STRUCTURAL STORMWATER BMPS[1]	APPLICABLE LAND USES															CAPITAL COST PER TREATED ACRE [3,5,7, 8, 9, 10]	RANGE OF TREATMENT EFFICIENCY (LB/AC/YR)[3,6,8,9]	AVERAGE TREATMENT EFFICIENCY (LB/AC/YR)[3,6,8]	COST PER LB N TREATED[4]
	Residential Pervious	Residential Impervious	Residential Roof	Commercial Pervious	Commercial Impervious	Commercial Roof	Industrial Pervious	Industrial Impervious	Industrial Roof	Institutional Pervious	Institutional Impervious	Institutional Roof	Outdoor and Other Urban Build-up Land	Agriculture	Road				
Bioretention		x	x		x	x		x	x		x	x	x		x	$32,400	7.2 - 13.1	10.0	$3,243
High-efficiency Bioretention		x	x		x	x		x	x		x	x	x		x	$34,830	7.7 - 14.4	12.0	$2,903
Gravel Wetland					x			x			x		x		x	$23,600	7.7 - 14.1	10.8	$2,186
Porous Pavement - New Development					x			x			x		x			$29,700			
Porous Pavement - Redevelopment					x			x			x		x			$186,300	8.8 - 15.1	12.4	$2,386
Tree Box Filter					x			x			x				x	$41,100	6.9 - 12.8	10.1	$4,077
Wet Pond					x			x			x				x	$15,000	3.7 - 11.1	9.2	$1,628
Subsurface Sand Filter[2]					x			x			x		x		x	$120,000	8.1 - 13.0	10.2	$11,789
Dry Well/Infiltration Trench[2]		x	x			x			x			x				$15,000	11.9 - 14.9	14.1	$1,061
Subsurface Infiltration[2]			x		x	x		x	x		x	x	x		x	$51,000	8.1 - 13.0	10.2	$5,010
NON-STRUCTURAL STORMWATER BMPS																			
Cover Crops														x		$52	1.0 - 1.38	1.19	$44
Slow Release Fertilizer														x		$7	0.2 - 0.34	0.27	$26
Residential Lawn Fertilizer Program[5,6]	x															$110,000	5% - 17%	11%	N/A
Street Sweeping (see "StreetSweeping" Tab)[10]															x	$21	0.01 - 0.03	0.02	$1,059
Catch basin cleaning (twice per year)[12]																$145,000			
Pet Waste Stations[9]													x		x		0.04 - 0.05	0.05	
Illicit Connection Identification and Elimination[10]	One Identified annually ($20,000/year) (No N removal credit; however, $ amount must be considered in budget)																		
Forest Buffers	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		8.4 - 9	8.70	
SEPTIC SYSTEM BMPS																			
Residential Sewer Extension[7,8]	**ANALYSIS/IMPLEMENTATION RATE TO BE COMPLETED BY VHB**															$50,000	1.6 - 1.8	1.70	$260
Septic Pumpouts[3]																$1,000	0.37 - 0.39	0.38	$2,632
Advanced Septic Systems (per system installed)[3]																$12,500	11.0 - 13.0	12.00	$1,042
Advanced Septic Systems with Denitrification (per system installed)[3]																$18,000	20.0 - 22.0	21.00	$857

[1] The cost and treatment efficiency values for all the Structural BMPs listed are for systems designed with a 1-inch stormwater capture volume.

[2] Some industrial and commercial land uses may have contaminants that may pose a risk for groundwater contamination. In these cases, infiltration should not be used without adequate treatment of runoff prior to entering the BMP.

[3] Units are on a per-system basis rather than per-acre-treated basis for Advanced Septic Sytems, Advanced Septic Systems with Denitrification and Septic Pumpouts

[4] The cost per pound of Nitrogen treated is for the first year of the BMP service life.

[5] Units are on a per-program basis rather than per-acre-treated basis for Residential Lawn Fertilizer Program.

[6] Units are on a % removal efficiency basis rather than lb/acre/yr for Residential Lawn Fertilizer Program.

[7] Units are on a per home basis rather than per-acre-treated basis for Residential Sewer Extension.

[8] Units are on a lb/person/yr basis rather than lb/acre/yr for Residential Sewer Extension.

[9] Units are on a lb/discarded pet waste bag/yr basis rather than lb/acre/yr for Pet Waste Stations.

[10] Street Sweeping costs and load reduction based on $/curb-mile and lb/curb-mile

[11] Budget estimate based on Franklin MA estimated cost to remove Illicit Discharges

[12] Budget estimate based on Franklin MA average annual catch basin cleaning fee for 10 years.