetts Department of Conservation and Recreation, this community, and the study contractor

## SECTION 8.0 – ADDITIONAL INFORMATION

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

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Plymouth County.

Table 30 is a list of the locations where FIRMs for Plymouth County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

**Table 30: Map Repositories**

Community	Address	City	State	Zip Code
Abington, Town of	Town Hall, 500 Gliniewicz Way	Abington	MA	02351
Bridgewater, Town of	Memorial Building, 25 South Street	Bridgewater	MA	02324
Brockton, City of	City Hall, 45 School Street	Brockton	MA	02301
Carver, Town of	Town Hall, 108 Main Street	Carver	MA	02330
Duxbury, Town of	Town Hall, 878 Tremont Street	Duxbury	MA	02332
East Bridgewater, Town of	Town Hall, 175 Central Street	East Bridgewater	MA	02333
Halifax, Town of	Town Hall, 499 Plymouth Street	Halifax	MA	02338
Hanover, Town of	Town Hall, 550 Hanover Street	Hanover	MA	02339
Hanson, Town of	Town Hall, 542 Liberty Street	Hanson	MA	02341
Hingham, Town of	Town Hall, 210 Central Street	Hingham	MA	02043
Hull, Town of	Town Hall, 253 Atlantic Avenue	Hull	MA	02045
Kingston, Town of	Town House, 26 Evergreen Street	Kingston	MA	02364
Lakeville, Town of	Town Hall, 346 Bedford Street	Lakeville	MA	02347
Marion, Town of	Town House, 2 Spring Street	Marion	MA	02738

**Table 30: Map Repositories**

Community	Address	City	State	Zip Code
Marshfield, Town of	Town Hall, 870 Moraine Street	Marshfield	MA	02050
Mattapoisett, Town of	Town Hall, 16 Main Street	Mattapoisett	MA	02739
Middleborough, Town of	Town Hall, 10 Nickerson Avenue	Middleborough	MA	02346
Norwell, Town of	Town Hall, 345 Main Street, Room 112	Norwell	MA	02061
Pembroke, Town of	Town Hall, 100 Center Street	Pembroke	MA	02359
Plymouth, Town of	Town Hall, 26 Court Street	Plymouth	MA	02360
Plympton, Town of	Town Hall, 5 Palmer Road	Plympton	MA	02367
Rochester, Town of	Town Hall, 1 Constitution Way	Rochester	MA	02770
Rockland, Town of	Town Hall, 242 Union Street	Rockland	MA	02370
Scituate, Town of	Town Hall, 600 Chief Justice Cushing Highway	Scituate	MA	02066
Wareham, Town of	Memorial Town Hall, 54 Marion Road	Wareham	MA	02571
West Bridgewater, Town of	Town Hall, 65 North Main Street	West Bridgewater	MA	02379
Whitman, Town of	Town Hall, 54 South Avenue	Whitman	MA	02382

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM Databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 31.

Table 31 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

**Table 31: Additional Information**

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	<a href="http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library">www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library</a>
NFIP website	<a href="http://www.fema.gov/national-flood-insurance-program">www.fema.gov/national-flood-insurance-program</a>

NFHL Dataset	<a href="http://msc.fema.gov">msc.fema.gov</a>
FEMA Region I	99 High Street, 6 <sup>th</sup> Floor Boston, Massachusetts 02110 (617) 956-7536
Other Federal Agencies	
USGS website	<a href="http://www.usgs.gov">www.usgs.gov</a>
Hydraulic Engineering Center website	<a href="http://www.hec.usace.army.mil">www.hec.usace.army.mil</a>
State Agencies and Organizations	
State NFIP Coordinator	Joy Duperault Department of Conservation and Recreation 251 Causeway Street, 8 <sup>th</sup> floor Boston, Massachusetts 02114 (617) 626-1406 joy.duperault@state.ma.us
State GIS Coordinator	Neil MacGaffey MassGIS Director 1 Ashburton Place, Room 819 Boston, Massachusetts 02108 (617) 626-4400 massgismail@mass.gov

## SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 32 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

**Table 32: Bibliography and References**

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Avis 1979	Avis Airmap, Inc.	<i>Topographic maps compiled from aerial photographs</i>		Braintree, Massachusetts	1979	
Bent 2006	Interagency Sedimentation Conference	<i>Equations for estimating bankfull channel geometry and discharge for streams in the northeastern United States</i>	Gardner C. Bent	Reno, Nevada	April 2-6, 2006	<a href="http://pubs.usgs.gov/misc_reports/FISC_1947-2006/pdf/1st-7thFISCs-CD/8thFISC/Poster_Bent_AbstractOnly.pdf">http://pubs.usgs.gov/misc_reports/FISC_1947-2006/pdf/1st-7thFISCs-CD/8thFISC/Poster_Bent_AbstractOnly.pdf</a>
Brunner 2010	U.S. Army Corps of Engineers	<i>HEC-RAS River Analysis System User's Manual, Version 4.1</i>	Gary W. Brunner	Davis, CA	2010	
CDM 1964	Camp, Dresser, & McKee Inc.	<i>City of Brockton Water-Supply Improvements, Basis of Design for Proposed Outlet Works at Monponsett Pond and Furnace Pond</i>			July 1964	
CDM 1968	Camp, Dresser, & McKee Inc.	<i>Master Plan Study for D.W. Field Park</i>			April 1968	
CDM 1975	Camp, Dresser, & McKee, Old Colony Water Pollution Control District	<i>Preliminary Contour Map, Scale 1:2,400, Contour Interval 5 Feet</i>		Abington, Massachusetts	1975	
Chow 1959	McGraw-Hill	<i>Open-Channel Hydraulics</i>	Ven Te Chow	New York	1959	
Col-East various	Col-East, Inc.	<i>Photogrammetric Maps</i>		North Adams, Massachusetts	various dates of publication	

**Table 32: Bibliography and References**

Citation in this FIS	Publisher/Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
Cohn et al. 1997	Water Resources Research	<i>Volume 33, No. 9, pp 2089-2096: An algorithm for computing moments-based flood quantile estimates when historical flood information is available</i>	T.A. Cohn, W.L. Lane, and W.G. Baier		1997	
Cohn et al. 2001	Water Resources Research	<i>Volume 37, No. 6, pp 1695-1706: Confidence intervals for expected moments algorithm flood quantile estimates</i>	T.A. Cohn, W.M. Lane, and J.R. Stedinger		2001	
Cohn et al. 2012	U.S. Geological Survey	<i>Fact Sheet 2012-3038: Calculating weighted estimates of peak streamflow statistics</i>	T.A. Cohn, Charles Berenbrock, J.E. Kiang, and R.R. Mason		2012	<a href="http://pubs.usgs.gov/fs/2012/3038">http://pubs.usgs.gov/fs/2012/3038</a>
FEMA 1974a	Federal Emergency Management Agency	<i>Flood Hazard Boundary Map, Town of Halifax, Plymouth County, Massachusetts</i>		Washington, D.C.	November, 1974	
FEMA 1974b	Federal Emergency Management Agency	<i>Flood Hazard Boundary Map, Town of Rockland, Plymouth County, Massachusetts</i>		Washington, D.C.	November, 1974	
FEMA 1975	Federal Emergency Management Agency	<i>Flood Hazard Boundary Map, Town of Norwell, Plymouth County, Massachusetts</i>		Washington, D.C.	9-Jul-75	

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FEMA 1976	Federal Emergency Management Agency	<i>Flood Hazard Boundary Map, Town of West Bridgewater, Plymouth County, Massachusetts</i>		Washington, D.C.	July, 1976	
FEMA 1978	Federal Emergency Management Agency	<i>Flood Hazard Boundary Map, Town of Whitman, Plymouth County, Massachusetts</i>		Washington, D.C.	12-Mar-78	
FEMA 1988	Federal Emergency Management Agency	<i>Wave Height Analysis of Flood Insurance Studies (WHAFIS), Version 3.0</i>		Washington, D.C.	9/1/1988	
FEMA 2007a	Federal Emergency Management Agency	<i>Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update</i>			February, 2007	
FEMA 2007b	Federal Emergency Management Agency	<i>Coastal Hazard Analysis Modeling Program (CHAMP), Version 2.0</i>		Washington, D.C.	August, 2007	
FEMA 2011	Federal Emergency Management Agency	<i>2011 Federal Emergency Management Agency (FEMA) Topographic Lidar: Massachusetts and Rhode Island</i>		Washington, D.C.	September, 2013	<a href="http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lidar.html">http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lidar.html</a>

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FEMA undated	Federal Emergency Management Agency	<i>Wave Height Analysis for Flood Insurance Studies (WHAFIS), Version 4.0</i>		Washington, D.C.		
Gray 1973		<i>Handbook on the Principle of Hydrology</i>	Donald M. Gray	Port Washington, New York	1973	
Griffis et al. 2004	Water Resources Research	<i>Volume 40, W07503: Log Pearson Type 3 quantile estimators with regional skew information and low outlier adjustments</i>	V.W. Griffis, J.R. Stedinger, and T.A. Cohn		2004	
Guimaraes and Bohman 1992	U.S. Geological Survey	<i>Water-Resources Investigations Report 91-4157: Techniques for estimating magnitude and frequency of floods in South Carolina, 1988</i>	W.B. Guimaraes and L.R. Bohman		1992	
Hirsch 1982	Water Resources Research	<i>Volume 18, No. 4, pp. 1081-1088: A comparison of four streamflow record extension techniques</i>	R.M. Hirsch		1982	
HTA 1977	Harris-Toups Associates	<i>Computer Programming RIVSRG</i>		Lake Success, New York	May-05	
IACWD 1982	Interagency Advisory Committee on Water Data	<i>Bulletin 17B: Guidelines for determining flood-flow frequency</i>				<a href="http://water.usgs.gov/osw/bulleting17b/dl_flow.pdf">http://water.usgs.gov/osw/bulleting17b/dl_flow.pdf</a>

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Jennings et al. 1993	U.S. Geological Survey	<i>Water Resources Investigative Report 94-4002: Nationwide Summary of U.S. Geological Survey Regional Regression Equations for Estimating Magnitude and Frequency of Floods for Ungaged Sites</i>	M.E. Jennings, W.O. Thomas, Jr., and H.C. Riggs		1993	
Johnson and Tasker 1974	U.S. Geological Survey	<i>Progress Report on Flood Magnitude and Frequency of Massachusetts Streams</i>	Carl G. Johnson and Gary D. Tasker		March, 1974	
Johnstone and Cross 1949	Ronald Press Co.	<i>Elements of applied hydrology</i>	Don Johnstone and W.P. Cross	New York	1949	
MADER 2016	Massachusetts Department of Ecological Restoration	<i>Written communication</i>	Michelle Craddock		2016	
MADPW 1970	Massachusetts Department of Public Works	<i>Report on Town Brook and Home Meadows, Hingham, Massachusetts</i>		Boston, Massachusetts	March, 1970	
MassGIS 2005	MassGIS	<i>2005 1:5,000 Color Orthoimagery</i>			April, 2005	<a href="http://www.mass.gov/mgis">http://www.mass.gov/mgis</a>

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Moore 1974	Moore Survey and Mapping Corporation	<i>Topographic Maps compiled by photogrammetric methods, Scale 1:1,200, Contour Interval 2 Feet: Norwell, Massachusetts</i>			April 1974	
NAS 1977	National Academy of Sciences	<i>Methodology for Calculating Wave Action Effects Associated with StormSurge</i>		Washington, D.C.	1977	
Perkins 1975	Perkins Engineering, Inc.	<i>Zoning Map, Part B, Flood Plain and Watershed Protection District, 1975, Town of Hingham, Scale 1" = 1,600'</i>			July, 1975	
Photo Science 2010	Photo Science	<i>Lidar</i>			2010	
Sanborn 2006	Sanborn Map Company, Inc.	<i>Lidar</i>			Unpublished	
SCS 1972	Soil Conservation Service	<i>National Engineering Handbook, Section 4, Hydrology, Part I, Watershed Planning</i>		Washington, D.C.	August, 1972	
SCS 1974	Soil Conservation Service	<i>Technical Release No. 55: Urban Hydrology for Small Watersheds</i>		Washington, D.C.	March, 1974	

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SCS 1976	Soil Conservation Service	<i>NETSC Technical Note U.D. 20 (rev): Tabular Method of Flood Routing, 24-Hour Type II Storm Distribution</i>		Brodmall, Pennsylvania	October 29, 1976	
Sewall 1984	James W. Sewall, Inc.	<i>Topographic maps compiled by photogrammetric methods</i>		Old Town, Maine	1984	
SWEC 1981	Stone and Webster Engineering Corporation	<i>Manual for Wave Runup Analysis, Coastal Flood Insurance Studies</i>		Boston, Massachusetts	November, 1981	
Teledyne 1976	Teledyne, Inc.	<i>Topographic maps compiled by photogrammetric methods</i>			June, 1976	
USACE 1973	U.S. Army Corps of Engineers	<i>HEC-1 Flood Hydrograph Package</i>		Davis, California	January, 1973	
USACE 1974	U.S. Army Corps of Engineers	<i>HEC-2 Water Surface Profiles, Generalized Computer Program</i>		Davis, California	June, 1974	
USACE 1978	U.S. Army Corps of Engineers, New England Division	<i>Annual Peak Tide Levels, Boston Harbor, 86 Years of Records, 1848-1978</i>		Waltham, Massachusetts	June, 1905	
USACE 1984	U.S. Army Corps of Engineers, Coastal Engineering Research Center	<i>Shore Protection Manual. (Volumes I and II, 4th Edition)</i>		Washington, D.C.	1984	

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USACE 1988	U.S. Army Corps of Engineers	<i>Tidal Flood Profiles New England Coastline, 27 p.</i>	Hydraulics and Water Quality Section, New England Division, U.S. Army Corps of Engineers		Sep-88	
USACE 2001	U.S. Army Corps of Engineers, Coastal and Hydraulics Laboratory	<i>Steady State Spectral Wave Version 3.0</i>			February, 2001	<a href="http://chl.erdc.usace.army.mil/">http://chl.erdc.usace.army.mil/</a>
USCB 2016	U.S. Census Bureau	<i>TIGER/Line Shapefile</i>			2016	
USGS 1976	U.S. Geological Survey	<i>Water Resources Data for Massachusetts, New Hampshire, Rhode Island, and Vermont, 1967-1975</i>		Washington, D.C.	1976	
USGS 2011	U.S. Geological Survey	<i>2011 U.S. Geological Survey Topographic LiDAR: LiDAR for the North East</i>			August, 2013	<a href="http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lidar.html">http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lidar.html</a>
USGS 2013	U.S. Geological Survey	<i>USGS High Resolution Orthoimagery for Boston, Massachusetts</i>		Sioux Falls, SD	2013	<a href="http://nationalmap.gov/viewer.html">http://nationalmap.gov/viewer.html</a>

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USGS 2014a	U.S. Geological Survey	<i>2013-2014 U.S. Geological Survey CMGP LiDAR: Post Sandy (MA, NH, RI)</i>		Reston, VA	6/15/2015	<a href="http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lidar.html">http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lidar.html</a>
USGS 2014b	U.S. Geological Survey	<i>USGS High Resolution Orthoimagery for Southern Plymouth County, Massachusetts</i>		Sioux Falls, SD	2014	<a href="http://nationalmap.gov/viewer.html">http://nationalmap.gov/viewer.html</a>
USGS 2014c	U.S. Geological Survey	<i>Office of Surface Water Informational and Technical Note 2014.43: Weighting estimates of peak-flow-frequency statistics using the Expected Moments Algorithm for at-site flood-frequency estimation</i>			2014	<a href="https://xcollaboration.usgs.gov/wg/osw/OSWNotes/FY14%20Notes/">https://xcollaboration.usgs.gov/wg/osw/OSWNotes/FY14%20Notes/</a>
USGS various	U.S. Geological Survey	<i>Quadrangle Maps, 7.5 Series</i>			various dates of publication	
USWB 1961	U.S. Weather Bureau	<i>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</i>		Washington, D.C.	1961	

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Veilleux et al. 2014	U.S. Geological Survey	<i>Fact Sheet 2013-3108: Estimating magnitude and frequency of floods using the PeakFQ 7.0 program</i>	A.G. Veilleux, T.A. Cohn, K.M. Flynn, R.R. Mason, Jr., and P.R. Hummel		2014	<a href="http://pubs.usgs.gov/fs/2013/3108">http://pubs.usgs.gov/fs/2013/3108</a>
Wandle 1977	U.S. Geological Survey	<i>Water Resources Investigation Report 77-39: Estimating the Magnitude and Frequency of Floods on Natural-Flow Streams in Massachusetts</i>	S.W. Wandle, Jr.	Washington, D.C.	1977	
Wandle 1983	U.S. Geological Survey	<i>Water Supply Paper 2214: Estimating Peak Discharges of Small, Rural Streams in Massachusetts</i>	S.W. Wandle, Jr.	Washington, D.C.	1983	
WRC 1977	Water Resources Council	<i>Bulletin 17A: Guidelines for Determining Flood Flow Frequency</i>		Washington, D.C.	June, 1977	
Zarriello 2017	U.S. Geological Survey	<i>Magnitude of flood flows for selected annual exceedance probabilities for streams in Massachusetts</i>	Phillip J. Zarriello	Reston, VA	2017	<a href="https://doi.org/10.3133/sir20165156">https://doi.org/10.3133/sir20165156</a>

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Zarriello et al. 2012	U.S. Geological Survey	<i>Scientific Investigations Report 2012-5109: Magnitude of flood flows for selected annual exceedance probabilities in Rhode Island through 2010</i>	P.J. Zarriello, E.A. Ahearn, and S.B. Levin		2012	<a href="http://pubs.usgs.gov/sir/2012/5109">http://pubs.usgs.gov/sir/2012/5109</a>