



State of the Bay Indicators and Unimplemented Indicators from 1996 and 2004 Monitoring Plans

Group	Indicator Title	Which SotB?	Data Frequency	Implementation	Comments
Climate					
	Climate Change	Both	Annual	NOAA	Data on air temperature and precipitation readily available from on-line data sources.
Community					
	Education and Stewardship	2015	Five years	CBEP	Similar to 2010 metric. Metrics still poorly defined.
	Focus groups	Neither	Once	CBEP	Results never incorporated into any "State of the Bay" reports.
	Public attitude and actions survey	Neither	Once	CBEP	Results never incorporated into any "State of the Bay" reports.
	Stewardship and Community Engagement	2010	Five years	CBEP	Poorly-defined metrics and limited data. Indirect indicators only.
Drivers					
	Impervious Surfaces	Both	Not specified	IF&W	No recent impervious surfaces data. Last data from 2007 imagery.
	Population and Land Cover	Both	As available	U.S. Census, C-CAP	Census data is available every ten years, with robust estimates every five. High resolution land cover data has not been collected in a consistent manner in Maine, so trend analysis would need to rest of lower resolution data.
Habitat					

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	Assessing habitat loss	Neither	Never completed	MELCD data	Static analyses has been based on 2004 state land cover data
	Conserved Lands	Both	Annual	FWS	Alternate data source now maintained by DACF.
	Eelgrass Beds	Both	Five years	Various agencies and partners	Flights have not followed a regular schedule. No dedicated funding.
	Interior Forest Habitat	2010	Once	MELCD data	Based on land use coverage that has not been updated.
	Stream Connectivity	2015	Annual	Stream Connectivity Working Group	
	Tracking regulated activities	Neither	Never completed	Never implemented	Was to br based on analysis of DEP permitting records.
	Tracking wetland loss	Neither	Never completed	Never implemented	Plans discussed tracking of wetland loss using NWI and using permit data. Neither has been implemented.
Indicator Species					
	Water Birds (Shorebirds and Osprey)	2015	Study	CBEP	No current plans to repeat aerial nest surveys or shorebird counts on tidal flats.
	Waterbirds (Waterfowl and Seabirds)	2010	Discontinued	DMR	Original water bird flights discontinued. Inconsistent replacements since.
Invasives					
	Invasive Species	Both	Annual and Three year	MIMIC and GOM RAS	Data analysis is challenging because of long-term inconsistencies in data quality.
Municipal					

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	Community checklist	Neither	Once	GPCOG	The "Community Checklist" was somewhat similar to GPCOG's 2016 on-line "Community Guidebook".
Pathogens					
	Swimming Beaches	Both	Annual	Maine Healthy Beaches Program	Only from three beaches.
Shellfish					
	Shellfish Beds	Both	Annual	DMR	Conversion from DMR source data to derive desired metrics is complex.
Stormwater					
	Combined Sewer Overflows	Both	Annual	PWD, City of Portland, DEP	Uncertain whether there is any local data on concentrations of contaminants.
	Stormwater	Both	As available	LCWMD, limited UMaine data	Contents of stormwater sections varied for each State of the Bay. Only consistent data we have now is from Long Creek. Other data is opportunistic.
	Stormwater control analysis	Neither	Never completed	Limited	See other Stormwater indicators
	Stormwater Toxics	2010	Study	2007 EPA report	No continuing data source available
Toxics					
	Benthic community analysis	Neither	Never completed	Never implemented?	Part of NCA /NCCA, but samples are tiny, results have never been analyzed for Casco Bay. Hale and Heltshe 2008 summarizes findings for the "nearshore gulf of Maine".
	Contaminants of Emerging Concern	2010	Study	BRI	Based on short-term study of osprey eggs.

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	Cormorant tissue analysis	Neither	Never completed	Never implemented	
	Sediment toxicity bioassay	Neither	Never completed	NCCA	Part of NCA /NCCA, but samples are tiny, results have never been analyzed for Casco Bay.
	Sediments	2010	Ten years	CBEP	Expensive. Looked at persistent contaminants, omitted "emerging" contaminants. Not expecting to repeat survey in 2020.
	Toxics	2015	Uncertain	Gulfwatch	Principally, toxics in mussels, as collected by Gulfwatch and Mussel watch programs. Not certain of current program status or sampling frequency.
Water Quality					
	Bay Water Quality	Both	Annual	FOCB	Nitrogen data used has varied from SoTB to SoTB report. Changes in FOCB monitoring programs and increasing attention to Casco Bay by DEP and UMaine will influence future reporting.
	Inland Water Quality	Both	Annual and Five year	DEP	May be challenges generating effective trend analysis from available data.