

#### \* As amended 5 November 2015

To reflect corrected load allocations for the Scorton Creek subembayment within Scorton Harbor. The original report inaccurately attributed 69% of the load to the town of Barnstable.

# The following definitions are used to describe nitrogen responsibility:

Unattenuated load: the controllable nitrogen load, in kg, deposited in the watershed

Attenuated load: the controllable nitrogen load, in kilograms (kg), from the watershed that reaches the embayment after the effect of natural attenuation in wetlands or ponds

**Threshold:** the amount of nitrogen, in kg, that a water body can receive and still meet water quality goals; this number is based on Massachusetts Estuaries Project (MEP) technical reports or Total Maximum Daily Load (TMDL) reports

**Reduction target:** the amount of nitrogen, in kg, that needs to be removed from the watershed to achieve the threshold; this number is calculated by subtracting the threshold number from the controllable attenuated load

Percent contribution: the percent of controllable attenuated load that a town contributes to the watershed

**Kilogram responsibility:** is calculated by applying the percent contribution to the reduction target and indicates the amount of nitrogen, in kg, that a community is responsible for addressing

### **BARNSTABLE HARBOR**

#### SUBEMBAYMENT: BARNSTABLE HARBOR

Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
36,557	36,557	N/A	N⁄A	82%	N/A	Sandwich (4%), Yarmouth (14%)

### **CENTERVILLE RIVER**

#### SUBEMBAYMENT: CENTERVILLE RIVER EAST

Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
27,327	19,236	9,022	10,214	100%	10,214	N/A
SUBEMBAYMENT: CENTER	VILLE RIVER WEST					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
3,004	3,004	3,454	N⁄A	100%	N/A	N/A
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
SUBEMBAYMENT: EAST BA Unattenuated Load (kg.)		Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
3,725	2,863	3,149	N/A	100%	N⁄A	N⁄A
SUBEMBAYMENT: SCUDDE	R BAY					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
19,812	16,235	19,208	N/A	100%	N/A	N/A

## **LEWIS BAY**

Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
7,317	7,317	13,236	N⁄A	100%	N/A	N⁄A
SUBEMBAYMENT: HYANNIS	S INNER HARBOR					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
7,317	6,903	2,716	4,187	83%	3,471	Yarmouth (17%)
subembayment: LEWIS B	AY					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
14,642	14,539	3,527	11,012	25%	2,737	Yarmouth (75%)
SUBEMBAYMENT: MILL CR	EEK					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
14,818	11,928	8,154	3,774	17%	660	Yarmouth (83%)
subembayment: SIMMON	IS POND AND WELL					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
654	304	4,330	N⁄A	100%	N/A	N⁄A
SUBEMBAYMENT: SNOWS	CREEK					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
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### BARNSTABLE: Subembayment Watersheds

Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
20,712	20,026	15,186	4,840	100%	4,840	N⁄A
PARKERS RIVE	R					
SUBEMBAYMENT: UPPER P	ARKERS RIVER					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
9,124	7,126	3,061	4,065	<1%	11	Yarmouth (>99%)
POPPONESSET						
		Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
SUBEMBAYMENT: PINQUIC	KSET COVE	Threshold (kg.) 277	Reduction Target (kg.) 67	Percent Contribution	Kilogram Responsibility 67	Additional Contributing Towns
SUBEMBAYMENT: PINQUIC Unattenuated Load (kg.)	KSET COVE Attenuated Load (kg.) 344					
UBEMBAYMENT: PINQUIC Unattenuated Load (kg.) 344	KSET COVE Attenuated Load (kg.) 344					
SUBEMBAYMENT: PINQUIC Unattenuated Load (kg.) 344 SUBEMBAYMENT: POPPON	KSET COVE Attenuated Load (kg.) 344 ESSET BAY	277	67	100%	67	N/A
SUBEMBAYMENT: PINQUIC Unattenuated Load (kg.) 344 SUBEMBAYMENT: POPPON Unattenuated Load (kg.)	KSET COVE Attenuated Load (kg.) 344 ESSET BAY Attenuated Load (kg.) 630	277 Threshold (kg.)	67 Reduction Target (kg.)	100% Percent Contribution	67 Kilogram Responsibility	N/A Additional Contributing Towns
SUBEMBAYMENT: PINQUIC Unattenuated Load (kg.) 344 SUBEMBAYMENT: POPPON Unattenuated Load (kg.) 630	KSET COVE Attenuated Load (kg.) 344 ESSET BAY Attenuated Load (kg.) 630	277 Threshold (kg.)	67 Reduction Target (kg.)	100% Percent Contribution	67 Kilogram Responsibility	N/A Additional Contributing Towns

### **RUSHY MARSH**

#### SUBEMBAYMENT: RUSHY MARSH POND

Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
78	78	34	44	100%	44	N⁄A

### **SCORTON HARBOR \***

#### SUBEMBAYMENT: JONES LANE

Unatte	nuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
	1,922	1,922	3,756	N⁄A	3%	N⁄A	Sandwich (97%)

### THREE BAYS

#### SUBEMBAYMENT: COTUIT BAY Unattenuated Load (kg.) Attenuated Load (kg.) Threshold (kg.) Reduction Target (kg.) Percent Contribution Kilogram Responsibility Additional Contributing Towns 10,046 8,079 8.153 N/A 95% N/A Mashpee (<1%), Sandwich (5%) SUBEMBAYMENT: NORTH BAY Unattenuated Load (kg.) Attenuated Load (kg.) Threshold (kg.) Reduction Target (kg.) Percent Contribution Kilogram Responsibility Additional Contributing Towns 9,977 9,133 1,631 7,502 99% 7,445 Mashpee (<1%), Sandwich (<1%) SUBEMBAYMENT: PRINCES COVE Unattenuated Load (kg.) Percent Contribution **Kilogram Responsibility** Additional Contributing Towns Attenuated Load (kg.) Threshold (kg.) Reduction Target (kg.) 792 92% Sandwich (8%) 4,953 4,267 3,475 3,205

### BARNSTABLE: Subembayment Watersheds

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Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
2,297	2,088	281	1,807	100%	1,807	N/A
SUBEMBAYMENT: SEAPUIT	RIVER					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
969	969	1,375	N⁄A	100%	N∕A	N⁄A
SUBEMBAYMENT: WARREN	IS COVE					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
22,101	10,688	7,582	3,106	81%	2,518	Sandwich (19%)
SUBEMBAYMENT: WEST BA	AY					
Unattenuated Load (kg.)	Attenuated Load (kg.)	Threshold (kg.)	Reduction Target (kg.)	Percent Contribution	Kilogram Responsibility	Additional Contributing Towns
5,641	5,460	5,829	N⁄A	100%	N/A	N/A

#### SUBEMBAYMENT: PRINCES COVE CHANNEL