

Appendix B. Glossary of Terms, Acronyms, and Abbreviations

- AAL:** Allowable Ambient Limit in air.
- Abiotic:** Any factor in the environment that is nonliving (soil, weather, water).
- Accretion:** The increase of land by the action of natural forces.
- ACEC:** Area of Critical Environmental Concern. A Massachusetts resource area designation.
- ACO:** Administrative Consent Order.
- ACOE:** U.S. Army Corps of Engineers.
- Aerobic:** Living, active, or occurring only in the presence of oxygen.
- Algal Bloom:** A condition resulting from excessive nutrient levels or other physical and chemical conditions that enable algae to reproduce rapidly.
- Amphipods:** A group of small, laterally compressed crustaceans.
- Anadromous:** A species of fish (salmon, alewives, or river herring) born in fresh water, that spends a large part of its life in the sea, and returns to freshwater rivers and streams to procreate.
- Anaerobic:** A biological process occurring in the absence of free oxygen.
- ANEP:** Association of National Estuary Programs. A non-profit organization that promotes the 28 National Estuary Programs.
- ANG:** The Massachusetts Air National Guard.
- Anoxic:** A condition in which dissolved oxygen is absent. Anoxic water quality conditions often result in fish kills and shellfish mortality.
- Anthropogenic:** Human related effects [to the environment]. Anthropogenic impacts to water quality include wastewater from septic systems and treatment plant discharges, road and agricultural runoff, and acid rain.
- Antidegradation provision:** Standards in the Clean Water Act that regulate activities in order to maintain and protect existing water uses in designated areas.
- APCC:** Association for the Preservation of Cape Cod.
- AR:** Administrative Record.
- ARAR:** Applicable or Relevant and Appropriate Requirement.
- Area of Critical Environmental Concern (ACEC):** An area encompassing land and water resources of regional or statewide importance, designated by the Massachusetts Secretary of the Executive Office of Energy and Environmental Affairs (in accordance with 301 Commonwealth of Massachusetts Regulation 12.00).
- Aromatic Hydrocarbons:** Compounds that contain at least one 6-carbon ring. These compounds are often important components of fuel oils.
- Attenuation:** The process by which a compound is reduced in concentration over time or distance through absorption, degradation, or transformation.
- Barrier Beach:** A narrow low-lying strip of land generally consisting of coastal beaches and coastal dunes extending roughly parallel to the trend of the coast. It is separated from the mainland by a narrow body of fresh, brackish, or saline water or by a marsh system.
- Baseline data:** basic information gathered before a program or activity begins, to be used later to provide a comparison for assessing impacts; the primary line, the one from which others are measured; often considered the natural state of a system.
- Bathymetry:** The measurement of ocean depth.
- BBP:** Buzzards Bay Project (National Estuary Program), now called simply the Buzzards Bay NEP.
- BAT or BDAT:** Best Available Technology or Best Demonstrated Available Technology.
- BDL:** Below Detection Limit.
- Beneficial Uses:** Uses designated in Massachusetts Surface Water Quality Standards for public water supply, for protection and propagation of fish and other wildlife, and for primary and secondary contact recreation and any other uses that do not impair these designated uses.
- Benthic:** Living on the bottom of the ocean or other body of water.
- Benthos:** The community of aquatic bottom dwelling life.
- Best Management Practice (BMP):** A method for preventing or reducing the pollution resulting from an activity. The term originated from rules and regulation in Section 208 of the Clean Water Act. Specific BMPs are defined for each pollution source.
- Bioaccumulation:** The process by which a contaminant accumulates in the tissues of an individual organism. For example, certain chemicals in food eaten by a fish tend to accumulate in its liver and other tissues.
- Bioassay:** Appraisal of the biological activity of a substance by testing its effect on an organism and comparing the result with some agreed standard.
- Biochemical Oxygen Demand (BOD):** A measure of the organic material that can be readily oxidized through microbial decomposition, consuming oxygen dissolved in water. BOD is often used to assess the effects of a discharge, especially sewage.
- Biodiversity:** The variety of living organisms considered at all levels, from genetics through species, to higher taxonomic levels, and including the variety of habitats and ecosystems.
- Biogeochemical cycle:** A natural process or cycles of compounds or atoms in the environment that are affected by living organisms. Examples included carbon, oxygen, water, and nutrients such as nitrogen and phosphorus.
- Biomass:** The total mass of a defined organism or group of organisms in a particular community or an ecosystem as a whole.
- BMP:** Best Management Practice. A method that has been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.
- Board of Health:** A municipal, elected or appointed authority, responsible for administering the State Environmental Code, including Title 5, and local bylaws addressing public health, safety, and welfare issues.
- BOD:** Biological Oxygen Demand. The amount of oxygen consumed by bacteria in a water sample while decomposing organic matter under aerobic conditions. BOD5 is the amount of oxygen demand exerted over a 5-day period.
- BOH:** Board of Health. A Massachusetts Municipal board, elected or appointed, responsible for septic system permits and inspections, restaurant inspection, beach closures, and other public health matters.
- Bordering Vegetated Wetlands (BVW):** As defined in [310 CMR 10.55](#), the Wetlands Protection Act Regulation, freshwater wetlands that border on creeks, rivers, streams, ponds, and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps, and bogs. They are areas where the topography is low and flat, and where the soils are saturated at least part of the year.
- BRP:** the Massachusetts DEP Bureau of Resource Protection.
- BTEX:** Acronym on some analytical reports meaning the combined quantity of Benzene, Toluene, Ethylbenzene and Xylene.
- Buildout Analysis:** A parcel-by-parcel analysis to estimate the total number of existing and developable units, based on current zoning and other land use regulations. Such an analysis is essential for managing or limiting the impacts of growth and development.
- Buzzards Bay:** An inlet of the Atlantic Ocean in southeastern Massachusetts, bounded by Cape Cod to the east, the Elizabeth Island chain to the south, and along Massachusetts to near the border with Rhode Island.

BWP: the Massachusetts DEP Bureau of Waste Prevention.

BWSC: the Massachusetts DEP Bureau of Waste Site Cleanup.

Bycatch: The harvest of organisms other than the species for which the fishing gear was set; also called incidental catch.

C: either Celsius or Centigrade or units Conversion factor.

CAA: the federal Clean Air Act administered by the U.S. EPA.

CAFE: Corporate Average Fuel Economy [standard].

CAG: the U.S. EPA's Carcinogen Assessment Group.

Cape Cod Commission (CCC): A regional planning agency, formerly known as the Cape Cod Planning and Economic Development Commission (CCPEDC), which includes Buzzards Bay's eastern shore municipalities, Bourne, and Falmouth. Because of legislative action and local approval, this agency has review authority over land use decisions throughout Cape Cod. The CCC also provides technical assistance, coordinates inter-municipal activities, and serves as a depository for regional information.

Carapace: The shield like structure that covers the anterior portion of some crustaceans.

Carcinogen: A substance that causes cancer.

Carrying Capacity: The limit of a natural or man-made system to absorb perturbations, inputs, or population growth.

Catadromous: A freshwater species of fish that spawns in salt water (e.g. eels). Sometimes lumped in the term Diadromous.

Catch per unit effort (CPUE): The number of fish caught by an amount of effort; typically a combination of gear type, gear size, length of time gear is used.

Catch: The total number or poundage of fish captured from an area over some period of time; includes fish that are caught but released or discarded instead of being landed; may not necessarily be brought ashore (landed).

CCC: Cape Cod Commission.

CCCCGA: Cape Cod Cranberry Growers' Association.

CCMP: Comprehensive Conservation and Management Plan. A watershed management plan required by Section 320 of the Clean Water Act for National Estuary Programs.

CDC: Centers for Disease Control.

CDF: Confined Disposal Facility.

CEP: Critical Exposure Pathway.

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980, the federal law regulating Superfund and other hazardous waste sites.

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System.

Cesspool: A covered pit with a perforated lining in the bottom into which raw sewage is discharged: the liquid portion of the sewage is disposed of by seeping or leaching into the surrounding porous soil; the solids, or sludge, are retained in the pit to undergo partial decomposition before occasional or intermittent removal. Cesspools are no longer permitted for waste disposal.

CFC: chlorofluorocarbon.

CFR: Code of Federal Regulation.

USCG: United States Coast Guard.

[Ch. 21E](#): Massachusetts General Law Chapter 21E. The state law regulating the cleanup of hazardous wastes.

Charter boat: A boat available for hire, normally by a group of people for a short period.

Chlorinated Hydrocarbons (CHCs): All aromatic and non-aromatic hydrocarbons containing chlorine atoms. Includes certain pesticides, polychlorinated biphenyls, and other solvents.

CIP: Community Involvement Plan.

CMO: Chief Municipal Officer.

CMR: Code of Massachusetts Regulation.

Coastal Bank: As defined in [310 CMR 10.30 \(2\)](#), the Wetlands Protection Act Regulation, the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland. A typical working definition is "the first major break in slope above the 100-year flood elevation, but this definition may not apply in certain special circumstances.

Coastal Wetland: As defined in Massachusetts General Law [Chapter 131, Section 40](#), the Wetlands Protection Act Regulation, any bank, marsh, swamp, meadow, flat, or other low land subject to tidal action or coastal storm flowage and such contiguous land as the Commissioner of the Department of Environmental Protection deems necessary.

Coastal Zone Management Program: A federally funded and approved state program under the Federal Coastal Zone Management Act of 1972. The program reviews federal permitting, licensing, funding, and development activities in the coastal zone for consistency with state policies.

Coastal Zone: In Massachusetts, officially defined in [301 CMR 20.00](#), the zone that extends landward to 100 feet beyond specified major roads, rail lines, or other visible rights-of-way; includes all of Cape Cod, Martha's Vineyard, Nantucket, and Gosnold; and extends seaward to the edge of the state territorial sea.

COD: Chemical Oxygen Demand. The total quantity of oxygen required to fully oxidize a material into carbon dioxide and water. Compare to BOD.

Cohort: A group of organisms spawned during a given period, usually within a year.

Combined Sewer Overflow: also called a CSO. A pipe that, during storms, discharges untreated wastewater from a sewer system that carries both sanitary wastewater and stormwater. The overflow occurs because a system does not have the capacity to transport and treat the increased flow caused by stormwater runoff. New Bedford is the only Buzzards Bay municipality with CSO discharges.

Combined Sewers: A system that carries both sewage and stormwater runoff. In dry weather, all flow from sewer lines and street drains goes to the wastewater treatment plant. During heavy rains, treatment plants usually can handle only part of this flow, and the sewer system is overloaded. The overflow mixture of sewage and stormwater is discharged untreated into the receiving water.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law administered by the Environmental Protection Agency, dealing with the assessment and remediation of hazardous material disposal sites. Superfund activities are performed under this Act.

Conservation Commission: An appointed municipal agency in Massachusetts responsible for administering the Wetlands Protection Act at the local level.

Contaminant: Substances that are not naturally present in the environment or is present in unnatural concentrations that can, in sufficient concentration, adversely alter an environment. Federal regulations (40 CFR 230) for the discharge of dredged or fill material into navigable waters regulated by Section 404 of the federal Clean Water Act define a contaminant as a chemical or biological substance in a form that can be incorporated into, onto, or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment.

CRA: Comprehensive Response Action.

Crustacean: class of animals that typically live in water and are characterized by 10 jointed legs, segmented bodies, and hard external skeletons (e.g. crabs, lobster, shrimp).

Cryptic species: distinct species that show little or no outward morphological differences, and thus are difficult to distinguish.

CS: Chemical Spill.

Cumulative Effects: The combined environmental impacts that accrue over time and space from a series of similar or related individual actions, contaminants, or projects. Although each action may seem to have a negligible impact, the combined effect can be serious.

Cumulative impact: The combined outcome of numerous actions and stresses, where a group of relatively minor impacts may add up to severe habitat degradation or loss.

CWA: the federal Clean Water Act.

CZM: The Massachusetts Coastal Zone Management Office; also MCZM.

dB: Decibel.

DCR: The Massachusetts Division of Conservation Services, formerly named Department of Environmental Management.

DDT: The pesticide 1,1,1- trichloro- 2,2-bis(p- chlorophenyl)ethane, banned in the U.S. in 1972.

Decapod: A group of crustaceans with five pairs of walking legs and a well-developed carapace.

DEIR: Draft Environmental Impact Report.

DEM: The Massachusetts Department of Environmental Management, renamed in 2004 as the Division of Conservation Services.

Demersal: organisms that live on or near the bottom.

DEP: The Massachusetts Department of Environmental Protection.

Department of Environmental Management (DEM): The state agency responsible for managing natural resources, including, but not limited to, water resources. DEM administers the Massachusetts Ocean Sanctuaries Act.

Department of Environmental Protection (DEP): The state agency, formerly known as the Department of Environmental Quality Engineering, responsible for administering laws and regulations protecting air quality, water supply, and water resources, such as Chapter 91 and Title 5, and for administering programs such as the Wetlands Protection Program and Wetlands Restriction Program. It is also responsible for overseeing the cleanup of hazardous waste sites and responding to hazardous waste emergencies and accidents.

Depuration: purification of shellfish by transplanting in clean waters.

DEQE: The Massachusetts Department of Environmental Quality Engineering, which is the former name of the Massachusetts Department of Environmental Protection (DEP).

Designated Uses: For each water classification in the Massachusetts Surface Water Quality Standards (q.v.), these are the uses specified in [314 CMR 4.05](#) and 314 CMR 4.06, whether or not they are being attained. For example, in marine waters classified as SA, the waters are designated as “an excellent habitat for fish, other aquatic life and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. In certain waters, excellent habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. Where designated in the tables to 314 CMR 4.00 for shellfishing, these waters shall be suitable for shellfish harvesting without depuration (Approved and Conditionally Approved Shellfish Areas). These waters shall have excellent aesthetic value.”

Designated Port Areas: defined in Chapter 91 Regulations as portions of certain urban harbors where maritime-dependent industrial uses are encouraged to locate. This concentration of uses maximizes public investments in dredging, bulkheads, piers, and other port facilities.

DFA: The Massachusetts Department of Food and Agriculture.

DFW: The Massachusetts Division of Fish and Wildlife, a section of DFWELE.

DFWELE: The Massachusetts Department of Fisheries, Wildlife, and Environmental Law Enforcement.

DHM: the Massachusetts DEP Division of Hazardous Materials.

Dissolved oxygen: oxygen that is dissolved in water. Generally measured as-ppm or % saturation.

Division of Marine Fisheries (DMF): The agency within the Massachusetts Executive Office of Environmental Affairs responsible for managing the Shellfish Sanitation Program, overseeing shellfish relays, depuration plants, commercial fishing licenses, and management and stock assessment of Massachusetts fisheries.

DMF: The Massachusetts Division of Marine Fisheries, a section of DFWELE.

DNAPL: Dense Non- Aqueous Phase Liquid.

DO: Dissolve Oxygen. May be reported as ppm or percent saturation.

DOD: the U.S. Department of Defense.

DOE: the U.S. Department of Energy.

DOI: the U.S. Department of the Interior.

DOJ: the U.S. Department of Justice.

DOT: the U.S. Department of Transportation.

DPH: the Massachusetts Department of Public Health.

Drainage Basin: The land that surrounds a body of water and contributes fresh water, either from streams, groundwater, or surface runoff, to that body of water, also called a watershed.

Dredging: The removal of materials including, but not limited to, rocks, bottom sediments, debris, sand, refuse, and plant or animal matter in any excavating, cleaning, deepening, widening or lengthening, either permanently or temporarily, of any tidelands, rivers, streams, ponds or other waters of the Commonwealth, as defined in [310 CMR 9: 04.](#)

DWPC: the Massachusetts DEP Division of Water Pollution Control.

DWS: the Massachusetts DEP Division of Water Supply.

DWW: DEP Division of Wetlands and Waterways.

Easement: The privilege of using something that is not your own (as using another’s land as a right of way to your own land); also covers “natural derivatives” of public rights of fishing, fowling and navigation, and the right to pass freely over any intertidal areas in order to engage in such an activity.

Ecosystem based management (EBM): EBM is an approach that seeks to manage a multitude of human activities and natural stressors to the greatest benefit of healthy and natural ecosystems. It integrates knowledge of ecological interrelationships to manage impacts within an ecosystem; effective implementation of EBM should: (1) consider ecological processes that operate both inside and outside ecosystem boundaries, (2) recognize the importance of species and habitat diversity, and (3) accommodate human uses and associated benefits within the context of conservation requirements.

Ecosystem: A community of living organisms interacting with one another and with their physical environment, such as a salt marsh, an embayment, or an estuary. A system such as Buzzards Bay is considered a sum of these interconnected ecosystems.

EDB: Ethylene Dibromide.

EEA: The Massachusetts Executive Office of Energy and Environmental Affairs, also abbreviated EEA, formerly EOE, Executive Office of Energy and Environmental Affairs.

Eelgrass (*Zostera marina*): A marine flowering plant that grows subtidally in sand and mud. In Buzzards Bay, eelgrass is widespread and grows to depths of 20 feet. Eelgrass beds are an important habitat and nursery for fish, shellfish, and waterfowl.

EEZ: Exclusive Economic Zone. Those marine areas under the jurisdiction of the federal government. Generally, the area between the three-mile state waters jurisdiction and federal waters 200-mile boundary.

EF: Exposure Frequency.

Effluent: The outflow of water, with or without pollutants, usually from a pipe.

Effort: The amount of time and fishing power used to harvest fish; fishing power can include gear size, boat size, and horsepower.

EIR: Environmental Impact Report. A document that may be required by the Massachusetts MEPA office upon submission of an ENF.

EIS: Environmental Impact Statement. Specifically, the document required by federal agencies pursuant to the National Environ-

mental Policy Act for major projects or legislative proposals significantly affecting the environment. The EIS is a decision-making tool, and includes the positive and negative effects of the undertaking and includes possible alternative actions.

ELCR: Excess Lifetime Cancer Risk.

Embayment: A small bay or coastal lagoon, or any small semi-enclosed coastal water body whose opening to a larger body of water is restricted.

ENF: Environmental Notification Form. An application form submitted under the Massachusetts Environmental Protection Act. Generally, ENFs are required only for large projects that meet certain thresholds.

Enteromorpha: A strand like or tubular green algae often found in eutrophic areas along the U.S. seaboard. Has been reclassified as *Ulva* sp.

Environmental Protection Agency (EPA): The federal agency principally responsible for administering the Clean Water Act, National Estuary Program, CERCLA, Superfund, and other major federal environmental programs.

EPA: the U.S. Environmental Protection Agency.

Epibiota: organisms living on the seafloor surface; organisms that attach to other organisms.

Essential fish habitat (EFH): A designation by the National Marine Fisheries Service for all federally managed fishery species; 'those waters and substrate necessary for spawning, breeding, feeding, or growth to maturity', as defined by NMFS.

Estuary: A semi-enclosed body of water having a free connection with the open ocean and within which seawater is measurably diluted with fresh water.

ETI: 1) extraction, treatment, and infiltration when dealing with plumes and groundwater contamination. 2) Environmental Technology Initiative: an EPA program of the late 1990s to promote new environmental technologies, including the Massachusetts Alternative Septic System Test Center.

Eutrophication (coastal): The process of nutrient over enrichment generally caused by excessive nitrogen in marine waters and phosphorus in freshwater. Coastal eutrophication results principally from human activities such as sewage disposal, fertilizer use, and atmospheric inputs. The addition of nitrogen to coastal waters stimulates algal blooms and growth of bacteria, and can cause broad shifts in ecological communities present and contribute to anoxic events and fish kills. In freshwater systems and in parts of estuaries below 5 ppt salinity, phosphorous is likely to be the limiting nutrient and the cause of eutrophic effects.

FACES: Falmouth Associations Concerned with Estuaries and Salt Ponds.

FDA: Food & Drug Administration.

Fecal Coliform: Bacteria that are present in the intestines and feces of warm-blooded animals and that are often used as indicators of the sanitary quality of water. Their degree of presence in water is expressed as the number of bacteria per 100 milliliters of the sample. The greater the number of fecal coliforms, the higher the risk of exposure to human pathogens. The indicator is used by the Massachusetts Division of Marine Fisheries in determining shellfish bed classification and local Boards of Health on swimming beach conditions.

Federal Consistency Review: Authority of Coastal Zone Management agents to review and approve federal activities in a state coastal zone to ensure that federal actions are consistent with CZM program policies and meet state standards. Includes any coastal project that requires a federal license, is implemented by a federal agency, or is carried out with federal funds.

Federal Waters: generally waters from 3 miles offshore to a 10-mile limit or 200-mile economic zone.

FEIR: Final Environmental Impact Report.

FEIS: Final Environmental Impact Statement.

FID: Flame Ionization Detector; a device used in a gas chromatograph.

FIFRA: the Federal Insecticide, Fungicide, and Rodenticide Act.

Fisheries independent data: data collected on fish by scientists who catch the fish themselves, rather than depending on fishermen and seafood dealers.

Fishery dependent data: data collected on a fish or fishery from sport fishermen, commercial fishermen, and seafood dealers.

Fishery resource: Any fishery, any stock of fish, any species of fish (commercial and non commercial species), any prey species, and any habitat of fish; all the living and nonliving resources, substrate and ecological systems which fish species need to survive.

Fishery: All of the activities involved in catching a species of fish or group of species; one or more stocks of fish which can be treated as a unit for purposes of conservation and management and which are identified on the basis of geographical, scientific, technical, recreational and economic characteristics.

Fishing mortality: A measurement of the rate of removal of fish from a population by fishing. It is an "instantaneous" rate per given unit of time, generally one year.

Floodplain: The area of shore lands extending inland from the normal yearly maximum stormwater level to the highest expected stormwater level in a given period of time (e.g., 5, 50, 100 years).

Flushing Time: The mean length of time for a pollutant entering a water body to be removed by natural forces such as tides and currents; also referred to as residence time or turnover time, although there are important technical distinctions in their definitions.

FOIA: The federal Freedom of Information Act. The Massachusetts counterpart is called the Public Records Act.

FONSEI: Finding Of No Significant Environmental Impact.

Food and Drug Administration (FDA): The federal agency that is responsible for, among other things, administering the National Shellfish Sanitation Program.

Fork length: The length of a fish as measured from the tip of its snout to the fork in the tail.

Fouling organisms: organisms that live attached to human made surfaces such as boats and pilings (e.g. bryozoans, sponges).

FS: 1) feasibility study 2) fuel spill.

FTE: full time employee.

FY: Fiscal Year.

GAO: the U.S. General Accounting Office.

GC: Gas chromatography.

GEIR: Generic Environmental Impact Report.

General Bylaws: Local laws that can be adopted with a simple majority vote at the town meetings. Cities adopt ordinances by a simple majority vote of the city council. Compare to Zoning by-laws.

Geographic Information Systems (GIS): A computerized system of organizing and analyzing any spatial array of data.

GIS: Geographic Information System. Computer software that allows the recording and mapping of information and images in a map coordinate system.

gpm: gallons per minute.

Grandfathering: A provision from Massachusetts General Law [Chapter 40](#) that allows existing land uses or structures to remain without coming into compliance with upgraded zoning or building requirements.

Greenhouse effect: The increase in the earth's temperatures that results from the presence of carbon dioxide and other heat trapping gases in the atmosphere.

GW: Ground Water.

Habitat: The specific area or environment in which a particular type of plant or animal lives. An organism's habitat must provide all the basic requirements for survival.

HAZWOPER: Hazardous Waste Operations and Emergency Response Standard developed by the Occupational Safety and Health Administration' (OSHA). This training is need by individuals who respond to land or water spills of oil and other hazardous materials.

HAZWRAP: Hazardous Waste Remedial Actions Program.

HDPE: High- Density Polyethylene.

Heavy Metals: A group of elements that is present in the environment from natural and anthropogenic sources and can produce toxic effects. This group includes mercury, copper, cadmium, zinc, and arsenic.

HMTA: Hazardous Material Transportation Act.

HPLC: High- performance liquid chromatography. A laboratory method used to fingerprint and identify hydrocarbons and other materials.

Hazardous Waste: A waste substance that has the potential to cause, or significantly contribute to human illness or death, or injury to the environment.

Hypoxia: A condition in which oxygen is deficient.

Hypoxic: A condition in which dissolved oxygen is low or deficient. Hypoxic conditions stress marine plants and animals.

IDL: Instrument Detection Limit.

Impervious Material: With respect to Title 5 Regulations, a material or soil having a percolation rate greater than 30 minutes per inch, including, but not limited to, bedrock, peat, loam, and organic matter.

Impervious Surface: A surface that cannot be easily penetrated. For instance, rain does not readily penetrate asphalt or concrete pavement.

Incidental catch: See Bycatch.

Industrial Pretreatment: The removal or reduction of certain contaminants from industrial wastewater before it is discharged into a municipal sewer system. Reduced loading of contaminants from industries can reduce the expense of managing and designing municipal treatment facilities.

Infauna: The aquatic animals that burrow in the substrate (e.g. clams).

Infiltration: The penetration of water through the ground surface into subsurface soil. Some contaminants are removed by this process.

IR: Infrared (as in photography).

IRA: Immediate Response Action.

IRAC: Immediate Response Action Completion [Report].

IRAP: Immediate Response Action Plan.

IRIS: U.S. EPA's Integrated Risk Information System.

IROD: interim record of decision.

IRP: Installation Restoration Program. The federal-state initiative to contain and clean up groundwater plumes on Cape Cod that were associated with activities on the Massachusetts Military Reservation (MMR).

IT: Innovative Technology.

IWPA: Interim Wellhead Protection Area. For public water supply systems 100,000 gpd or greater, a management area with a one-half mile radius, other formula and criteria apply.

JPAT: Joint Process Action Team. For the cleanup of hazardous waste plumes on Cape Cod, the JPAT reviews technical plans and cleanup recommendations and advises the Senior Management Board on other Installation Restoration Program (IRP) issues.

Juvenile: An organism that has not yet reached sexual maturity.

Kettle Holes: A small, glacially formed freshwater body.

kg: kilogram.

l: liter.

Landings: The number or poundage of fish unloaded at a dock by commercial fishermen or brought to shore by recreational fishermen for personal use; reported at the points which fish are brought to shore (not necessarily areas where caught).

LC50: Lethal Concentration, 50%. The concentration of a material in air or water that causes the death of 50% (one-half) of a group of test animals.

LD50: Lethal Dose, 50%. The amount of a material, given all at once (e.g. ingestion), which causes the death of 50% (one-half) of a group of test animals, also defined as the short-term poisoning potential or acute toxicity of a material.

Leaching Facility: An approved structure used for the dispersion of septic-tank effluent into the soil. More properly called soil absorption systems, they include leaching pits, galleries, chambers, trenches, and trenches as described in [310 CMR 15.11](#) through 15.15.

Littoral: The zone between the highest and lowest springtide shorelines; the intertidal zone.

LSP: A Licensed Site Professional is required to oversee the cleanup of hazardous waste under Massachusetts General Law [Chapter 21E](#).

LUST: Leaking Underground Storage Tank.

m: meter.

DEP: Massachusetts Department of Environmental Protection.

MA ANG: Massachusetts Air National Guard.

Marine invasive species (also aquatic nuisance species): Nonnative plants and animals that are transported into the environment via commercial shipping, as fouling organisms on recreational boats, through the release of unwanted aquarium contents, or through a variety of other human related transport vectors. These species often have great potential for rapid colonization and are already having significant impacts on the biodiversity and integrity of aquatic habitats.

Marine protected area: Any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein (as defined by Executive Order ; May, Federal Register).

Massachusetts Environmental Policy Act (MEPA): [Massachusetts General Laws Chapter 30](#), the state law, administered by the MEPA unit within the Executive Office of Energy and Environmental Affairs, establishing a uniform system of environmental impact review.

Massachusetts General Law [Chapter 111](#) various sections vests municipal boards of health with the broad authority for maintaining the health, safety, and welfare of the public. Sanitary regulations are promulgated under this act through [310 CMR 15.0](#).

Massachusetts General Law [Chapter 131, Section 40](#): The Wetlands Protection Act (WPA) administered by conservation commissions on the municipal level and by the Department of Environmental Protection on the state level.

Massachusetts General Law [Chapter 40](#): The state zoning law for which the municipal planning boards and the zoning boards of appeal are responsible.

Massachusetts General Law [Chapter 41 Sections 81K-81GG](#): The state law governing subdivisions, administered by municipal planning boards and zoning boards of appeal.

Massachusetts General Law [Chapter 91](#): The Waterways Licensing Program governing waterfront development in Massachusetts, administered by the Department of Environmental Protection and the Office of Coastal Zone Management.

Massachusetts Ocean Sanctuaries Act: Administered by the Department of Environmental Management, the state law governing activities and structures in the ocean, seabed, or subsoil that would have an adverse affect on the "ecology or appearance" of the ocean sanctuary. Buzzards Bay is included in the Cape and Island Ocean Sanctuary.

Massachusetts Ocean Act: A Massachusetts law that passed in 2008, and which amended the Ocean Sanctuaries Act. The law required by December 2009 the preparation of a comprehensive plan to manage development in its state waters, balancing natu-

ral resource preservation with traditional and new uses, and required projects in these state waters to conform to the plan. One outcome of the law and planning process was to allow the siting of electric generating facilities in certain coastal waters.

Massachusetts Surface Water Quality Standards: The regulations, as required by [MGL Chapter 21](#), Sections 26 through 53, that are defined by [314 CMR 4.00](#). The purpose of the regulations is to “protect the public health and enhance the quality and value of the water resources of the Commonwealth,” and to “take all action necessary or appropriate to secure to the Commonwealth the benefits of the Clean Water Act, 33 U.S.C. §1251 et seq. The objective of 33 U.S.C. §1251 et seq. is the restoration and maintenance of the chemical, physical, and biological integrity of the Nation’s waters. To achieve the foregoing requirements, DEP has adopted the Massachusetts Surface Water Quality Standards, which designate the most sensitive uses for which the various waters of the Commonwealth shall be enhanced, maintained, and protected. The standards prescribe the minimum water quality criteria required to sustain the designated uses; and which contain regulations necessary to achieve the designated uses and maintain existing water quality including, where appropriate, the prohibition of discharges.”

MCP: Massachusetts Contingency Plan. A document required under [310 CMR 40.0](#) to provide for the protection of health, safety, public welfare and the environment by establishing requirements and procedures for the prevention and control of the release of oil and/or hazardous material; and defines notification, evaluation, cleanup requirements and cost recovery related to the cleanup.

MDL: Method Detection Limit.

MDPH: Massachusetts Department of Public Health.

Mean High Water (MHW): The average height of all high tides (both spring and neap tides) over a 19-year period. MHW is often used as the basis of the coastline on nautical and topographic maps.

Mean Low Water (MLW): The average height of all low tides (both spring and neap tides) over a 19-year period. MLW is often used as the basis depths on nautical and topographic maps, although sometimes Mean Lower Low Waters (spring low tides) may be used.

MEPA: Massachusetts Environmental Policy Act Unit. A unit within EEA.

Metadata: Summary data providing content, quality, types and spatial information about a data set; used in GIS mapping and other applications.

mg: milligram.

MGD: million gallons per day.

MGL: Massachusetts General Law.

MCL: Maximum Contaminant Level. The greatest amount of a contaminant allowed in drinking water without (presumably) causing a risk to human health.

MMR: Massachusetts Military Reservation. A military facility on Cape Cod owned by the Commonwealth of Massachusetts, with areas leased to the U.S. Air Force.

MOA: Memorandum of Agreement.

MOU: Memorandum of Understanding.

Mounded Septic System: Similar to a typical septic system except the leaching facility, in order to maintain an adequate separation to groundwater, is installed in mounded or filled material above the naturally occurring ground elevation. The mounds are typically planted with grass vegetation. In the velocity zone, some mounded systems are armored with riprap, but this approach conflicts with CZM policies.

MSDS: Material Safety Data Sheet. A publication prepared by the manufacturer or distributor of a hazardous material that gives toxicological information, safety information, physical properties, and health information about a product.

MSL: Mean Sea Level.

National Estuary Program: A Grant program within the U.S. Environmental Protection Agency, established under Section 320 of the Clean Water Act of 1987, to designate estuaries of national significance and to incorporate scientific research into planning activities into a Comprehensive Conservation and Management Plan (CCMP). Buzzards Bay was designated an Estuary of National Significance in 1985, and joined the NEP in 1988. Currently there are 28 NEPs.

National Pollutant Discharge Elimination System (NPDES): A requirement in the federal Clean Water Act for dischargers to obtain permits. EPA is responsible for administering this program in Massachusetts.

ND: either Not Detected or Non-Detect.

Nearshore: referring to shallow waters close to the coast.

NEFMC: New England Fisheries Management Council.

NEPA: National Environmental Policy Act.

Neritic: The pelagic or ocean environment above the continental shelf.

NERRS: National Estuarine Research Reserve System. A coastal watershed management program established and administered by NOAA. The NERRS program focuses on research and education.

ng: nanogram.

Nitrogen sensitive embayment. A term created in the 1991 Buzzards Bay CCMP, and used in this document, to define embayments that are either degraded by nitrogen inputs, or likely to be degraded with nitrogen inputs from development. The term was later adopted in the 1996 re-write of Title 5 ([310 CMR 15.0](#)), where it is defined for the purposes of regulating onsite wastewater discharges as “an area of land and/or natural resource area so designated by the Department in accordance with 310 CMR 15.215, which identifies Zone 2s for public wells, and “nitrogen sensitive embayments or other areas which are designated as nitrogen sensitive for purposes of 310 CMR 15.000 shall be mapped based on scientific evaluations of the affected water body and adopted through parallel public processes pursuant to both 310 CMR 15.000 and in the Massachusetts Water Quality Standards - 314 CMR 4.00.” As of 2012, DEP has not designated any embayment watershed as nitrogen sensitive.

NMFS: The U.S. National Marine Fisheries Service.

NOAA: The U.S. National Oceanographic and Atmospheric Administration.

NON: Notice of Noncompliance.

Nonpoint-Source Pollution (NPS): Pollution that is generated over a relatively wide area and dispersed rather than discharged from a pipe. Common sources of nonpoint pollution include stormwater runoff, failed septic systems, and marinas.

NOS: National Ocean Service, a unit within NOAA.

Notice of Intent: A form submitted to the municipal conservation commission and DEP, which serves as the application for an Order of Conditions under the Wetlands Protection Act. It includes information on the site’s wetland resources and the proposed work.

NOx: 1) Nitrous Oxides. 2) Symbolism for Nitrates (NO₃) plus Nitrites (NO₂) in water.

NPDES: National Pollutant Discharge Elimination System. Authorization to discharge into surface waters of the U.S. issued by the Environmental Protection Agency in Massachusetts, pursuant to the 1977 Clean Water Act. Massachusetts is one of two non-delegated states.

NPDWSA: Non-Potential Drinking Water Source Area.

NPS: Nonpoint Source Pollution. Generally diffuse or multiple small sources of pollution discharged from a geographic area of any size. Generally, refers to the cumulative input of many pollution sources that do not require separate regulatory permits.

NRD: Natural Resource Damages.

NRDA: Natural Resources Damage Assessment. State and federal activities to characterize impacts to the environment of oil spills.

NSSP: National Shellfish Sanitation Program.

Nutrients: Essential chemicals needed by plants and animals for growth. Excessive amounts of nutrients, nitrogen, and phosphorus, for example, can lead to degradation of water quality and growth of excessive amounts of algae. Some nutrients can be toxic at high concentrations.

O&M: Operation and Maintenance.

OANGB: Otis Air National Guard Base.

Offshore: referring to deeper waters far from the coast.

Opportunistic species: Species that have short life spans typically, or have the ability to reproduce quickly in large numbers, and which have generalized environmental requirements.

Order of Conditions: The document, issued by a conservation commission, containing conditions that regulate or prohibit an activity proposed in the resource area defined in [MGL Chapter 131 Section 40](#).

ORW: Outstanding Resource Water.

On- Scene Coordinator: a federal official responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the federal government.

OSHA: the U.S. Occupational Safety and Health Administration.

OTA: [Massachusetts] Office of Technology Assistance.

Ova: eggs.

Oviparous: An animal that releases eggs.

PAHs: Polycyclic (or Polynuclear) Aromatic Hydrocarbons.

Paralytic shellfish poisoning (PSP). A condition caused when humans eat shellfish that have become contaminated with the toxin present in the dinoflagellates that cause red tides.

Pathogen: Any organism, but particularly bacteria and viruses, that causes disease. For example, human pathogens in shellfish can cause hepatitis and intestinal disorders.

PAVE PAWS: Precision Acquisition Vehicle Entry - Phased Array Warning System. A military monitoring system on Cape Cod.

Pb: Periodic Table symbol lead.

PCBs: Polychlorinated Biphenyls. Any of the 209 possible molecules having multiple chlorine atoms attached to the carbon atoms of a biphenyl (two-carbon ring) nucleus.

PCE: Perchloroethylene (Tetrachloroethylene).

Pelagic: The area of the open sea. The organisms that inhabit the water column/open sea, and spend relatively little time on the sea bottom.

Performance Standards: Federal, state, or local codified specifications that condition development activities to limit the extent to which a structure or activity may affect the immediate environment.

Perturbation: The disturbance of the quality of natural resources caused by human activity/use or natural processes.

Petroleum Hydrocarbons: The mixture of hydrocarbons normally found in petroleum; includes hundreds of chemical compounds.

PGP: Programmatic General Permit (ACOE). A simplified wetlands filling Army Corp permit issued for wetland fillings below a certain size threshold. Under the PGP, projects are categorized as I or II. Category I projects represent minor impacts to State waters and are non-reporting to the ACOE. Category II projects represent more than minor impacts to State waters and must be reviewed at a monthly screening meeting where appropriate State and Federal agencies review the project.

Phytoplankton: Microscopic algae suspended in the water column. They contain pigments known as chlorophylls and phaeophytins that make eutrophic waters look green or brown.

Plankton: The plants and animals that are found drifting in the water.

Point-Source Pollution: Pollution originating at a particular place, such as a sewage treatment plant, outfall, or other discharge pipe.

Polychlorinated Biphenyls PCBs. A class of chlorinated aromatic compounds composed of two fused benzene rings and two or more chlorine atoms; used in heat exchange, insulating fluids and other applications. There are 209 different PCBs. PCBs are present in marine sediments in New Bedford Harbor where their cleanup is being coordinated by the U.S. EPA Superfund Program. They, as well as other toxic contaminants, are not monitored as part of the Buzzards Bay Volunteer Water Quality Monitoring Program.

Porous Pavement: A hard surface that can support some vehicular activities, and which can allow significant amounts of water to pass through.

POTW: Publicly Owned Treatment Works.

ppm: parts per million, also equal to milligrams per liter (mg/l).

ppt: in the measurement of salinity, equals parts per thousand, or grams per liter (g/l); for low-level contamination it may also be the abbreviation for parts per trillion or nanograms per liter.

Primary Treatment: Physical processes used to substantially remove floating and settleable solids in wastewater. This process can include screening, grit removal, and sedimentation.

Publicly Owned Treatment Works (POTW): Any sewage treatment system operated by a public agency.

Pumpout: The process through which septage is removed from a septic tank or boat holding tank, usually by a mobile tank attached to a truck, and taken to a wastewater treatment plant for disposal.

PVC: Polyvinyl Chloride.

QA/QC Plan: Quality Assurance Quality Control. A plan to ensure that data collected is reliable and accurate.

QA: Quality assurance.

QC: Quality control.

RAO- P: Response Action Outcome - Partial.

RCRA: Resource Conservation and Recovery Act of 1976.

Recruitment: The measure of the number of organisms that enter an age class during some period, such as the spawning class or fishing size class.

Relative abundance: An index of fish population abundance used to compare fish populations from year to year; does not measure actual numbers of fish, but shows population changes over time.

Remote sensing: Any technique for analyzing landscape patterns and trends using low altitude aerial photography or satellite imagery; any environmental measurement that is done at a distance.

Request for Determination of Applicability: A written request made by any person to a conservation commission or to the Department of Environmental Protection for a determination as to whether a site or work on that site is subject to the Wetlands Protection Act.

RFP: Request for Proposals. A solicitation for services; a term used principally by municipal government and some granting agencies.

RFR: Request for Responses. A solicitation for services or bids released by the Commonwealth of Massachusetts.

RI/FS: Remedial Investigation and Feasibility Study. A detailed study designed to gather data needed to determine the nature and extent of contamination at a Superfund site, establish site cleanup criteria. It may identify preliminary alternatives for remedial action, and support technical and cost analyses of alternatives. The remedial investigation usually includes a feasibility study, which is an analysis of the practicability and cost-effectiveness of the proposed cleanup strategy and alternatives.

ROD: Record of Decision.

RP: responsible party (for a spill of hazardous materials).

Runoff: The part of precipitation that travels overland and appears in surface streams or other receiving water bodies.

Salt Marsh: A coastal wetland that extends landward up to the highest annual high tide line, that is, the highest spring tide of the

- year, and is characterized by plants that are well adapted to living in saline.
- Salt Pond:** A shallow, enclosed, or semi-enclosed saline water body that may be partially, or totally, restricted by barrier beach. Salt ponds may receive fresh water from small streams emptying into their upper reaches or groundwater springs in the salt pond itself.
- SARA:** the federal Superfund Amendments and Reauthorization Act.
- SCUBA:** Self- Contained Underwater Breathing Apparatus.
- Secondary Treatment:** The process used to reduce the amount of dissolved organic matter and further reduce the amount of suspended solids and coliform in wastewater.
- Seed:** When referring to shellfish, a seed clam or seed are juveniles (typically considered non-reproductive) below the legal catch size. Seed clams are used in aquaculture and in shellfish propagation efforts.
- Seine:** A large fishnet that hangs vertically, with floats at the top and weights at the bottom that will enclose fish when it is pulled in.
- Septage:** That material removed from any part of an individual sewage disposal system.
- Septic System:** A wastewater disposal facility, also called an onsite system, used for the partial treatment and disposal of sanitary wastewater, generated by individual homes or small business, into the ground. Includes both a septic tank and a leaching facility.
- Septic Tank:** A watertight receptacle that receives the discharge of sewage from a building sewer and is designed and constructed so as to permit the retention of scum and sludge, digestion of the organic matter, and discharge of the liquid portion to a leaching facility.
- SERO:** DEP Southeast Regional Office.
- Sessile:** permanently attached to the substrate and not free to move about (e.g. barnacles).
- Sewerage/Sewage:** Liquid or solid waste that is transported through drains or sewers to a wastewater treatment plant for processing.
- Shellfish Bed:** An area where shellfish may be particularly abundant.
- Shellfish Resource Area:** An area, designated by the Division of Marine Fisheries, which contains shellfish beds, and is used for establishing shellfish resource area closure boundaries. May also be called a Shellfish Growing Area.
- Shellfish Resource Area Closures:** Closure, due to potential health risks, of shellfish resource areas to shellfish harvesting. Closure decisions are made by the Division of Marine Fisheries, using a current standard that specifies that if the geometric mean of 15 samples equals or exceeds 14 fecal coliform per 100 milliliters of sample water or if 10% of the samples exceed 49 fecal coliform per 100 milliliters of sample water, the station can be closed. The five shellfish-bed classifications are approved, conditionally approved, restricted, conditionally restricted, and prohibited.
- SIC:** Standard Industrial Classification.
- Sludge:** Solid or semisolid material resulting from potable or industrial water supply treatment or sanitary or industrial wastewater treatment.
- SO₂ - Sulfur Dioxide.**
- Soil Conservation Service (SCS) now called Natural Resource Conservation Service (NRCS).** A branch of the U.S. Department of Agriculture that, among other things, provides technical assistance in resource management and planning and implementation of agricultural BMPs. SCS works closely with Agricultural Stabilization and Conservation Services (ASCS) and County Extension Services to achieve their goals.
- SOP:** Standard Operating Procedure.
- Southeastern Regional Planning and Economic Development District (SRPEDD):** A regional planning agency to which all of the Buzzards Bay municipalities belong, except Bourne, Falmouth, and Gosnold (see Cape Cod Commission). The agency provides technical assistance, reviews projects for MEPA, coordinates inter-municipal activities, and acts as a clearinghouse for regional information.
- Species richness:** A measure of the number of species in a region, site, or sample.
- Spring Tides:** Higher than normal high tides observed every 2 weeks when the earth and moon align (new moon or full moon).
- State waters:** generally extending from coastline to three nautical miles offshore, with the exception of areas within Massachusetts Bay, Cape Cod Bay, and Nantucket Sound that extend further due to bay closure lines established by the U.S. Supreme Court.
- Stock assessment:** An estimation of the amount or abundance of the resource, an estimation of the rate at which it is being removed due to harvesting and other causes, and one or more reference levels of harvesting rate and/or abundance at which the stock can maintain itself in the long-term.
- Stormdrain:** A system of gutters, pipes, or ditches used to carry stormwater from surrounding lands to streams, ponds, or Buzzards Bay. In practice, storm drains carry a variety of substances such as oil and antifreeze that enter the system through runoff, deliberate dumping, or spills. This term also refers to the end of the pipe where the stormwater is discharged.
- Stormwater:** Also Storm Water. Precipitation that is often routed into drain systems in order to prevent flooding.
- Subdivision:** A means for dividing a large parcel of land into more than one buildable lot, administered in Massachusetts under [MGL Chapter 41, Sections 81K-81GG](#).
- Submerged lands:** Tidelands lying seaward of the low water mark; under state jurisdiction.
- Substrate:** The type of bottom or material on or in which an organism lives.
- Superseding Determination:** A Superseding Determination of Applicability is issued by the regional office of the Department of Environmental Protection deciding whether the area and activity are subject to the regulations under the Wetlands Protection Act. This determination supersedes or overturns a local Conservation Commission determination decision.
- Superseding Order of Conditions:** A document issued by the regional office of the Department of Environmental Protection containing the conditions necessary for a project to proceed and still protect the interests and resource areas specified in the Wetlands Protection Act. These conditions supersede Orders of Conditions issued by the local conservation commissions under the state regulations. Superseding Orders cannot overturn an order issued under the authorization of a local bylaw. These superseding orders can be requested by a number of people who may not be satisfied with the local Order of Conditions.
- Suspended Solids:** Organic or inorganic particles that are suspended in and carried by the water. The term includes sand, mud, and clay particles as well as organic solids in wastewater.
- Swales:** Vegetated areas used in place of curbs or paved gutters to transport stormwater runoff. They also can temporarily hold small quantities of runoff and allow it to infiltrate into the soil.
- Synergistic interaction:** An interaction that has more than additive effects, such as the joint toxicity of two compounds being greater than their combined, independent toxicities.
- Taxa:** Plural form of taxon. A taxon is a named group or organisms of any rank, such as a particular species, family, or class.
- Territorial waters:** State waters extending from the shoreline to miles offshore, except for Massachusetts Bay and Cape Cod Bay.
- Tertiary Treatment:** The wastewater treatment process that exceeds secondary treatment; could include nutrient or toxic removal.
- Tidal Flat:** Any nearly level part of the coastal beach, usually extending from the low water mark landward to the more steeply

sloping seaward face of the coastal beach or separated from the beach by land under the ocean, as defined in [310 CMR 9: 04](#).

Tidelands: All lands and waters between the high water mark and the seaward limit of the Commonwealth's jurisdiction, as defined in 310 CMR 9: 04. Tidewaters are synonymous with tidelands.

Title 5: The state sanitary regulations ([CMR 15.00](#)) that provide for minimum standards for the protection of public health and the environment when circumstances require the use of individual systems for the disposal of sanitary sewage. The local board of health is responsible for enforcement of these regulations and may upgrade them.

TMDL: Total Maximum Daily Load. A regulatory limit, generally a mass load or concentration, needed to protect living resources. In the U.S. Clean Water Act, Section 303(d), and state regulations, a TMDL is the quantity of a pollutant that can be assimilated by a water body and still meet water quality objectives.

TN: Total Nitrogen [in a water sample]. Calculated by either adding TKN + Ammonia, or by adding TON plus NOx using the persulfate method.

TOC: Total Organic Carbon.

Topography: The configuration of a surface area including its relative elevations and the position of its natural features.

Total Nitrogen (TN): A measure of all forms of nitrogen (for example, nitrate, nitrite, ammonia-N, and organic forms) that are found in a water sample.

Toxic: Poisonous, carcinogenic, or otherwise directly harmful to life.

Trophic level: A nourishment level in a food web. Plants and other primary producers constitute the lowest level, followed by herbivores and a series of carnivores at higher levels.

Turbidity: The amount of particulate matter suspended in water.

µg: microgram. 1 micrograms per liter is equal to 1 part per billion (ppb).

Ulva: Genera of green sheet-like or tubular seaweed commonly called "sea lettuce" and the new name for the genera *Enteromorpha*.

Upweller: An upweller is a floating shellfish seed-culturing device that consists of seed containers, called silos, attached to a float-like apparatus attached to a pier or raft. The young shellfish are placed in the silos, and a wave driven pump system brings a continual flow of water over the shellfish.

U.S. EPA: the United States Environmental Protection Agency.

USACE: U.S. Army Corps of Engineers; also goes by the acronym ACOE.

USAF: U.S. Air Force.

USCG: U.S. Coast Guard.

USDA: U.S. Department of Agriculture.

USGS: U.S. Geological Survey.

UTM: Universal Transverse Mercator. The grid system found on USGS topographic maps.

UV: Ultra-Violet.

VOC: Volatile Organic Compound.

Wastewater: Water that has come into contact with pollutants as a result of human activities and is not used in a product, but discharged as a waste stream.

Water Column: The water located vertically over a specific point or station.

Watercourse: Any natural or man-made stream, pond, lake, wetland, coastal wetland, swamp, or other body of water. This includes wet meadows, marshes, swamps, bogs, and areas where groundwater, flowing or standing surface water, or ice provide a significant part of the supporting substrate for a plant community for at least five months of the year, as defined in [310 CMR 15: 01](#). Boards of Health can adopt the definition of wetlands in [310 CMR 10.0](#) or broader language in Title 5 as a "watercourse" in determining setbacks.

Watershed: The land that surrounds a body of water and contributes freshwater, from streams, groundwater, or surface water runoff, to that body of water.

WBNERR: Waquoit Bay National Estuarine Research Reserve.

Wetlands: Habitats where the influence of surface water or groundwater has resulted in the development of plant or animal communities adapted to aquatic or intermittently wet conditions. Wetlands include tidal flats, shallow subtidal areas, swamps, marshes, wet meadows, bogs, and similar areas.

WPA: Wetlands Protection Act. The Massachusetts state law ([MGL 130](#)) for the protection of wetlands. Also establishes the authority of municipal Conservation Commissions.

WQBELs: Water Quality-Based Effluent Limits applied to discharges when mere technology-based limitations would cause violations of water quality standards. Usually applied to discharges into small streams.

WQS: Water Quality Standards are adopted by law or regulation, pursuant to the Clean Water Act, and consist of the beneficial designated use or uses of a water body, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular water body, and an antidegradation statement.

Wrack: Algae, plant and animal matter, and drift material (including solid wastes and other pollutants) that accumulate on beaches, usually at the high tide mark.

WWTF: Waste Water Treatment Facility. Equivalent to WWTP.

WWTP: Waste Water Treatment Plant. Equivalent to WWTF.

Year class: The fish spawned and hatched in a given year, a "generation" of fish.

Zoning Bylaws: Local laws that designate areas of land for different uses at established densities. These bylaws require a two-thirds majority vote of town meeting or city council.

Zone 2: The principal zone of contribution (ZOC) and hydrogeologically defined wellhead protection area for public supply wells.

Zooplankton: The heterotrophic, animal component of plankton.