

Cape Cod Stormwater Managers Group and the Cape Cod Stormwater Coalition



February 28, 2019
Buzzards Bay Action Committee
Mattapoissett, MA

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Association to Preserve Cape Cod



History (approximate)

- **Late 1990s: Phase II Stormwater Coordinators Group formed, under Cape Cod Commission;**
- **2011: Cape Cod Stormwater Managers Group formed under Barnstable County Coastal Resources Committee (CRC), APCC and MassBays.**
- **2014: EPA issued Draft MS4 Permit. Stormwater Group and partners discuss forming a stormwater coalition.**
- **2016: EPA issued Final MS4 Permit. APCC researches stormwater coalitions and creates MS4 checklist. Stormwater group and partners discuss needs.**
- **2017: DEP 604b grant for stormwater coalition awarded to Cape Cod Commission, with CRC, APCC and MassBays as partners.**
- **2018: MS4 permit became effective 7/1/18. Stormwater coalition activities ongoing.**

Members and Partners

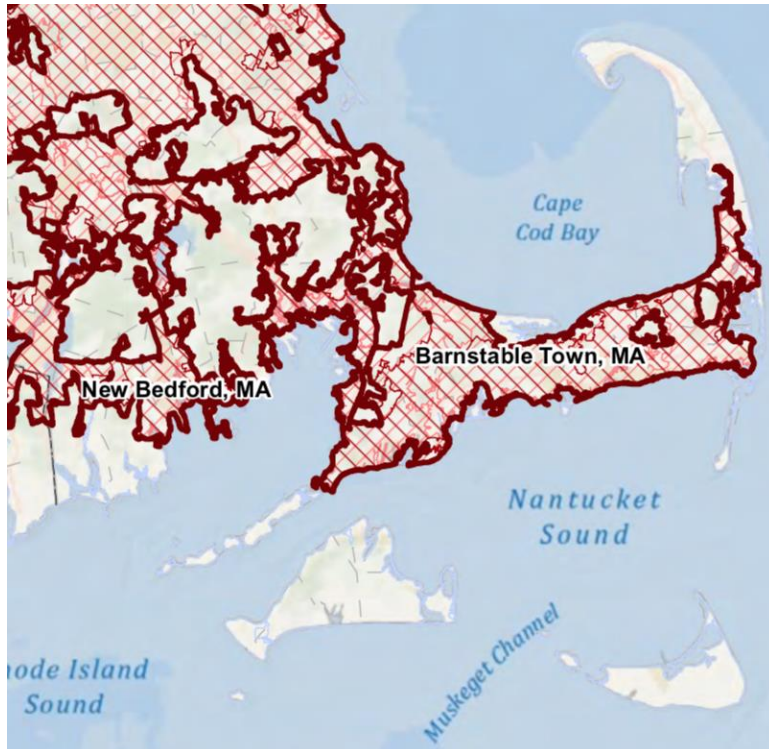
- **Cape Cod Stormwater Managers Group (CCSMG):**
 - **Municipal stormwater managers (all 15 towns);**
 - **Association to Preserve Cape Cod (APCC) /Massachusetts Bays National Estuary Program;**
 - **Barnstable County Coastal Resources Committee (CRC);**
 - **Barnstable County Dept. Health & the Environment (BCDHE);**
 - **Cape Cod Commission;**
 - **MA CZM;**
 - **MA Statewide Stormwater Coalition (a coalition of stormwater coalitions) – Cape Cod is a member.**
- **Advisors:**
 - **EPA Region 1, NPDES Stormwater Program;**
 - **MA DEP Stormwater Program;**
 - **MA CZM Nonpoint Source Program;**
 - **Buzzards Bay National Estuary Program.**

Structure

- **Formed by the Barnstable County Coastal Resources Committee;**
- **Informal organization: Chair, steering committee, members, partners;**
- **Voluntary participation – a draft MOU was prepared but not signed;**
- **Stormwater managers from all 15 towns are welcome to participate. So far, only those from MS4 towns have participated;**
- **Host: Cape Cod Commission;**
- **Partners: Agencies, NGOs;**
- **Meetings: monthly or bi-monthly;**
- **Distribution list is maintained;**
- **Open meeting laws apply.**

Goals

Help towns address stormwater needs under the MS4 permit and the Cape Cod 208 Water Quality Plan in a cost-effective, efficient and environmentally effective manner.



Massachusetts



NPDES Phase II
Stormwater Program
Automatically Designated
MS4 Areas

Regulated Area:



Urbanized Areas, Town Boundaries:
US Census (2000, 2010)
Base map: US National Park Service

US EPA Region 1 GIS Center Map #8824, 11/19/2012

Additional MS4 requirements for Cape Cod

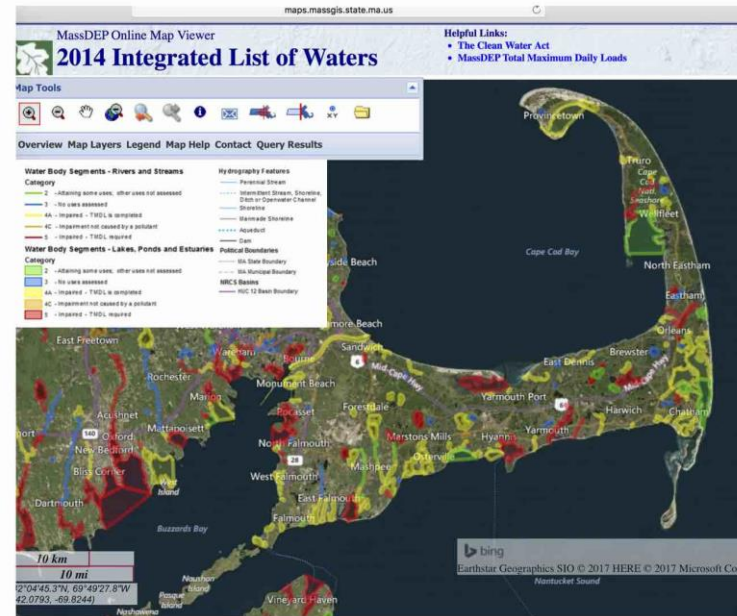


Figure 3. Impaired Waters on Cape Cod. <http://www.mass.gov/eea/agencies/massdep/water/watersheds/integrated-list-of-waters.html>

- Cape Cod has 19 TMDLs for nitrogen;
- Additional MS4 requirements for areas in TMDLs include:
 - Public education targeted to reduce N in the MS4 discharge;
 - New Development Ordinance in the MS4 requires BMPs to be optimized for N removal;
 - Good Housekeeping requires street sweeping 2x/year, only slow release fertilizers on permittee-owned properties;
 - Nitrogen source identification report: delineate potential N sources, ID potential retrofits within 5 years; 1 demo project within 6 years, estimate N removal by BMP, document BMP type and drainage area treated.

Cost Estimator

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
Town:	Suburban Town													
Community Statistics					MS4 Permit Task									
General						Permit Year	1	2	3	4	5	# Yrs	% Complete	Estimate
Population	15000				Notice of Intent (NOI)	x						1	0%	50
# of households (=population / 2.4 if assumed)	6000				Stormwater Mgmt Plan (SWMP)	x						1	0%	128
Population in regulated area	14000				MCM 1 - Public Education	x	x	x	x	x		5	0%	112
Consultant Rate / hour	\$100				MCM 2 - Public Participation	x	x	x	x	x		5	0%	80
					MCM 3 - IDDE									790
MCM3 - Illicit Discharge Detection and Elimination					Written IDDE Plan / Procedures	x						1	0%	16
Number of outfalls	200				System Mapping / Catchment Delineation	x	x					2	0%	210
Number of catch basins (10 per outfall if assumed)	2000				Catchment Assessment / Ranking	x	x	x				3	0%	24
Key junction manholes (20% of CBs) / (3 per outfall)	400	600			Dry Weather Screening	x	x	x				3	0%	320
Assumed % outfalls flowing under dry conditions	10%				Wet Weather Screening			x	x	x		3	0%	40
Catchments with SVFs for wet sampling (low estimate - 25%)	50				Catchment Investigations		x	x	x	x		4	0%	80
Catchments with SVFs for wet sampling (high estimate - 75%)	150				Training	x	x	x	x	x		5	0%	100
Maximum # of illicit discharge incidents (min/max)	1	1			MCM 4 - Construction Site Control									32
					Update of construction bylaw/ordinance	x						1	0%	32
MCM4 - Construction Site Control					Construction review / site inspection procedures	x						1	0%	0
Annual construction projects w/site inspection paid by town (min/max)	0	0			MCM 5 - Post Construction Site Control									182
					Update post construction regulations		x					1	0%	40
MCM5 - Post Construction Site Control					Report on existing street / parking regulations				x			1	0%	62
Number of municipal facilities for BMP evaluation	10				Inventory municipal properties				x			1	0%	80
					MCM 6 - Good Housekeeping									446
MCM6 - Good Housekeeping					Develop Operation / Maintenance Procedures		x					1	0%	124
Number of community owned stormwater BMPs	20				BMP Inspection / Maintenance		x					1	0%	142
Number of facilities requiring SWPPPs (min/max)	3	5			SWPPP Written Plan Preparation		x					1	0%	0
Town owned trucks for catch basin cleaning? (Yes / No)	No				SWPPP Implementation		x	x	x	x		4	0%	120
Assumed % of structures requiring cleaning (>50% full)	30%				Catch Basin Cleaning	x	x	x	x	x		5	0%	0
Number of structures requiring cleaning per year	600				Street Sweeping	x	x	x	x	x		5	0%	0
Town owned trucks for street sweeping? (Yes / No)	Yes				Training	x	x	x	x	x		5	0%	60
Miles of town owned (regulated) roadway	75				Annual Report	x	x	x	x	x		5	0%	253
Miles of roadway requiring sweeping (above x 2 times/yr)	150													

Adapted from EPA Cost Estimator, and sized for a small suburban town. Distributed to towns in Fall 2018. Towns can customize it more.



Cape Cod Stormwater

Home

Cape Stormwater Collaborative

MS4 Permit Requirements

Stormwater Financing Mechanisms

Town Stormwater Bylaws

Contact Us

For Residents

For Towns



Achievements

- MS4 checklist (APCC);
- Survey of municipal stormwater needs (APCC. consultant);
- Needs assessment (consultant);
- Training in:
 - MS4 permit requirements (EPA, DEP);
 - NOI preparation (EPA, DEP);
 - IDDE monitoring, equipment and lab resources (BBNEP, BCDHE);
 - Stormwater calculations (Consultant);
 - PeopleGIS software for managing systems (vendor);
- Cost estimator for Cape Cod towns (Commission);
- Model bylaws and BMPs (Consultant);
- Draft MOU for stormwater coalition (Commission);
- Stormwater outreach materials (All);
- “Cape Cod Stormwater Hub” website at <https://capecodstormwater.wordpress.com>;
- Recommendations for revisions to MA Stormwater Handbook for Cape Cod conditions (Consultant);
- Stormwater designs for enhanced pollutant removal for Cape Cod (Consultant);
- MA DOT stormwater drainage plans for towns (Commission);
- Coordination with EPA, DEP, CZM, other agencies (APCC, Commission).

Acknowledgements

- **Barnstable County Coastal Resources Committee (CRC)**
- **Buzzards Bay NEP**
- **Cape Cod Commission**
- **Fred Civian, DEP Stormwater Coordinator**
- **Newton Tedder, EPA Region 1, Stormwater Coordinator**
- **DEP 604b grant for \$50,000**
- **MassBays NEP**