Appendix G
Requirements for Small MS4s Subject to Approved TMDLs

TABLE G-1 – CHARLES RIVER BASIN
TOTAL PHOSPHORUS AND PATHOGENS

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
ARLINGTON				
	Lower Charles River Basin	Priority Organics, metals, nutrients, Organic Enrichments/low DO, Pathogens, Oil and Grease, taste, odor, and color, noxious aquatic plants, turbidity	65 % Reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
ASHLAND				
	Lower Charles River Basin	Priority Organics, metals, nutrients, Organic Enrichments/low DO, Pathogens, Oil and Grease, taste, odor, and color, noxious aquatic plants, turbidity	53 % reduction in total phosphorous	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
BELLINGHAM				

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
	Lower Charles River Basin	Priority Organics, metals, Nutrients, Organic Enrichment, Low dissolved oxygen (DO), pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	52 % reduction in total phosphorus MA72-03- 93.8% reduction in pathogens, MA72-04 - 96.4% reduction, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
BELMONT				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	60 % reduction in total phosphorus 98.8% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
BROOKLINE				
	Lower Charles River Basin	Nutrients, noxious aquatic plants	63% reduction in total phosphorus 99% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml;	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
			10% ≤ 400 cfu/100 ml	Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
CAMBRIDGE				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	65% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
DEDHAM				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	59% reduction in total phosphorus 66.7% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
DOVER				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic	23% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) &

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
		enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity		(iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
FOXBOROUGH				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	5% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
FRANKLIN				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	52% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
HOLLISTON				

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	44% reduction in total phosphorus 66.7% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
HOPEDALE				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	51% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
HOPKINTON				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and	40% reduction in total phosphorus Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
		color, noxious aquatic plants, turbidity		Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
LEXINGTON				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	50% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
LINCOLN				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	20% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
MEDFIELD				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen,	44% reduction in total phosphorus 95.7% reduction in pathogens, Geometric	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
		pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
MEDWAY				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	47% reduction in total phosphorus 96.4% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
MENDON				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	49% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
MILFORD				

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	57% reduction in total phosphorus MA72-02- 99.8% reduction in pathogens, MA72-03- 93.8% reduction in pathogens Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
MILLIS				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	40% reduction in total phosphorus 66.7% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
NATICK				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and	54% reduction in total phosphorus Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
		grease, taste, odor, and color, noxious aquatic plants, turbidity		Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
NEEDHAM				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	59% reduction in total phosphorus MA72-18 (Fuller Brook)- 94.5% reduction in pathogens, MA72-25 (Rosemary Brook)- 55.5% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
NEWTON				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	64% reduction in total phosphorus MA72-08, MA72-29 (Cheese Cake Brook) and MA72-30 (Unnamed Tributary)- 99% reduction in pathogens, MA72-24 (South Meadow)- 95.2% reduction in pathogens	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
			Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	
NORFOLK				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	43% reduction in total phosphorus 96% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
SHERBORN				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	18% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
SOMERVILLE				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low	66% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) &

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
		dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity		(iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WALPOLE				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	9% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WALTHAM				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	63% reduction in total phosphorus 98% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WATERTOWN				

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	65% reduction in total phosphorus 99% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WAYLAND				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	55% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WELLESLEY				
	Lower Charles River Basin	Nutrients, noxious aquatic plants	59% reduction in total phosphorus MA72-18 (Fuller Brook)-94.5% reduction in pathogens, MA72-25 (Rosemary Brook)-	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
			55.5% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WESTON				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	45% reduction in total phosphorus	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WESTWOOD				
	Lower Charles River Basin	Priority Organics, metals, nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	47% reduction in total phosphorus 66.7% reduction in pathogens, Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (d)(i-x) Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)
WRENTHAM				
	Lower Charles River	Priority Organics, metals,	45% reduction in total	Part 2.2.1(c) & (d)(i-x)

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING IMPARIMENT	APPROVED TMDL WASTE LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
	Basin	nutrients, organic enrichment, low dissolved oxygen, pathogens, oil and grease, taste, odor, and color, noxious aquatic plants, turbidity	phosphorus	Part 2.4.2.1(c)(i)(ii) & (iv) Part 2.4.4.6(d)(i-iv) Part 2.4..4.8(d)(vi) Part 2.4.7.1(a)(i)&(ii) Part 2.4.7.1(d)(iii)

TABLE G-2 – LAND COVER AREA AND ANNUAL PHOSPHOROUS LOADINGS TO CHARLES RIVER

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
Arlington										
Drainage Area (ha)	0.2	5.0	77.3	0.0	0.0	0.0	0.0	10.1	92.67	
1998-2002 Loading (kg/yr)	0.4	7.4	87.5	0.0	0.0	0.0	0.0	0.3	95.60	
TMDL Loading (kg/yr)	0.1	2.5	30.2	0.0	0.0	0.0	0.0	0.2	33.08	**65.4%**
Ashland										
Drainage Area (ha)	2.0	0.0	7.1	60.9	3.8	13.0	70.6	2.7	160.08	
1998-2002 Loading (kg/yr)	3.5	0.0	8.1	34.5	0.2	6.5	9.2	0.1	61.98	
TMDL Loading (kg/yr)	1.2	0.0	2.8	11.9	0.1	4.2	9.2	0.1	29.44	**52.5%**
Bellingham										
Drainage Area (ha)	58.8	212.0	134.2	240.0	212.2	57.1	1,315.9	245.0	2,475.25	
1998-2002 Loading (kg/yr)	99.8	311.7	151.9	135.9	9.7	28.8	171.6	8.4	917.81	
TMDL Loading (kg/yr)	34.4	107.5	52.4	46.9	5.3	18.6	171.6	5.4	442.09	**51.8%**
Belmont										
Drainage Area (ha)	7.2	10.0	105.1	0.9	30.5	0.0	99.9	96.5	350.10	
1998-2002 Loading (kg/yr)	12.3	14.7	118.9	0.5	1.4	0.0	13.0	3.3	164.07	
TMDL Loading (kg/yr)	4.2	5.1	41.0	0.2	0.8	0.0	13.0	2.1	66.40	**59.5%**
Boston										
Drainage Area (ha)	587.1	541.5	2,556.5	43.4	20.2	7.4	688.2	1,444.0	5,888.27	
1998-2002 Loading (kg/yr)	996.4	796.4	2,892.4	24.6	0.9	3.7	89.7	49.6	4,853.77	
TMDL Loading (kg/yr)	343.7	274.7	997.6	8.5	0.5	2.4	89.7	32.0	1,749.04	**64.0%**

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
Brookline										
Drainage Area (ha)	135.9	10.0	588.2	209.4	254.8	42.9	157.0	357.1	1,755.51	
1998-2002 Loading (kg/yr)	230.7	14.8	665.5	118.5	11.6	21.7	20.5	12.3	1,095.54	
TMDL Loading (kg/yr)	79.6	5.1	229.5	40.9	6.3	14.0	20.5	7.9	403.81	**63.1%**
Cambridge										
Drainage Area (ha)	123.1	126.9	205.7	0.0	0.0	0.0	3.1	181.7	640.42	
1998-2002 Loading (kg/yr)	208.9	186.6	232.7	0.0	0.0	0.0	0.4	6.2	634.84	
TMDL Loading (kg/yr)	72.0	64.3	80.3	0.0	0.0	0.0	0.4	4.0	221.09	**65.2%**
Dedham										
Drainage Area (ha)	42.8	195.8	116.1	289.2	219.5	21.1	816.5	151.4	1,852.42	
1998-2002 Loading (kg/yr)	72.6	287.9	131.4	163.7	10.0	10.7	106.5	5.2	787.90	
TMDL Loading (kg/yr)	25.1	99.3	45.3	56.5	5.5	6.9	106.5	3.4	348.27	**55.8%**
Dover										
Drainage Area (ha)	6.7	0.0	0.0	154.7	738.0	166.3	2,052.6	216.1	3,334.44	
1998-2002 Loading (kg/yr)	11.3	0.0	0.0	87.6	33.6	84.0	267.6	7.4	491.55	
TMDL Loading (kg/yr)	3.9	0.0	0.0	30.2	18.4	54.2	267.6	4.8	379.11	**22.9%**
Foxborough										
Drainage Area (ha)	0.0	0.0	0.0	0.0	1.6	0.0	4.2	0.0	5.75	
1998-2002 Loading (kg/yr)	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.62	
TMDL Loading (kg/yr)	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.58	**5.2%**
Franklin										
Drainage Area (ha)	87.5	351.2	110.5	1,455.0	597.6	119.8	2,966.7	600.3	6,288.59	

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
1998-2002 Loading (kg/yr)	148.6	516.4	125.0	823.5	27.2	60.6	386.8	20.6	2,108.72	
TMDL Loading (kg/yr)	51.2	178.1	43.1	284.0	14.9	39.1	386.8	13.3	1,010.58	**52.1%**
Holliston										
Drainage Area (ha)	74.6	104.5	89.5	687.4	616.1	122.8	2,790.9	347.3	4,833.18	
1998-2002 Loading (kg/yr)	126.6	153.7	101.2	389.1	28.0	62.1	363.9	11.9	1,236.61	
TMDL Loading (kg/yr)	43.7	53.0	34.9	134.2	15.3	40.0	363.9	7.7	692.78	**44.0%**
Hopedale										
Drainage Area (ha)	9.4	11.7	0.0	59.0	32.0	3.9	134.9	22.5	273.38	
1998-2002 Loading (kg/yr)	15.9	17.1	0.0	33.4	1.5	2.0	17.6	0.8	88.26	
TMDL Loading (kg/yr)	5.5	5.9	0.0	11.5	0.8	1.3	17.6	0.5	43.09	**51.2%**
Hopkinton										
Drainage Area (ha)	3.6	31.6	0.0	76.4	215.9	10.8	487.3	30.8	856.31	
1998-2002 Loading (kg/yr)	6.1	46.4	0.0	43.2	9.8	5.4	63.5	1.1	175.63	
TMDL Loading (kg/yr)	2.1	16.0	0.0	14.9	5.4	3.5	63.5	0.7	106.14	**39.6%**
Lexington										
Drainage Area (ha)	87.3	107.3	36.0	273.3	150.1	29.1	443.4	137.3	1,263.96	
1998-2002 Loading (kg/yr)	148.2	157.9	40.8	154.7	6.8	14.7	57.8	4.7	585.62	
TMDL Loading (kg/yr)	51.1	54.4	14.1	53.4	3.7	9.5	57.8	3.0	247.06	**57.8%**
Lincoln										
Drainage Area (ha)	7.0	0.9	7.8	7.0	693.1	146.5	1,244.9	117.5	2,224.70	
1998-2002 Loading (kg/yr)	11.8	1.3	8.9	3.9	31.5	74.0	162.3	4.0	297.81	
TMDL Loading (kg/yr)	4.1	0.4	3.1	1.4	17.3	47.7	162.3	2.6	238.87	**19.8%**

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
Medfield										
Drainage Area (ha)	25.8	62.3	69.3	390.7	480.4	95.3	1,580.2	226.0	2,929.97	
1998-2002 Loading (kg/yr)	43.9	91.6	78.4	221.1	21.8	48.2	206.0	7.8	718.74	
TMDL Loading (kg/yr)	15.1	31.6	27.0	76.3	12.0	31.1	206.0	5.0	404.08	**43.8%**
Medway										
Drainage Area (ha)	38.2	54.6	40.3	500.3	672.0	208.0	1,244.2	255.1	3,012.75	
1998-2002 Loading (kg/yr)	64.8	80.3	45.7	283.2	30.6	105.1	162.2	8.8	780.62	
TMDL Loading (kg/yr)	22.4	27.7	15.7	97.7	16.7	67.8	162.2	5.7	415.88	**46.7%**
Mendon										
Drainage Area (ha)	9.5	0.1	0.0	3.2	15.5	4.4	40.9	4.6	78.17	
1998-2002 Loading (kg/yr)	16.1	0.2	0.0	1.8	0.7	2.2	5.3	0.2	26.49	
TMDL Loading (kg/yr)	5.5	0.1	0.0	0.6	0.4	1.4	5.3	0.1	13.48	**49.1%**
Milford										
Drainage Area (ha)	80.3	328.9	270.7	647.7	243.4	3.1	1439.1	265.2	3,278.42	
1998-2002 Loading (kg/yr)	136.4	483.7	306.3	366.6	11.1	1.6	187.6	9.1	1,502.33	
TMDL Loading (kg/yr)	47.0	166.8	105.6	126.4	6.1	1.0	187.6	5.9	646.52	**57.0%**
Millis										
Drainage Area (ha)	23.7	81.4	22.1	328.9	385.4	303.2	1,749.1	271.6	3,165.42	
1998-2002 Loading (kg/yr)	40.2	119.8	25.0	186.1	17.5	153.2	228.1	9.3	779.31	
TMDL Loading (kg/yr)	13.9	41.3	8.6	64.2	9.6	98.8	228.1	6.0	470.52	**39.6%**
Natick										
Drainage Area (ha)	33.5	71.7	171.1	587.9	370.6	72.8	939.1	195.4	2,442.11	
1998-2002 Loading (kg/yr)	56.9	105.4	193.6	332.8	16.9	36.8	122.4	6.7	871.53	

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
TMDL Loading (kg/yr)	19.6	36.4	66.8	114.8	9.2	23.7	122.4	4.3	397.26	**54.4%**
Needham										
Drainage Area (ha)	66.0	200.5	674.8	504.7	456.3	47.3	1,038.4	231.1	3,219.09	
1998-2002 Loading (kg/yr)	112.0	294.9	763.4	285.7	20.8	23.9	135.4	7.9	1,643.96	
TMDL Loading (kg/yr)	38.6	101.7	263.3	98.5	11.4	15.4	135.4	5.1	669.45	**59.3%**
Newton										
Drainage Area (ha)	202.3	216.4	2,393.5	525.0	59.1	0.9	545.4	673.7	4,616.36	
1998-2002 Loading (kg/yr)	343.3	318.3	2,708.0	297.1	2.7	0.5	71.1	23.2	3,764.12	
TMDL Loading (kg/yr)	118.4	109.8	934.0	102.5	1.5	0.3	71.1	14.9	1,352.46	**64.1%**
Norfolk										
Drainage Area (ha)	26.4	101.5	1.7	581.2	600.8	103.9	2,114.1	358.1	3,887.66	
1998-2002 Loading (kg/yr)	44.8	149.3	1.9	329.0	27.3	52.5	275.6	12.3	892.80	
TMDL Loading (kg/yr)	15.5	51.5	0.7	113.5	15.0	33.9	275.6	7.9	513.48	**42.5%**
Sherborn										
Drainage Area (ha)	4.5	3.9	1.8	10.0	768.5	280.6	2,023.7	156.9	3,249.90	
1998-2002 Loading (kg/yr)	7.7	5.7	2.0	5.6	35.0	141.8	263.9	5.4	467.07	
TMDL Loading (kg/yr)	2.6	2.0	0.7	1.9	19.1	91.5	263.9	3.5	385.21	**17.5%**
Somerville										
Drainage Area (ha)	0.0	26.6	0.4	0.0	0.0	0.0	0.0	0.0	27.02	
1998-2002 Loading (kg/yr)	0.0	39.2	0.4	0.0	0.0	0.0	0.0	0.0	39.62	
TMDL Loading (kg/yr)	0.0	13.5	0.1	0.0	0.0	0.0	0.0	0.0	13.66	**65.5%**
Walpole										

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
Drainage Area (ha)	0.0	0.0	0.0	1.6	134.2	8.6	372.4	58.8	575.73	
1998-2002 Loading (kg/yr)	0.0	0.0	0.0	0.9	6.1	4.3	48.6	2.0	61.96	
TMDL Loading (kg/yr)	0.0	0.0	0.0	0.3	3.3	2.8	48.6	1.3	56.33	**9.1%**
Waltham										
Drainage Area (ha)	158.1	501.1	1,010.2	298.6	53.0	32.6	709.2	541.1	3,304.02	
1998-2002 Loading (kg/yr)	268.3	737.0	1,143.0	169.0	2.4	16.5	92.5	18.6	2,447.21	
TMDL Loading (kg/yr)	92.5	254.2	394.2	58.3	1.3	10.6	92.5	12.0	915.64	**62.6%**
Watertown										
Drainage Area (ha)	104.3	125.5	478.7	0.0	0.0	11.7	12.9	212.9	946.06	
1998-2002 Loading (kg/yr)	177.0	184.6	541.6	0.0	0.0	5.9	1.7	7.3	918.14	
TMDL Loading (kg/yr)	61.1	63.7	186.8	0.0	0.0	3.8	1.7	4.7	321.74	**65.0%**
Wayland										
Drainage Area (ha)	0.0	12.6	14.4	10.7	46.8	0.7	54.1	7.8	147.18	
1998-2002 Loading (kg/yr)	0.0	18.5	16.3	6.1	2.1	0.3	7.1	0.3	50.67	
TMDL Loading (kg/yr)	0.0	6.4	5.6	2.1	1.2	0.2	7.1	0.2	22.71	**55.2%**
Wellesley										
Drainage Area (ha)	90.0	54.5	15.3	764.6	859.7	6.7	430.9	381.0	2,602.48	
1998-2002 Loading (kg/yr)	152.7	80.1	17.3	432.8	39.1	3.4	56.2	13.1	794.65	
TMDL Loading (kg/yr)	52.7	27.6	6.0	149.3	21.4	2.2	56.2	8.4	323.74	**59.3%**
Weston										
Drainage Area (ha)	13.9	143.9	10.8	373.4	1,450.2	56.2	1,500.6	418.8	3,967.81	
1998-2002 Loading (kg/yr)	23.5	211.6	12.2	211.4	66.0	28.4	195.7	14.4	763.18	
TMDL Loading (kg/yr)	8.1	73.0	4.2	72.9	36.1	18.3	195.7	9.3	417.60	**45.3%**

Charles River Watershed Community	Commercial	Industrial	High Density Residential	Medium Density Residential	Low Density Residential	Agriculture	Forest	Open Land	Total	Percent Reduction Required
Westwood										
Drainage Area (ha)	10.6	48.4	7.0	89.2	284.3	35.0	390.4	69.7	934.41	
1998-2002 Loading (kg/yr)	17.9	71.1	7.9	50.5	12.9	17.7	50.9	2.4	231.32	
TMDL Loading (kg/yr)	6.2	24.5	2.7	17.4	7.1	11.4	50.9	1.5	121.77	**47.4%**
Wrentham										
Drainage Area (ha)	45.8	146.0	8.6	149.9	402.2	49.7	1,359.3	133.2	2,294.55	
1998-2002 Loading (kg/yr)	77.7	214.7	9.7	84.8	18.3	25.1	177.2	4.6	612.13	
TMDL Loading (kg/yr)	26.8	74.1	3.4	29.3	10.0	16.2	177.2	3.0	339.84	**44.5%**
Charles River Watershed										
Drainage Area (ha)	2,166.2	3,888.4	9,224.7	9,324.2	11,067.9	2,061.1	30,820.3	8,421.3	7,6974	
1998-2002 Loading (kg/yr)	3,676.3	5,718.3	10,437.0	5,277.6	503.4	1,041.6	4,018.5	289.4	3,0962	
TMDL Loading (kg/yr)	1,267.9	1,972.3	3,599.7	1,820.3	275.6	671.9	4,018.0	186.7	1,3812	**55.4%**
Percent Reduction Required	65.0%	65.0%	65.0%	65.0%	45.0%	35.0%	0.0%	35.0%	55.4%	

TABLE G-3 – NEPONSET RIVER BASIN - BACTERIA

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING THE IMPAIRMENT	APPROVED TMDL LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
DEDHAM				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
DOVER				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
FOXBOROUGH				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
MEDFIELD				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
MILTON				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)

QUINCY				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
RANDOLPH				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
SHARON				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
STOUGHTON				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
WALPOLE				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
WESTWOOD				
	Neponset River Basin	Fecal Coliform	Geometric mean ≤ 200 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)

TABLE G-4 – SHAWSHEEN RIVER BASIN – BACTERIA

MUNICIPALITY	RECEIVING WATER	POLLUTANT CAUSING THE IMPAIRMENT	APPROVED TMDL LOAD ALLOCATION	TMDL PERMIT REQUIREMENTS
LEXINGTON				
	Shawsheen River Basin	Fecal Coliform, pathogens	Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
LINCOLN				
	Shawsheen River Basin	Fecal Coliform, pathogens	Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
NORTH ANDOVER				
	Shawsheen River Basin	Fecal Coliform, pathogens	Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
NORTH READING				
	Shawsheen River Basin	Fecal Coliform, pathogens	Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
WILMINGTON				

	Shawsheen River Basin	Fecal Coliform, pathogens	Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)
WOBURN				
	Shawsheen River Basin	Fecal Coliform, pathogens	Geometric mean ≤ 200 cfu/100 ml; 10% ≤ 400 cfu/100 ml	Part 2.2.1(c) & (g) Part 2.4.2.1(c)(i) Part 2.4.4.8(d)(i-v) Part 2.4.7.1(a)(ii)