

NATURAL FEATURES

For the Town of Allenstown

Vision and Mission Statement of the Chapter

We must protect our natural features now and into the future to maintain Allenstown's quality of life.

- The Allenstown, NH Planning Board. December 2015

Since the 2003 Master Plan update, the sentiment of conservation and preservation of natural resources continues to have strong support. Responses to the community survey indicated that preservation of open space was very important or important. Nearly half indicated that they would favor buying land for conservation purposes. This Chapter examines Allenstown's assets and offers methods to preserve the undeveloped open space and agricultural lands.

Bear Brook State Park, over 51% of Allenstown's total acreage, is owned by the State of New Hampshire and is managed jointly by the NH Department of Resources and Economic Development's Division of Parks and Recreation and Division of Forest and Lands. While any significant changes in the Park need Legislative approval, the fact is that the Park is not permanently protected and may one

day be something other than an undeveloped, recreational tract of land. This large area is convenient to I-89, I-93, and the seacoast and may be looked at by the state for its development potential in the future. One objective of this Chapter is to better integrate Bear Brook State Park into the Town's planning process and to communicate the concerns of the Town to the State. Included in the Open Space and Farming Zone since 2009, establishing zoning for Bear Brook was an important first step (more can be found in the Land Use Chapter regarding zoning).

The Suncook and Merrimack Rivers form the western border of the Town. No public access currently exists for use of the rivers, except below the Suncook Waste Water Treatment Plant. Damaged in a storm several years ago, the previous boat access ramp needs to be repaired. Additionally, parking, landscaping, and other aesthetic

efforts would greatly enhance what is already one of the best access points on the Merrimack River.

Another major concern will be efforts to comply with the soon-to-be effective United States Environmental Protection Agency's Municipal Separate Storm Sewer System (MS4) permit. MS4 permit requirements are primarily focused on illicit discharges to the storm sewer as well as stormwater runoff. All areas of Town government will be impacted, from Town-owned property, to land use permitting efforts (Planning Board permitting), to the Zoning Ordinance as a whole. Failure to comply with such provisions will result in fines and other possible penalties.

This Chapter will allow Allenstown to explore the opportunities available for the protection and preservation of its natural features and MS4 compliance. It also lays out strategies to ensure these recommendations come to fruition.

COMMUNITY SURVEY RESULTS

In preparation for the Master Plan Update, a community survey was available for residents to provide input. Like many communities in the Central NH Region, Allenstown has a long history of residents with strong ties and commitment to their community. Completed in 2013, the survey demonstrated residents' appreciation of conserved land and recreation and the importance of protecting Allenstown's natural resources. Responders expressed the importance of protecting river and stream quality and drinking water supplies.

Question 1:

Should the Town spend tax money on conservation purposes?

Q. 1	Total	Percent
Yes	11	42.3%
No	9	34.6%
Unsure	6	23.1%
Grand Total	26	100.0%

Question 2:

Do you feel the Town should invest in the development and improvement of access points to the Suncook and Merrimack Rivers?

Q. 2	Total	Percent
Yes	14	53.9%
No	9	34.6%
No opinion	3	11.5%
Grand Total	26	100.0%

WATER RESOURCES

The **Groundwater Resources Map** details the water resources as noted here in this section, including wetlands, hydric soil locations, floodplains, aquifer transmissivity, dams, registered public water supplies and underground storage tanks.

WATERSHEDS

Within New Hampshire, there are five major watersheds. Allenstown, and the rest of the Central NH Region, is within the Merrimack River watershed which stretches from the White Mountains down to Newburyport Massachusetts, and comprises an estimated 40% of the state. The Merrimack River watershed is comprised of multiple smaller watersheds, of which Allenstown is located within the watershed belonging to the Suncook River.

A watershed is a geographical area where all of the groundwater or surface runoff collects in the same location.¹ This includes precipitation, surface water, groundwater, wastewater discharges, and non-point source pollution from natural and urban areas. Water bodies within a watershed can include streams, rivers, ponds, and lakes.

PONDS

Used by residents and tourists, ponds provide scenic beauty and recreation resources, such as boating, fishing, and beach access. Maintaining the health of Allenstown's ponds is critical for future residents, visitors, and future generations to continue to use these

Table 1: Ponds in Allenstown

Pond Name	Size	Notes
Bear Hill Pond	33 acres	Serves as a tributary to Boat Meadow Brook.
Catamount Pond	16 acres	Also called Bear Brook Pond and serves as a tributary to Bear Brook.
Hall Mountain Pond	25 acres	Located within Allenstown, Hooksett, and Candia. Serves as a tributary to Bear Brook.
Smiths Pond	9 acres	Swampy pond.
Hayes Marsh	N/A	Impounded in Bear Brook State Park as a Fish and wildlife Management Area. Includes an earthen dam.

resources. Table 1 summarizes the ponds found in Allenstown, of which many are located in Bear Brook State Park.

RIVERS

With headwaters from Barnstead, the Suncook River meanders in a southwesterly direction forming the border between Allenstown and Pembroke. This border stretches six miles through Allenstown from the intersection of Route 28 and North Pembroke Road to the confluence of the Suncook and Merrimack Rivers. Historically, the Suncook has been dammed at three locations on this stretch: (1) the Buck Street Dam near the Route 28 and Deerfield Road intersection; (2) the Webster Mill Dam behind the Post Office on Glass Street; and (3) the China Mill Dam at Main Street in downtown Suncook Village.

¹ Definition provided on EPA Website.

<http://water.epa.gov/type/watersheds/whatis.cfm>

The Merrimack River, formed upstream by the confluence of the Pemigewasset and Winnipesaukee Rivers in Franklin, flows past Allenstown for one-half mile. The river is the far western border of the town. On the opposite side of the river are the towns of Bow and Hooksett. The section of the river flowing past Allenstown is regulated by large dams upstream at Garvins Falls and downstream at the Hooksett Hydro Dam.

Flooding is of the upmost concern in Allenstown, as flooding along the Suncook River has occurred in recent years, causing severe damage to property within the floodplain. Currently, water levels of the Suncook River are monitored through a river gage located in North Chichester, which also provides predictions of flood levels during high water events. This gage can be monitored 24-hours a day online at the USGS website. A second gage was installed along Route 28 at the Pembroke and Allenstown town boundary in 2011, but is not available to be monitored online.

BROOKS

A brook is a small stream, of which there are many located in Allenstown. Brooks feed larger water bodies and often contain impoundments. The majority of brooks in Allenstown are located within Bear Brook State Park, feeding many of the park's ponds or converging into the Suncook River. Brooks located within Allenstown include Catamount Brook, Little Bear Brook, Boat Meadow Brook, Bear Brook, and Pease Brook.

AQUIFERS

An aquifer is defined as a subsurface area that is water bearing. The amount and size of voids present in the layers of soil and gravel underground dictates how much groundwater is able to pass

Allenstown experienced extreme flooding in May of 2006 and then again in April of 2007. In both events, mandatory evacuations were enforced in vulnerable areas of Town.

The flooding in 2007 left a total of 61 homes damaged and 14 condemned. These residences were located on Riverside Drive, Jill-Erik Road, Albin Avenue, Clement Road, Bourque Road, and Jasper Drive.

Since these flooding events, Allenstown has completed major mitigation projects focused around the Suncook River's floodplain. A total of 32 houses were purchased and demolished, converting the parcels to conservation land. By removing residents from the floodplain, the impact caused by potential flooding has decreased.

through and/or be stored. The two main types of aquifers, bedrock and stratified drift, vary in composition and the amount of water accessible. Stratified drift aquifers are typically used for public water supplies in New Hampshire, including industrial, commercial, and domestic uses.

According to studies by the US Geological Survey, 27% of Allenstown (5.4 square miles) is underlain by stratified drift aquifers. The highest yielding aquifer is located near the convergence of Bear Brook and the Suncook River in the northern corner of town. A municipal well owned by Pembroke Water Works currently draws from this aquifer, and supplies water to Allenstown and Pembroke residents. Other locations with high yielding aquifers

are along Boat Meadow Brook, along the Suncook River, and in the floodplain of the Merrimack River.

WETLANDS

The definition in the New Hampshire Code of Administrative Rules for the State of New Hampshire Wetlands Board for Wt 101.01 Freshwater Wetlands is: "Freshwater wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Wetlands are also defined as poorly or very poorly drained soils by the Natural Resources Conservation Service. Very poorly drained soils have a layer of muck or peat overlaying mineral material such as sand, silt and clay. The thickness of the muck or peat may vary depending on the soil forming process. The soil series and land types commonly associated with very poorly drained soils include marshy (Mh), Mixed Alluvial (Mn), Muck and Peak (MU), Saco (Sa) and Scarboro (Sc). Poorly drained soils are slightly better drained due to a thinner layer of muck or peat and include the following soils - Augres (AgA, AgB, AuB), Rumney (Ru), Limerick Variant (Lm), Ridgebury (RdA, RdB, RbA, RdB).

Wetlands have been viewed in the past as areas with little economic value and have been subjected to filling, draining, and dumping with little regard for the consequences. In recent times, however, science has shown that wetlands provide a number of benefits to the community. Wetlands serve a myriad of purposes: flood control, water storage and ground water recharge, erosion and sedimentation control, pollution filtration, wildlife habitat,

education and recreation, and environmental health and biodiversity.

- 1) Flood Control - Because of wetland soils and vegetation, wetlands act as a giant sponge during periods of high run-off or flooding and then release this stored water slowly during drier periods. Therefore, flood levels are lowered during heavy rains and levels are maintained during drier months. Wetlands often absorb water that would otherwise run directly downstream and cause increased flooding and property damage. However, wetlands may vary in their flood control and water storage.
- 2) Water Storage and Groundwater Recharge - The water absorbed in the wetlands can move up by means of evaporation, laterally by flowing in streams, and downwards, thus recharging groundwater. All three movements may occur simultaneously, but one movement may dominate over the others depending generally on the season and such factors as rate of evaporation and plant uptake. Wetlands over stratified sand and gravel deposits have the highest yielding wells. Water will percolate down through the sand and gravel more than glacial till and will recharge ground water supplies.
- 3) Erosion and Sediment Control - Because wetlands absorb and slow down the rate of runoff, the water's erosive powers are lowered. Dense vegetation also acts as natural catches for any eroded materials. However, the general cause of erosion control is the reduced rate of runoff.
- 4) Pollution Filtration - Wetland vegetation absorbs pollutants such as organic material, bacteria, nitrates, and phosphates

found in water. Nitrates are converted to atmospheric nitrogen or into plant nutrients. Phosphates are used in plant tissue. However, not all pollutants are absorbed by vegetation. In addition, wetland vegetation has a limited absorption ability and should not be overloaded with pollutants, as high levels of pollutants present numerous severe health hazards and can render such areas useless.

- 5) Wildlife - Wetlands offer a wide variety of vegetation. The diversification of vegetation, therefore, consists of many producers in natural food chains and provide food for numerous animal species. The wetland vegetation and water provides food, habitats, and breeding grounds for a wide variety of wildlife, fish, and endangered species such as black gum trees.
- 6) Education and Recreation - Wetlands provide natural areas of enjoyment for all ages as they offer innumerable flora, fauna, and wildlife habitat. Also, wetlands provide excellent opportunities to study successional patterns and the effect of pollution or land use.
- 7) Environmental Health and Diversity - Generally, only wetland plants can tolerate the high levels of water and only certain types of animals and wildlife can tolerate such an environment. Because wetlands offer a diversity of vegetation and animal life, they create a more stable environment in the surrounding area.

Allenstown contains over 898 acres of wetlands, which are classified into three different wetland types (found in Table 2).

Allenstown's acreage of wetlands is comprised of many small and medium sized wetlands throughout Town. Large areas of wetlands

Table 2: Wetland Types

Type of Wetland	Description
Palustrine	Forested areas less than two meters (6.6 feet) in water depth and salinity less than 0.5%.
Lacustrine	Somewhat wooded areas with over two meters (6.6 feet) in water depth. Can include flooded lakes and can experience considerable wave action.
Riverine	Wooded areas with over two meters (6.6 feet) in water depth and salinity larger than 0.5%. Water is usually flowing, with the habitat contained within a channel.

Sources: National Wetlands Inventory GIS Database

can be found along Catamount Brook and Boat Meadow Brook, located in the Central area of the Town. These areas, along with the majority of wetlands in Allenstown, are located within Bear Brook State Park. The location of these wetlands can be seen on the ***Groundwater Resources Map***.

Wetlands are regulated primarily at the state level by the DES Wetlands Bureau. While permitting is required by the state for construction within a predetermined distance from a wetland, a local ordinance has been established to protect wetlands. Unlike Allenstown's surrounding communities, Allenstown has no separate ordinance that protects wetlands, but does require a stormwater management plan for disturbances over 20,000 square feet with a 50 foot wetland buffer. Establishing a wetland ordinance, with setbacks, will provide additional protection and aid in complying with MS4 requirements.

Table 3: Wetland ordinances of Allenstown and Abutting Communities

Municipality	Ordinance Title	Wetland Buffer Details
Allenstown	No separate ordinance	A stormwater management plan is required for disturbances over 20,000 square feet – and requires a 50 foot buffer around wetlands as part of the plan.
Bow	Wetlands Conservation Overlay District	Setbacks are: prime – 150 feet; surface waters, bogs, wetlands with poorly drained soils – 75 feet; vernal pools – 50 feet; other wetlands <0.25 acres – 30 feet, agriculture and logging allowed under certain conditions as well as other uses such as passive recreation; if construction, forestry or agricultural activities within 100 feet of any wetland, special care to avoid erosion and siltation, could require erosion control plan.
Deerfield	Section 210: Wetlands Conservation District	All buildings, septic tanks, and leach fields must follow a 75 foot buffer for lots in existence prior to the districts adoption and 100 feet for those created after. The district was adopted on March 14, 2006.
Epsom	Article II Zones and Districts	All building structures in all zones set back no less than 50 feet from wetlands.
Hooksett	Article 18: Wetlands Conservation Overlay District	Prime wetlands require a 100 foot buffer. Wetlands of one or more acres in size comprised of very poorly, poorly, and/or somewhat poorly drained soils require a 40 foot setback and 75 foot for septic tank or leach field. Erosion control and treatment of runoff must be provided for construction within 100 feet of wetland boundary.
Pembroke	143.72 Wetlands Protection Overlay District	Buffer ranges from 20 to 50 feet depending on structure and no septic closer than 75 feet. Wetlands defined as any size adjacent to surface water, vernal pools over 500 square feet and other wetlands over 1000 square feet.

DAMS

Dams provide a vast array of benefits, which include their role in sustaining many lands which provide recreation opportunities for locals and tourists, emergency water supply storage, and stormwater detention.

In New Hampshire, dams are placed into four categories, all based on potential damage downstream if failure of the dam occurs. High hazards dams, of which Allenstown has none, are those that, if

failed, would inundate home and other structures downstream and likely cause loss of life. Allenstown also has no significant hazard dams, which are those that would cause major property damage downstream if failed. Low hazard dams are labeled if failure would cause minor property damage downstream, and non-menacing structures are those that cause no threat to life or property if failed. There are five low hazards and six non-menacing dams within Allenstown, many that are located in Bear Brook State Park.

Table 4: Dams in Allenstown

Hazard Class	Dam Name	River/Brook	Type	Status	Owner
Low	Bear Hill Pond Dam	Boat Meadow Brook	Earth	Active	DRED
Low	Catamount Pond Dam	Bear Brook	Timbercomb	Active	DRED
Low	Hall Mountain Marsh Dam	Bear Brook	Concrete	Active	NH Fish & Game
Low	Hayes Marsh Dam	Catamount Brook	Earth	Active	NH Fish & Game
Low	Buck Street East Dam	Suncook River	Concrete	Active	NH Water Resources Council
Non-menacing	Pembroke Water Works Dam	Boat Meadow Brook	Earth	Active	Pembroke Water Works
Non-menacing	Old Reservoir Dam	Boat Meadow Brook	Stone/Earth	Active	Pembroke Water Works
Non-menacing	Wasson Farm Pond Dam	Unnamed Stream	Earth	Active	Private
Non-menacing	Philie Recreation Pond Dam	Unnamed Stream	Earth	Active	Private
Non-menacing	Cold Spring Pond Dam	Cold Spring Brook	Timbercomb	Active	NH Fish & Game
Non-menacing	Archery Pond Dam	TR Bear Brook	Earth	Active	NH Fish & Game
NA	Pumping Plant Dam	Boat Meadow Brook	Timbercomb	Ruins	Pembroke Water Works
NA	Fire Hole Dam	TR Boat Meadow Brook	Earth	Ruins	Pembroke Water Works
NA	Pease Brook Dam	Pease Brook	Earth	Not Built	Private
NA	Cold Spring Brook Club Pond Dam	Cold Spring Brook	Timbercomb	Ruins	Merrimack Fish & Game Club
NA	Fluerry Farm Pond Dam	TR Boat Meadow Brook	Earth	Ruins	Fleurry Farm
NA	Pease Brook Dam	Pease Brook	-	Ruins	Private
NA	Catamount Brook Dam	Catamount Brook	Earth	Ruins	DRED

Source: NH DES Onestop, 2014

Dam failure and deficiencies typically occur as a result of general aging and inadequate maintenance, including overtopping, structural failure, and cracking. Dam maintenance and repair is the responsibility of the owner, which commonly have little knowledge of the condition and inadequate funding for proper repair.

HYDRIC SOILS

As defined by the USDA, hydric soils are a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Landscapes that have a high water table, floodplains that are seasonally flooded, and depression areas that collect and store runoff are all likely to have wet and potentially hydric soils. Locations of hydric soils are valuable to be aware of as presence of hydric soils is one third the requirement to a jurisdictional wetland. Also, hydric soils impact agriculture production and limit ability to install off-site waste disposal systems.

The most recent soil data for New Hampshire was collected in the late 2000s, classifying soils based upon drainage class, and by the frequency and duration of wet periods under similar conditions similar to those which the soil was formed. There are six soil classes available, which can direct the soils performance for crops, forestry, wildlife, recreation and other uses. Allenstown's soils are classified by acreage in Table 5.

The majority of soils in Allenstown are well drained with over 4,633.2 acres, nearly 40% of Allenstown's total land acreage. Sand makes up 3,305.8 acres, or 28% of Town. Well drained soils have the ideal amount of water without having features of wetness. Water is also available to plants for growth, but not to inhibit growth of

Table 5: Soil Acreages by Drain Class in Allenstown

Soils Type by Drain Class	Acreage
Loamy, moderately well-drained/well-drained (Group IA)	1,882
Sandy Loam, moderately well-drained/well-drained (Group IB)	4,633.2
Sand and Gravel, excessively drained/moderately well-drained (Group IC)	3,305.8
Diverse soils (Group IIA)	585.8
Poorly Drained (Group IIB)	903.2

Source: NH Granit

roots. Sandy soils on the other hand allow water to pass through and are vital for building and septic tanks. For more information on soil drainage class, please refer to the attached document:

[http://cteco.uconn.edu/guides/re-source/CT_ECO_Resource_Guide_Soils_Drainage.pdf](http://cteco.uconn.edu/guides/resource/CT_ECO_Resource_Guide_Soils_Drainage.pdf)

WATER QUALITY PROTECTION ORDINANCES

Much of the water throughout Allenstown is protected and preserved through local ordinances, such as floodplain development, groundwater protection, and stormwater management. For additional information on ordinances related to protecting natural resources, please refer to Allenstown's Land Use Chapter. Also, since the adoption of the 2003 Master Plan, the Conservation Commission has been reestablished. This will enable Allenstown to utilize the Conservation Commission during a Conditional Use Permit process for wetland crossings in the event such an Ordinance is developed.

WATER USE AND CONSUMPTION

WATER SUPPLIES

Water supply, which is essential for residents, businesses and local agriculture, is typically collected and distributed through two different methods: a public water system or a private water system. Typically public water systems are found in densely populated areas, and provide water via piping for a large area with a high number of homes and businesses. Private water supply systems, also known as individual wells, usually service one area, typically a home or business.

Just under 26% of Allenstown's households and businesses are served by individual wells. These wells typically withdraw groundwater from stratified drift aquifers located underground and treat the water onsite to ensure drinking water quality standards. The majority of wells in Allenstown are located in the northeast corner of Town, with other private wells serving areas along the Suncook River. In the past ten years between 2004 and 2014, a total of 39 new or replacement wells have been installed in Allenstown, shown below by year.

The majority of Allenstown, just under 75%, is served by public water systems. Some public water systems may source water from groundwater similar to a well, while others may source water from a larger waterbody capable of providing a large enough volume of water for the system's needs. In Allenstown, public water is supplied through Pembroke Water Works. Also serving the communities of Pembroke and Hooksett, municipal water is tapped from wells located near the Suncook River. There are twelve public water supplies in Allenstown, of which seven are active.

Table 6: Wells Installed 2004-2014

Year	Number of Wells
2014	0
2013	1
2012	3
2011	1
2010	4
2009	3
2008	1
2007	6
2006	11
2005	7
2004	2

Source: DES OneStop, 2015

Table 7: Registered Public Water Systems

Name	Road	Population Served	Service Connections
Olde Towne Mobile Home Park	Deerfield Road	243	97
Catamount Hill Mobile Home Park	Presidential Drive	383	153
Holiday Acres Mobile Home Park	Granite Street Extension	309	312
Spruce Pond/Americorps	Bear Brook State Park	35	2
Twin Oaks Campground	Pinewood Road	125	47
Suncook River Convenience Store	PineWood Road	60	1
Mega X Service Station	Allenstown Road	25	1

Source: DES OneStop, 2015

Private systems are susceptible to the same pollutants as public water systems, however, there are no state requirements regulating the quality of the water gathered through private systems. Common, naturally and un-naturally occurring contaminants may be present in private water supplies through bedrock fractures and surrounding groundwater and should be regularly tested.

POINT SOURCE POLLUTION

Point source pollution is defined as any single identifiable source of pollution, such as a pipe or ditch. This includes sources such as industrial factories, sewage treatment plants, pulp and paper mills, and automobile manufacturers.

Point source pollution is a concern to local residents and business owners as much of the pollution can contaminate groundwater and surface water gathered by household wells or public water system wells that are used for daily activities. Contamination of point source pollution has many different routes of entry. Leaking above and below ground storage tanks, which typically hold gas, heating oil, and other petroleum products, can pollute groundwater and surface water by soaking through the ground surface. Floor drains that do not properly treat contents before being released can spread pollutants, such as a floor drain in an auto body shop that collects oil and other chemicals and is released to soak directly on the ground surface. Dry wells, burying wastes, and inadequate septic systems can also cause contamination.

As Allenstown's public water supply is sourced from wells, point source pollution can be a potential threat. To help prevent the contamination of groundwater, New Hampshire has taken many

precautionary steps in the form of regulation of potential contaminants.

For example, DES requires that an Underground Injection Control (UIC) permit be obtained for anyone who is discharging anything other than normal household waste to an on-site sanitary disposal system. DES also regulates floor drains, of which sensitive areas are not allowed to discharge to the on-site septic system, dry well or ground surface. Above and below ground storage tanks may also be regulated dependent upon the size, contents, and use of the tanks.

Nationally, point source pollution is controlled through the National Pollutant Discharge Elimination System (NPDES) permit program that provides permits to qualifying applicants allowing discharge directly into surface waters. There are two facilities in Allenstown with DES permits; Allenstown Wastewater and OXY USA, Inc., both of which discharge into the Merrimack River. There are also many other communities in Central New Hampshire that hold permits.

Another national requirement to consider is that Allenstown will need to comply with the soon-to-be adopted Municipal Separate Storm Sewer System (MS4) permit. MS4 impacts all aspects of Town administration and governance and requires that storm sewers are separate from sanitary sewers. It also stipulates controls to prevent illicit discharges and illegal hookups. Lastly, it addresses stormwater runoff into surface waters and point source pollution. Many things must be done to comply, some of which require land use controls to be put in place. Specific actions to comply with MS4 requirements are broad and far reaching and are addressed elsewhere in this Chapter and this Plan.

UNDERGROUND STORAGE TANKS

The purpose of the Underground Storage Tank Program (UST) at DES is to prevent and minimize contamination of the land and waters of the state due to the storage and handling of motor fuels, heating oils, lubricating oils, other petroleum and petroleum contaminated liquids, and hazardous substances. Established rules and regulations apply to all non-residential UST systems having a total regulated substance storage capacity of more than 110 gallons and non-residential tank systems having an on-site use heating oil storage capacity of more than 1,100 gallons.

In Allenstown, there are 20 businesses that have permits for underground storage tanks. Of the 19 businesses, a total of 5 have active tanks while many have closed tanks. The majority of tanks are located in the southwestern portion of the Town and along Route 28.

The potential for leakage from the underground storage tanks is always a possibility. DES retains a list of known leaking underground storage tanks (LUST) which have not been inventoried in this Chapter.

AUTO/SALVAGE YARDS

Auto and salvage yards have the potential for polluting surrounding watersheds, through stormwater runoff and not properly disposing of used chemicals and substances. For example, many floor drains discharge onto the ground or inject into a well system, such as a septic tank, leading chemicals (i.e. oil, antifreeze, cleaners, etc.) directly into the watershed. This pollution impacts not only wildlife

STORMWATER RUNOFF

Stormwater runoff occurs when water from intense rain and snowmelt flows over land instead of soaking into the ground. As the water flows, it picks up contaminants, including sediment, suspended solids, nutrients, heavy metals, pathogens, toxins, and other floating materials that then pollute the water body or groundwater the runoff enters.

Increases in stormwater can increase flooding in the watershed, creating new flooding patterns, channel erosion, and potentially causing harm to surrounding habitats. Flooding also can cause damage in developed areas where there is not adequate stormwater management.

Stormwater infrastructure consists of a system with pipes and inlets, redirecting stormwater to a nearby stream, river, or main wastewater channel to be treated and released. Even though more urbanized communities are more at risk for stormwater runoff, the increase of projected extreme storms and events could cause current culverts, ditches, and dams to be undersized causing impacts on the infrastructures performance and design life.

As discussed throughout this Master Plan, compliance with USEPA MS4 permit requirements will be a significant focal point for the Town. Stormwater regulation, in addition to other water quality concerns, is a vital aspect of Allenstown's MS4 compliance efforts.

habitat but also groundwater sources. Currently, there are no auto body businesses or salvage yards in Allenstown, however; many communities surrounding Allenstown do have these businesses.

NONPOINT SOURCE POLLUTION

Another threat to Allenstown's water quality is nonpoint source (NPS) pollution, also known as polluted runoff. Nonpoint source pollution (NPS) is pollution that cannot be traced back to any specific source; it is the accumulated pollution resulting from everyday activities and is caused by heavy rain or large amounts of snow melt moving on or through the ground.

Its effects are magnified by impervious surfaces, such as building roofs and paved surfaces. Water cannot infiltrate these surfaces, causing more water to run off over the land. As water washes over the land, it picks up oil, deicers, pesticides, nutrients, sediment, and other pollutants that have been placed into the environment by everyday activities. The runoff water flows into storm drains or directly into water bodies, carrying the pollutants that have been deposited. As little as 10% impervious surface on a lot can begin to negatively impact a waterway. Thus, the more intensively used a piece of land is, the more nearby waterways can be negatively affected by polluted runoff.

Protection from nonpoint source pollution is often a challenge. Low impact development (LID) is one method used to reduce nonpoint source pollution, and focuses on preserving natural landscapes and treating runoff before contamination. Methods of LID design can include rain barrels, rain gardens, and permeable pavements

The greatest threat to Allenstown's waterways is perhaps nonpoint source pollution in the downtown/Suncook area and off of Route 28. Surrounded on two sides by the Suncook and Merrimack Rivers, the compact downtown, with its miles of road and parking lot asphalt and buildings, is a concentrated area of NPS pollution that runs off into these rivers or storm drains directly, or into the aquifer which underlies the Town indirectly. Because the area is already built up, there are fewer options available for protecting the water supply.

WATER TESTING

Whether water supply is provided through a public system or private well, it should be treated to drinking level standards defined as safe for consumption. While water distributed through a public system is first treated in a drinking water treatment plant that is regulated by state permit, personal household wells are not. With a well system, household water treatment systems are used to treat well water to drinking water standards so to protect from contaminants caused by point source and nonpoint source pollution.

In addition to contaminants mentioned previously, common, naturally occurring contaminants, such as arsenic, radon, and iron, may be present in private water supplies due to New Hampshire's geologic profile. A recent report published in 2013 on Water Supply Infrastructure and Protection by DES estimated about 55% of private well systems in New Hampshire exceed the state's radon limits and 20% exceed EPA's arsenic contamination levels. Arsenic, which has no odor or color in water, occurs in one in five wells drilled in NH. As well water testing in private household is not required, education and awareness of water quality testing is critical

for Allenstown residents as many use individual household wells for their water supply.

LAND RESOURCES

CONSERVATION AND TAX EXEMPT LANDS

In this context, tracts of land in conservation can be permanently protected from future development as part of the parcel's deed or they can be under temporary conservation for a limited period of time. As shown in the table below, Allenstown has no parcels which have been placed under conservation. However, Bear Brook State Park contains conserved land, owned by NH DRED.

Table 9: Conservation Lands

Conservation Land	Held by	Acres	Permanently Protected?	Public or Private Ownership
Allenstown Town Forest	Town	15.0	No	Public-Town
Bear Brook State Park	NH DRED	6564.4	No	Public-State

Source: 2001 Digital Tax Maps; Subcommittee Input; Bear Brook State Park Management Plan, 1994

There are many sources of funding present that help manage and maintain these conserved lands. Some of these sources are listed below:

- The Land and Community Heritage Investment Program (LCHIP): <http://www.lchip.org/>

- Water Supply Land Protection Grants: http://des.nh.gov/organization/divisions/water/dwgb/dwspp/land_acqui/
- Farm and Ranch Lands Protection Program: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/farmranch/>
- National Park Service: <http://www.nationalparkservice.org/>
- Other NRCS Programs

BEAR BROOK STATE PARK

Bear Brook State Park (BBSP) covers nearly 10,000 acres of land. Most of the park is located in Allenstown (6,564), with smaller acreage in Candia (290), Deerfield, (1,938) and Hooksett (793). As the largest developed state park in New Hampshire, the Park receives several thousand visitors yearly for hiking, mountain biking, and horseback riding on the trails, as well as for day use of the beach and picnic area on Catamount Pond. The New Hampshire Fish and Game Department has a waterfowl management area in Hayes Marsh. The Park also boasts two public archery ranges and has several stocked fishing ponds. During the winter, the Park is a popular destination for cross-country skiers and snowmobile riders.

It is hard to overstate the importance of BBSP to the Town of Allenstown, both in terms of defining community character and providing recreation opportunity. The Park covers over half the land area of the Town, making Allenstown one of the few towns in the state with such a high percentage of public lands. The park's 40 miles of trails provide recreational opportunities for the residents of

the Town as well as for the thousands of visitors from the nearby cities of Manchester, Concord, and Portsmouth, as well as many out of state visitors. BBSP is known regionally as one of the best locations for mountain biking in New England. Much of the wellhead protection area around the Allenstown/Pembroke public water supply is located within the Park.

CURRENT USE

Property owners can file for reduced property taxes though the Current Use Taxation program. The current use value is the assessed valuation per acre of open space land based upon the income-producing capability of the land in its current use— not its real estate market value. This valuation shall be determined by the Town's assessor in accordance with the range of current use values established by the Current Use Board (CUB) and in accordance with the class, type, grade, and location of land. Owners of parcels of land which are not anticipated to be used for a different type of use in the future can apply at the Town Office for the following categories:

- “Farm land” means any cleared land devoted to or capable of agricultural or horticultural use as determined and classified by criteria developed by the Commissioner of Agriculture, Markets, and Food and adopted by the CUB.
- “Forest land” means any land growing trees as determined and classified by criteria developed by the State Forester and adopted by the CUB. For the purposes of this paragraph, the

CUB shall recognize the cost of responsible land stewardship in the determination of assessment ranges.

- “Open space land” means any or all farm land, forest land, or unproductive land as defined by this section. However, “open space land” shall not include any property held by a city, town or district in another city or town for the purpose of a water supply or flood control, for which a payment in place of taxes is made in accordance with RSA 72:11.
- “Unproductive land” means land which by its nature is incapable of producing agricultural or forest products due to poor soil or site characteristics, or the location of which renders it inaccessible or impractical to harvest agricultural or forest products, as determined and classified by criteria developed by the CUB. The CUB shall develop only one category for all unproductive land, setting its current use value equal to that of the lowest current use value established by the CUB for any other category.
- “Wetlands” means those areas of farm, forest and unproductive land that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

A land use change tax shall be levied when the land use changes from open space use to a non-qualifying use.

Table 10: Current Use Acreages by Land Type, 2006-2015

CU Acreage by Land Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Change 2000 to 2014	Average
Farm Land	187.43	188.43	188.43	188.93	201.43	201.43	201.43	201.43	205.42	149.07	-38.36	-20.47%
Forest Land	2,533.76	2,859.55	2,450.79	2,589.76	2,648.76	2,648.76	2,644.07	2,524.34	2,474.34	2,166.10	-367.66	-14.51%
Forest Land with Documented Stewardship	272.90	291.90	291.90	358.80	358.80	358.80	353.30	337.30	383.30	480.20	207.30	75.96%
Unproductive Land **	25.00	27.89	27.00	37.00	41.00	42.00	51.00	42.53	42.53	137.71	112.71	41.30%
Wetlands***	55.17	56.62	46.62	56.62	46.62	46.62	46.62	50.56	50.49	163.53	108.36	196.41%
Total CU Acres	3,074.26	3,424.39	3,004.74	3,231.11	3,296.61	3,297.61	3,296.42	3,156.16	3,156.08	3,096.61	22.35	0.73%
											2.23	0.07%

Sources: Allenstown Annual Reports

Table 11: Land Use Change Tax Collected, 2005-2014

Year	Land Use Change Tax Collected
2006	\$0.00
2007	\$0.00
2008	\$0.00
2009	\$0.00
2010	\$0.00
2011	\$0.00
2012	\$0.00
2013	\$169.84
2014	\$0.00
2015	\$0.00

Sources: Allenstown Annual Reports and Town Files

Table 12: Current Use Acreages Statistics, 1990-2001*

Acreage Statistics	Total Acres in CU	Removed from CU	Receiving 20% rec. discount
2006	3,074.26	58.42	292.7
2007	3,424.39	0	701.82
2008	3,004.74	419.65	720.82
2009	3,231.11	0	716.09
2010	3,296.61	0	598.09
2011	3,297.61	0	598.09
2012	3,296.42	1.19	0
2013	3,156.16	140.26	0
2014	3,156.08	0.08	522.82
2015	3,096.61	13.12	1,919.22

Sources: Allenstown Annual Reports;

*discrepancies exist in the Town Reports

As shown from the amount of land use tax collected over the past 10 years, few parcels have dropped the current use status. In fact the total collected by the Town is only \$169.84.

AGRICULTURAL RESOURCES

Prime farmland soils, soils of statewide importance, and soils of local importance to Merrimack County are depicted using data from the 1965 Soil Conservation Service (now Natural Resources Conservation Service, the NRCS Survey). A comprehensive update to the Merrimack County Soil Survey by the NRCS was completed in approximately 2007. This update included a change from the alpha-categorization of soils, as shown here, to a numeric categorization. Please refer to the attached **Soils Map** for more details.

Prime farmland soils are described nationally as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and are also available for these uses.

Categorized soils of statewide importance have properties that exclude them from the prime farmland list. However, they are important to agriculture in the State of New Hampshire. They produce fair to good crop yields when properly treated and managed. As a general rule, erosion control and irrigation practices are necessary to produce high-yield crops.

Soils of local importance are identified by county agencies within the state. These soils also support the production of food, feed, fiber, forage, and oilseed crops. These soils produce fair to good crops when managed properly.

Table 13: Active Farms in Allenstown

Name	Location	Products or Use
McNamara Farms	7 Main Street	Dairy cows
Blake's Farm	River Road	Corn, vegetables

Source: 2003 Master Plan Subcommittee input

The previous is a list of identified active farms in Allenstown which are extremely important to protect from development or other change of use.

The best agricultural soils in Allenstown are located in the fertile floodplain of the Merrimack and Suncook Rivers. While the downtown areas rest on the majority of these soils, several large undeveloped parcels that are privately owned could potentially serve as farms.

The presence of not only historic farms, but quality soils led the Planning Board to propose an Agricultural Conservation overlay district to voters in 2009 who then enacted the change. The District seeks to preserve farms and quality soils for farming into the future. The details regarding the District can be found in the Land Use Chapter of this Plan.

FOREST RESOURCES

The largest forest resource in Allenstown is Bear Brook State Park which covers approximately 6,564 acres (from the Bear Brook State Park Management Plan) of the Town. The NH Department of Resources and Economic Development selects areas of the park to be logged based on the Bear Brook State Park Management Plan. Foresters from DRED mark and tally the trees to be cut. A contractor is awarded the right to harvest the trees through a competitive bid

process. The revenue from the sale of the lumber to the contractor is mostly deposited in the State's General Fund, with a small portion going to DRED's Forest Management and Protection Fund. The stumpage tax for the sale goes to the Town, just as if the timber sale had occurred on private property. On average there is one timber sale in Bear Brook State Park each year. Some privately-owned lots conduct timber harvests, although the majority of the forestry activities are undertaken by the state at the Park.

GEOLOGIC RESOURCES

The *Land Use Map* of the **EXISTING AND FUTURE LAND USE CHAPTER** depict the location of permitted gravel operations and slopes greater than 15%. This suggests that Allenstown will continue to be involved in the gravel pit, excavation, and quarrying industry into the future. There are three active gravel pits in Allenstown. One of them is grandfathered and does not require a permit. The other two gravel pits do require a permit and at the time of this writing have active permits in place.

SURFICIAL AND BEDROCK GEOLOGY

Allenstown has varying topography, ranging from the flat floodplains along the Suncook and Merrimack Rivers to the hilly regions of Bear Brook State Park. Four named promontories were identified in Table 14.

Table 14: Hills and Mountain

Name	Description or Location
Hall Mountain	925'
Bear Hill	800'
Catamount Hill	700'
Pinkney Hill	700'

Sources: CNHRPC 1999 Natural, Cultural and Historical Resources Inventory

ECOLOGICAL RESOURCES

NH NATURAL HERITAGE INVENTORY (NHI)

Several outstanding plant and animal species have been identified in Allenstown since the 1930s, as well as one outstanding natural community, and recorded NHI program's database. It is known that other species and communities do presently exist in Allenstown, and efforts should be made to report the information to the NHI.

- Small Whorled Pogonia
- Sweet Goldenrod
- Bald Eagle
- Great Blue Heron rookery
- Blanding's Turtle

Strong anecdotal references have been made to the existence of timber rattlesnakes in Bear Brook State Park, although no formal report has been filed.

CORRIDORS

Corridors and greenways are not only used by people for recreation or transportation, but also by wildlife to travel from one habitat to another. Maintaining viable and undeveloped corridors ultimately measures the biological success of the animals, particularly larger mammals, within an area.

The Bear-Paw Regional Greenway has identified a greenway corridor in the northwest corner of Allenstown which would connect with Bear Brook State Park and also form a network of corridors connecting Northwood Meadows State Park, Pawtuckaway State Park, and other private conservation lands. Bear-Paw Regional Greenway is a land trust established by local resident volunteers. Their mission is to establish a series of greenways comprised of private and public lands that connect large conservation areas and safeguard important wildlife habitat and travel routes, scenic resources, and recreational opportunities. Bear-Paw provides assistance to municipalities and community groups to identify and protect important lands and in locating funding sources for land conservation.

Currently, the Towns of Epsom, Deerfield, Northwood, Strafford, Nottingham, Raymond, and Candia are members of Bear-Paw. While Allenstown is unique in the amount of conservation land it already has (in the form of Bear Brook State Park), there are valuable corridor opportunities presented in the northwest corner of the Town which should be explored, particularly given the remoteness of the area from town services. Membership in the Bear-Paw Regional Greenway could help the Town to preserve these corridors.

Natural Communities

Other special, mostly undisturbed lands are essential for the biological diversity of plants and animals. The more biodiversity found within an area, the more valuable and self-sustaining the community becomes from both ecological and economic perspectives. The following natural communities are important in Allenstown:

- Suncook River (fish, birds)
- Bear Brook State Park (large mammals, reptiles, songbirds)
- Hayes Marsh (birds)

VIEWSHEDS

Two viewsheds have been identified in Allenstown. One just south of Wing Road offers 360 degree panoramic views of the surrounding Park and countryside. The second identified view can be found from Catamount Pond and looks south toward Catamount Hill. In Allenstown, scenic view preservation is less of an issue because of the large amount of undeveloped acreage in most directions.

AIR RESOURCES

Downtown Allenstown is located one mile downwind of the Bow Power Plant, a coal-fired electricity generation station. The smoke plume from the plant is visible from all areas of Town. Residents of the downtown area have been concerned about adverse health impacts due to the chronic exposure to the emissions. In August 2002, the NH Department of Environmental Services installed an air quality monitoring station at Memorial Field in Pembroke. This station monitors the air for toxic contaminants, sulfur oxides, and particulate matter every 12 days. The NH Department of Health and Human Services, under cooperative agreement with the US Agency for Toxic Substances and Disease Registry, completed a health study of residents in Pembroke and Allenstown in 2002 and updated it in 2007:

<http://des.nh.gov/organization/divisions/air/pehb/ehs/ehp/documents/suncook.pdf>.

The study measured air quality for a period of several days. Results of the study suggest that the wind blows directly from the Power

Plant to Suncook Village (northwest to southeast) and that Eleven Pollutants of Interest were registered at various periods of time. All of the eleven Pollutants of Interest on average, are not expected to result in adverse health effects of the general public, though they could be unhealthy for sensitive groups such as active children and adults, seniors, and persons with respiratory disease (such as asthma).

Shortly after the study was completed, the Bow Power Plant had upgraded the scrubber technology and smoke stack with the intent of eliminating more of the pollutants emanating from the plant. Given that the updated study was completed just before the plant upgrade, another study should be completed to determine if the levels have decreased. Another factor is that the plant may be phased out over the course of the next several years. Allenstown should engage NH Department of Health and Human Services to request a revised study and develop strategies for mitigation now, but also to prevent the regression of any air quality gains that may come from the new stacks or plant closure in the future as the facility is repurposed.

NATURAL FEATURE AND RESOURCE CONCERNS

In summary, Allenstown is blessed with abundant natural resources but these resources are under threat. The greatest environmental challenges we face as a community are:

- Potential air pollution from the Bow Power Plant. The downtown is located immediately downwind of the plant. The NH Department of Health and Human Services completed a health study of residents in Pembroke and Allenstown in 2002 and updated it in 2007 regarding the impact that pollution from the plant could be having on the health of Allenstown residents. Allenstown should engage NH Department of Health and Human Services to request study.
- Contamination of water resources. There are a few gas stations in Town as well as dozens of small automotive repair shops. While these companies provide a service to residents, they also threaten to release gasoline containing MTBE into the aquifers that all Town residents rely upon for drinking water. As the Town tries to attract new light manufacturing companies to Allenstown, every effort should be made to ensure that these new companies do not pollute the water, land, or air.
- Loss of agricultural lands. Allenstown has few agricultural lands and those that are left are at risk for development. Targeted agricultural easements are needed to preserve these lands. The highest priority should be to protect agricultural lands next to the Merrimack River.
- No public access to the Suncook River. The Suncook River has historically been the heart of Allenstown. However, there is currently no public access to the River. Unless Town residents can enjoy this resource, they are unlikely to respect and care for it. Currently, a boat access ramp exists at the end of Ferry Street, though it was severely damaged in a storm event several years ago. This boat ramp should be repaired and a small park or picnic area should be established on the parcel as well. An additional Town-owned parcel on Riverside Avenue should also be explored for its potential to serve as additional public access to the River.
- Non-point source pollution in downtown Allenstown. The downtown area of Allenstown is densely settled with impervious surfaces (e.g., pavement, buildings) covering a large proportion of the land area. Stormwater runoff can wash pollutants and bacteria into the Suncook River during storms. Stormwater runoff is an important issue everywhere but it is especially important in the downtown area because of the large amount of impervious surface and the age of the storm sewer infrastructure.
- MS4 compliance. The Town of Allenstown will need to take steps to comply with the requirements of the United States Environmental Protection Agency's Municipal Separate Storm Sewer System Permit, or MS4, in 2016. The Permit is expected to be in effect in April, 2016 at the earliest. Steps have already been taken to work towards compliance, though other components remain. Steps to date include: Zoning Ordinance, Town Ordinance, Site Plan Regulations, Subdivision Regulations, Excavation Regulations, and the beginnings of the Stormwater

Management Plan. MS4 compliance will not only ensure that Allenstown meet its legal obligations with EPA, but it will also help to ensure clean surface and groundwater in the future. MS4 compliance is the primary priority for this Chapter in 2016.

PROPOSED REGULATORY PRESERVATION MEASURES

There are many techniques available to assist with conserving natural resources. Regulatory protection measures are an important part of a Town's preservation toolkit.

PRIMARY METHODS

Although all of the methods listed in this Chapter can be used by Allenstown, the techniques listed in this section are the most important regulations to develop. They should be among the first considered by the Planning Board and the Town to address Allenstown's immediate conservation planning issues.

MS4 COMPLIANCE EFFORTS

Area: various

The pending Illicit Discharge Ordinance being considered by the Board of Selectmen in 2016 (Town Ordinance CO 217) is required by MS4. This ordinance will prevent illicit discharges, and over time, mitigate any that currently exist. Changes to the Permanent Post Construction Ordinance, the Groundwater Protection Ordinance, as well as the Site Plan, Subdivision, and Excavation Regulations, will establish additional required MS4 land use controls that will enhance stormwater management to prevent problems in the future. These efforts, coupled with the finalization of the Stormwater Plan, will ensure compliance with MS4, but will also protect surface and groundwater for the future.

AESTHETICS-BASED LAND USE REGULATIONS

Area: Entire Town

Because the appearance of the community, including views of simple things like tree-lined streets, mixed farm land, forests, historic buildings and water resources that largely define Allenstown's traditional landscape is so important to the fabric of the community, there must be a priority placed on preserving them. Planning regulations addressing lot size, placement of buildings, signage, as well as landscaping are typically used to address aesthetic elements of the community.

ENVIRONMENTAL SCIENCE-BASED REGULATIONS

Area: Entire Town

Environmental science-based land use regulations are based directly upon measurable characteristics of the land-base of the community, rather than on possibly arbitrary standards established by people. Regulations based on the characteristics of the land may reflect the actual ability of the land base to sustain development and are often easier to defend against legal challenges than those arbitrarily created.

URBAN GROWTH DISTRICTS

Areas: Downtown

An urban growth district allows the community to define one or more areas where growth and development will be concentrated. This typically includes a downtown area and, sometimes, existing areas with higher concentrations of development. Desired growth will take place inside of the district, thus preserving open space in other parts of the Town. Development within the urban growth area can still be regulated by various zoning standards, but density

regulations should be adjusted to accommodate a denser development pattern.

CLUSTER (OPEN SPACE) DEVELOPMENT ZONING

Areas: Woodridge Road and developments along Deerfield Road

An answer to the sprawling land patterns created under conventional cookie cutter subdivisions is one approach to subdivision design for rural areas, as outlined in the book entitled *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*, by Randall Arendt (Island Press, 1996). Under this approach, use existing minimum lot sizes as the basis for conventional residential density on the best soils, with reduced densities according to declining soil quality. Conservation areas may include wetlands, steep slopes, aquifer recharge zones, and floodplains.

LARGE LOT FORESTRY AND AGRICULTURAL ZONING

Areas: Merrimack River Floodplain, east of Granite Street, and North of Deerfield Road

Planning theory states that dividing developing land, or potentially developing land, into larger lots will slow development and preserve open space and rural character. The goal of these two types of zoning is to provide large enough blocks of land that they can be managed for a specific resource value. If this technique is used, lot sizes that truly reflect the amount of land needed to allow for commercially viable use of the land and are related to the reality of the use of the land in the area must be established.

OVERLAY DISTRICTS

Areas: (varies, Downtown)

Overlay zoning districts can be used by communities to define and apply special regulations to a particular resource. Once resource areas of concern are identified, the Planning Board must establish what kind of special regulations apply to that particular resource.

Ground Water Protection Districts	Historic Districts
Mountain Conservation Districts	Forestry Districts
Steep Slope Districts	Agricultural Districts

FLEXIBLE ZONING

Areas: Downtown and Route 28

Flexible zoning is an alternative to traditional fixed zoning regulations. It allows for more latitude in adapting proposed land use changes to the desires of the community, the wishes of the developer, and the characteristic of the resource base. Extra care must be taken in designing these regulations, to ensure that both the intent of the zoning and the conditions that must be met to qualify for it are clear to the Planning Board, developer, and residents.

OPEN SPACE/VILLAGE DESIGN PLANNING

Area: Deerfield Road Development

Rather than filling all available space with similar-sized houses centered on uniformly sized lots, this development strategy focuses the construction in a smaller portion of the total land being developed, and provides for permanent protection of the open space not used for construction. The land selected for permanent open space protection should be designed to fulfill the open space interests of the entire community.

NON-REGULATORY PRESERVATION MEASURES

Volunteer efforts to conserve land are recognizable and are often more appreciated than regulatory requirements. Hand in hand, regulatory and non-regulatory methods work together to serve the community's preservation interests.

CONSERVATION EASEMENTS

Area: Northeast corner of Town (North of Deerfield Road)

A conservation easement is a permanent, legally binding agreement that ensures that certain uses will never be allowed on that property. Typically conservation easements prevent development of land uses such as construction, subdivision, and mining but allow uses such as agriculture, forestry, wildlife habitat, scenic views, watershed protection, and education. The agreement exists between a willing landowner and a qualified recipient, which can be the Town or State government or various conservation organizations. Each conservation easement is tailored to the interests of the landowner, the receiving entity, and the unique characteristics of the property. The land can be sold or deeded by the original owner and subsequent owners, but an easement is binding to all future owners.

AGRICULTURAL CONSERVATION EASEMENTS

Area: Floodplain

Conservation easements can be written to accommodate the special needs and interests of farms. In Allenstown, landowners of the remaining agricultural parcels in Town (specifically McNamara's and Blake's farms) should be contacted to discuss the benefits of easements.

MANAGEMENT AGREEMENT

Area: Entire Town

These management agreements focus on a particular open space value and a management agreement can be custom tailored to any specific situation.

[RIGHT-OF-WAY FOR TRAILS](#) - The Town may protect open space along a recreational trail corridor area. The right-of-way could be arranged and exist as a legal agreement between the Town/nonprofit organization and the owner of the land where the trail is located.

[WILDLIFE CORRIDORS](#) - Open space can be protected for its value in allowing wildlife to travel from one place to another safely. Working with maps indicating where certain species can be found, probable travel corridors could be recognized. Once areas are recognized, the Town could then create plans to acquire, protect, or manage these important corridors.

[BUFFERS BETWEEN USES](#) - Buffers between incompatible land uses can ensure that development and growth within the Town does not have a negative impact on the rural and scenic qualities that the Town values.

POTENTIAL FUNDING SOURCES FOR CONSERVATION PROJECTS

While the list of choices for funding conservation and preservation endeavors is ever-changing with respect to local, regional, state, and federal grant programs, municipal "income" opportunities remain relatively stable. In addition, a municipal dollar-match is most often required in order to obtain any type of grant funding.

MUNICIPAL CONTRIBUTIONS TO THE CONSERVATION FUND

Many Towns have created a separate Conservation Fund or an open space acquisition fund, through vote at Town Meeting, specifically for the purpose of paying for land acquisition or easements. Money for these funds may come from Town budget appropriations, land use change taxes, or proceeds from managing or selling Town property, just to name a few.

APPROPRIATION FROM TOWN BUDGET - The Town can regularly set aside money for a Conservation Fund in their annual Town budgeting process. The land use change tax allocation to the Conservation Fund is an additional tool provided by a vote at Town Meeting.

PROCEEDS FROM MANAGING OR SELLING TOWN PROPERTY - Towns that have property or resources that they manage often can provide income to the Town as well as the Conservation Fund. This is frequently done through timber harvest operations on mature forest land owned by the Town. The proceeds from the sale of Town property can also be dedicated to the Conservation Fund.

BOND ISSUE - The Town may agree to borrow money for a conservation project through a municipal bond issue.

TOWN SURPLUS FUNDS - The Town can apply funds, if they are available, that are left over from prior years' budgets to fund conservation projects.

TAX LIENS - When the Town acquires property because the owner has not paid all of the taxes on the property, the Town can keep and manage the land and include it in as part of the Town's conservation plan. On the other hand, if there is little resource value in the land, it could be sold and the revenue placed into the Conservation Fund.

FINES - Fines imposed for misuse of Town property could be allocated to the Conservation Fund by a vote at Town Meeting.

LAND AND COMMUNITY HERITAGE INVESTMENT PROGRAM

This state fund and program is designed to assist communities that want to conserve outstanding natural, historic, and cultural resources. There is a requirement that the towns match the State money from this fund with a 50% match from other sources, which can include an "in kind" match, as well as funds from other sources.

STATE OF NEW HAMPSHIRE FUNDING SOURCES

The Departments of Environmental Services, Agriculture, Transportation, Resources and Economic Development, and many other state agencies offer grants on a matching basis to assist with conservation-related projects. Although not in a centralized listing, research can yield a number of grant opportunities to help offset the municipal costs of a project.

FEDERAL FUNDING SOURCES

There are many potential funding sources at the federal level. Depending on the type of project to be undertaken, the federal government has an updated register of hundreds of grant programs located in the Catalog of Federal Domestic Assistance, currently at www.aspe.os.dhhs.gov/cfda/ialph.htm. The US Department of Agriculture office in Concord offers numerous free or low-cost services to municipalities.

IN-KIND SERVICES OR MINI-GRANTS FROM QUASI-PUBLIC ENTITIES

The UNH Cooperative Extension and the Central NH Regional Planning Commission offer a variety of free or very low-cost services to municipalities within their respective areas. They may be able to

provide technical assistance to help a town pursue grant funds, research potential grant opportunities, or perform training or site inspections.

GRANTS FROM FOUNDATIONS

The Town would need to research available grants and develop proposals to seek funding to conserve a particular piece of property or type of resource within the Town. Funding could be sought from foundations at the local, state, regional, and national level.

COOPERATIVE VENTURES WITH PRIVATE ORGANIZATIONS

When the interests of the Town to conserve open space correspond with the interests of a private organization, the potential for a cooperative partnership to protect land exists. This tactic will require some creative thinking and introductory discussions by Town officials with area organizations who have, or could develop, an interest in conserving open space.

SUMMARY

The natural features section of the master plan focuses heavily on Bear Brook State Park, as it must, given the area of Town consumed by the Park. The natural features section recommends that the Town work to improve the impact the Park has on the Town by pursuing additional state funding to reimburse the Town for park-related services expenses and coordinating with neighboring communities to increase bargaining power with the state. The section also recommends that the Town work to educate residents about the Park and work to connect the Park to the local system of greenways and wildlife corridors.

Although Allenstown is unusual in regards to open space preservation due to the amount of open space land in the Park, it is important to coordinate future development, particularly in the Deerfield Road area, to maximize the value of the Park as a piece of the regional greenway. Participation in the Bear Paw Regional Greenway would solidify this effort.

MS4 compliance is a major area of concern for Allenstown in 2016 as well as the future. Efforts should be made to work toward compliance as soon as the permit is in effect. Much has been done to ensure that Allenstown is well positioned. Continuing to work toward compliance should be an immediate priority, as well as maintaining future compliance.

Wetlands remain an issue as well. Allenstown has minimal protections in place for the protection of wetlands. Instituting a wetland protection district, including setbacks and a Conditional Use Permit process for crossings that involves comment by the Conservation Commission, would ensure that wetland impacts are as minimal as possible. It will also assist with MS4 compliance.

Through the community visioning process, residents indicated that access to the Suncook and Merrimack Rivers was important, and this Chapter makes recommendations relative to accomplishing that goal. A primary way to achieve this is to repair the boat launch at the end of Ferry Street, and possibly, establish a park nearby. Identification of other access locations should also be pursued.

RECOMMENDATIONS AND OBJECTIVES

Numerous recommendations, both from 2003 and 2016, can be used to implement the vital aspects of the Master Plan. This Section explores both the previous recommendations made in the 2003 Master Plan, and presents additional recommendations emerging from this current Master Plan process. Recommendations and Objectives include:

RECOMMENDATIONS AND OBJECTIVES FROM THE 2003 MASTER PLAN

The 2003 Master Plan update contained several objectives and recommendations that are to be included in this Master Plan. Those include:

2003 OBJECTIVE 1:

To educate residents about the natural resources available in Allenstown.

- Develop and distribute educational pamphlets on water resources.
- Develop and distribute educational pamphlets on the Town Forest, and on Bear Brook State Park's impacts on the Town.
- Work with the state to purchase and install "Welcome to Allenstown – Home of BBSP" signs.
- Encourage environmental education in the Allenstown school system, focusing on the natural heritage in Bear Brook State Park.

2003 OBJECTIVE 2:

To preserve Allenstown's natural resources (air, water, forest, agricultural lands) through smart growth planning.

- Support the reestablished Allenstown Conservation Commission.
- Encourage conservation easements on properties in the northeastern corner of Town where wetlands occur and which are remote from established town services.
- Coordinate development in the northeast corner which does not isolate the Park or fragment the land and encourage easements in those developments.
- Join the Bear-Paw Regional Greenways to enhance the greenway and networking opportunities in the northeast corner of Allenstown.

2003 OBJECTIVE 3:

To provide for better access to Allenstown's natural resources for all Allenstown residents.

- Develop Suncook River access for non-motorized boating and swimming on Town-owned land.
- Promote the Boy Scouts or another youth or volunteer group to map and plan activities for the Allenstown Town Forest.

2003 OBJECTIVE 4:

To improve the impact Bear Brook State Park has on Allenstown.

- Pursue increased state financial support to the Town for services provided in Bear Brook State Park.

- Research what other towns with significant amounts of state land are doing to address the impact of the parks within their town (eg, Pillsbury State Forest, Pisgah State Forest).
- Coordinate with Deerfield, Epsom, Hooksett, and Candia to establish a regional approach dealing with the State about Bear Brook State Park.
- Seek more local control over the uses of Bear Brook State Park.

2016 RECOMMENDATIONS AND OBJECTIVES

2016 OBJECTIVE 1:

Update Suncook Air Quality Study.

- Work with the State to request an air quality updated study.
- Take any actions recommended in the study to protect the air quality of Suncook, as well as the health of residents.

2016 OBJECTIVE 2:

Comply with MS4 Permit.

- Complete Stormwater Plan draft plan in 2016.
- Submit Notice of Intent in 2016.
- Finalize all regulatory, Zoning, and Town Ordinance changes by March of 2017.
- Implement Stormwater Plan upon completion.
- Provide annual updates in accordance with MS4 Permit.
- Continue to fund MS4 compliance efforts on an annual basis.

2016 OBJECTIVE 3:

Update Cluster Ordinance.

- Revise Cluster Ordinance to make it more streamlined and user friendly.
- Provide for density incentives and improved cluster development.

2016 OBJECTIVE 4:

Repair Ferry Street Boat Ramp and Establish Park.

- Identify funds to repair ramp, and establish a park.
- Repair boat ramp.
- Create park.
- Explore other boat ramp/river access points in Allenstown.

2016 OBJECTIVE 5:

Develop a Wetland Protection Overlay District.

- Identify wetland overlay district boundaries.
- Prepare for 2017 Town Meeting.
- Include wetland buffers.
- Include provisions for Conditional Use Permitting for wetland crossings, administered by the Planning Board with input from the Conservation Commission.