FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Beaver Brook 2 (continued)								
D	3,415[1]	12	63	4.1	124.9	124.9	125.6	0.7
E	3,515[1]	10	65	4.0	125.5	125.5	126.0	0.5
F	3,756[1]	8	38	6.8	128.1	128.1	128.6	0.5
G	3,836[1]	13	62	4.2	130.6	130.6	131.2	0.6
H	4,536[1]	30	40	6.6	139.4	139.4	139.4	0.0
Beaver Brook 3								
A	225[2]	116	1,580	2.7	70.6	65.3[3]	66.2	0.9
B	495[2]	320	1,816	2.3	70.6	65.7[3]	66.7	1.0
C	1,505[2]	236	1,583	2.7	70.6	65.9[3]	66.8	0.9
D	3,225[2]	173	2,057	2.0	78.0	78.0	78.5	0.5
E	4,575[2]	142	1,096	3.7	78.8	78.8	79.5	0.7
F	7,967[2]	290	1,761	2.3	90.2	90.2	90.5	0.3
G	9,455[2]	302	1,654	2.4	90.5	90.5	91.1	0.6
H	11,155[2]	510	2,365	1.7	91.8	91.8	92.6	0.8
I	14,465[2]	200	1,481	2.7	93.8	93.8	94.8	1.0
J	16,255[2]	75	815	5.0	108.5	108.5	108.6	0.1
K	19,005[2]	200	1,149	3.3	118.9	118.9	118.9	0.0
L	22,305[2]	275	1,912	2.0	121.9	121.9	122.3	0.4

[1]Feet above confluence with River Meadow Brook
[2]Feet above confluence with Merrimack River
[3]Elevation computed without consideration of backwater effects from Merrimack River

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

REVISED PRELIMINARY

MAY 2 9 2008

BEAVER BROOK 2 – BEAVER BROOK 3

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Butter Brook								
A	885	100	197	1.1	173.2	167.1[2]	167.7	0.6
B	995	100	223	0.9	173.2	167.4[2]	168.0	0.6
C	1,434	100	137	1.5	173.2	167.6[2]	168.4	0.8
D	1,566	80	197	1.1	173.2	169.4[2]	169.5	0.1
E	2,770	100	190	1.0	173.2	169.4[2]	170.2	0.8
F	3,605	150	188	1.0	173.2	173.2	171.0	0.5
G	3,745	40	270	0.7	176.1	176.1	176.5	0.4
H	4,210	40	209	0.8	176.1	176.1	176.5	0.4
I	4,345	10	63	2.6	176.2	176.2	176.7	0.5
J	5,190	130	488	0.3	176.2	176.2	176.9	0.7
K	7,980	20	29	6.9	178.3	178.3	178.3	0.0
L	9,500	50	72	2.8	188.8	188.8	189.0	0.2
M	9,552	150	50	4.0	194.3	194.3	195.0	0.7
N	9,792	20	70	2.9	197.0	197.0	197.0	0.0
O	9,842	20	105	1.9	197.1	197.1	197.1	0.0
P	10,563	18	114	1.7	199.8	199.8	200.1	0.3
Q	10,613	20	140	1.4	199.9	199.9	200.2	0.3
R	11,933	20	289	0.6	199.9	199.9	200.3	0.4
S	13,433	20	30	5.4	200.0	200.0	200.3	0.3
T	14,593	4	21	3.3	209.3	209.3	209.3	0.0
U	14,643	20	127	0.5	209.5	209.5	209.5	0.0

[1] Feet above confluence with Nashoba Brook
[2] Elevation computed without consideration of backwater effects from Nashoba Brook

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

BUTTER BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Conant Brook								
A	145[1]	30	80	7.3	143.8	143.8	144.2	0.4
B	203[1]	220	1,000	0.6	146.8	146.8	147.3	0.5
C	1,460[1]	73	293	1.9	160.8	160.8	160.8	0.0
D	3,210[1]	46	76	7.4	176.9	176.9	176.9	0.0
E	4,680[1]	10	40	9.6	190.9	190.9	190.9	0.0
F	4,730[1]	10	30	2.5	192.4	192.4	192.4	0.0
G	4,775[1]	90	460	0.8	194.9	194.9	194.9	0.0
H	5,775[1]	90	480	0.8	195.0	195.0	195.1	0.1
I	6,964[1]	230	1,380	0.3	195.0	195.0	195.3	0.3
Concord River								
A	950[2]	120	1,247	4.8	65.9	60.5[3]	61.3	0.8
B	3,080[2]	271	2,497	2.4	70.8	70.8	70.8	0.0
C	7,660[2]	200	1,573	3.8	101.4	101.4	102.4	1.0
D	8,300[2]	220	2,667	2.2	102.1	102.1	102.9	0.8
E	9,630[2]	443	4,229	1.4	102.3	102.3	103.1	0.8
F	10,980[2]	265	2,756	2.2	102.6	102.6	103.3	0.7
G	12,240[2]	210	2,082	2.9	103.1	103.1	103.8	0.7
H	12,900[2]	962	5,812	1.0	103.5	103.5	104.1	0.6
I	15,775[2]	385	5,556	1.1	105.7	105.7	106.7	1.0
J	18,475[2]	238	3,642	1.6	105.8	105.8	106.8	1.0
K	22,775[2]	161	2,092	2.9	106.2	106.2	107.2	1.0

[1]Feet above confluence with Nashoba Brook
[2]Feet above confluence with Merrimack River
[3]Elevation computed without consideration of backwater effects from Merrimack River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

CONANT BROOK – CONCORD RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Concord River (continued)								
L	23,325	217	3,155	1.9	106.4	106.4	107.4	1.0
M	23,865	95	740	8.1	107.7	107.7	107.7	0.0
N	25,395	190	2,634	2.1	114.0	114.0	115.0	1.0
O	26,775	220	1,559	3.6	114.2	114.2	115.2	1.0
P	27,770	134	1,662	3.4	115.0	115.0	115.7	0.7
Q	30,870	220	2,941	1.9	115.4	115.4	116.2	0.8
R	31,350	143	1,564	3.6	115.4	115.4	116.2	0.8
S	31,660	180	2,327	2.4	115.7	115.7	116.4	0.7
T	33,555	263	3,120	1.8	116.0	116.0	116.7	0.7
U	35,785	293	3,581	1.5	116.2	116.2	116.9	0.7
V	38,130	114	1,308	4.3	116.4	116.4	117.1	0.7
W	39,380	250	3,417	1.6	117.1	117.1	117.7	0.6
X	40,450	110	1,737	3.2	117.1	117.1	117.7	0.6
Y	41,900	167	1,883	2.9	117.4	117.4	118.0	0.6
Z	42,450	327	4,804	1.1	117.7	117.7	118.2	0.5
AA	48,160	139	1,924	2.9	118.2	118.2	118.9	0.7
AB	50,390	971	10,698	0.5	118.5	118.5	119.2	0.7
AC	53,725	885	5,580	1.0	118.5	118.5	119.2	0.7
AD	56,945	400	6,060	0.9	118.6	118.6	119.2	0.6
AE	59,005	290	4,533	1.2	118.7	118.7	119.3	0.6
AF	62,385	193	2,900	1.9	118.7	118.7	119.3	0.6
AG	65,125	1,730	19,520	0.3	118.8	118.8	119.7	0.9
AH	67,140	1,350	15,150	0.4	118.8	118.8	119.7	0.9
AI	69,550	760	10,140	0.6	118.8	118.8	119.7	0.9
AJ	73,510	440	7,000	0.8	118.8	118.8	119.7	0.9
AK	74,385	1,130	14,720	0.4	118.8	118.8	119.7	0.9
AL	75,740	2,050	23,790	0.2	118.8	118.8	119.8	1.0

[1]Feet above confluence with Merrimack River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

CONCORD RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Concord River (continued)								
AM	79,350	1,780	11,550	0.5	118.8	118.8	119.8	1.0
AN	81,160	1,100	14,430	0.4	118.9	118.9	119.8	0.9
AO	82,535	1,100	14,010	0.4	118.9	118.9	119.8	0.9
AP	83,945	200	2,620	2.2	118.9	118.9	119.8	0.9
AQ	84,420	120	1,590	3.6	118.9	118.9	119.8	0.9
AR	84,576	100	1,620	3.5	119.0	119.0	120.0	1.0
AS	85,366	500	6,400	0.9	119.3	119.3	120.3	1.0
AT	85,626	790	6,260	0.9	119.4	119.4	120.3	0.9
AU	86,936	1,000	15,000	0.4	119.4	119.4	120.4	1.0
AV	87,311	90	1,500	3.8	119.4	119.4	120.4	1.0
AW	87,456	200	3,560	1.6	119.6	119.6	120.5	0.9
AX	88,286	930	7,990	0.7	119.7	119.7	120.6	0.9

[1]Feet above confluence with Merrimack River

REVISED PRELIMINARY

MAY 2 0 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

CONCORD RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Guggins Brook								
A	135	135	455	0.6	206.5	205.6	206.6	1.0
B	240	135	503	0.6	206.6	206.5	206.9	0.4
C	565	80	237	1.2	206.6	206.5	206.9	0.4
D	940	80	241	1.2	206.7	206.6	207.2	0.6
E	2,930	8	17	8.2	207.9	207.9	208.9	1.0
F	3,828	41	74	1.8	213.0	213.0	213.9	0.9
G	3,986	133	379	0.3	216.8	216.8	216.8	0.0
H	5,085	16	29	4.1	216.9	216.9	217.1	0.2
I	6,262	12	25	4.7	223.0	223.0	224.0	1.0
J	6,420	13	20	5.0	224.2	224.2	224.7	0.5
K	6,526	13	42	2.4	226.0	226.0	226.4	0.4
L	7,054	10	22	4.5	227.3	227.3	227.7	0.4
M	7,170	342	577	0.2	229.0	229.0	229.6	0.6
N	7,540	36	54	1.9	229.0	229.0	229.6	0.6
O	7,698	143	385	0.3	232.7	232.7	232.7	0.0
P	7,857	12	15	6.6	232.7	232.7	233.1	0.4
Q	8,068	135	704	0.1	237.2	237.2	237.7	0.5
R	8,184	36	108	0.9	237.2	237.2	237.9	0.7
S	8,290	30	161	0.6	237.3	237.3	237.8	0.5
T	9,240	5	9	7.9	238.0	238.0	238.0	0.0
U	10,460	147	21	3.5	242.6	242.6	242.6	0.0
V	11,579	24	46	1.6	245.9	245.9	246.7	0.8
W	11,674	32	23	3.2	250.1	250.1	250.1	0.0
X	12,466	6	10	7.4	273.8	273.8	273.9	0.1
Y	13,416	6	11	6.7	302.3	302.3	302.3	0.0
Z	13,628	42	49	1.5	303.9	303.9	304.4	0.5
AA	13,839	270	1,031	0.1	308.8	308.8	308.8	0.0
AB	14,472	44	74	1.0	308.8	308.8	308.8	0.0

[1]Feet above confluence with Inch Brook

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

GUGGINS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Hales Brook								
A-F*								
G	5,430[1]	30	170	0.6	105.1	105.1	105.7	0.6
Halls Brook								
A	10[2]	7	32	2.6	54.0	51.9[3]	51.9	0.0
B	190[2]	243	1,825	0.1	54.2	54.2[3]	54.8	0.6
C	2,180[2]	588	1,287	0.5	55.1	55.1[3]	55.4	0.3
D	4,090[2]	21	55	4.4	55.7	55.7[3]	55.8	0.1
E	4,940[2]	31	90	1.9	60.5	60.4[3]	60.5	0.1
F	5,320[2]	48	180	1.0	61.6	61.6[3]	61.6	0.0
G	8,590[2]	15	23	5.5	71.2	71.2[3]	71.2	0.0
H	8,890[2]	25	50	2.6	74.0	74.0[3]	74.1	0.1
I	9,090[2]	24	50	2.2	78.0	78.0[3]	78.0	0.0
J	10,500[2]	20	21	2.5	89.0	89.0[3]	89.0	0.0
K	10,710[2]	18	13	3.9	91.7	91.7[3]	91.7	0.0
L	10,980[2]	42	110	0.5	95.2	95.2[3]	95.2	0.0

[1] Feet above corporate limits
[2] Feet above confluence with Aberjona River
[3] Elevation computed without consideration of backwater effects
* No floodway data computed

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

HALES BROOK – HALLS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Lubbers Brook								
A	401	85	255	1.1	76.2	74.9[2]	75.9	1.0
B	1,352	50	155	1.7	76.2	75.6[2]	76.6	1.0
C	2,640	30	155	1.7	78.9	78.9	79.3	0.4
D	4,298	100	360	0.7	79.0	79.0	80.0	1.0
E	6,072	110	270	1.0	79.6	79.6	80.5	0.9
F	7,920	50	180	1.5	80.5	80.5	81.3	0.8
G	9,240	45	245	1.0	81.5	81.5	82.3	0.8
H	10,074	90	345	0.7	81.7	81.7	82.5	0.8
I	11,289	50	185	1.3	81.8	81.8	82.6	0.8
J	12,382	100	240	1.0	84.6	84.6	85.4	0.8
K	13,696	230	1,010	0.2	84.6	84.6	85.4	0.8
L	15,006	100	460	0.7	85.3	85.3	86.0	0.7
M	16,030	100	420	0.7	85.3	85.3	86.0	0.7
N	17,076	170	400	0.8	85.4	85.4	86.3	0.9
O	18,132	25	80	3.9	86.4	86.4	87.0	0.6
P	18,681	60	215	1.5	88.5	88.5	88.8	0.3
Q	19,742	33	103	2.4	90.9	90.9	91.0	0.1
R	20,608	126	471	0.3	93.9	93.9	93.9	0.0
S	21,289	75	154	0.8	94.0	94.0	94.0	0.0
T	22,414	155	508	0.3	95.0	95.0	95.0	0.0
U	23,016	184	337	0.4	95.0	95.0	95.0	0.0
V	24,367	468	817	0.2	96.2	96.2	96.3	0.1
W	25,170	342	1,032	0.1	98.5	98.5	98.6	0.1
X	25,877	341	924	0.2	98.6	98.6	98.7	0.1
Y	26,210	223	619	0.2	99.0	99.0	99.1	0.1
Z	26,939	169	373	0.4	99.0	99.0	99.1	0.1

[1]Feet above confluence with Ipswich River
[2]Elevation computed without consideration of backwater effects from Ipswich River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

LUBBERS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Lubbers Brook (continued)								
AA	27,134[1]	149	322	0.6	99.2	99.2	99.3	0.1
AB	28,380[1]	63	175	1.0	99.7	99.7	99.9	0.2
AC	28,887[1]	10	22	8.3	101.3	101.3	101.4	0.1
AD	29,811[1]	265	993	0.2	102.1	102.1	102.6	0.5
AE	31,131[1]	100	462	0.3	102.4	102.4	103.4	1.0
AF	31,776[1]	80	321	0.4	103.0	103.0	103.5	0.5
AG	33,221[1]	80	178	0.7	103.0	103.0	103.7	0.7
AH	34,306[1]	80	169	0.6	103.3	103.3	104.2	0.9
AI	34,831[1]	80	157	0.6	103.4	103.4	104.3	0.9
Maple Meadow Brook								
A	486[2]	40	105	4.1	80.0	75.9[4]	75.9	0.0
B	1,954[2]	25	110	3.3	80.0	77.0[4]	78.0	1.0
C	3,274[2]	70	280	1.3	80.0	77.8[4]	78.8	1.0
D	4,910[2]	125	450	0.8	80.0	78.2[4]	79.2	1.0
E	5,797[2]	45	275	1.3	81.3	81.3	81.4	0.1
F	6,426[2]	25	165	2.2	81.3	81.3	81.4	0.1
G	7,429[2]	55	515	0.6	82.9	82.9	82.9	0.0
H	8,100[2]	10	90	3.5	83.8	83.8	83.8	0.0
I	10,856[2]	240	1,265	0.0	84.2	84.2	85.0	0.7
J	12,007[2]	260	935	0.1	84.2	84.2	85.0	0.7
K	13,306[2]	60	170	0.3	84.2	84.2	85.0	0.7

[1]Feet above confluence with Ipswich River
[2]Feet above confluence with Ipswich River
[4]Elevation computed without consideration of backwater effects from Ipswich River

REVISED PRELIMINARY

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

MAY 29 2008

FLOODWAY DATA

LUBBERS BROOK – MAPLE MEADOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Martins Brook								
A	183	123	898	1.9	70.3	70.3	71.2	0.9
B	319	36	334	3.8	72.7	72.7	73.3	0.6
C	2,273	563	3,264	1.2	73.0	73.0	73.7	0.7
D	2,330	614	4,272	1.0	73.0	73.0	73.8	0.8
E	3,693	343	2,082	1.9	73.1	73.1	73.9	0.8
F	4,953	28	252	5.0	74.2	74.2	75.0	0.8
G	5,130	304	2,340	1.3	76.4	76.4	77.3	0.9
H	6,189	584	4,247	0.9	76.5	76.5	77.3	0.8
I	7,394	162	1,427	1.1	76.5	76.5	77.4	0.9
J	9,183	435	3,051	0.6	76.6	76.6	77.4	0.8
K	11,307	700	3,867	0.3	76.6	76.6	77.5	0.9
L	12,490	180	1,101	1.4	76.6	76.6	77.5	0.9
M	13,815	819	3,220	0.4	76.7	76.7	77.6	0.9
N	14,796	828	3,273	0.3	76.7	76.7	77.6	0.9
O	15,588	512	2,500	0.7	76.7	76.7	77.6	0.9
P	16,855	184	1,350	0.5	76.8	76.8	77.6	0.9
Q	17,436	246	1,547	0.2	78.5	78.5	79.4	0.9
R-Y*								

[1]Feet above confluence with Ipswich River
*Data not available

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MARTINS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Merrimack River								
A	700	630	17,009	6.5	55.8	55.8	56.3	0.5
B	2,400	626	15,834	7.0	56.4	56.4	56.9	0.5
C	12,080	758	14,707	7.5	56.9	56.9	57.9	1.0
D	14,750	520	12,153	9.1	58.2	58.2	59.0	0.8
E	16,550	553	9,006	12.3	59.1	59.1	59.8	0.7
F	18,500	655	12,468	8.9	62.9	62.9	63.2	0.3
G	18,890	545	11,455	9.7	63.4	63.4	63.7	0.3
H	20,300	434	9,401	11.8	64.5	64.5	64.7	0.2
I	20,600	510	10,046	11.0	65.5	65.5	65.7	0.2
J	21,975	452	12,223	9.1	67.2	67.2	67.4	0.2
K	22,200	462	11,287	9.8	67.3	67.3	67.5	0.2
L	23,500	628	15,139	7.5	68.7	68.7	68.8	0.1
M	25,660	756	16,631	6.7	69.8	69.8	69.9	0.1
N	25,740	756	16,707	6.6	69.9	69.9	70.0	0.1
O	27,050	1,760	46,653	2.4	70.7	70.7	70.8	0.1
P	28,430	712	9,874	11.2	70.8	70.8	70.9	0.1
Q	29,140	370	5,211	21.3	79.4	79.4	79.4	0.0
R	29,220	360	7,656	14.5	84.8	84.8	84.8	0.0
S	30,190	390	6,878	16.1	86.8	86.8	86.8	0.0
T	31,160	315	7,211	15.4	89.6	89.6	89.6	0.0
U	31,240	315	7,926	14.0	91.9	91.9	91.9	0.0
V	33,523	793	11,010	10.1	97.9	97.9	98.8	0.9
W	39,015	1,080	20,128	5.5	100.7	100.7	101.2	0.5
X	43,186	797	16,065	6.9	101.6	101.6	102.0	0.4
Y	48,255	866	18,444	6.0	103.5	103.5	104.1	0.6
Z	56,273	640	16,681	6.1	103.7	103.7	104.6	0.9

[1]Feet above county boundary

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MERRIMACK RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Merrimack River (continued)								
AA	59,071[1]	720	17,145	5.9	104.3	104.3	105.2	0.9
AB	62,873[1]	340	10,928	9.3	104.8	104.8	105.7	0.9
AC	65,354[1]	500	14,177	7.2	106.1	106.1	107.0	0.9
AD	67,572[1]	390	13,596	7.5	106.7	106.7	107.5	0.8
AE	70,212[1]	570	14,881	6.9	107.3	107.3	108.2	0.9
AF	73,961[1]	490	15,007	6.8	108.1	108.1	109.0	0.9
Mill Brook 1								
A	1,880[2]	87	418	0.2	122.0	120.9[3]	120.9	0.0
B	4,175[2]	98	482	0.2	125.0	125.0	125.0	0.0
C	7,330[2]	145	349	0.3	127.8	127.8	127.9	0.1

[1]Feet above county boundary
[2]Feet above confluence with Pine Brook
[3]Elevation computed without consideration of backwater effects from Sudbury River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MERRIMACK RIVER – MILL BROOK 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Munroe Brook								
A	1,595[1]	40	88	4.9	160.3	160.3	161.3	1.0
B	1,690[1]	62	339	1.2	163.0	163.0	164.0	1.0
C	1,795[1]	148	1,304	0.4	163.0	163.0	164.0	1.0
D	1,901[1]	41	215	2.0	163.0	163.0	164.0	1.0
E	2,587[1]	79	424	1.0	163.2	163.2	164.2	1.0
F	2,830[1]	81	479	0.8	164.0	164.0	165.0	1.0
G	3,300[1]	87	453	0.7	164.0	164.0	165.0	1.0
H	3,501[1]	19	96	3.1	164.1	164.1	165.1	1.0
I	3,765[1]	55	210	1.4	164.6	164.6	165.6	0.9
J	4,873[1]	16	113	2.7	165.6	165.6	166.5	0.9
K	5,137[1]	30	255	1.2	166.5	166.5	167.0	0.5
L	5,243[1]	16	69	4.4	166.5	166.5	167.0	0.5
M	5,507[1]	16	70	3.4	167.9	167.9	168.5	0.6
Nagog Brook								
A	890[2]	10	20	7.5	144.9	144.9	145.3	0.4
B	1,040[2]	10	42	3.6	148.2	148.2	148.2	0.0
C	2,750[2]	10	29	2.6	157.2	157.2	157.6	0.4
D	3,890[2]	10	13	5.8	170.2	170.2	170.3	0.1
E	5,800[2]	10	29	2.6	209.8	209.8	210.5	0.7
F	6,675[2]	7	11	1.7	217.1	217.1	217.2	0.1

[1]Feet above Arlington Reservoir
[2]Feet above confluence with Nashoba Brook

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

MUNROE BROOK – NAGOG BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
North Lexington Brook								
A	422[1]	750	2,035	0.5	116.1	116.1	116.3	0.2
B	1,426[1]	856	3,033	0.4	116.1	116.1	116.4	0.3
C	1,637[1]	1,303	6,715	0.2	116.6	116.6	117.2	0.6
D	2,318[1]	904	2,767	0.4	116.7	116.7	117.2	0.5
E	2,598[1]	499	2,771	0.3	119.9	119.9	119.9	0.0
F	3,073[1]	244	1,216	0.6	119.9	119.9	119.9	0.0
G	3,284[1]	519	3,980	0.2	119.9	119.9	120.1	0.2
H	3,606[1]	494	3,422	0.2	119.9	119.9	120.1	0.2
I	3,807[1]	1,217	9,580	0.1	120.6	120.6	121.4	0.8
J	4,863[1]	1,296	9,498	0.1	120.6	120.6	121.4	0.8
K	6,024[1]	202	605	0.7	120.6	120.6	121.4	0.8
North Spur Aberjona River								
A	130[2]	33	148	0.9	64.3	63.3	63.3	0.0
B	2,260[2]	68	324	0.6	68.1	66.8	66.8	0.0
C	2,860[2]	152	203	0.9	68.2	67.5	67.5	0.0
D	4,400[2]	124	713	0.5	75.8	75.7	75.7	0.0
E	6,500[2]	18	15	2.1	78.3	78.3	78.3	0.0
F	7,880[2]	47	68	1.1	81.5	81.5	81.5	0.0
G	9,410[2]	18	27	0.5	83.0	81.9	81.9	0.0

[1]Feet above confluence with Shawsheen River
[2]Feet above confluence with Aberjona River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

NORTH LEXINGTON BROOK –
NORTH SPUR ABERJONA RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Pantry Brook								
A	7,750[1]	56	105	2.3	121.2	114.7[4]	115.6	0.9
B	9,590[1]	150	585	0.4	123.5	123.5	123.5	0.0
C	10,640[1]	150	252	1.0	123.8	123.8	123.8	0.0
D	11,540[1]	190	232	1.0	124.7	124.7	124.8	0.1
E	12,550[1]	9	29	8.2	131.1	131.1	132.0	0.9
F-O*								
Pearl Hill Brook								
A	2,990[2]	32	106	5.2	320.8	320.8	321.3	0.5
B	3,550[2]	45	91	6.1	328.4	328.4	328.6	0.2
C	4,640[2]	25	71	7.8	335.1	335.1	335.2	0.1
D	7,300[2]	35	84	6.6	349.5	349.5	350.0	0.5
E	9,145[2]	17	65	8.6	364.1	364.1	364.6	0.5
Peppermint Brook								
A	900[3]	31	60	5.0	70.6	65.8[5]	66.1	0.3
B	1,260[3]	78	405	0.7	72.5	72.5	73.4	0.9
C	1,800[3]	70	453	0.7	74.0	74.0	74.7	0.7
D	2,300[3]	63	235	1.3	74.3	74.3	75.2	0.9
E	2,400[3]	117	833	0.4	80.0	80.0	80.7	0.7
F	3,500[3]	40	333	0.9	80.0	80.0	80.7	0.7
G	3,760[3]	11	85	3.4	80.0	80.0	80.7	0.7
H	3,980[3]	69	280	1.0	80.1	80.1	80.8	0.7
I	4,200[3]	20	107	2.7	80.1	80.1	80.8	0.7
J	4,340[3]	33	82	3.0	80.8	80.8	81.3	0.5

[1]Feet above confluence with Sudbury River
[2]Feet above confluence with Walker Brook
[3]Feet above confluence with Beaver Brook
[4]Elevation computed without consideration of backwater effects from Sudbury River
[5]Elevation computed without consideration of backwater effects from Beaver Brook
*Floodway not computed

REVISED PRELIMINARY

MAY 29 2000

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

PANTRY BROOK – PEARL HILL BROOK – PEPPERMINT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Richardson Brook								
A	160[1]	150	1,890	0.2	59.3	59.3	60.3	1.0
B	1,150[1]	36	167	2.3	59.3	59.3	60.3	1.0
C	2,650[1]	120	236	1.7	84.6	84.6	84.7	0.1
D	4,780[1]	94	147	1.3	87.6	87.6	87.6	0.0
E	6,210[1]	65	350	0.5	106.6	106.6	107.4	0.8
F	7,620[1]	40	131	1.4	106.7	106.7	107.6	0.9
G	8,280[1]	71	210	0.9	109.9	109.9	110.1	0.2
H	9,240[1]	30	181	1.1	114.3	114.3	114.3	0.0
I	12,460[1]	10	117	1.6	167.3	167.3	167.4	0.1
River Meadow Brook								
A	810[2]	35	258	4.4	76.0	76.0	76.1	0.1
B	1,350[2]	40	357	3.2	79.1	79.1	79.2	0.1
C	3,260[2]	98	554	2.0	94.8	94.8	94.8	0.0
D	4,600[2]	55	311	3.7	97.9	97.9	98.0	0.1
E	9,745[2]	65	427	2.7	102.1	102.1	103.1	1.0
F	12,260[2]	62	319	3.1	103.4	103.4	103.6	0.2
G	12,530[2]	64	404	2.5	103.7	103.7	103.9	0.2
H	12,987[2]	88	456	2.3	104.0	104.0	105.0	1.0
I	13,452[2]	73	484	2.1	104.8	104.8	105.6	0.8
J	13,726[2]	75	511	2.0	105.0	105.0	105.7	0.7
K	14,152[2]	77	531	1.9	105.5	105.5	106.1	0.6
L	14,510[2]	74	459	2.2	105.8	105.8	106.4	0.6
M	14,595[2]	75	461	2.2	105.9	105.9	106.5	0.6
N	15,283[2]	93	593	1.7	106.4	106.4	106.9	0.5
O	15,810[2]	75	455	2.3	106.9	106.9	107.3	0.4
P	16,050[2]	63	489	2.1	107.1	107.1	107.5	0.4

[1]Feet above confluence with Merrimack River
[2]Feet above confluence with Concord River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RICHARDSON BROOK – RIVER MEADOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
River Meadow Brook (continued)								
Q	16,450	120	1,046	1.6	107.3	107.3	107.6	0.3
R	19,040	180	1,027	1.5	107.3	107.3	108.0	0.7
S	19,810	180	1,132	1.6	107.4	107.4	108.2	0.8
T	20,250	67	398	2.6	107.5	107.5	108.4	0.9
U	20,400	120	707	2.5	107.8	107.8	108.7	0.9
V	20,795	120	646	2.6	108.0	108.0	109.0	1.0
W	20,900	120	771	1.8	110.5	110.5	110.8	0.3
X	21,460	120	768	2.1	110.5	110.5	111.0	0.5
Y	21,530	120	922	1.5	110.5	110.5	111.1	0.6
Z	21,750	180	1,123	1.6	110.5	110.5	111.2	0.7
AA	23,100	200	1,132	1.7	110.6	110.6	111.4	0.8
AB	23,750	200	1,157	1.2	110.7	110.7	111.5	0.8
AC	24,200	160	943	1.1	110.7	110.7	111.6	0.9
AD	24,330	160	922	1.1	110.8	110.8	111.6	0.8
AE	25,120	210	1,126	1.2	110.8	110.8	111.7	0.9
AF	25,890	217	955	1.2	110.9	110.9	111.9	1.0
AG	26,425	210	938	1.5	111.1	111.1	112.0	0.9
AH	27,500	210	958	1.4	111.3	111.3	112.3	1.0
AI	28,640	68	358	2.9	111.7	111.7	112.6	0.9
AJ	28,715	100	604	1.4	113.0	113.0	113.9	0.9
AK	29,150	140	817	0.8	113.1	113.1	114.0	0.9

[1]Feet above corporate limits

REVISED PRELIMINARY

MAY 2 9 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

RIVER MEADOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Shakers Glen Brook								
A	30[1]	354	827	0.2	46.7	46.7	46.7	0.0
B	740[1]	26	84	2.1	46.8	46.7	46.8	0.1
C	1,190[1]	28	64	2.8	47.7	47.7	47.7	0.0
D	2,800[1]	21	33	4.7	54.6	54.6	54.6	0.0
E	3,170[1]	73	356	0.4	62.3	62.3	62.3	0.0
F	3,300[1]	116	270	0.8	62.7	62.7	62.7	0.0
Shawsheen River								
A	1,056[2]	85	620	3.7	73.3	73.3	73.9	0.6
B	1,373[2]	45	400	5.7	74.2	74.2	74.4	0.2
C	7,392[2]	400	3,283	0.7	75.1	75.1	76.0	0.9
D	10,930[2]	800	4,243	0.5	75.3	75.3	76.3	1.0
E	13,675[2]	675	2,536	0.8	75.4	75.4	76.3	0.9
F	13,781[2]	675	3,186	0.7	76.3	76.3	77.0	0.7
G	14,890[2]	49	243	8.9	76.7	76.7	77.4	0.7
H	14,995[2]	49	449	4.8	81.3	81.3	81.3	0.0
I	17,477[2]	250	1,384	1.3	84.2	84.2	84.8	0.6
J	17,582[2]	100	835	2.2	84.6	84.6	84.9	0.3
K	20,909[2]	257	2,429	0.7	85.1	85.1	85.8	0.7
L	23,390[2]	488	2,987	0.6	85.4	85.4	86.2	0.8
M	25,344[2]	650	5,038	0.3	86.1	86.1	86.8	0.7
N	27,667[2]	425	3,436	0.5	86.2	86.2	87.0	0.8
O	29,568[2]	310	2,376	0.7	86.3	86.3	87.1	0.8
P	30,994[2]	276	1,956	0.8	86.3	86.3	87.2	0.9
Q	32,419[2]	194	1,287	1.3	87.0	87.0	88.0	1.0
R	33,898[2]	295	1,598	1.0	87.5	87.5	88.4	0.9

[1]Feet above confluence with Fowle Brook
[2]Feet above County Boundary

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SHAKERS GLEN BROOK - SHAWSHEEN RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Shawsheen River (continued)								
S	33,950	220	858	2.6	87.5	87.5	88.4	0.9
T	34,765	250	1,835	1.2	88.1	88.1	89.0	0.9
U	35,315	29	277	8.0	88.3	88.3	89.2	0.9
V	35,830	160	1,685	1.3	91.5	91.5	91.8	0.3
W	36,150	48	595	3.7	91.5	91.5	91.9	0.4
X	36,220	39	337	6.5	91.5	91.5	91.9	0.4
Y	36,270	40	233	9.4	91.5	91.5	91.9	0.4
Z	36,630	160	2,346	0.9	96.5	96.5	96.7	0.2
AA	38,380	200	2,764	0.8	96.5	96.5	96.8	0.3
AB	40,830	250	2,981	0.7	96.6	96.6	97.0	0.4
AC	44,690	250	2,946	0.7	96.8	96.8	97.4	0.6
AD	46,440	190	1,878	1.2	96.9	96.9	97.7	0.8
AE	49,290	220	1,930	0.8	97.1	97.1	98.0	0.9
AF	51,290	160	2,346	0.9	97.3	97.3	98.2	0.9
AG	51,410	200	2,764	0.8	97.3	97.3	98.2	0.9
AH	52,210	250	2,981	0.7	98.2	98.2	98.5	0.3
AI	57,150	300	2,491	0.7	98.3	98.3	99.3	1.0
AJ	59,579	300	3,019	0.6	98.4	98.4	99.4	1.0
AK	59,774	500	3,692	0.5	99.1	99.1	99.9	0.9
AL	65,228	90	575	3.1	99.1	99.1	99.9	0.8
AM	65,376	45	435	4.1	99.6	99.6	100.1	0.5
AN	65,535	84	623	2.9	99.9	99.9	100.4	0.5
AO	66,432	150	1,392	1.2	100.0	100.0	100.7	0.7
AP	68,085	190	1,575	1.1	100.0	100.0	100.8	0.8
AQ	70,361	42	200	8.5	105.5	105.5	105.6	0.1
AR	70,598	42	221	7.7	107.1	107.1	107.1	0.0
AS	71,649	80	556	3.1	108.6	108.6	109.1	0.5

[1]Feet above County Boundary

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SHAWSHEEN RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Shawsheen River (continued)								
AT	72,430	75	365	4.4	108.6	108.6	109.5	0.9
AU	72,784	85	534	3.0	109.6	109.6	109.8	0.2
AV	74,373	128	743	2.1	110.3	110.3	110.6	0.3
AW	75,229	144	478	2.7	110.6	110.6	111.0	0.4
AX	75,519	70	395	3.2	110.6	110.6	111.0	0.4
AY	75,883	58	371	3.4	112.0	112.0	112.1	0.1
AZ	76,438	75	412	3.1	112.0	112.0	112.1	0.1
BA	77,071	150	729	1.7	112.3	112.3	112.6	0.3
BB	77,251	96	534	2.4	113.0	113.0	113.2	0.2
BC	78,133	165	785	1.6	113.2	113.2	113.6	0.4
BD	79,669	165	970	1.3	113.5	113.5	114.4	0.9
BE	79,902	82	497	2.6	114.4	114.4	115.0	0.6
BF	80,403	75	482	2.6	115.0	115.0	115.6	0.6
BG	80,503	30	245	5.2	115.0	115.0	115.9	0.9
BH	81,137	125	879	1.4	116.0	116.0	116.8	0.8
BI	81,992	150	1,167	0.5	116.1	116.1	117.0	0.9
BJ	82,193	32	241	2.2	116.2	116.2	117.1	0.9
BK	84,221	37	306	1.7	117.2	117.2	118.1	0.9
BL	84,432	50	376	1.4	117.4	117.4	118.2	0.8
BM	85,419	25	236	2.2	117.8	117.8	118.7	0.9

[1]Feet above County Boundary

REVISED PRELIMINARY

MAY 2 9 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

SHAWSHEEN RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tributary to Cold Spring Brook								
A	1,595[1]	103	392	0.3	180.5	178.1[4]	179.1	1.0
B	1,980[1]	88	307	0.4	180.5	178.1[4]	179.1	1.0
C	2,920[1]	16	20	6.3	198.7	198.7	198.7	0.0
D	3,500[1]	16	28	4.5	211.3	211.3	211.7	0.4
E	3,795[1]	16	19	6.5	224.2	224.2	224.3	0.1
F	4,060[1]	17	32	3.9	228.7	228.7	229.4	0.7
G	4,770[1]	22	54	2.3	232.4	232.4	233.2	0.8
Tributary to Indian Brook								
A	1,500[2]	20	61	2.1	301.9	301.6[5]	302.0	0.5
B	2,280[2]	8	40	3.2	305.9	305.9	306.5	0.6
Tributary to Martins Brook								
A	1,320[3]	357	1,786	0.1	78.6	73.8[6]	76.4	1.0
B	2,387[3]	108	358	0.4	78.6	73.8[6]	76.4	1.0
C	3,913[3]	78	306	0.4	80.6	80.6	81.2	0.6
D	4,410[3]	60	278	0.5	80.6	80.6	81.3	0.7

[1]Feet above confluence with Cold Spring Brook
[2]Feet above confluence with Indian Brook
[3]Feet above confluence with Martins Brook
[4]Elevation computed without consideration of backwater effects from Sudbury River
[5]Elevation computed without consideration of backwater effects from Indian Brook
[6]Elevation computed without consideration of backwater effects from Martins Brook

REVISED PRELIMINARY

MAY 2 9 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TRIBUTARY TO COLD SPRING BROOK – TRIBUTARY TO INDIAN BROOK – TRIBUTARY TO MARTINS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Trout Brook 1								
A	2,200[1]	26	39	4.6	101.9	101.9	102.2	0.3
B	3,140[1]	32	191	0.9	120.4	120.4	120.7	0.3
C	5,300[1]	67	72	2.5	128.8	128.8	128.8	0.0
D	5,850[1]	25	97	1.9	133.0	133.0	133.1	0.1
E	8,930[1]	20	80	2.2	142.8	142.8	143.1	0.3
Trout Brook 2								
A	1,200[2]	6	8	6.7	239.5	239.5	239.6	0.1
B	3,100[2]	5	10	5.5	268.8	268.8	269.4	0.6
C	3,360[2]	9	6	3.5	270.5	270.5	270.8	0.3
Trull Brook								
A	544[3]	20	84	4.2	56.8	47.9[4]	47.9	0.0
B	1,056[3]	20	57	6.2	56.8	49.2[4]	49.5	0.3
C	2,138[3]	20	56	6.3	69.4	69.4	69.7	0.3
D	2,640[3]	25	165	2.2	79.2	79.2	79.2	0.0
E	3,437[3]	20	90	4.0	81.1	81.1	81.3	0.2
F	4,071[3]	15	80	3.5	93.8	93.8	93.8	0.0
G	4,541[3]	20	102	2.8	93.9	93.9	94.3	0.4
H	5,834[3]	30	88	3.2	101.1	101.1	101.1	0.0
I	7,075[3]	30	136	2.1	103.8	103.8	104.1	0.3
J	9,462[3]	60	268	1.1	103.8	103.8	104.7	0.9
K	11,088[3]	105	354	0.6	103.9	103.9	104.9	1.0
L	12,038[3]	100	250	0.8	104.1	104.1	105.1	1.0

[1]Feet above confluence with Richardson Brook
[2]Feet above confluence with Nashua River
[3]Feet above confluence with Merrimack River
[4]Elevation computed without consideration of backwater effects from Merrimack River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TROUT BROOK 1 – TROUT BROOK 2 – TRULL BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Trull Brook Tributary								
A	1,680[1]	40	95	1.5	103.9	103.9	104.9	1.0
B	2,380[1]	30	150	0.9	110.1	110.1	110.9	0.8
C	2,740[1]	40	157	0.9	110.1	110.1	110.9	0.8
D	3,060[1]	40	139	1.0	110.1	110.1	111.0	0.9
E	6,320[1]	80	435	0.2	125.5	125.5	126.4	0.9
F	7,400[1]	93	524	0.1	125.5	125.5	126.4	0.9
G	7,550[1]	46	137	0.5	126.7	126.7	127.6	0.9
H	8,470[1]	140	859	0.1	129.0	129.0	129.0	0.0
Unkety Brook								
A	1,100[2]	71	131	1.4	214.9	214.9	215.6	0.7
B	4,290[2]	115	367	0.5	221.5	221.5	222.3	0.8
C	6,275[2]	58	79	2.4	223.5	223.5	224.1	0.6
Varnum Brook								
A	472[3]	6	15	9.1	190.4	190.4	190.7	0.3
B	950[3]	9	29	4.7	201.8	201.8	202.7	0.9
C	1,287[3]	17	50	2.7	207.7	207.7	208.4	0.7
D	1,840[3]	30	60	2.2	215.5	215.5	216.5	1.0
E	2,920[3]	20	40	3.2	226.3	226.3	227.1	0.8
F	3,412[3]	5	20	3.1	231.8	231.8	232.3	0.5
G	3,905[3]	19	46	1.3	232.9	232.9	233.7	0.8
H	4,478[3]	49	413	0.1	240.5	240.5	241.2	0.7

[1]Feet above confluence with Trull Brook
[2]Feet above corporate limits
[3]Feet above confluence with Nashua River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

TRULL BROOK TRIBUTARY – UNKETY BROOK – VARNUM BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Vine Brook								
A	1,055	100	409	2.0	99.9	97.8[2]	98.6	0.8
B	1,790	30	110	7.5	99.9	99.3[2]	99.7	0.4
C	2,235	50	267	3.1	101.5	101.5	102.1	0.6
D	2,655	33	140	5.9	101.7	101.7	102.7	1.0
E	2,855	20	81	10.2	106.4	106.4	106.8	0.4
F	3,120	50	620	1.3	121.6	121.6	121.6	0.0
G	3,855	40	340	2.4	121.6	121.6	121.6	0.0
H	4,425	40	321	2.5	122.2	122.2	122.2	0.0
I	5,100	40	294	2.7	122.7	122.7	122.9	0.2
J	5,400	60	444	1.8	122.9	122.9	123.3	0.4
K	6,572	200	1,380	1.1	123.0	123.0	123.9	0.9
L	7,786	100	580	1.4	123.1	123.1	124.0	0.9
M	9,808	100	639	1.3	123.6	123.6	124.6	1.0
N	12,095	500	3,314	0.3	124.8	124.8	125.8	1.0
O	17,491	150	531	1.9	124.8	124.8	125.8	1.0
P	18,578	30	319	3.2	132.4	132.4	133.0	0.6
Q	19,059	22	225	4.5	132.4	132.4	133.1	0.7
R	19,751	30	221	4.5	133.4	133.4	134.1	0.7
S	21,366	30	230	2.2	135.1	135.1	135.7	0.6
T	23,246	30	214	2.3	135.8	135.8	136.3	0.5
U	24,265	90	490	1.0	137.6	137.6	138.2	0.6
V	26,414	200	537	0.9	154.3	154.3	155.2	0.9
W	26,863	40	176	2.8	159.8	159.8	160.3	0.5
X	29,890	128	1,540	0.3	179.4	179.4	180.4	1.0
Y	30,471	186	1,871	0.3	179.4	179.4	180.4	1.0
Z	30,682	193	1,591	0.3	179.4	179.4	180.4	1.0

[1]Feet above confluence with Shawsheen River
[2]Elevation computed without consideration of backwater effects from Shawsheen River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

VINE BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Vine Brook (continued)								
AA	30,999	114	778	0.6	179.4	179.4	180.4	1.0
AB	31,316	92	754	0.6	181.8	181.8	182.8	1.0
AC	31,897	40	344	1.3	181.9	181.9	182.9	1.0
AD	32,124	62	529	0.8	182.5	182.5	183.5	1.0
AE	33,022	64	506	0.9	182.5	182.5	183.5	1.0
AF	33,233	222	1,252	0.3	182.5	182.5	183.5	1.0
AG	34,711	32	273	1.4	182.6	182.6	183.6	1.0
AH	34,922	44	312	1.2	182.6	182.6	183.6	1.0
AI	35,133	146	679	0.6	182.7	182.7	183.7	1.0
AJ	35,466	30	278	1.4	182.7	182.7	183.7	1.0
AK	35,677	556	1,236	0.3	183.5	183.5	184.5	1.0
AL	36,575	21	162	2.2	183.6	183.6	184.6	1.0
AM	36,628	50	345	1.0	183.7	183.7	184.7	1.0

[1]Feet above confluence with Shawsheen River

REVISED PRELIMINARY

MAY 29 2008

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

FLOODWAY DATA

VINE BROOK