

## **Chapter 3**

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# **Regulatory Issues**

## CHAPTER 3

### REGULATORY ISSUES

#### 3.1 INTRODUCTION

This chapter identifies and briefly discusses the environmental regulations affecting wastewater facilities in the Town of Barnstable. Federal, state, regional, and Town of Barnstable departments and governmental agencies have enacted environmental regulations, which relate to the collection and treatment of wastewater and the recharge of the treated water. The federal regulations are contained in the Code of Federal Regulations (CFR) and are enforced by the United States Environmental Protection Agency (USEPA). The Massachusetts regulations are contained in the Code of Massachusetts Regulations (CMR) and are enforced by MassDEP. The Cape Cod Commission has adopted a Regional Policy Plan, which provides guidance and goals for development and environmental protection on Cape Cod. The Town of Barnstable has adopted regulations and rules to protect the citizens of Barnstable, and a Local Comprehensive Plan to provide growth management and environmental protection for the future. These regulations and plans are intended to protect public health and the natural environment, and are reviewed in this chapter.

Following is a brief summary of some of the regulations that are most applicable for this project. This is not intended to be a comprehensive list of all laws involved in the various regulations. For details on any of the requirements, refer to the actual law or regulation.

#### 3.2 FEDERAL AND STATE REGULATORY ISSUES

A. **Acts and Executive Orders.** The USEPA and MassDEP have been working most recently in two areas applicable to this Project. The first of these efforts is regarding the establishment of Total Maximum Daily Loads (TMDLs) for non-point sources to coastal embayments, and the second is the National Pollutant Discharge Elimination System (NPDES) permitting program for

stormwater. The following is a brief description of each of these regulatory requirements and other state and federal regulatory issues.

1. **TMDLs.** The Federal Clean Water Act (Act) requires states to develop a list of impaired waters, which are waters that are unable to meet state-established water quality standards for their intended use (i.e., drinking water supply, fishing, recreational swimming and boating, or healthy ecosystems for plants and animals). States are then required to develop TMDLs for the impaired waters that are affected by pollutants. A TMDL is a determination of the maximum amount of pollutants that a body of water can withstand.

In 1998, the USEPA required all states to submit strategies for completing TMDLs within 8 to 13 years. Massachusetts submitted a strategy consisting of two stages. The first stage would make use of existing studies and information by working to implement corrective actions where feasible; develop a pilot program to define data collection needs and procedures to be used for TMDL development; and develop and standardize TMDL determination methods for pollutants that did not have well-established protocols. The second stage focuses on developing the TMDLs, beginning with those for pollutants with well-established determination methods.

Once pollutant limits are determined, MassDEP develops a draft TMDL report, followed by a public review and comment period. After addressing public comments, MassDEP submits the TMDL report to USEPA for formal approval. The TMDL development process requires that communities develop plans to restore the health of water bodies and then implement the plans. MassDEP monitors the progress of communities in achieving TMDLs. Restoration of water bodies is an extended process, so MassDEP looks for reasonable progress; if no reasonable progress is being made, enforcement actions may be taken.

The Act requires states to monitor the quality of their water resources to determine if the water meets the standards for intended uses. This information is reported to the USEPA in the Integrated List of Waters. Category 5 of the Integrated List itemizes water bodies that are “impaired or threatened for one or more uses and requiring a TMDL.” Therefore, this list becomes the basis for determining the water bodies for which TMDLs will be established.

The water bodies within Barnstable that are listed in the Integrated List as Category 5, Waters Requiring a TMDL for nutrients include Centerville River, Cotuit Bay, North Bay, Popponesset Bay, Prince Cove, Red Lily Pond, Shoestring Bay and West Bay. Waters Requiring a TMDL for

pathogens include Barnstable Harbor, Bumps River, Hyannis Harbor, Lewis Bay, Maraspin Creek, Mill Creek, and Seapuit River. Red Lily Pond also cites noxious aquatic plants in addition to nutrients. Of the water bodies listed, the Three Bays estuary system (Cotuit Bay, North Bay, Prince Cove, Seapuit River, West Bay), the Centerville River/East Bay estuary system (Centerville River, Bumps River, Red Lily Pond), the Popponesset Bay estuary system (Popponesset Bay and Shoestring Bay), the Lewis Bay estuary system (Halls Creek, Hyannis Harbor and Lewis Bay) and Rushy Marsh have been evaluated as part of the Massachusetts Estuaries Project. The Barnstable Harbor estuary system (Barnstable Harbor, Maraspin Creek, Mill Creek) is planned for evaluation as part of the Massachusetts Estuaries Project. These five estuaries have been identified out of 89 for southeastern Massachusetts. As discussed in Chapter 1, nitrogen TMDLs have been established for Popponesset Bay, Three Bays System, and Centerville River/East Bay.

2. **Stormwater and Wastewater Discharges.** Discharges to surface waters are regulated by the USEPA through the NPDES permit program, authorized by the Act. The NPDES program is intended to control water pollution by requiring discharge permits for any point source (i.e., stormwater systems, wastewater systems) that discharge pollutants to waters of the United States. In Massachusetts, NPDES discharge permit application is made to both the USEPA and the MassDEP. USEPA issues the permit after the MassDEP certifies that the discharge meets water quality standards. Progress reports (describing progress on established goals to improve water quality) are submitted on an annual basis by the Town for the Town of Barnstable NPDES Phase II Small MS4 General Permit.

Additionally, MassDEP has recently proposed new regulations which would implement a stormwater management program in Massachusetts in accordance with state and federal clean water laws. The proposed Stormwater Management Regulations in **314 CMR 21.00**, establish the program whereby the MassDEP would regulate direct and indirect discharges of stormwater to waters of the Commonwealth. In addition to regulating these discharges, the MassDEP would be required to regulate the outlets to both surface and ground waters for such discharge and any treatment works or best management practices associated with these discharges.

USEPA has issued a final 2008 Construction General Permit that governs discharges of stormwater from certain construction sites and requires the development and implementation of Stormwater Pollution Prevention Plan(s) for construction projects beyond one-acre.

3. **NEPA.** The National Environmental Policy Act of 1970 (NEPA) provides the basis for the protection of the environment. This Act ensures that environmental information is provided to the public for use in the decision making process for projects that might affect the environment. According to regulations, the “NEPA process is intended to help public officials make decisions that are based on an understanding of environmental consequences; and take actions that protect, restore, and enhance the environment.” This policy has been established to eliminate redundancy and combine NEPA requirements with other concerned agencies’ requirements. The NEPA process is the forerunner of similar environmental review processes adopted by state and regional agencies; it allows for the assessment and identification of alternatives for projects concerning the environment.

The Town of Barnstable is not expected to need to enter into the NEPA process because, the Comprehensive Wastewater Management Plan (CWMP) project would be regulated by the Massachusetts Environmental Policy Act (MEPA) and the Cape Cod Commission’s Development of Regional Impact (DRI) review process as described in following sections.

4. **Massachusetts Ocean Management Act Regarding Effluent Discharge at an Ocean Outfall.** Formally the Massachusetts Ocean Sanctuaries Act (Massachusetts General Law (M.G.L.) Section 13, c132A), the Massachusetts Ocean Management Act regulations establish state environmental policy to be enforced in the Ocean Management Planning Area which consists of five Ocean Sanctuaries; the Cape Cod Ocean Sanctuary, the Cape Cod Bay Ocean Sanctuary, the Cape and Islands Ocean Sanctuary, the North Shore Ocean Sanctuary, and the South Essex Ocean Sanctuary. The Massachusetts Oceans Act of 2008 prohibits the dumping or discharge of commercial, municipal, domestic or industrial wastes in an Ocean Sanctuary. The north side of the Town of Barnstable is within the Cape Cod Bay Ocean Sanctuary and the south side of the Town of Barnstable is within the Cape and Islands Ocean Sanctuary as designated by the Massachusetts Ocean Management Act.

The Massachusetts Oceans Act of 2008 signed by Governor Deval Patrick on May 28, 2008 is legislation that required the Secretary of Energy and Environmental Affairs to develop a comprehensive plan to manage development in its state waters, balancing natural resource preservation with traditional and new uses, including renewable energy. The draft Ocean Management Plan was completed on June 30, 2009, and a final plan was promulgated on December 31, 2009.

Upon final adoption, the Ocean Management Plan will be incorporated into the existing Coastal Zone Management Plan and enforced through the state's regulatory and permitting processes, including the Massachusetts Environmental Policy Act (MEPA) which is discussed below and Chapter 91, the state's waterways law.

5. **Governor Kings Executive Order No. 181 on Barrier Beach Areas.** This Executive Order defines barrier beach areas and sets several state policies to restrict and discourage development in these areas. Several policies are included within this Executive Order and include the following; no state funds and federal grants for construction projects shall be used to encourage growth and development in hazard-prone barrier beach areas, and no development shall be permitted in the velocity zones or primary dune areas of barrier beaches identified by the state. The Massachusetts Office of Coastal Zone Management coordinates the state management policy for barrier beach areas.

Responses received from the Massachusetts Office of Coastal Zone Management on Barnstable's previous Wastewater Facilities Plan, include recommendation of check valve systems being incorporated into the design of any sections of collection infrastructure for existing development within barrier beach designated areas.

6. **Executive Order No. 385, Planning for Growth.** Executive Order 385 seeks to resolve conflicts between environmental quality and development activity through proactive and coordinated planning oriented toward long-term, sustainable development. With respect to planning for growth, Section 1 of Executive Order 385 encourages:

- a. Economic activity and growth which is supported by adequate infrastructure and which does not result in, or contribute to, avoidable loss of environmental quality and resources, and
- b. Infrastructure development designed to minimize the adverse environmental impact of economic activity.

Section 5 of Executive Order 385 promotes rehabilitation and revitalization of existing developed areas as preferable over construction of new development.

## B. Regulations.

1. **MEPA Environmental Review.** CWMP projects in Massachusetts include an environmental review process that is governed by the Massachusetts Environmental Policy Act (MEPA) and Cape Cod Commission's DRI review process. In general, the MEPA process, as described in **301 CMR 11.00**, establishes thresholds, procedures, and timetables for a multi-level review process. If a project exceeds review thresholds or if state funding is requested for a project, the project proponent begins the review process by preparing and filing an Environmental Notification Form (ENF) with the Secretary of Energy and Environmental Affairs. A 30-day review period follows, during which the Secretary receives agency and public comments and holds a site visit and consultation session. At the close of the ENF review period, the Secretary determines whether an Environmental Impact Report is necessary and issues a MEPA certificate. If an Environmental Impact Report is required, it is prepared by the proponent and submitted to the Secretary of Energy and Environmental Affairs. The Environmental Impact Report is reviewed at both draft and final stages by agencies and the public. After completion of the Secretary's review, state agencies may act on the project.

The Town will be expected to enter the MEPA process as part of the CWMP Project and the Project scope (identified in Chapter 1) indicates that the ENF will be filed after the Needs Assessment and Alternatives Screening portions of the Project.

2. **Wetlands Protection.** The Wetlands Protection Act (M.G.L. c.131, s.40) and parallel state regulations (**310 CMR 10.00**) were enacted to safeguard wetlands, associated resource areas, and floodplains from overdevelopment. The Wetlands Protection Act covers any wet area where the groundwater level is at or near the surface of the ground for a long enough period during the year to support a community of wetland-type vegetation. Wet areas include any salt or fresh-water marsh, meadow, swamp, or bog.

Areas subject to protection under the Wetlands Protection Act are referred to as resource areas. Resource areas are protected by a surrounding 100-foot buffer zone in which landscape alterations are regulated. The Wetlands Protection Act also covers construction on land subject to flooding or coastal storms. Generally, the regulations apply to two types of floodplain: those lands bordering directly on bodies of water, and those lands subject to flooding (called "Isolated Land Subject to Flooding") which do not border bodies of water.

The state regulates activities that involve filling, dredging, or excavating in or near a wetland or water body. The regulations govern additional construction activities, including site preparation, the removal of trees or bushes, vista pruning, and the changing of land contours.

A Notice of Intent must be filed for work in any resource area. The Notice of Intent requires a detailed description of the planned activity, and the applicant must show that if the resource area will be altered, the benefits will outweigh the damage. For work outside the resource areas but within a 100-foot buffer zone around a bordering vegetated wetland, bank, dune, or beach, the owner has the option of filing a “Request for Determination” to show that the work will not alter a resource area. If the Conservation Commission agrees, it will issue a “Negative Determination,” permitting the work as presented. If the Conservation Commission decides that the work will alter a resource area, it will issue a “Positive Determination” and require a full hearing and the filing of a Notice of Intent.

Stormwater Management Standards have been revised and incorporated into the Wetlands Protection regulations of 310 CMR 10.00 and new sections have been added. Promulgated in January 2008, the standards encourage stormwater recharge, the increased use of low impact development techniques, improved operation and maintenance of stormwater best management practices, and the removal of illicit connections to stormwater management systems. Refer to 314 CMR 21.00, Stormwater Management Regulations for more details on this regulation.

3. **Massachusetts Rivers Protection Act.** This law is an amendment to the Wetlands Protection Act and establishes a Riverfront Area, which is included in the resource areas protected by the Wetlands Protection Act. The law authorizes conservation commissioners to regulate activities that occur within the Riverfront Area and establishes protection of the natural integrity of rivers as a state priority.

Permits for work in Riverfront Areas will be denied if a significant adverse impact would result or if there is a “practicable and substantially equivalent economic alternative” that will have less impact on the resource area. Certain activities are exempt from the Rivers Protection Act, including renovation of abandoned cranberry bogs and activities associated with wastewater treatment plants and their related structures, conveyance systems, and facilities.



4. **On-Site Treatment and Discharge.** Title 5 of the Massachusetts State Environmental Code provides minimum standards for the “protection of public health, safety, welfare and the environment by requiring the proper location, construction, upgrade, and maintenance of on-site sewage disposal systems and appropriate means for the transport and disposal of septage.” The regulations contained in **310 CMR 15.00** come under the jurisdiction of the MassDEP and are enforced in conjunction with local health departments through permits, inspections, and financial penalties.

As defined by the regulations, an individual sewage disposal system is “a system or series of systems for the treatment and disposal of sanitary sewage below the ground surface.” Systems typically consist of a septic tank, a distribution box, and a soil absorption system. These systems may also include tight tanks, shared systems, or alternative systems if allowed by local and state regulations. The design considerations for Title 5 systems include minimum setbacks, minimum separation from groundwater, sizing guidance, and soil requirements.

The regulations are generally enforced by local health departments. The local Board of Health, due to specific problems or concerns, can and may impose more stringent requirements. Individuals and/or communities can receive a variance from the regulations; however, it must be in accordance with 310 CMR 15.00.

5. **Water Resources, Treatment and Supply of Potable Water.** The Safe Drinking Water Act of 1974 is federal legislation that dictates the regulation of potable water in the United States. Major amendments were made to the Safe Drinking Water Act in 1986 and mandate that 25 additional contaminants come under regulation every 3 years. This legislation is incorporated into the regulations of 40 CFR 141, 142, and 143, which are maintained and enforced by USEPA.

Massachusetts is a primacy state for the regulation of potable water, which means that MassDEP is the primary agency for maintaining and enforcing the drinking water regulations. Massachusetts’ regulations contained in **310 CMR 22.00** closely parallel the federal regulations and establish the maximum contaminant level (MCL) of the regulated contaminants in drinking water.

The Safe Drinking Water Act provides guidelines on the establishment of wellhead protection programs, which Massachusetts has established in 310 CMR 22.21. The program delineates three zones around each public water supply. The Zone I delineation is the area immediately around the well or well field which must be owned by, or in the control of, the water purveyor. The Zone I for a well producing 100,000 gpd or greater has a minimum diameter of 800 feet. The Zone II delineation is the area of an aquifer that contributes water to a well under the “most severe pumping and recharge conditions that can be realistically anticipated.” The regulations define these conditions as 180 days of pumping at safe yield with no recharge from precipitation. Zone II areas are typically determined by a hydrogeologic study involving particle-transport computer modeling. The Zone II is bounded by the groundwater divide and by the contact of the aquifer with less permeable material. The Zone III delineation is the area beyond the Zone II from which surface water and groundwater drain into the Zone II.

The allowed land use within each zone is regulated by the wellhead protection program. Land use activities within Zone I areas must be related to the water supply or have no significant adverse impact on water quality. The following land uses are prohibited from being sited in a Zone II area:

- Landfills or open dumps.
- Land filling of sludge or septage.
- Automobile graveyards and junkyards.
- Stockpiling of contaminated snow or ice.
- Petroleum, fuel oil, and heating oil bulk stations and terminals.
- Treatment or disposal works for wastewater other than sanitary sewage.
- Facilities that generate, treat, store, or dispose of hazardous materials.
- Floor drainage systems in hazardous waste and hazardous material processing or storage facilities.

There are exceptions to the prohibition of wastewater treatment plants listed as the sixth bullet above. These exceptions are reviewed by MassDEP on a case-by-case basis.

**6. Regulations for the Land Application of Sludge and Septage.** The land application of sludge and septage, as well as the distribution of compost material made from WWTF sludge, are regulated by MassDEP in **310 CMR 32.00** and the July 2005 federal standards contained in 40 CFR Part 503. Current state regulations are more stringent.

Under the MassDEP regulations, sludge, septage, and compost (collectively called “material”) are classified as Type I, II, or III, depending upon chemical, pathogen, organic content, and sludge stabilization processes used. The sludge classification determines how the material is ultimately used or disposed of. Type I material can be used on any site and requires no further MassDEP regulations, while Type II and III materials require additional regulation on the ultimate use, the application site, and allowable application rates. Compost must be classified as Type I to be sold or otherwise distributed to the public.

7. **Clean Water State Revolving Fund Program.** This regulation described in **310 CMR 44.00** gives the Commonwealth the authority and responsibilities to select, approve and regulate water pollution abatement projects receiving financial assistance under the State Revolving Fund Program. In 2006, modifications to the regulations were proposed and then promulgated in 2007, integrating smart growth principles into the regulations. Eligible projects include comprehensive wastewater management planning or the design and construction costs associated with implementing planning recommendations for water pollution abatement. Revisions were promulgated in January 2009 to modify requirements related to flow limits in sewer construction to promote sustainable development.

8. **Surface Water Discharge Permitting.** The purpose of the Massachusetts Surface Water Discharge Permit Program described in **314 CMR 3.00** is to implement the provisions of the Massachusetts Clean Waters Act and the Federal Clean Water Act and provides the MassDEP authority to assume delegation from the USEPA to administer the NPDES permit program. 314 CMR 3.06 provides authority to the MassDEP to issue general permits for surface water discharges, including general permits for storm water discharge from small municipal separate sewer systems regulated under the USEPA’s Phase II Storm Water Regulations set forth in the applicable provisions of 40 CFR Part 122, Subpart B.

9. **Surface Water Quality Standards.** In addition to the limitations imposed by the Massachusetts Ocean Management Act, the Massachusetts Surface Water Quality Standards define the activities that are prohibited in inland water classes and coastal and marine classes for surface water bodies. For the purposes of applying **314 CMR 4.00** to the Town of Barnstable, the surface waters of the Commonwealth are classified as shown in 314 CMR 4.06, where the water in Barnstable Harbor (excluding Freezer Point and the developed marina water) is designated SA for Shellfishing and is also designated an Outstanding Resource Water (**314 CMR 4.06**). The SA designation indicates 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. The Outstanding Resource Water classification means that the quality of these waters shall be protected and maintained and new and increased discharges are generally prohibited.

10. **Groundwater Discharge Permitting.** Discharges and treated water recharge to the groundwater system are regulated by the Massachusetts Ground Water Discharge Permitting Program Regulations (the “Ground Water Regulations”), contained in **314 CMR 5.00**. Recent revisions promulgated in March 2009, make a number of changes to streamline the existing permitting process and reduce the time it takes for an applicant to obtain a groundwater discharge permit. In addition, these revisions eliminated the need for another set of regulations previously contained in the Ground Water Quality Standards, **314 CMR 6.00**. MassDEP developed changes to 314 CMR 5.00 that incorporate the provisions of 314 CMR 6.00 and provides important protection to groundwater quality. The Ground Water Regulations currently contain a list of specific effluent limits. These limits are based on the maximum contaminant limits set forth in the Drinking Water Regulations at the time MassDEP promulgated the Ground Water Regulations.

The revised regulations also include new limitations on total organic carbon (TOC) concentrations in discharged effluent. For treated wastewater discharged within a Zone II with a travel time of greater than two years to the source, the revised permit program establishes the following maximum (Maximum Day) allowable concentrations.

1. Total Suspended Solids (TSS) shall not exceed 10 mg/L
2. Turbidity shall not exceed 5 nephelometric turbidity units
3. Effluent shall be filtered and disinfected to achieve an effluent limitation of 200 fecal coliform organisms per 100 mL
4. TOC shall not exceed 3.0 mg/L
5. Total nitrogen and Nitrate nitrogen shall not exceed 10 mg/L

For travel times of less than two years, or for discharge arrangements that do not include soil aquifer treatment, limitations become increasingly stringent, with concentrations limited as follows.

1. TSS shall not exceed 5 mg/L
2. Turbidity shall not exceed 2 NTU
3. Biological oxygen demand (BOD) shall not exceed 10 mg/L
4. Total nitrogen and nitrate nitrogen shall not exceed 5 mg/L
5. Effluent shall be oxidized, filtered and disinfected to achieve an effluent fecal coliform limitation of no detectable colonies per 100 mL over a continuous seven day sampling period, and no sample shall exceed a limit of 14 colonies per 100 mL
6. TOC shall not exceed 1.0 mg/L

These new TOC limitations are intended to provide increased protection of groundwater supplies, limiting both the amount of naturally occurring organic carbon introduced to the groundwater as well as synthetic forms of organic carbon that may be present in treated discharge. Further, because many contaminants of emerging concern (CECs) including endocrine disrupting compounds (EDCs), pharmaceuticals, and personal care products (PPCPs) are organic in nature, reductions in total organic carbon are expected to generate similar reductions in concentrations of CECs introduced to groundwater through reductions in total carbon concentrations.

This regulation also provides that the MassDEP may issue an individual groundwater discharge permit that authorizes the reuse of effluent from permitted sewage treatment facilities in accordance with the Reclaimed Water Permit Program and Standards, **314 CMR 20.00**, promulgated in March 2009. These regulations establish a program to regulate and permit reclaimed water systems and establish requirements for the use, sale, distribution and offering for use, sale and distribution of reclaimed water.

**11. Sewer System Extension and Connection Permit Program. 314 CMR 7.00** establishes the program whereby sewer system extensions and connections are regulated and permitted by the MassDEP and was adopted to insure proper operation of wastewater treatment facilities and sewer systems within the Commonwealth.

**12. Toxic/Incompatible Discharges to Wastewater Collection Systems.** In the early 1980s, the USEPA established nationwide industrial pretreatment standards contained in 40 CFR 403, General Pretreatment Regulations for Existing and New Sources of Pollution, to regulate the discharge of industrial pollutants to Publicly Owned Treatment Works (POTWs). The general goals of this program are to limit those toxic/incompatible discharges, which could: (1)

pass through a plant inadequately treated; (2) harm a plant's treatment processes, thereby preventing the plant from complying with its permit; or (3) reduce opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

When these regulations were established, all communities with POTW flows greater than 5 mgd were required to establish local industrial pretreatment programs. The programs are needed by larger plants that receive significant industrial and commercial wastewater flows.

Massachusetts's Operation and Maintenance Standards for Wastewater Treatment Plants (**314 CMR 12.00**) parallel the federal regulations. Revisions promulgated in March 2009 clarified the responsibility of contract operators for operating and maintaining wastewater treatment facilities in accordance with approved operation and maintenance plans and staffing plans, and for performing the monitoring, reporting, and recordkeeping required by the facility's discharge permit.

Paragraph 12.09.2 of the Massachusetts regulation also states that a POTW with a design flow of 5 mgd or less may be required to establish a POTW Pretreatment Program.

Though the Hyannis WPCF is smaller than 5 mgd, the Town of Barnstable implemented a Pretreatment Program in 1989 to monitor, regulate, and minimize toxic/incompatible discharges to the collection system, thereby protecting the treatment process and receiving waters.

**13. Privately Owned Sewage Treatment Facilities and Publicly Owned Treatment Works.** Privately owned sewage treatment facilities (PSTFs) are the private version of the POTWs. Publicly Owned Treatment Works are defined in **314 CMR 12.02** as "any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial waste of a liquid nature which is owned by a public entity. A POTW includes any sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment." In Massachusetts, there are detailed requirements at the State level, which apply stringent requirements on the location and operation of PSTFs.

Current MassDEP regulations require the use of a PSTF or POTW for any residential or commercial discharge greater than 10,000 gpd. MassDEP reviews the performance of these facilities under its Groundwater Discharge Permit (GWDP) Program (314 CMR 5.00).

14. **Reclaimed Water Use.** The Reclaimed Water Permit Program and Standards Regulations (the “Reclaimed Water Regulations”), **314 CMR 20.00**, are a new set of regulations promulgated in March 2009. Reclaimed water is defined as domestic wastewater that is treated to a level such that it is suitable for beneficial reuse. Eliminating or reducing the concentrations of microbial and chemical constituents of concern through treatment and/or limiting public or worker exposure to the water via design or operational controls achieves making reclaimed water suitable and safe.

The regulations establish a system of classification and standards specific to the proposed use. The highest standards apply to those proposed uses with greatest potential for exposure to the public. These regulations do not include standards for indirect aquifer discharge. Those standards are included in the revisions to the Groundwater Discharge Permitting Program Regulations in 314 CMR 5.00.

### **3.3 REGIONAL REGULATORY ISSUES**

A. **The DRI Review Process.** In accordance with the Cape Cod Commission Act, Chapter 716, the Cape Cod Commission has the authority to review and regulate Developments of Regional Impact (DRIs). This review is carried out by the Cape Cod Commission in accordance with Administrative and Enabling regulations.

The Town will be expected to enter the MEPA and DRI process as part of a full CWMP. The review process will be a joint review.

B. **Cape Cod Commission Regional Policy Plan.** The Cape Cod Commission Act calls for an update to the plan every five years (previous editions were released in 1991, 1996, and 2002). The current Regional Policy Plan went into effect October 30, 2008.

The Regional Policy Plan establishes “minimum review performance standards” and development review policies that are used by the Cape Cod Commission for the review of Developments of Regional Impact (DRI). The goal of the water resources minimum performance standards is to preserve the high quality of the groundwater (the source of Cape Cod’s drinking water) as well as the marine and fresh surface waters, which are connected to and dependent on the groundwater for ecological health and sustenance. The water resources classification system includes the following: drinking water, coastal embayments, ponds, sewage treatment facility

standards, stormwater management standards, and natural resources standards. The reader is directed to the most current Regional Policy Plan for further information specifically relating to the minimum performance standards developed for each goal. Overall, the water resources minimum performance standards state a maximum nitrogen load of 5 parts per million unless there will be no adverse impacts on resources.

### **3.4 TOWN OF BARNSTABLE ORDINANCES AND REGULATIONS**

The following text summarizes plans and regulations developed and adopted by the Town of Barnstable pertaining to treatment of wastewater, comprehensive planning and growth management. Chapter excerpts are from the Code of the Town of Barnstable.

**A. Town of Barnstable Local Comprehensive Plan.** The Town of Barnstable’s most current version of the Local Comprehensive Plan (LCP) is the 2008 Final Draft. The vision statement of the LCP states, “The seven diverse yet interconnected villages of Barnstable form one community that is an integral part of Cape Cod. As the town in 2008 has been shaped by its past, through this plan Barnstable will shape a sustainable future. The town will preserve its history, environment and community for future generations through active stewardship of community character and quality of life while balancing growth, infrastructure and natural systems.”

Comprehensive plan goals and related needs include the following with respect to natural resources and environmental quality within the Town of Barnstable are as follows:

- Preserve, protect and enhance sensitive natural habitats and systems.
- Provide town services and infrastructure through an efficient, planned and prioritized process.
- Support and manage the regional resources and services unique to Cape Cod.
- Preserve and enhance historic and maritime character, public viewsheds and cultural landscapes.
- Preserve and enhance access to public spaces including the waterfront.



## **B. The Code of the Town of Barnstable.**

### **Part 1, General Ordinances:**

Chapter 184, Sewers and Water: This chapter includes regulations on building sewers and connections and use of public sewers.

Chapter 232, Wastewater Discharge: The purpose of this chapter is to “protect the public health, safety and welfare by maintaining quality groundwater through the regulation of the volume of certain wastewater discharges. Within zones of contribution to existing and proposed public supply wells, the maximum allowable wastewater discharge from new individual on-site sewage disposal systems shall not exceed 330 gallons per acre per day.”

Chapter 240, Zoning, Article XI, Growth Management: The purpose of this article is to “ensure that a harmonious pattern and predictable rate of development occurs in Barnstable, which protects the health, safety and welfare of current and future Barnstable residents. This article establishes a development rate adequate to ensure that the Town, with prudent reliance on local and other financial sources and in compliance with the revenue generating guidelines of Proposition 2 1/2, can and will provide infrastructure and operate in a manner which provides current and future Barnstable residents with an adequate and responsible level of Town services, as defined by relevant, commonly accepted professional standards.”

“It is anticipated by this Growth Management article that during the time until buildout occurs, the Town will strive to upgrade its infrastructure to keep pace with its total population, as outlined in the Capital Improvements Plan and consistent with the growth rate established by this article. This includes the preparation of a long-term capital plan and a commitment to make contributions, as practical, to infrastructure and to the established Capital Trust Fund as appropriate to fund infrastructure, promote affordable housing and protect the environment.”

### **Part III, Board of Health Regulations:**

Chapter 353, Nuisances, Article II, Maintenance of Private Sewage Systems: This article includes the maintenance of private sewage systems.

Chapter 360, On-Site Sewage Disposal Systems: This chapter is comprehensive for on-site sewage disposal systems including all requirements and additional regulations.

Chapter 385, Variance Requests: This chapter provides variance request regulations with respect to on-site sewage disposal systems.

### **Part IX, Department of Public Works Regulations:**

Chapter 901, Sewers Connections: This chapter includes permitting, design and installation requirements.

The CWMP must comply with the vision and goals of the Barnstable Comprehensive Plan, and ordinances and regulations of the Town.