

**U.S. EPA 2008 Multi-Sector General Permit Monitoring Guidance
For Discharges into Impaired Waters (Part 6.2.4) - Parameters and Methods
For Operators Discharging into Massachusetts Waters that File an NOI on/after 5/4/2010**

Pollutant Causing Impairment ¹	Monitoring Parameter ²	EPA or Approved Method Nos. ³
Ammonia (Un-ionized)	Ammonia-Nitrogen	350.1
Cause Unknown, or -Bioassessments	NMR	--
Chlorine	NMR	--
Exotic species*, or -Eurasian Water Milfoil* -Non-Native Plants*	NMR	--
Flow alterations*, or -Low flow alterations* -Other flow regime alterations*	NMR	--
Mercury in Fish Tissue	NMR	--
Metals or Other*	Total: Aluminum Arsenic Cadmium Chromium Copper Iron Lead Nickel Zinc	200.7 ; 200.8 ; 200.9
Noxious aquatic plants, or -Excess Algal Growth -Aquatic Plants (Macrophytes) -Chlorophyll-a	NMR	--
Nutrients ⁴ , or -Phosphorus (Total) -Nitrogen (Total) -Nutrient/Eutrophication Biological Indicators	Phosphorus, Total Nitrogen, Total	365.1 ; 365.2 ; 365.3 ; SM 4500-P-E 351.1/351.2 + 353.2 ; USGS I-4650-03
Objectionable Deposits*, or -Debris/Floatables/Trash* -Foam/Flocs/Scum/Oil Slicks* -Bottom Deposits*	NMR	--
Oil and Grease	NMR	--
Organic enrichment/low DO, or -Dissolved oxygen saturation -Oxygen, Dissolved -Organic Enrichment (Sewage) Biological Indicators	NMR	--
Other habitat alterations*, or -Alteration in stream-side or littoral vegetative covers* -Fish-Passage Barrier* -Habitat Assessment (Streams)* -Physical substrate habitat alterations*	NMR	--
Other Inorganics	NMR	--
Pathogens ⁵ , or -Escherichia Coli (E. Coli) -Enterococcus -Fecal Coliform	E. Coli Enterococcus Fecal Coliform	1103.1 ; 1603 1106.1 ; 1600 1680 ; 1681

Pesticides, or -Chlordane -DDT -Dioxin (2,3,7,8-Tetrachlorodibenzo-p)	NMR	--
pH	pH	150.2
Priority organics, or -Polychlorinated biphenyls (PCBs) -PCBs in Fish Tissue -Polycyclic Aromatic Hydrocarbons (PAHs)	NMR	--
Salinity/TDS/Chloride	NMR	--
Siltation	Total Suspended Solids	160.2
Taste, odor, color	NMR	--
Thermal modifications or -Temperature, water	Temperature	SM 2550
Suspended Solids, or -Total Suspended Solids (TSS)	Total Suspended Solids	160.2
Turbidity, or -Secchi disk transparency	Turbidity	180.1
Unknown toxicity or -Bioassays	NMR	--

¹ As identified in [Massachusetts Year 2008 Integrated List of Waters](#)
“*” indicates that the cause of the impairment is a non-pollutant

² “NMR” indicates no monitoring required

³ Partial listing only; additional EPA-approved methods available at [40 CFR 136](#)

⁴ See [Massachusetts Year 2008 Integrated List of Waters](#) to determine if monitoring is required for nitrogen, phosphorus, or both. If listed for:

- “Nutrients” – monitor for: phosphorus, total and nitrogen, total
- “Phosphorus (Total)” – monitor for: phosphorus, total
- “Nitrogen (Total)” – monitor for: nitrogen, total
- “Nutrient/Eutrophication Biological Indicators”
 - If discharge is to coastal or marine waters (Class SA, SB) - monitor for: nitrogen, total
 - If discharge is to fresh water (Class A or B) - monitor for: phosphorus, total

⁵ Pathogens:

- If discharge is to coastal or marine waters (Class SA, SB) or any brackish fresh water influenced by saline backwaters, enumerate enterococci
- If discharge is to fresh water (Class A or B), enumerate *E. coli*
- If discharge is to a water designated for shellfishing, enumerate fecal coliform

See Massachusetts Surface Water Quality Standards ([314 CMR 4.00](#)) for surface water classes and uses