SECTION 11  References

Area of Critical Environmental Concern (ACEC) Program. Executive Office of Environmental Affairs. www.state.ma.us/dem/programs/acec


Bedrock Geologic Map of Massachusetts, edited by E-an Zen, prepared in cooperation with Commonwealth of Massachusetts, Department of Public Works, and State Geologist Joseph A. Sinnott, 1983.


The Classification of the Natural Communities of Massachusetts by Patricia C. Swain and Jennifer B. Kearsley, Natural Heritage and Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, Westboro, MA, 2000.

Climate Change Research Center, University of New Hampshire at http://www.ccrc.sr.unh.edu/

Commonwealth of Massachusetts, Department of Housing and Community Development (DHCD) http://www.state.ma.us/dhcd/


Conservation Mapper. www.conservationmapper.org, Manomet Center, Manomet, MA.

DCR Scenic Landscape Inventory at www.mass.gov/dcr/stewardship/histland/landSurveys.htm


International Dark Sky Association at http://www.darksky.org

Land Preservation Society of Norton Inc.: http://nortonlandpreservation.org


MA Department of Agricultural Resources (MDAR), www.mass.gov/agr

“Major Tick Check Says: Prevent Lyme Disease-Protect and Check” (pamphlet). Lyme Disease Foundation and Center for Disease Control. Available at Board of Health Office.

Massachusetts Natural Heritage and Endangered Species Program (NHESP). http://www.mass.gov/dfwele/dfw/nhesp/species_info/mesa_list/mesa_list.htm

Massachusetts Historical Commission. www.state.ma.us/sec/mhc/mhcidx.htm

Massachusetts Land Trust Coalition. www.massland.org

Massachusetts Wetlands Protection Act. Chapter 131, Section 40 and Massachusetts Wetlands Protection Act Regulations. 310 CMR 10.00 as amended (effective 10/6/97).


MGL Chapter 40B (MGL Chapter 40B, sections 20-23) – Comprehensive Permit, “Anti-snob law”

National Park Service-National Register of Historic Places. www.cr.nps.gov/nr/


New England Climate Coalition at www.newenglandclimate.org


PRESERVATION Mass. www.preservationmass.org


Regional Protection Plan prepared for the Canoe River Aquifer Advisory Committee by IEP, Inc. 1988.


South Coast Rail website at http://southcoastrail.com/

Southeastern Regional Planning and Economic Development District (SRPEDD), www.srpedd.org

SRPEDD Data Center, American Community Survey Data, 2009-2014.

SRPEDD, South Coast Rail Corridor Plan, Five Year Update of Community Priority Areas: Norton. 2013.

SRPEDD Data Center, U.S. Census Data, Town of Norton.


The Nature Conservancy, www.TNC.org

Town of Norton Assessor’s data, 2017.

Town of Norton, Land Use Data, Mass GIS (EEA)


Trust for Public Land. www.tpl.org


“What you should know about Ticks and Lyme Disease on the Cape Cod and the Islands” (pamphlet). Cooperating Agencies of Barnstable County Department of Health and the Environment, Cape Cod Cooperative Extension, Nantucket Board of Health and UMASS Vineyard Extension. Revised 4/99. Available at Board of Health Office.
SECTION 12   GLOSSARY

Active Recreation. An *active recreation* activity is one that is carried out as part of an official or organized team, on a “regulation” field within a specific time period or an activity with a motor. Examples of active recreation would be participating a softball league, riding all terrain vehicles, or using a boat with a motor.

ADA. ADA refers to the Americans with Disabilities Act.

Affordable Housing. Households pay no more than 30% of annual income on housing.

Anthropogenic. Caused by humans such as degradation of the environment.

Aquifer Recharge Areas. Areas of rock layers and stratified drift that are a container and transmitter of groundwater that is both porous and permeable.

Area of Critical Environmental Concern (ACEC). An ACEC is an area containing concentrations of highly significant environmental resources that has been formally designated by the Commonwealth’s Secretary of Environmental Affairs pursuant to 301CMR12.00 following a public nomination and review process. They received special recognition because of the quality, uniqueness and significance of their natural and cultural resources.

ATV. All terrain vehicles or off-road vehicles.

Base Flow. The portion of stream flow that is supported by groundwater seepage into a channel rather than by storm water runoff. The regular water level of the stream or river. Spring streams flow from subterranean sources in contrast to surface runoff.

Biodiversity. The number and variety of organisms found within a specified geographic region.

Brownfield. A former or under-used industrial or commercial facility where redevelopment or full use is complicated by a real or perceived environmental contamination.

Build-out. The estimated need for housing, natural resources and school facilities based on development of a community to its carrying capacity under current zoning and state/federal laws.

Canoe River Aquifer Advisory Committee (CRAAC). The towns of Easton, Mansfield, Foxborough, Sharon and Norton lie within the Canoe River Aquifer. The Canoe River Aquifer Advisory Committee was formed by an Act of the Massachusetts Legislature in 1987 and is comprised of three members from each of the towns. The goal of the committee is to protect the aquifer on a regional basis through public education, inter-municipal cooperation and through the promotion of uniform local regulations.

Canoe River Greenbelt Project. An initiative of the Canoe River Aquifer Advisory Committee to provide a 500-foot buffer on either side of the Canoe River through the five towns of Sharon, Foxborough, Mansfield, Easton and Norton for a recreation and wildlife corridor.
**Cluster Development.** A type of zoning that determines the number of houses in a typical subdivision and permits the same number of houses on a smaller portion of the land in exchange for deeded open space.

**Community Preservation Act.** An initiative to designate a certain percentage of tax money to be put into a separate fund for the protection of open space, recreation, historical areas and provisions of affordable housing. A committee is designated by the town to determine how the funds are spent on each aspect of the initiative. The town must adopt the Community Preservation Act (CPA) at town meeting in order for it to take effect. Matching funds are available from the State for such project initiated by towns that have adopted CPA.

**Comprehensive Permit.** The comprehensive permit is a method for a public agency, limited dividend partnership or nonprofit organization, proposing to build low or moderate income housing, to apply for a general permit through the local Zoning Board of Appeals (ZBA) in lieu of applying for permits from each applicable board.

**Comprehensive Water Resources Management Plan.** A document that outlines methods that the town can use to effectively and efficiently manage water resources such as septic systems, sewer, recharge of groundwater within an aquifer, water conservation and maintaining the hydrologic cycle within each watershed.

**Confluence.** Point where one river joins another river to form one larger river. One example is the confluence of the Wading River and the Rumford River that forms the Three-Mile River.

**Conservation Land.** Land that is owned or managed by the Conservation Commission under the provisions of Massachusetts General Laws Chapter 40, Section 8C. Conservation land is also protected by Article 97 of the Amendments to the Constitution.

**Conservation Restrictions.** Specific restrictions written into a deed for a piece of land to ensure that it remains in its natural state for the protection of wildlife habitat and water resource protection. A conservation restriction is a sale of the parcel’s development rights and prohibits any building or alteration of the natural state of the land. The Conservation Commission accepts the conservation restriction and the Board of Selectmen approves the Commission’s acceptance of the restriction. A land owner may receive a tax break for the donation of the conservation restriction.

**Core Habitat.** The concentration of a viable rare plant or animal habitat and the exemplary natural community.

**Coverts Cooperators Program.** Volunteers who work together to have healthy, abundant and diverse forest lands.

**Critical Supporting Watersheds.** Portion of a watershed that has the greatest potential to degrade or sustain a core habitat.

**Desalination.** The process of taking salt water, removing the salt content and providing drinking water without the salt. The regional desalination plant will be located in Dighton, MA. Norton has entered
into a contract to purchase the desalinated water for residential and commercial consumption as a supplement to the town’s wells.

**Drumlins.** Oddly shaped, streamlined hills, resembling half an egg or convex side of a spoon. Consisting of glacial drift on till plains, drumlins are usually clustered in groups. The elongated shape follows the direction of the ice flow while the broad steep noses face the direction from which the ice advanced. Bunker Hill is an example of a drumlin.

**Ecology.** The interaction of species with the environment. The science of the relationships between organisms and their environments.

**Ecological Succession.** Ecological succession is the natural change in an environment such a field being taken over by saplings of surrounding trees to become a forested area.

**Ecoregion.** An ecoregion or ecotone is an ecological community of mixed vegetation formed by the overlapping of adjoining communities.

**Ecosystem.** An ecological community with its environment functioning together as a unit.

**Eminent Domain.** A legal proceeding where the Board of Selectmen, Conservation Commission, Commonwealth of Massachusetts (among other organizations) can purchase a parcel of land for fair market value for the protection of natural resources with or without the land owner’s permission.

**Endangered.** Any reproductively viable native species that has been documented by biological research and inventory to be in danger of **extirpation** from the Commonwealth.

**Environmental Justice.** The State’s Environmental Justice Policy is to ensure that all residents have equal access to environmental areas like parks, ballfields, protected open space and recreation areas.

**Environmental Impact Report (EIR).** An application for a permit under the Massachusetts Environmental Policy Act MGL Ch. 30 section 6 through 62H and 301CMR11.00.

**Erosion.** The removal and deposition of earth materials by water, wind or glacial ice.

**Esker.** A narrow winding ridge composed of glaciofluvial gravels, sometimes several kilometers long. It is a prime source of clean gravel and sand.

**Eutrofied.** The process of eutrophication is where a pond is aged artificially by excessive plants and sediments trapped within the plants that change the open water ecosystem to a wetland system.

**Exotic, Invasive Species.** Species that are not native to the United States that outcompete our native vegetation and invade our natural communities to create a monoculture of that exotic invasive species.

**Extirpation.** The term for when a species becomes extinct at the local level.

**Forest Management.** The development and use of forests for recreation, timber production, the maintenance of water quality and the conservation of wildlife habitat.
**Floodplains.** Floodplains are relatively flat areas adjacent to rivers, streams and large bodies of water in Norton. When rain causes a river to swell and overflow its banks, the floodwaters spill onto the floodplain and their velocity is reduced. A floodplain’s natural function is to receive floodwater and disperse its energy.

**Floodplain Protection District.** As defined in the Norton bylaw, the Floodplain Protection District is defined as all lands that will be covered by floodwaters from the one hundred year storm. No building or structure shall be constructed, altered or modified and no land filled, excavated or otherwise changed in grade except pursuant to a special permit.

**Food Web.** A complex of interrelated food chains (the relations between prey and predator) within an ecological community.

**Fragmented habitat.** An ecosystem that is divided into smaller and smaller units.

**Genetic Diversity.** Genetic diversity refers to the variety among individuals within a population.

**Glacial Erratics.** Scattered boulders that are different from local bedrock and deposited by the ice flow.

**Glacial Till.** Accumulation of unsorted, stratified material deposited beneath and within glacial ice. Heterogeneous mixture of all particles (boulder to clay), oldest surficial deposit.

**Glaciofluvial Deposits** are the stratified drift deposited by meltwater streams

**Glaciolacustrine Deposits.** Sand, silt and clay deposited on the bottom of huge temporary lakes that formed either due to the melting of glacial ice or by the blocking outlets for meltwater.

**Great Pond.** A great pond is a natural water body of 10 acres or more. Lake Winnecunnet is our only great pond.

**Ground Moraines.** Linear deposits of heterogeneous rubbly material including angular blocks of rock, boulders, pebbles and clay, that has been transported and deposited along the floor of the channel as the glacier retreated.

**Heritage Landscapes.** Special places that define the character of a community. Heritage landscapes are the result of human interaction with the geographic areas and contain natural and cultural resources. Examples of heritage landscapes include cemeteries, historic mill buildings, cranberry bogs, archaeological sites, river corridors, parks, shipyards, and farms.

**Historic Preservation Restrictions.** A restriction written into a deed to ensure that the historic values of the property are not altered by any subsequent land owner. A land owner may receive a tax break for donating a historic preservation restriction.

**Impaired Water Bodies.** The designation by the Department of Environmental Protection of water bodies and waterways that are polluted.
**Impervious Cover.** Paved surfaces, like roads, buildings, house footprints and driveways are known as impervious cover.

**Induced Infiltration.** A process that happens when wells pump water out of an aquifer faster than the aquifer is replenished with groundwater. Induced infiltration can cause a stream or river to flow in the opposite direction due to the force of the pump.

**Inflorescence.** The arrangement of flowers on a stalk or in a cluster.

**Kame.** A conical hill or steep sided ridge composed of sorted glaciofluvial deposits. Prime sand and gravel formed when sediments accumulated in ice pits, crevasses and between detached ice blocks.

**Kame Terraces.** Flat topped ridge or terrace feature occurring between a valley glacier and the valley slopes that result from accumulations of glaciofluvial sand and gravel along the margins of ice tongues melting in valleys in areas of hilly relief.

**Kettle Holes.** Water-filled enclosed pits formed within glacial drift deposits by the melting of a remnant ice block left buried in drift after the retreat of the glacier.

**Light pollution** is defined as an excessive an inappropriate artificial light.

**Low Dissolved Oxygen (DO).** Marine life needs oxygen to live. Oxygen which is a gas dissolves in water and therefore, the oxygen in the water is commonly referred to as dissolved oxygen. Surface water dissolved oxygen levels are affected by point and non-point pollution.

**Low Impact Development (LID).** Some examples of Low Impact Development (LID) techniques include reducing the size of roads to appropriate widths, using smaller swales instead of large detention basins, and more thoughtful planning.

**Master Plan.** Document created every 10 years by the Planning Board to manage growth within the town.

**Meander Scars.** The carved U-shaped oxbows and deposited silts left behind after a stream or river changes its course.

**National and Massachusetts Registers of Historic Places.** A national list and/or a state list of places that have submitted applications that document their significance in local, regional, state and national history and culture.

**Natural Communities.** The different types of habitats can be described as natural communities.

**Non-Point Source Pollution.** Pollution that originates from many different sources that have a cumulative impact on waterbodies and watercourses.

**Noxious Aquatic Plants.** Same as nuisance aquatic vegetation.
**Nuisance Aquatic Vegetation.** A density of plants within a waterbody or watercourse that prevent recreation or inhibit the wildlife habitat value of the ecosystem.

**Nutrients.** Ingredients necessary for growth (plants) but which, if found in excess, produce algal blooms and an overpopulation.

**Odonates.** Predacious winged insects that include dragonflies and damselflies.

**Outwash.** Sediment deposited beyond the terminal moraine that is sorted from heavier to finer particles. Sediments deposited by streams flowing away from a melting glacier.

**Oxbow.** A U-shaped bend in a river.

**Panicle.** The shape of a flower cluster that is irregularly branched or an inflorescence with a main axis and subdivided branches.

**Passive Recreation.** Passive recreation is any activity that is not conducted within an organized team, on an official field or with a motorized component. Examples of this would be a pick-up football game at a local park, mountain biking on a trail, or canoeing.

**Pathogens.** Pathogens are disease-causing bacteria, viruses and protozoans that are transmitted to people who consume untreated or inadequately treated water.

**Perennial.** A stream or river that is active (or flowing) throughout the year.

**Point-Source Pollution.** Pollution that originates from one source such as a culvert or pipe that discharges directly to a waterbody and/or a watercourse causing a negative impact.

**Pollutant.** Any substance of such character or in such quantities that it degrades the environment’s values or renders the environment offensive.

**Population.** A population is a local group of breeding individuals. All of the people inhabiting a specified area.

**Population Diversity.** Population diversity is the number of populations within a habitat.

**Principal Responsible Parties (PRPs).** List of individuals, organizations, or businesses that have contributed to the environmental degradation of an area and are responsible for the clean-up.

**Rare Habitat Polygons.** The shapes drawn by the Natural Heritage and Endangered Species Program on the Estimated Habitat of Rare Species maps for each town and the state.

**Reserve System.** A network of undisturbed different natural communities.

**Riparian.** An area relating to the bank of a natural watercourse or the regulatory area listed in the Wetland Protection Act that is within 200 feet of a line drawn perpendicular to the mean annual high water mark of a perennial stream or river.
**Sedimentation.** The act or process of depositing finely divided solid material such as sands, sediments and salts.

**SRPEDDD.** The Southeast Regional Planning and Economic Development District is a regional planning agency that assists towns and cities in the southeast region with development issues.

**Sole Source Aquifer.** The designation by the U. S. Environmental Protection Agency essentially means that the Towns using the water from the Aquifer cannot supplement their needs from any other aquifer source.

**Soluble Pollutant.** A pollutant that can be dissolved in water such as fertilizers and pesticides.

**Special Concern.** Any native species which has been documented by biological research and inventory to be suffering decline that could threaten the species in the Commonwealth if allowed to continue unchecked, or which occurs in such small numbers or with such a restricted distribution or specialized habitat requirements that it could easily become threatened.

**Species Diversity.** Species diversity, also known as species richness, is the pure number of different types of plants and animals.

**Species Richness.** Same as species diversity.

**State Rank (SRANK)** The SRANK is a designation given to the community type regarding its rarity and potential threats.

**Stewardship.** The concept that humans are responsible for managing the earth’s resources in a renewable and thoughtful way that recognizes that all organisms are important to the ecosystem as a whole. To serve as a steward.

**Stewardship Plan.** A type of forestry plan that encourages the wildlife habitat functions of an ecosystem and promotes sound forestry practices to enhance those wildlife functions.

**Storm Water.** Runoff from a rain event or snow melt that flows overland before infiltrating into the ground.

**Storm Water Management Policy.** The Storm Water Management Policy as adopted by the Department of Environmental Protection is a method of evaluating the effects of storm water on the environment and minimizing those impacts. The policy aims to prevent untreated storm water from entering streams and wetlands, preserve the pre-development integrity of the hydrologic conditions after construction, reduce and prevent flooding impacts of development, minimize erosion and sedimentation, improve water quality, reduce pollutants and provide increased protection for sensitive areas. Nine storm water management standards have been developed as part of the policy and most projects are required to meet the all nine standards.

**Stratified Drift.** Material deposited by the glacier that is both unsorted and unstratified material.
**Supporting natural landscape.** A combination of core habitats, buffer areas, large vegetation patches, large roadless areas and undeveloped watersheds

**Taking.** Harassing, harming; killing; disrupting nesting, breeding, feeding or migratory activities; transportation; or selling of any species listed under the Massachusetts Endangered Species Act (MGL chapter 131A).

**Tax Title.** Term referring to the status of property within a town/city that has a sequence of delinquent tax bills. The town may opt to take the land owner to court to retrieve the delinquent taxes or to take the property.

**Threatened.** Any reproductively viable native species which has been documented by biological research and inventory to be rare or declining with the Commonwealth and which is likely to become endangered in the Commonwealth in the foreseeable future.

**The Grange.** The National Grange is the nation’s oldest national agricultural organization with grassroots units established in 3,600 local communities in 37 states. Its 3000,000 members provide service to agricultural and rural areas on a wide variety of issues including economic development, education, family endeavors and legislation designed to insure a strong and viable Rural America. Norton has one such organization.

**Tree City USA.** The National Arbor Day Foundation and the National Association of State Foresters set the standards for this designation. Each community must meet the standards to be eligible for the designation. Standards include the designation by the community of a tree board or department; a tree care ordinance; a community forest program with an annual budget of at least $2.00 per capita and an Arbor Day observance or proclamation.

**Total Suspended Solids.** Matter that is stirred up within the water. This can include sediments and salts from a road.

**Turbidity.** Suspended or stirred up sediments, particles, organic and inorganic materials within the water giving it a cloudy, muddy or muddled appearance.

**Universal Access.** The ability of all persons to enter, exit, and otherwise utilize areas that are open to the public.

**Vernal Pools.** Small depressions in the landscape that hold water for at least two months and provide the only breeding habitat for certain types of amphibians and reptiles. The pools are free of adult fish and typically dry completely in the fall. Documentation of vernal pools includes the collection of maps, biological data and photographs. The Vernal Pool Field Observation Form can be obtained from the Conservation Office or the NHESP website and must be submitted to NHESP for accuracy and the actual certification.

**Water Resource Protection District.** Zoning district in Norton identified to protect the town’s drinking water wells. Certain restrictions are imposed on property located within the Water Resource Protection District.
**Water Table.** The upper limit of the zone of saturation below which all pores spaces are filled with water.

**Watershed.** The region draining water from a higher elevation into a river, river system, waterbody or wetland.

**Watch List.** Term used by the Natural Heritage and Endangered Species Program (NHESP) for the status of a species that NHESP is carefully watching the species and its habitat in case conditions arise that warrant adding that species to the endangered species list.

**Wetlands.** Wetlands are identified by the plant community (hydrophytic plants), soil composition (hydric soils) and the water regime (hydrology).

**Wildlife Migration Corridors.** Pathways and waterways formed by the travel of animals moving from one habitat to another for their life needs.

**Wildlife Habitat.** The locations that contain a suitable plant community composition and structure, hydrologic regime and other characteristics where a species can acquire food, cover from predators, shelter, breeding areas, overwintering, and migration routes is called its wildlife habitat.

**4-H.** An agricultural organization geared toward children.