

# **Natural Resources**

*(2004)*

## Introduction

Plaistow's environment is abundant in natural features such as forests, agricultural lands, rivers, ponds, brooks, stream, and wetlands and fish and wildlife. While these resources have contributed to Plaistow's high quality of living, development activity has brought about change and the inevitable loss of some of these natural resources. Most particularly, open space and active agricultural lands have been reduced as land has been developed as residential, commercial or industrial uses. The Town must work to minimize future losses to both the natural and cultural environment that make Plaistow a great place to live.

The information in this chapter consists of an inventory of existing natural resources as well as the future needs for Plaistow. The chapter concludes with various recommendations for protection and conservation measures of the essential natural resources.

## Topography and Geology

Plaistow is part of the major land resource area known as the New England and Eastern New York Upland. The area is characterized by hills, low mountains, and broad valleys. Many of the hills are either drumlins or bedrock ridges. Low mountains generally have a thin mantle of soil material over bedrock, especially on the upper slopes.

Although much of Plaistow's topography reflects the bedrock geology, there are also areas that conform to deep surface deposits that formed during the period of glaciation many thousands of years ago. There are four major geologic features that affect Plaistow's topography:

*Bedrock outcrops* are composed of igneous and metamorphic rocks that are exposed at the surface of the ground. They can be found throughout Plaistow. Bedrock or ledge outcrops usually present a constraint to development, primarily where septic systems or foundations are required. Blasting may be necessary for structural foundations and footings.

*Unstratified drift or glacial till* is composed of an unsorted mix of sand, silt, clay, gravel, and boulders that overlies much of the bedrock in Plaistow. These deposits are formed in association with moving glacial ice. Thick accumulations of glacial till are often streamlined in the direction of ice movement into landforms known as drumlins. These glacial deposits may limit percolation for proper siting of septic systems and do not generally hold sizable supplies of groundwater.

*Stratified drift* is composed of fine sands and gravel. The majority of these deposits are generally associated with river valleys and shorelines.

*Swamp deposits* occur in low, poorly drained areas along the watercourses in Plaistow. These areas typically contain high water tables and may have water ponded at the surface. The town's wetland resources are usually associated with these deposits and are contained within the hydric soil group.

## **Soils**

The soils in Plaistow have developed over time from the interaction of climate, vegetation, topography, and surficial materials. Since the surface materials of Plaistow are primarily made up of glacial till, many of the soils tend to be moist and/or stony with areas of high water table, shallow ledge, or ledge outcroppings. Where there is stratified drift, the soils tend to be sandier, gravely and better drained. Hydric soils tend to be found in low spots associated with surface water features or in bedrock depressions throughout the town. Soil types are derived from the *Soil Survey of Rockingham County, New Hampshire* produced by the US Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) in 1994.

## **Soil Types**

The following is a description of Plaistow's soils based upon soil conditions that are grouped into four (4) broad categories for planning purposes:

### *Wetland (Hydric) Soils*

These include all poorly and very poorly drained soils often associated with marine silts and clays including muck, peat, swamps and marshes as defined by the NRCS for the State of New Hampshire. They include such soil types as the Biddeford, Rumney, and Scantic groups. The water table is at or near the surface five to nine months of the year.

These areas are best suited to natural open space or limited development because wetland soils provide several natural functions that are beneficial to the community. These functions include: absorbing excess flood waters preventing downstream flooding; providing valuable habitat for fish and wildlife; providing groundwater recharge to local aquifers; and trapping sediment and other pollutants, thus acting as a surface water filter.

Hydric soils are a class of soils as defined by the NRCS. These soils are similar to, but may not be precisely the same as, wetlands as defined by the US Army Corps of Engineers under section 404 of the Federal Clean Water Act. Army Corps wetlands are also referred to as "Federal Jurisdictional Wetlands" and are defined using vegetation and hydrology as well as soils. For regulatory purposes, both the NH Wetlands Bureau and the Corps employ the Corps definition. Since these wetlands have not been delineated in the filed, it is not easy to compare the geographic similarities of these resource areas on a town-wide basis. A more thorough discussion of wetlands in Plaistow is found in the Water Resources section of this chapter.

Hydric soils in Plaistow are typically found near watercourses such as the Little River, Kelly Brook, and Bryant Brook. There are approximately 1981 acres of hydric soils in town. **See Soil Conditions Map.**

#### *Seasonally Wet Soils*

These soils are somewhat better drained than the wetland soils, but typically have a seasonal water table within 2 1/2 to 3 feet of the surface, a perched water table or slowly permeable sub-layer during the wet season. They tend to be located on the lower slopes of hills and on low knolls. This soil grouping includes such map units as Buxton and Sutton. The town should encourage low density uses and those that are not likely to pollute the groundwater. Flooded basements and submerged leach fields can be expected. Plaistow has 860 acres of seasonally wet soils, which can be found scattered throughout the town.

#### *Shallow to Bedrock Soils*

This soil group tends to be located on low, knobby hills, and ridges that typically have bedrock within 1-3 feet of the surface. This soil group is made up of the Hollis-Charlton complex. While this group tends to have a shallow to bedrock characteristic, there will be some areas that do have deeper soils. Where bedrock is relatively deep, these soils can be well-drained. There are 3847 acres of shallow to bedrock soils in Plaistow. The northern part of the town contains the majority of these soils as shown in the **Soil Conditions Map.**

#### *Sandy and Gravelly Soils*

Sandy and gravelly soils are excessively well drained Hinckley and Windsor soils that are typically associated with the stratified drift deposits from glacial outwash. These soils have excellent potential for development since there are few limitations for construction. However, these areas are often associated with significant groundwater supplies. Thus, development density must be managed to prevent groundwater pollution from effluent since these soils are very permeable. There are 2714 acres of sandy and gravelly soils in town. Large portions of these are found in the middle section of town as shown in the **Soil Conditions Map.**

The specific soils that are found in Plaistow include the Windsor-Hinckley-Canton group, the Paxton-Woodbridge group, and the Canton-Montauk group. The following is a description of each:

#### *Windsor-Hinckley-Canton*

These include excessively drained and well drained, sandy and loamy soils that are nearly level to steep. These soils are found on wide plains and broad, low, knobby hills. In most places, the plains are adjacent to streams and rivers.

The soils of minor extent include the moderately well drained Deerfield and somewhat poorly drained Pipestone soils in the lower areas on plains and in drainageways. Other minor soils are the very poorly drained Greenwood and Chocorua in basins.

Windsor-Hinckley-Canton soils are generally used for industrial, commercial, or extensive residential development although woodland, pasture, and cropland are more suited for this type of soil.

#### *Paxton-Woodbridge*

These include well drained and moderately well drained, loamy soils that are nearly level to steep. These soils are found on smooth, oval hills, in wide areas between the hills, and along drainageways. In most areas, the hills have a general northwest orientation.

The soils of minor extent include the well drained Canton soils on knolls and the sides of hills, the moderately well drained Scituate soils in wide areas between the hills, and the well drained chatfield soils on knolls and ridges.

These types of soil are generally suited for pasture, cropland, and woodland. Urban development in areas where the soils are nearly level or gently sloping is also suited for the Paxton-Woodbridge soil type. Seasonal wetness and slow permeability are limitations in most areas while erosion is a hazard on disturbed sites.

#### *Canton-Montauk*

These include well drained, loamy soils that are gently sloping to steep. These soils are found on broad hills, in wide areas between the hills, and in many narrow drainageways.

The soils of minor extent include the well drained Chatfield soils on ridges, knolls, and hills. Also included are the moderately well drained Scituate and Newfields soils in areas between the hills and the poorly drained Walpole soils found in drainageways.

These types of soil are generally suited to pasture, cropland, and woodland. Urban development is well suited for these types of soils. Slope and the hazard of erosion are limitations in most areas.

### **Farmland Soils**

The NRCS has identified three categories of farmland soils in New Hampshire-- prime farmland soils, soils of statewide importance, and soils of local importance. This classification is based upon the productivity of the soils for food and fiber crops. Prime farmland soils have the capacity to produce sustained high yield of crops. Soils of statewide significance are deemed to be important for farming in New Hampshire, but are of less value than prime farmlands because the soils are not as fertile and require more erosion control practices. Similarly, soils of local

importance may be important for farming in Plaistow, but are not as valuable as either the prime farmland soils or those of statewide significance. These soils usually have some limitation such as slope that requires more active management. Prime farmland soils are also considered seasonally wet soils, but not all seasonally wet soils are considered prime farmland soils. While some of these soils may fall into state and federal definition for wetland, agricultural activities are either exempt (such as plowing) or can be permitted if there is more extensive activity such as installation of a farm pond.

The encroachment of development on agricultural soils or lands that are currently in agricultural use is an issue of concern for the long-term use of land in Plaistow. Once converted to more intensive uses, these lands are usually irretrievably lost for agricultural purposes. Plaistow has approximately 462 acres of prime farmland soil. The majority of these are found in the southern section of the town. **See Soil Conditions Map.**

## **Slope**

For planning and development purposes the slope or steepness of the land is expressed as a percentage that represents the relationship of horizontal and vertical distance between two points. For example, a twenty-foot rise within 100 feet is a twenty- percent slope. As slope increases the potential for surface runoff and erosion increases. The soil depth is also thinner as slopes increase thus decreasing the capacity of the land to filter septic system effluent in areas that lack public sewer. In addition, construction costs for development also increase.

Slopes from 0-12 percent are the most suitable for development. The flattest slopes – 0 to 3 percent - are suitable for roadways as well as commercial, industrial, and recreational uses. Undulating lands up to twelve percent are suitable for residential uses and private roads as well as the above uses with increasing limitations as the slopes increase. Land use limitations based on slope begins when the slope is between twelve and fifteen percent. Development on steep slopes is likely to reduce soil stability, causing erosion and sedimentation into brooks, streams and surface water bodies. Such slopes are usually best left naturally vegetated as part of a community's open space system or to satisfy subdivision open space requirements. Areas with the steepest slopes tend to be associated with the stream and river valleys. The Natural Resources Conservation Service provides general guidelines for assessing slope limitations and these are as follows:

0 – 3%	generally suited for most types of development but may require drainage
3 – 8%	most desirable for development because these areas generally have the least restrictions

8 – 15%	suitable for low-density development with particular attention given to erosion control, runoff, and septic design
15 – 25%	unsuitable for most types of development and septic systems, construction costly, erosion and runoff problems likely
>25%	all types of construction should be avoided, careful land management for other uses is needed

**See Critical Natural Features Map** for locations of slopes greater than fifteen percent in Plaistow.

## **Forest Resources**

Plaistow has many woodland and forested areas most of which are second growth deciduous and coniferous species. These forest resources represent a response to a relatively wet climate with warm summers and cold winters. Variation in soil and slope will result in a variation in vegetation. Where soils are wet there may be a preponderance of hardwoods such as red maple and yellow birch. A mixed forest including white pine and eastern hemlock will more likely occur on drier sandy/gravelly soils.

Over time, as the town has grown, the amount of contiguous forested and wooded areas have declined. Ensuring a long-term policy toward proper management of the town's forest and tree resources has a number of values: open space and scenic enhancement, recreation, preservation of wildlife habitat, and water quality protection.

## **Annual Taxable Timber Harvest**

Although forests and woodlands are generally not a valuable resource from a direct economic standpoint in Plaistow, they are used by owners and non-owners for a variety of purposes. There is limited timber harvesting through growers that are members of the New Hampshire Tree Farm Program. In Plaistow, there are six such tree farms that total 167 acres. In addition to these six farms, there is an unknown amount of tree farm land that is owned by the town. **Table NR-1** is a list of tree farms in Plaistow along with their acreage and location. With the exception of town owned forest properties, the size of the tree farms in town range from fourteen acres up to forty acres with an average size of 28 acres. These tree farms combined with other forestlands in Plaistow generate some income for the town through the State Timber Harvest Tax program. This program yields a ten percent tax to the town on the value of all timber harvested.

**Table NR-1: Tree Farms in Plaistow, NH**

	<b>Location</b>	<b>Acreage</b>
1	Center of Town	20
2	Smith Corner Road	25
3	Route 108	14
4	Across from Timberlane High School	40
5	Main Street	28
6	Smith Corner Road	40
7	Town forest properties	unknown

*Source: Rockingham County Extension, Brentwood, NH, 2001*

The total number of board feet (BF) harvested increased only 0.95 percent between 1996 and 1998 while between 1998 and 2000, the total number of board feet harvested decreased by 33 percent. **See Table NR-2.**



**Table NR-2: Annual Timber Harvest in Plaistow, 1996, 1998, 2000**

	<b>1996</b>	<b>1998</b>	<b>2000</b>
White Pine	274,010 BF	245,710 BF	144,945 BF
Oak	23,180 BF	21,768 BF	24,376 BF
Pallet/Tie Logs	6,850 BF	42,941 BF	24,500 BF
Tree Chips	5,090 Tons	343 Tons	4,663 Tons
Cordwood	277 Cords	175 Cords	38 Cords
Hemlock	3, 450 BF		7,560 BF
Hardwood/Aspen		35.41 Tons	
Birch			2,969 BF
Beech/Maple			3,416 BF
Total Taxes Assessed	\$4,956	\$5,091	\$510

*Source: Town of Plaistow*

## **Fish and Wildlife Resources**

Plaistow's mixture of undisturbed habitats including forests and woodlands, open fields, meadows, freshwater wetlands, and surface waters provide habitat for valuable fish and wildlife resources. This variety of habitat provides for a variety of wildlife to thrive from songbirds to mammals to fish and reptiles. In order to maintain a variety and abundance of wildlife species, maintaining a diverse habitat that is interconnected is necessary.

Fields and forests provide habitat for such songbirds as woodpeckers, nuthatches, ruffed grouse, purple finches, woodcock, thrushes, bluebirds, robins, and warblers, along with deer, fox, coyote, and similar species. Wetlands are prime habitat for mammals such as beaver, otter, muskrat, and mink as well as toads, frogs, and salamanders. Heron, black ducks, and loons use wetland areas for nesting. Monitoring and maintaining a wildlife inventory is a means to measure the quality and extent of habitat in Plaistow.

NH Fish & Game (NHF&G) tracks the number of animals that have been trapped in each town in the state. The number of trapped animals in Plaistow went from 39 during the 1997-1998 season down to twelve in the 2000-2001 season. With the exception of the skunk, the number trapped for

each has seen a decline as shown in **Table NR-3**. The most notable decline was in the number of trapped beaver.

**Table NR-3: Animals Trapped in Plaistow, NH 1997-2001**

Year	Beaver	Coyote	Fisher	Mink	Muskrat	Opossum	Otter	Raccoon	Skunk
1997-1998	20	4			11			4	
1998-1999	8	3	2						
1999-2000	5	2					1		
2000-2001				1		1		2	8

*Source: NH Fish and Game October 2001*

Records for the number of deer, bear, and moose hunted are also kept by the NHF&G. There have been no bear or moose hunted in recent years. The last time a moose was hunted and killed was in 1989. The number of deer hunted and killed has declined in the past three years as shown in **Table NR-4**.

**Table NR-4: Deer, Bear, and Moose Hunted in Plaistow, NH 1996-2000**

Year	Deer	Bear	Moose
1996	7	0	0
1997	25	0	0
1998	27	0	0
1999	17	0	0
2000	4	0	0

*Source: NH Fish and Game October 2001*

## **Rare Species/Exemplary Natural Communities**

In Plaistow, there are two rare plant species of special concern and two exemplary natural communities that have been listed by the NH Natural Heritage Inventory (NHI) under the Native Plant Protection Act of 1987 (NH RSA 217-A) and the New Hampshire Endangered Species Conservation Act of 1979 (NH RSA 212-A). This program finds, tracks, and facilitates protection of New Hampshire's rare plant species, rare animal species, and exemplary natural communities.

Although there are no federally listed endangered species, there are two state threatened plant species. The two endangered plant species include:

- Golden-Heather (*Hudsonia ericoides*)
- Green Adder's-Mouth (*Malaxis unifolia*)

The names of the natural communities reflect either the plants that help define them or the environmental processes that influence them. The two natural communities listed by the NHI include the following:

- Blackgum/Red Maple Basin Swamp
- SNE Level Bog

In addition to identifying endangered species, the NHI also rates species value by a combination of how rare the species or community is and how large or healthy its examples are in the town. Species are rated by degrees of importance from highest importance to extremely high, very high, or high importance. Both of the natural communities in Plaistow are rated as high importance. The Green Adder's-Mouth plant is rated as very high importance. The Golden-Heather plant is not rated.

In an effort to protect these resource areas the NHI does not identify precise locations. It does publish upon request from a local community, a map of the community illustrating general locations.

## **Agricultural Resources**

With the recent rapid growth of residential and commercial developments, there continues to be pressure placed on land that is suitable for agriculture. The USDA Natural Resource Conservation Service has identified the important farmland soils within the town. These soils are classified as Prime Farmland Soils as well as soils of statewide and local importance. **See the Soil Conditions Map** for locations of prime farmland soils. Currently, there is only one commercial farm in the Town of Plaistow – the Goudreault Farm (42 acres in size).

## **Construction Materials**

This section identifies potential areas for construction materials in Plaistow called for in the state master plan statute, RSA 644:2, VII-a. These areas are based upon interpretations of soils identified in the Soil Survey of Rockingham County. Although this information is useful for land planning purposes, it is only intended to locate potential sources of construction materials.

Construction materials for purposes of this section are categorized as fill, topsoil, sand, and gravel. The soil survey defines road fill and topsoil as being either good, fair or poor. Sand and gravel are rated either as probable or improbable. These ratings are based upon soil characteristics and slope. A full technical explanation of each of these construction material categories is available from the NRCS of Rockingham County.

Plaistow has rather extensive deposits of road fill, sand, and gravel but has no topsoil identified as suitable based on the guidelines of the *Rockingham County Soil Survey*. Sand and road fill overlap one another in many areas of town. There are 3483 acres of road fill, 3989 acres of sand, and 1266 acres of gravel in town. **See Soil Conditions Map** for the location of sand and gravel in Plaistow.

### *Road fill*

Road fill consists of soil material that is excavated from one location and used in road embankments elsewhere. Soils rated for road fill are based upon the amount of material available, ease of excavation and performance after it is in place. The soils rated as a probable source of road fill include: Hinckley (HaA, HaB, HaC), Charlton (associated with Hollis-Charlton complex), Paxton (PdB, PdC), and Windsor (WdA, WdB, WdC, WfB, WfC). The Hinckley and Windsor soils are associated with stratified drift deposits. Road fill is found throughout the town of Plaistow with a majority in the southern half.

### *Sand*

Sand is used for a variety of construction practices. The rating of probable indicates the likelihood of finding the material in suitable quantity. Soils rated as probable include: Acton, Charlton, Deerfield, Hinckley, Charlton (associated with Hollis-Charlton complex), Chocorua, Lim, Ondawa, Pipestone, Podunk, Pootatuck, Rumney, Saugatuck, Scarboro, Walpole, and Windsor.

The Hinckley and Windsor soils are suitable for both road fill and sand. The other soils in this category may be associated with alluvial sediments adjacent to rivers and streams. Although these may be suitable as a source of sand, they may also be wet much of the year.

Sand is found scattered throughout Plaistow with a larger portion located in the southern half of town.

### *Gravel*

Gravel, like sand, is used for a variety of construction purposes. They are rated only for the probability of locating material in suitable quantities. The soils rated as a probable source of gravel include: Acton (AcB, AdB, AdC), Hinckley (HaA, HaB, HaC), Charlton (associated with

Hollis-Charlton complex), Scio, and Walpole. Only the Hinckley soils are a probable source of gravel as well as sand and road fill. Most of Plaistow's gravel operations are located in this soil type and are scattered throughout the town.

### *Topsoil*

There are no soils in Plaistow that are suitable for topsoil based upon the guidelines of the *Rockingham County Soil Survey*.

## **Water Resources**

### **Surface Water**

The majority of Plaistow is located in the Little River Watershed which is a subbasin of the Merrimack River Basin. The Merrimack River Basin covers 173.2 square miles - 10.5 square miles of it is in Plaistow. A small section of the northern part of town is located in the Powwow River watershed while the eastern most part of town is part of the East Meadow River watershed. The surrounding towns of Atkinson, Hampstead, Kingston, and Newton are also a part of the Little River watershed. **See Watersheds Map.**

The Little River and its drainage basin makes up most of Plaistow's surface water. Kelly Brook and Bryant Brook, both located to the west, are subbasins of the Little River. Seaver Brook, located to the east, also contributes to the Little River drainage basin.

### *Potential Surface Water Supplies*

A study completed in 1972 by Fenton G. Keyes Associates indicated one source of surface water supply – the Kelly Brook basin in the northwestern portion of the community which is in an area that would have to be impounded to be of sufficient storage capacity to render any form of public water supply to the community. The study also indicated that additional surface water supply from the Little River would be necessary to furnish a water supply adequate for the community.

### **River Water Quality**

It is important to understand the extent of the watershed areas in town and the direction of flow because the direction of flow is useful in determining the impact of development activity on water quality. Because the Little River watershed encompasses the majority of Plaistow, it is susceptible to water quality impacts due to development. This watershed covers a large area outside of the town and is subject to significant land use change beyond Plaistow's control.

The State of New Hampshire establishes water quality classification for all rivers in the state, both freshwater and tidal. These classifications range from Class A, the highest water quality, to Class D, the lowest. The description of Class A and Class B are as follows:

**Class A** Potentially acceptable for water supply use after disinfection. No discharge of sewage, wastes, or other polluting substance into waters of this classification. (Quality uniformly excellent.)

**Class B** Acceptable for swimming and other recreation, fish habitat and, after adequate treatment, for use as water supplies. No disposal of sewage or wastes unless adequately treated. (High aesthetic value.)

The NHDES conducts annual water quality sampling on a statewide rotating watershed approach. In the summers of 1999 and 2001, water samples were taken from Kelly Brook, which is part of the Little River watershed. Sampling was conducted for E.coli. (fecal coliform bacteria), DO (dissolved oxygen), and zinc. Kelly Brook is classified as a Class B river.

## **Lakes/Ponds**

Plaistow has no large lakes or ponds over ten acres, which is the threshold for identifying water bodies as Great Ponds. Great Ponds are public water bodies. There are number of smaller ponds that may only be one or two acres within the town that carry no specific names. These ponds provide not only an aesthetic quality to the town, but also recreational value for boating and fishing.

## **Watersheds**

Plaistow is part of three watersheds - the Little River Watershed, the Powwow River Watershed and the East Meadow River Watershed. These are subbasins of the Merrimack River Basin. A small section of the northern part of town is located in the Powwow River Watershed while the eastern most part of town is located in the East Meadow River Watershed. The surrounding towns of Atkinson, Hampstead, Kingston and Newton are also part of the Little River Watershed.

Understanding the extent of these watershed areas and the direction of flow is useful in determining the impact of development activity on water quality. Because the Little River Watershed encompasses the majority of Plaistow, it is susceptible to water quality impacts due to development. This watershed covers a large area outside of the town and is subject to significant land use change beyond Plaistow's control.

## **Wetlands**

Wetlands form a major part of Plaistow's surface water resources. Most are directly related with the Little River and its tributaries. They are generally contiguous with wetland or hydric soils as previously discussed in the soils section of this plan. However, for purposes of this discussion of surface water resources, wetlands also include vegetation and hydrologic characteristics that might not be incorporated in hydric soils. These areas include shallow ponds, marshes, swamps, bogs, and seasonally flooded lands. Wetlands are usually areas of low topography and poor drainage with standing water for all or part of the year. Wetlands possess a number of major resource values such as the following:

1. maintenance of water quality by filtering sediments and pollutants
2. flood control
3. groundwater recharge for water supply
4. wildlife, plant, and fish habitat
5. opportunities for education, recreation, and scenic diversity

The definition and mapping of wetlands varies from agency to agency within New Hampshire and the federal government. The most widely used soil definition used for community planning is employed by the US Natural Resource Conservation Service and comprises the hydric soil category or the poorly and very poorly drained soils as discussed in the soils section of this chapter.

Wetland soils in Plaistow have been mapped by the Natural Resource Conservation District and the data is available through the NH GRANIT/GIS system at UNH using the hydric soil classification. This classification relies only on soil and does not distinguish between wetland types such as swamp, bog, wet meadow, shrub-scrub or forested. By quantifying wetland values, a hierarchy of wetland types can be established and appropriate measures for protection and management can be employed. There are approximately 889 acres of soil-based wetlands in Plaistow.

Wetlands have also been defined and mapped statewide on the GRANIT System using the criteria of the US Fish and Wildlife Service through the National Wetland Inventory Program. These wetlands have been identified through aerial photography and very limited field verification. These wetlands have been categorized in various wetland type usually based on vegetation and landform type such as palustrine forested wetland.

In addition, for purposes of managing and permitting activities in wetlands that are of state interest, the New Hampshire Wetland Bureau has adopted the 1987 US Army Corps of Engineers

publication *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*. In an attempt to assist local planning boards to determine the appropriate soil and wetland data for development review, the Office of State Planning issued in November, 1998, a guidance document, *Data Requirements for Site Review, Guidance for Planning Boards*. Plaistow has adopted a Wetlands Ordinance to regulate the uses of lands subject to standing water or extended periods of a high water table.

## **Floodplains**

Floodplains are areas adjacent to rivers, streams, and surface water bodies which are susceptible to flooding during periods of excessive stormwater runoff. The Federal Emergency Management Agency (FEMA) has prepared Special Flood Hazard Area maps for Plaistow for the purpose of identifying the 100-year flood areas within the town that may be eligible for federally subsidized flood insurance. The FEMA maps were revised on April 15, 1981, as Flood Insurance Rate Maps (FIRM). These 100-year flood boundaries are for the most part associated with the Kelly Brook and the Little River. The town also has a Floodplain Development Ordinance to regulate development in the flood hazard areas. **See Critical Natural Features Map.**

## **Critical Natural Features**

Critical Natural Features represent valuable natural resources that require specific measures for management and protection. They include hydric (hydric A and hydric B) soils, 100-year floodplains, and steep slopes. Wetlands are not only biologically productive, they also help store floodwaters. Floodplains accommodate and store floodwaters, thus protecting downstream areas. Steep slopes should also be carefully managed and protected to minimize erosion and sedimentation into surface water bodies. In combination, these resources can form the basis for natural corridors for wildlife, resource protection, and open space within the town. **See Critical Natural Features Map.**

## **Dam Sites**

There are currently nine dam sites in the town. There are two on the Little River, two on Seaver Brook, and one on Kelly Brook. The remaining four dams are all found on ponds. Four of the nine dams are considered inactive. This includes two on the Little River and one each on Kelly Brook and the Sweet Hill Estates Pond. An “inactive dam” either no longer exists or has a significant breach in it that it is no longer capable of impounding water while an “active dam” is capable of impounding water.

The list of dams in **Table NR-5** identifies the dam and the potential hazard based upon the most recent inspection. A “Class AA structure” means that a dam failure would not threaten life or property, a “Class A structure” means a dam with low hazard potential the failure of which would



not threaten life and would result in minimal property damage. A “Class B structure” means a dam with a significant hazard potential, the failure of which would result in possible loss of lives and damage to property, in some cases major damage. All of Plaistow’s active dams are Class AA.



**Table NR-5: Dam Sites in Plaistow, NH**

<b>Dam ID</b>	<b>Name of Dam</b>	<b>Water Course</b>	<b>Owner</b>	<b>Downstream Hazard Class*</b>	<b>Status</b>	<b>Primary Type of Construction</b>
197.01	Little River	Little River	JW Peaslee		Inactive	Timber
197.03	Little River	Little River	Isaac Pollard		Inactive	
197.04	Seaver Brook	Seaver Brook	Plaistow Fire Department	AA non-menace	Active	Earth/Concrete
197.05	Kelly Brook	Kelly Brook	Richard Brockelbank		Inactive	Earth
197.07	Fire Pond	natural swale	Nicholas Pichowicz	AA non-menace	Active	Earth
197.08	Plaistow Fish & Game Dam	Seaver Brook	Plaistow Fish & Game Club Inc.	AA non-menace	Active	Concrete
197.10	Sweet Hill Estates Pond	N/A	K & P Incorporated		Inactive	Earth
197.11	Demoulas Detention Pond	N/A	Michael L. Kettenback	AA non-menace	Active	Concrete
197.13	Timberview Detention Pond	runoff	Boemark Realty Trust	AA non-menace	Active	Earth

*Source: NH Department of Environmental Services, September 2001*

\*AA: means that a dam failure would not threaten life or property

## Groundwater

Groundwater occurs in openings in bedrock or pores in surficial materials and it is the principal source for domestic water supplies in Plaistow. Although water can be withdrawn from bedrock, glacial till or stratified drift deposits, the most significant amounts of groundwater in New Hampshire and Plaistow are usually found in coarse-grained stratified drift. Materials consist principally of medium to coarse sand overlying significant thicknesses of clay, silt, and fine sand or medium sand to cobble gravel.

Groundwater yield is rated by the transmissivity of the stratified drift. Transmissivity is a measure of the ability of an aquifer to transmit a fluid and it is measured in feet squared per day. The US Geological Survey (USGS) has classified yield into four categories: less than 1000, 1001 to 2000, 2001 to 4000, and greater than 4000. The majority of Plaistow falls into the less than 1000 feet squared per day transmissivity. There are a few areas that fall into the 1001 to 2000 feet squared per day. Several small areas are located near Route 125 in the southern portion of Plaistow and another is located on the Massachusetts border in the southeastern area of town.

## Public Water Supply

Although Plaistow does not have a municipal water supply, there are a number of public water systems. The NHDES defines a public water system as a piped water system serving fifteen or more services or 25 or more people for sixty or more days per year. This definition is consistent with the EPA's Safe Drinking Water Act (SDWA). All public water systems are subject to the EPA SDWA regulations and state based rules as implemented in New Hampshire by the Department of Environmental Services. DES jurisdiction includes public health and proper engineering.

Community public water systems are located in areas serving smaller mobile home parks, condominiums, single family housing development, apartments, and institutions. Non-community public water systems are those that serve schools, workplaces, motels, campgrounds, restaurants, and others. **See Appendix A** for a list of public water systems in Plaistow.

It is estimated that in the year 2010, 858,440 gallons per day (GPD) will be demanded by the town and 974,990 GPD by 2020 (Southeast NH Water Supply Study – Army Corps of Engineers 1976). The Town of Plaistow's population was 7316 persons in 1990, 7747 persons in 2000, and is projected to grow to 9857 persons in 2010, and 11,720 persons by 2020. This works out to approximately 87 gallons per day

demanded by each person in 2010, and approximately 83 gallons per day demanded by each person in 2020. The estimated safe yield groundwater potential for Plaistow is 1.64 million gallons a day (MGD). The study also states that if a public water system is installed throughout Plaistow, 85 percent of the population will be served by it in 2010 and 86 percent of the population by 2020.

## **Potential Threats to Water Resources**

Threats to Plaistow's water resources fall into two categories: point pollution sources and nonpoint pollution sources. Point pollution sources are uses that discharge directly into a water body at a specific point. An example of this is a municipal wastewater treatment plant. Nonpoint source pollution involves the diffuse discharge of wastes from sources which are widely spread and sometimes hard to control. Nonpoint pollution sources can be a more serious concern due to their cumulative effect on surface and groundwater quality. Examples of these includes landfills, subsurface disposal systems, hazardous waste sites, salted roadways and salt storage areas, fuel and chemical storage tanks, surface impoundments, and sand and gravel excavation.

The Bureau of Hazardous Waste in the NH Department of Environmental Services (NHDES) maintains a statewide inventory by community of all sites that may have hazardous waste or petroleum products associated with them that may pose a threat to water resources or the environment. This inventory is constantly reviewed and updated. The status of each site is measured by its risk level. Risk levels start at CAT 1 and go up to CAT 8. The lower the risk level number is, the more hazardous the site is - a CAT 1 site poses more threat to the environment than a CAT 8 site. In Plaistow, the NH DES has listed 127 such sites, although a number of these are closed and do not pose a problem. In addition, others are properly registered with the state and do not pose a threat. Those that are currently under active review include those listed in **Appendix B**. The risk level for each is also listed. Plaistow has seven (7) CAT 1 sites, nineteen (19) CAT 2 sites, and 37 CAT 8 sites. There are a number of additional sites that are not active and are of low priority to NHDES. These usually involve underground storage tanks or fuel facilities. These sites have the potential to pollute the previously mentioned public water systems due to their proximity to one another.

## **Recommendations**

This section presents specific recommendations to achieve the goals and objectives for natural and water resources. They are broken down into six categories:

- Organization and Management
- Soil Mapping
- Resource Protection
- Storm Water Management
- Environmental Contamination
- Citizen Education

### **Organization and Management**

1. Undertake a program to implement a town-wide Management/Geographic Information System (GIS) as follows:
  - Prepare a long-range plan to establish a town-wide coordinated and consistent Management Information System (MIS) that incorporates geographic information.
  - Implement a MIS that has the capability to coordinate and maintain a common digital database that can be shared by all town departments. This may require establishing a position for a MIS coordinator who would report directly to the Town Manager.
  - With each change to a property or land record, revise the Town Assessor's parcel map and database appropriately.
  - Amend the Subdivision and Site Plan Review Regulation to require that all subdivision plans include an accurate, geographically referenced digital copy of the plan as well as an "as-built" plan that can be used to revise the town's parcel database and map.
  - Prepare a map inventory of the town's natural, historical, recreational, and built resources that would be consistent with the town's common digital database to be available in hard copy and on the town's web site to allow greater public awareness of these resources.
2. Initiate and maintain a street tree inventory including locations and enter the information into the town's GIS database.

## Soil Mapping

3. Amend the town's Subdivision and Site Plan Review Regulations to:
  - Require all major subdivision and site plans to provide soil maps and information in accordance with the *Site Specific Soil Maps for New Hampshire and Vermont*, SSSNNE Special Publication No. 3, June 1997. This provision is consistent with the NH DES Site Specific permits. This provision would supercede the current provision for High Intensity Soil (HIS) mapping (See Section 610:1 I, m of the Plaistow Subdivision Regulations) that is inconsistent with current NRCS standards.
  - Require that soil maps be prepared by field examination in accordance with *Site Specific Soil Maps for New Hampshire and Vermont*, SSSNNE Special Publication No. 3, June 1997. Such maps shall be prepared and stamped by a Certified Soil Scientist.
  - Adopt, when available, the language of the New Hampshire Office of State Planning's model health ordinance in accordance with RSA 147:1, L. This ordinance will be consistent with, and make reference to, appropriate state programs and regulations for septic systems, for example Env-Ws - 1000 - *Subdivision and Individual Sewage Disposal Design Rules*, sludge, biosolids, etc.

## Resource Protection

4. Establish an Open Space Task Force in conjunction with the Conservation Commission, Historic Commission and Recreation Department to identify and prioritize areas with high open space and scenic value that would be compiled in a Plaistow Open Space Inventory. Such areas would be based upon existing data from the Master Plan, the GRANIT System and the Rockingham Planning Commission. Areas for assessment would include: unusual surface water bodies and their shorelands; high elevations; steep slope areas greater than 25%; critical plant and wildlife habitat, as well as wildlife corridors; natural areas; scenic areas; roads (consistent with RSA 231) and corridors; and historical/cultural resources. The Task Force will also be responsible for:
  - Matching these resources areas with current landowners to the greatest extent possible.
  - Identifying any tax delinquent parcels and existing town-owned land.

- Establishing a plan for the protection of these resources by determining the most appropriate uses for the areas identified in the inventory, such as wildlife habitat, hiking trails, scenic views or public recreation and recommending both regulatory and non-regulatory means for conservation and protection.
5. Ensure the long-term operation, monitoring and maintenance of Plaistow's open space and scenic resources by:
    - Providing an ongoing financial commitment from the Town to provide a variety of active and passive recreational opportunities, and
    - Establishing programs such as Adopt-a-Park or Adopt-a-Forest that could be sponsored by such community groups as service clubs, local businesses, Chamber of Commerce, etc. Communities such as Portsmouth and Dover have implemented such programs.
  6. Apply regularly to all relevant funding assistance sources for open space acquisition and public access including the state Land and Community Heritage Program (LCHP) and the federal Land and Water Conservation Fund through DRED and the Pitman-Robertson Fund through the New Hampshire Fish and Game Department.
  7. Identify national, state and local groups that may wish to acquire property in fee simple title or obtain conservation easements for valuable resources areas. Such groups include the Nature Conservancy, the Society for Protection of New Hampshire Forests and local land trusts such as the Rockingham Land Trust.
  8. Acquire tax delinquent property that has open space value or trade existing town parcels with low open space value for parcels that have higher open space value.
  9. Amend Article IV--Wetlands Ordinance--of the Zoning Ordinance under Section 402 (the Wetland Boundaries for wetland delineation to:
    - require wetlands to be delineated by either a certified soil scientist or certified wetland scientist and
    - to have wetland delineation be compatible with the definition of the New Hampshire Wetlands Bureau based upon the following :



*Chapters WT 100-800 of the NH Code of Administrative Rules, April 12, 1997; Regional Field Indicators for Identifying Hydric Soils in New England. New England Interstate Water Pollution Control Commission, 1998; and the Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87, Dept. of the Army, 1987.*

10. Consider instituting a program to identify and protect prime wetlands as per NH RSA 482-A:15 and the NH Code of Administrative Rules, Chapter WT 700, Prime Wetlands.
11. Amend the Subdivision and Site Plan Review Regulations to provide for the submission of an Environmental Impact Assessment (EIA) for large developments.  
  
An EIA could be required for all subdivisions greater than 15 lots and commercial/industrial proposals of greater than 45,000 SF or 200 parking spaces. The applicant could be required to evaluate the development with regard to impacts on such phenomena as: air quality, noise, plants and wildlife, water resources, community facilities, traffic, existing neighborhoods, and the fiscal impact to the town. Based on the results of such an assessment, the planning staff shall issue conditions of approval that would preserve critical resources and minimize the environmental impact of a proposed development.
12. Adopt a Shoreland Protection District that is consistent with NH RSA 483-B and consider more restrictive standards, where appropriate, such as building setbacks. Consider using Model Shoreland Protection ordinance prepared by the NH office of State Planning in January 1993 as a source document.
13. Review the provisions of the town's Zoning Code relative to agricultural activity and use and determine if they should be amended to provide greater opportunity for agriculture, horticulture and floriculture activity as an effort to maintain the town's rural character. At a minimum, adopt a definition for agriculture in Article II of the Zoning Ordinance that is consistent with the state's definition under RSA 21:34a.
14. Reconsider the standards of Article 601:2 Specific Site Design Requirements of Article VI in the Zoning Ordinance --Planned Residential Development--to provide specific standards and incentives to promote more usable open space and greater protection for natural resources. For example, common open space should be defined and such land should not include wetlands and steep slopes. The percentage of usable common open space should be stated.

## Storm Water Management

15. Adopt the *Model Stormwater Management and Erosion Control Regulation*, prepared in 1997 by the NH Association of Conservation District and the Water Quality and Urban Conservation Committee, as part of both the Subdivision and Site Plan Review Regulations. This model was written to be inserted into both the Subdivision and Site Plan Review Regulations. It regulates all developments which result in a disturbed area in excess of 20,000 square feet and establishes design standards for erosion control.
16. Insert a new paragraph at the beginning of Section 920: Storm Drainage of the Subdivision Regulations, regarding design standards for drainage facilities, and Section 445: Storm Control of the Site Review Regulations or elsewhere if appropriate. This new section would read as follows:

“All stormwater management and erosion control measures shall be consistent with the Best Management Practices outlined in the *Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas of New Hampshire*, 1992, as amended.”
17. Ensure that that the standards for Stormwater Management Control in both the Subdivision and Site Plan Control Regulations are consistent. For example, the estimate of the rate of peak flow stormwater discharge before and after development should be for the same storm intervals, i.e. 2, 10, 25, and 100-year storms.
18. Update references to Water Supply and Pollution Control Commission to the New Hampshire Department of Environmental Services. See for example Section 720:2 of the town Subdivision Regulations.
19. Consider inserting a performance standard for storm water runoff for Total Suspended Solids (TSS) into the Subdivision and Site Plan review regulations for large developments to protect the water quality of the town’s surface waters.
20. Add a provision to the Subdivision and Site Plan review regulations that allows the Planning Board to require developers for large projects to provide specific structural and maintenance measures for stormwater Best Management Practices including oil and gas separation from storm water. These measures may also include requirements for a long-term inspection and maintenance program for such developments.

## **Environmental Contamination**

21. Amend the Site Plan Regulations by adopting the current state standards in Env-Ws 421, rules for Best Management Practices, prepared by NH DES in 1996. These requirements are aimed at facilities that may generate hazardous or petroleum/chemical products or spills to mitigate threats to groundwater.
22. Monitor the All Sites Hazardous Waste Database kept by the NH DES.  
  
The NH DES maintains a database and associated mapped locations for all hazardous waste and petroleum sites under investigation or are a potential hazard. The town should continually monitor the sites in Plaistow.
23. Review the need for an ordinance to regulate the application and surface spreading of biosolids. If appropriate, amend the Zoning Ordinance to include a biosolid section that references the NH DES regulations Env-Ws-800 for biosolids and sludge.

## **Community Education**

24. Undertake a town-wide education program aimed at informing Plaistow citizens about the importance of protecting and managing the Town's natural and cultural resources by:
  - Reviewing and revising curriculum and programs in the schools;
  - Conducting public workshops on timely environmental topics with similar articles in the Town's newsletter;
  - Exploring the possibility of cooperative use of the Town's public lands with the school and recreation departments and conservation commission for mutual education, recreation and sustainable resource management programs and activities; and
  - Preparing information brochures and Web site presentations that promote natural and cultural resource management and protection.

# Appendices

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# Appendix A

## Public Water Systems in Plaistow, NH

Site Name	Site Address	Project Type
26 Chandler Avenue Condos	26 Chandler Avenue	Public Water System
American Legion Post	34 Main Street	Public Water System
Blueberry Knoll Estates	19 Newton Road (Route 108)	Public Water System
Brickyard I Plaza	95 Plaistow Road	Public Water System
Brickyard II Plaza	97 Plaistow Road	Public Water System
Bryant Brook	11 Greenough Road	Public Water System
Cedars Mediterranean	132 Plaistow Road	Public Water System
Chandler Terrace	28 Chandler Avenue	Public Water System
Countryside Childcare	3 Blossom Road	Public Water System
Cross Ridge Estates	68 Forrest Avenue	Public Water System
Dandi Lyons	Route 125	Public Water System
Danos Pizza and Subs	113 Plaistow Road	Public Water System
Donahues	20 Plaistow Road	Public Water System
Dunkin Donuts Plaza	70-74 Plaistow Road	Public Water System
Eggies Diner	127 Plaistow Road	Public Water System
Fieldstone Industrial Park	Old County Road	Public Water System
Fitzgerald Safety Complex	Elm Street	Public Water System
Forest Glen Condos	135 Forest Street	Public Water System
Golden Hill	120 Newton Road	Public Water System
Golden Lion Restaurant	2 Wentworth Avenue	Public Water System

Great Elm Plaza	37 Plaistow Road	Public Water System
Greenfield Hill Estates	Sweet Hill Road	Public Water System
Howard Manor Condo Association	182 Plaistow Road	Public Water System
Hoyt City Plaza	Route 125	Public Water System
Kimi Nichols Corporation	17 East Road	Public Water System
Larrys Clam Bar	Route 125	Public Water System
Moongate Farm	Seaver Brook Lane	Public Water System
Moore Falls Corporation	15 Railroad Avenue	Public Water System
Northgate Mall Plaza	134 Newton Road	Public Water System
PEU/Sweet Hill Estates	Partridge Lane	Public Water System
PEU/Twin Ridge Condos	Culver Street	Public Water System
Plaistow Commons Plaza	160 Plaistow Road	Public Water System
Plaistow Fish and Fame Club	18 May Ray Avenue	Public Water System
Plaistow Petro King/Cass Fuel	119 Plaistow Road	Public Water System
Plaistow Shopping Center	Old Danville Road	Public Water System
Plaistow Town Hall	Main Street	Public Water System
Plaza 125	Route 125	Public Water System
Post Mills Condominiums	9 Crane Xing	Public Water System
Primo Pasta	133 Plaistow Road	Public Water System
Primo Pasta	93 Plaistow Road	Public Water System
Rainbow Ridge	Deer Hollow Road	Public Water System
Rileys Variety Store	28 Newton Road	Public Water System
SAU 55 Building	30 Greenough Road	Public Water System
Sawyers Banquet ion Facility	F 182 Plaistow Road	Public Water System
Sawyers Restaurant	181 Plaistow Road	Public Water System
Scandia Plastics	Westville Road	Public Water System

Shaw's Supermarkets	9 Plaistow Road	Public Water System
Stone Bridge Village	Stonebridge Road	Public Water System
Strawberry Hill	Evans Avenue	Public Water System
Sweet Hill Kindergarten	8 Palmer Avenue	Public Water System
Timberlane Middle School	44 Greenough Road	Public Water System
Timberlane Regional High School	36 Greenough Road	Public Water System
Tuxbury Meadows	21 Tuxbury Road	Public Water System
Valleyfield Apartments	138 Newton Road (Route 108)	Public Water System
Vic Geary Senior Center	18 Greenough Road	Public Water System
West Pine Condo Association	West Pine Street	Public Water System
Westville Park Condominiums	57 Westville Road	Public Water System
Westville Market/Supply Outlet	63 Plaistow Road	Public Water System
Willow Plaza	Route 125	Public Water System

*Source: NH Department of Environmental Services September 2001*

## Appendix B

### Hazardous Materials Sites in Plaistow, NH

Site Name	Site Address	Project Type
128 Plaistow Road	128 Plaistow Road	Hazardous Waste Project
Anchor Used Auto Parts Annex	233 Main Street	Oil Spills or Releases
Beede Waste Oil (AKA Cash Oil Sales	7 Kelley Road	Superfund Site
Beede Waste Oil (AKA Cash Oil Sales	7 Kelley Road	Oil Spills or Releases
Beede Waste Oil (AKA Cash Oil Sales	7 Kelley Road	Underground Injection Control
Blueberry Knoll Estates	19 Newton Road (Route 108)	Isolated Groundwater Sample/Public Water System
Brandy Brow Auto Junkyard	Route 108	Hazardous Waste Project
Brandy Brow Auto Junkyard	Route 108	Unsolicited Site Assessment
Chandler Ave/Cedar Brook Plaza/Shaw's	26 Chandler Avenue	Hazardous Waste Project
Chandler Ave/Cedar Brook Plaza/Shaw's	26 Chandler Avenue	Underground Injection Control
Chandler Ave/Cedar Brook Plaza/Shaw's	26 Chandler Avenue	Leaking Underground Storage Tank Project
Chart Industries	144 North Main Street	Hazardous Waste Project
Chart Industries	144 North Main Street	Leaking Underground Storage Tank Project
Chart Industries	144 North Main Street	Underground Injection Control
Commonwealth Motors/Charles Daher	77 Plaistow Road	Non-Haz, Non-San
Cottage Plaza	93 Plaistow Road (Route 128)	Underground Injection Control
Cumberland Farms #2804	Route 125 at Danville Road	Leaking Underground Storage Tank Project
Demoulas/Market Basket	34 Plaistow Road/Route 125	Hazardous Waste Project
Demoulas/Market Basket	34 Plaistow Road/Route 125	Underground Injection Control
Don Main Automotive Center	137 Plaistow Road (Route 125)	Existing Landfill or Landfill Closure
Don Main Automotive Center	137 Plaistow Road (Route 125)	Underground Injection Control
East Coast Auto Repair	2 Danville Road	Oil Spills or Releases
Faiths Beauty Salon	21 Rustic Lane	Underground Injection Control



Former Plaistow Auto	4 Dustin Avenue	Oil Spills or Releases
Getty/WM Conte	70 Plaistow Road & East Road	Leaking Underground Storage Tank Project
Getty/WM Conte	70 Plaistow Road & East Road	Underground Injection Control
Goodreaults RV Sales (Patriot)	96 Plaistow Road (Route 125)	Hazardous Waste Project
Goodreaults RV Sales (Patriot)	96 Plaistow Road (Route 125)	Leaking Underground Storage Tank Project
Granite State Gas Transmission Inc	84 Forrest Street	Leaking Underground Storage Tank Project
Great Elm Project	37 Plaistow Road (Route 125)	Leaking Underground Storage Tank Project
Griffin Residence	14 Westville Road	On-Premise Use Facility Containing Fuel Oil
Hill Residence	16 Kelley Road	Oil Spills or Releases
Holly Fisher Residence	13 Nicholas Road	On-Premise Use Facility Containing Fuel Oil
Howard Manor Condo Association	182 Plaistow Road	Underground Injection Control
James Cullen	6 Nicholas Road	On-Premise Use Facility Containing Fuel Oil
Jeffrey O'Leary	28 Elm Street	On-Premise Use Facility Containing Fuel Oil
Kalagianio-Smith Corner Road Property	19 Smith Corner Road	Existing Landfill or Landfill Closure
Keezer Manufacturing Property	5 Chadwick Street	Hazardous Waste Project
Keezer Manufacturing Property	5 Chadwick Street	Underground Injection Control
Keezer Manufacturing Property	5 Chadwick Street	Leaking Underground Storage Tank Project
Kirlis Residence	134 Main Street	On-Premise Use Facility Containing Fuel Oil
McGregor-Smith Auto Leasing	42 Plaistow Road	Hazardous Waste Project
McGregor-Smith Auto Leasing	42 Plaistow Road	Underground Injection Control
Moongate Farms Condo Association	Beaver Brook Lane/Cifre Lane	Underground Injection Control
New England Reptile Distributors, Inc.	Plaistow Road (Route 125)	Underground Injection Control
Pentucket Shopping Center	Plaistow Road (Route 125)	Subsurface Wastewater Disposal Systems
Plaistow Citgo	4 Plaistow Road	Leaking Underground Storage Tank Project
Plaistow Commons Plaza	160 Plaistow Road	Underground Injection Control
Plaistow Dump #1	Walton Road	Old Open Dump Site (Non-Landfill)
Plaistow Dump #2	Timberlane School	Old Open Dump Site (Non-Landfill)
Plaistow Lido	78 Plaistow Road	Isolated Groundwater Sample

Plaistow Lido	78 Plaistow Road	Leaking Underground Storage Tank Project
Plaistow Municipal Landfill	County Road	Existing Landfill or Landfill Closure
Plaistow Place Shopping Center	13 Plaistow Road (Route 125)	Underground Injection Control
Plaistow Septage Treatment Plant	Old County Road & Route 125	Rapid Infiltration Basins
Plaistow Trailer Sales	46 Plaistow Road (Route 125)	Non-Haz, Non-San
Rizzo 60-Unit Condo Proposal	120 Newton Road (Route 108)	Isolated Groundwater Sample
Robert Ouellette	28 Forrest Street	On-Premise Use Facility Containing Fuel Oil
Senter Bros Construction (National Building Supply)	10 Old Road	Leaking Underground Storage Tank Project
Senter Bros Construction (National Building Supply)	10 Old Road	Underground Injection Control