

Chapter 4 Natural Resources

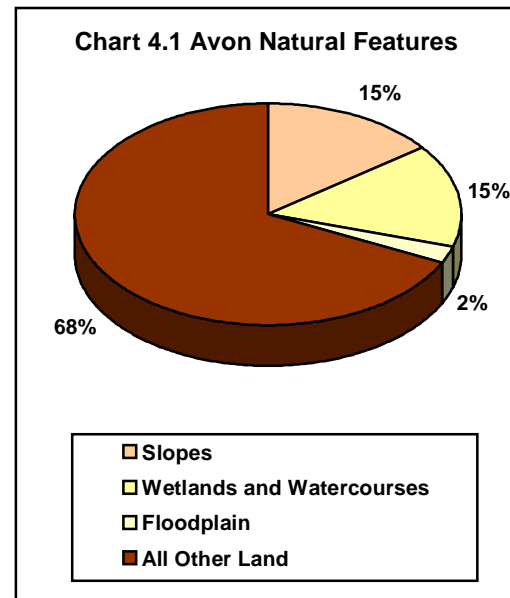


Natural Resource Inventory/Analysis

Approximately 85% of Avon is now considered either developed with residential, commercial, industrial, institutional uses, or permanently protected as open space. As Avon has grown, so has the amount of open space that has been set aside through various means. However, as the amount of vacant land is reduced, there are additional pressures to develop more difficult land parcels which contain steep slopes and wetland soils. The value of undeveloped property with potential for development has increased dramatically over the past 10 years. This fact, combined with advances in machinery and construction techniques, has placed significant pressure to develop land where previously there was little interest. Many of these remaining parcels possess unique natural features which may be worthy of preservation.

Map 2 depicts the significant natural features of Avon. Included are areas of steep slopes, wetlands and watercourses, and floodplains. The data for this map was derived from the Hartford County Soil Survey, the official Town of Avon Wetlands Map, USGS Topographic maps, and the Federal Emergency Management Agency Floodplain maps. **Chart 4.1** presents a pie chart which summarizes these characteristics. As can be seen from the chart, 2% of the total land area of Avon is in floodplain, 15 % is in slopes over 15%, 15 % is

wetlands and watercourses, and the remainder, or 68%, is all other land.



Floodplains

Floodplains are well protected in Avon through existing Zoning Regulations and the Inland Wetland regulations. Large areas of floodplain in Avon support agricultural and recreational uses and add greatly to the character of Avon's landscape.



Flooding along the Farmington River

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Wetlands

Wetlands have been a regulated resource in Avon since 1974. Wetlands are defined by soil type in accordance with Connecticut General Statutes. A comprehensive set of Regulations exist for all wetlands plus areas within 40 feet of all wetlands and within 80 feet of all watercourses. Strict adherence to the regulations, and enforcement by the Inland Wetlands Commission and Town staff have protected and continue to protect many acres of wetlands and watercourses in Avon. These wetland areas have significant value in maintaining and improving water quality, wildlife habitats, flood control, pollution attenuation, and educational, aesthetic and recreational uses.

Storm Water Control

As development applications are received, all proposed storm water management systems are evaluated with regard to their effect on the Town's drainage system. A zero-increase policy is maintained by requiring new developments to detain storm water on site and slowly meter it out. This policy prevents adverse impacts to the Town's storm water infrastructure and decreases the risk of flooding. The 1989 Plan of Development suggested that a Town-wide drainage study be completed. This has not been done to date but should still be considered in order to help understand the overall drainage

system; indicate where infrastructure improvements may be necessary; and to consider possible regulation which would require developers to make a monetary contribution to assist with downstream improvements.

Many different activities and land-use patterns can create non-point source (NPS) pollution. Commonly, NPS pollutants are carried by rain and snowmelt that run into lakes, streams, and other water bodies. Storm water run off can carry soil, fertilizers, pesticides, oil and other car fluids, trash, and other materials that affect water quality. Runoff increases when natural vegetation, which captures and uses much of the rainwater, is removed.

Non-point source pollution has been identified by the State of Connecticut's Department of Environmental Protection and the U.S. Environmental Protection Agency as one of the major sources of water quality problems. The best way to reduce NPS pollution is to reduce the amount of impervious, non-absorbent, and minimally absorbent ground cover. Where necessary, Best Management Practices (BMP) should be implemented to mitigate the potential for contamination of surface or groundwater.

Further, the Town should also work closely with the State Department of Transportation to incorporate appropriate BMP's into any improvements undertaken along Route 44.

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As a means to better control erosion during construction the commission should consider regulatory changes which include the following measures:

- Require that certain lots be graded at the time of road construction.
- Require that the site feasibility plan presented at the time of subdivision approval be controlling.
- Require that the building lots be rough graded and stabilized, prior to the issuance of a building permit.
- Require the preparation of an as-built survey map demonstrating compliance with approved site feasibility plan.
- Require the posting of a cash bond for each building lot.



Erosion Problems

Aquifer Protection

Map 3, entitled **Aquifers/Generalized**, depicts the major aquifers in Avon. Many of these areas

are in “stratified drift” or sand and gravel deposits. Large reserves of potable water are often associated with these areas and require special attention in order to protect both private and public water supplies. Avon relies on either public or private wells for 100% of its drinking water. The State Department of Environmental Protection has mandated that Avon, along with many other towns in the State, adopt a regulatory program aimed at protecting these resources. As part of this program, the Avon Water Company and Connecticut Water Company are required to prepare more detailed mapping of aquifers in the vicinity of existing public supply wells. This is known as Level A Mapping and it defines the regulatory areas. These areas are shown on **Map 4**, entitled **Aquifer Protection Areas/Regulatory**. The Town Council has appointed the Planning and Zoning Commission as the agency responsible for this program. A comprehensive set of regulations must now be drafted and adopted.

It appears that only a few existing uses will be impacted by these new regulations and that vacant commercial and industrial parcels with development potential will be largely unaffected. Those existing uses in designated aquifer areas which are identified under the law must register with the Town, adhere to best management practices, and comply with certain design requirements should any expansion be proposed.

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Hillsides and Ridgetops

Much of Avon's landscape character is derived from the rolling hills and higher ridge tops that dominate the western side around Huckleberry Hill Road, the central area around Pond Ledge and the most significant area, Avon Mountain on the eastern side of town.

While little development historically took place in these more difficult to build areas, recent years have seen a significant increase in utilization of these more marginal lands. In 2001 following amendments to the State Statutes giving Avon the authority to regulate certain construction activities on Avon Mountain, The Commission adopted comprehensive revisions to the Zoning Regulations in 2001. A Ridgeline Protection Overlay Zone along Deercliffe Road and Montevideo Road was established. These Regulations have served the Town well by establishing limitations of the cutting, grading, and house construction within regulated areas.



Heublein Tower

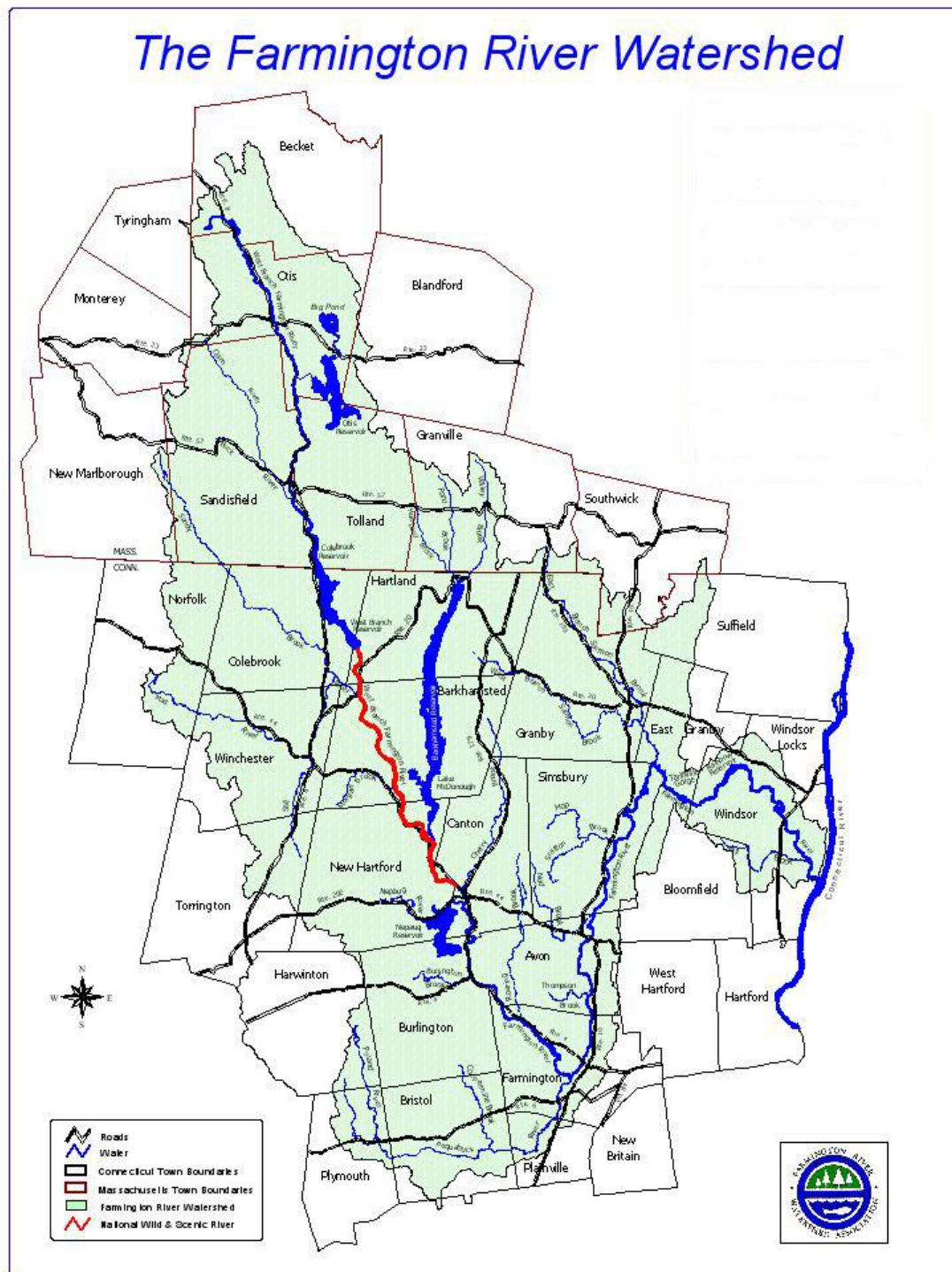
Farmington Valley Biodiversity Project

The Farmington River Watershed Association in conjunction with the Metropolitan Conservation Alliance completed a draft report of the Farmington Valley Biodiversity Project in September, 2003. This project is a regional initiative that was created to establish accurate and comprehensive biological information about the valley area. The information is intended to provide towns in the valley a scientific basis for making decisions about land use management, open space acquisition and resource conservation.

The overall objectives of the Project are:

- **Field Research:** Establish a current and comprehensive biological data set through a literature search and field research.
- **Community Education:** Educate local officials, land conservation organizations, and the public about biological resources and their value in the Farmington Valley.
- **Information Sharing:** Distribute current biodiversity information and the tools for using such information, to local land use decision makers and land conservation organizations.
- **Fostering Conservation:** Foster the implementation of land use policies consistent with safeguarding local biological resources.

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Farmington Valley Watershed

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The goal of the study is to protect core wildlife hubs and the corridors that connect them. A corridor is not simply a narrow linear green strip between habitats. The study's definition of a corridor is a broad swath of habitat that connects habitat hubs or core areas. Although these swaths may not be as intact or pristine as the hubs they connect, they do provide secondary habitat.

The Farmington Biodiversity Project identified six primary and four secondary core habitat areas for biodiversity in Avon. The six primary areas include Walton Pond area, Lake Erie, Talcott Mountain North, Hartford Reservoir and Secret Lake. The four secondary areas include Avon Old Farms area, Talcott Mountain South, Huckleberry Hill area and the Farmington River on the west side of Avon. The primary and secondary sites support a high diversity of natural communities of plants and animals. The secondary sites also offer ecological connectors and include alluvial floodplain areas as well as large areas of unfragmented forests. These primary and secondary sites are a mix of private and public ownership.

Goals and Policies

Goal:

Avon's natural features are an invaluable resource for the community and help to define the character of the Town; therefore this

resource should be identified and protected, and development within the community should adapt to this natural resource base.

Policies:

1. Steep slopes and ridgetops as identified in this Plan should be preserved, where possible, so as to maintain the open, natural character of the town and to protect this unique, environmental resource. Continue to enforce the ridgetop protection zoning regulations. Review Zoning and Subdivision Regulations and consider regulatory changes which place limitations on the regrading of steep slopes in order to create buildable lots. (See **Housing, Policy 9**)
2. Continue to acquire and or protect key parcels of open space through dedication, conservation easements or purchase. Parcels with the highest priority for acquisition are shown on the Future Land Use Plan and listed in **Table 5.3**.
3. Where practical, utilize clustering techniques to preserve meaningful open spaces in Avon.
4. Prohibit additional transmitting towers on Talcott Mountain and other high elevation areas in Avon in order to maintain the natural character of the area.
5. Continue to protect the town's fragile important natural features such as

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floodplains, wetlands and watercourses through vigilant enforcement of existing regulations and through dedication or acquisition of these areas.

6. Prepare a Town-wide storm water control plan in order to minimize the impacts of flooding and protect the quality of the Town's watercourses and wetlands.
7. Adopt aquifer protection regulations as required by State law in order to protect existing and future public drinking water supplies.