

*The Town of Sunderland
Open Space and Recreation Plan
2014-2020*



*Updated in 2014 by:
The Sunderland Open Space and Recreation Committee*

*Based on the 1994 plan, as updated in 2001 by
the Sunderland Conservation Commission
and Christine T. Fahl*

2001 Acknowledgements

Many people contributed to the development of this plan. Special thanks to Liz Sillin who provided much of the original input on historical and cultural resources, the staff of the Resource Mapping Unit in the Department of Forestry and Wildlife Management at the University of Massachusetts for GIS technical support, and the many town residents who shared their hopes and visions of Sunderland's future.

2014 Acknowledgements

Given Sunderland's severe financial constraints, we set out to update this plan without spending a dime of town money. And so this was a volunteer effort, with help from town staff and the University of Massachusetts. We extend our warm thanks to: Lee Whitcomb, Sunderland's Assistant Assessor, who pulled together the inventory of protected lands in record time; Margaret Nartowicz, Sunderland's Town Administrator; Cindy Bennett, Administrative Secretary to the Board of Selectmen; Wendy Houle, Town Clerk; and also Richard Harris, Town Planner for South Hadley, who took time from his busy schedule to show us the ropes. Jim Ewen, the town's Recreation Coordinator, made many helpful suggestions. For our all-important Map 7, which shows every parcel of conserved and un-conserved land, we owe a huge thank-you to Prof. Bethany Bradley in the Department of Environmental Conservation at the University of Massachusetts, who teaches a course in Geographic Information System (GIS) mapping, and to her student Caitlin Gardipe. *Without whom not!*

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1. Plan Summary

Much progress has been made in Sunderland since 2001, when the last update of the 1994 Open Space and Recreation Plan was prepared (though never given final approval by the State). Through the efforts and foresight of many town residents, Sunderland has made strides toward preserving its rural character, improving recreational opportunities, and enhancing its green profile. Among the highlights:

- An additional 250 acres of prime farmland has been permanently preserved in APR, bringing the total to more than 1,100 acres.
- Sunderland Center was named in 2001 to the National Register of Historic Places.
- The Silvio O. Conte Refuge acquired 30 acres at the base of Mt. Toby as federally protected land.
- The Franklin County Bikeway was designated, with a spur that runs through Sunderland along Route 47 and Falls Road.
- The Connecticut River Scenic Farm Byway was created, given official recognition to Route 47 and its rural surroundings.
- Improvements were made to the pavilion in the Town Park.
- In 2011, Sunderland voters approved the Community Preservation Act, providing a source of local money and state matching funds that can be used toward preserving open space and improving recreational opportunities.

More, however, remains to be done toward achieving the overall aspirations and critical needs of the town. This includes protecting more of Mt. Toby's open space, with its many rare and endangered species—a top priority in the north part of town. In the south part of town, a priority is adding more acreage to the APR program. The Open Space Committee also supports efforts to make Sunderland more energy efficient, possibly by building solar farms on land (though not prime farmland) in town.

Many other ideas have been suggested by the public for enhancing Sunderland's quality of life, such as: improving access to the Connecticut River, building safer lanes for bicycles, building a pavilion behind Town Hall for recreational and social activities, and creating a handicapped-accessible trail on town land along the Connecticut River. In addition to public input, ideas have come from town boards that have also spent much time and energy forming plans to improve open space and recreation resources in town, including the Community Preservation Committee, the Board of Selectmen, and the Conservation Commission. Also, while this update was being written, an energetic new town committee was formed with the goal of creating the Sunderland Community Pathways, an ambitious recreation project that dovetails perfectly with this Open Space Plan update. As conceived, the Sunderland Community Pathways would be: "A long-range project to commemorate the Sunderland Tricentennial [in 2018] by developing a recreational infrastructure in the center of town. The initial concept is to establish a pathway for biking and walking that would incorporate key features such as the river, playing field, historical buildings, Buttonball tree, linear common, cemetery and school grounds. This would give the Sunderland community a way to meet, exercise and enjoy the town, and would also support economic development by attracting visitors."

In setting priorities and ultimately forging ahead with such projects, this plan includes a Seven-Year Action Plan designed to guide important decisions about the use, conservation, and thoughtful development of the Town's land and open space and recreational resources. The Open Space and Recreation Committee looks forward to coordinating with other town volunteers, town boards and departments, as well as government and private agencies. Through these efforts, Sunderland will become an even more beautiful, green and great place to live.

2. Introduction

2.a. Statement of Purpose

Sunderland is blessed with many beautiful and unique features including: scenic views of forested mountains, productive farms, and the Connecticut River; mountain streams tumbling down hemlock-lined ravines and waterfalls; rock ledges rich with ferns and wildflowers; rare and special wildlife and fisheries habitats; clean, pure aquifer-supplied water; and many recreational opportunities. This Open Space and Recreation Plan was initiated to identify opportunities and challenges for recreation and the conservation of open space and natural resources in Sunderland. Through this planning process, we strove not only to inventory the natural resources and recreational opportunities in town, but also to identify the natural resource conservation and recreation priorities of townspeople. It is hoped that this plan will also help to coordinate the actions of the various town committees and boards for zoning, planning, land acquisition, and funding. To that end, the Open Space and Recreation Committee will seek endorsement of the state approved OSRP by all town boards and committees to help encourage broad support for its implementation and sustainability.

2.b. Planning Process/Public Participation

Through this planning process the following key steps have been accomplished:

- Compilation of an inventory listing all properties with conservation restrictions, as well as all properties owned by the government entities;
- Formulation of open space, conservation, and recreational goals and objectives for the town;
- Determination of needs of the town for recreation, open space and natural resources conservation and analysis of the progress made towards these needs;
- and formulation of a seven-year action plan based on goals, objectives and needs analysis for the town.

The Town of Sunderland first developed a draft open space plan in 1987, though it never received final approval. In 1994, the Conservation Commission contracted with Christine Fahl, a planning consultant, to research and write a plan, which was approved. That plan was then updated in 2001 by Kelly Druzisky and Kerri Davis, under the direction of the Sunderland Conservation Commission. Although they submitted a comprehensive

document to the State, the 2001 update never received final approval. (Unfortunately, the approval process broke down at the very end. So it goes, when a small town relies on volunteer labor!) The current 2014 update has been prepared by the town's Open Space and Recreation Committee, formed in 2012.

There were three basic steps in writing this plan. The first step was to gather information on the current status of Sunderland's open space and recreational resources. The second step focused on determining the future open space and recreational needs of Sunderland. These first two steps were facilitated by using a computer Geographic Information System (GIS) that provides maps of a variety of elements (such as prime agricultural lands, water resources, and recreation sites) that are important in the planning process. These maps, in combination with discussions with a variety of town committees and a town survey provided the information to evaluate open space and recreation needs in town. The final step was to analyze the progress made towards the goals and objectives cited in prior plans and use this information to help identify overall plan goals and objectives, and to develop Sunderland's current 7-year action plan.

For the current update, a public forum was held on October 10, 2012 at the Sunderland Public Library. The forum was advertised starting two weeks in advance on the town website and posted at Town Hall, the library, the elementary school, and other visible sites around town. More than a dozen residents discussed their ideas and completed paper surveys identifying their open space and recreation priorities.

Over the following month, the Open Space Committee received more than 50 responses to its paper survey. Copies of the survey were provided at the front desk of the Sunderland Public Library before and after the forum. The survey was also distributed at the well-attended Sunderland Fall Festival in October, and outside of the town polling place during the November general election. A summary of the results can be found in Appendix 1. Also, a townwide phone survey was conducted on Nov. 11, 2012, with results noted in Appendix 2. The survey's recorded message also alerted town residents that an early draft of the Open Space and Recreation Plan update had been posted on the town website, for public review. (The link was easy to find, in large type at the top of the town's homepage.) The public was invited to comment on this draft, which was posted on the town website for six months. Public input was also solicited by members of the Open Space and Recreation Committee, all of whom serve on other town boards.

3. Community Setting

3.a. Regional Context

The Town of Sunderland is located in the northern part of the Massachusetts portion of the Connecticut River Valley (see Map 1). Out of 26 towns in Franklin County, Sunderland is third smallest in terms of land area, at 9,440 acres. Sunderland is bordered by the towns of Hadley and Amherst to the south, Leverett to the east, and Montague to the northeast. Deerfield and Whately are located across the Connecticut River to the west.

Sunderland is rich in scenic and natural resources. Located within the Connecticut River Watershed, Sunderland is bordered to the west by the Connecticut River.

The town's nearly 15-square-mile area encompasses river floodplains, rich agricultural lands, rolling hills, and steep, mountainous terrain. This rich and varied terrain helps make Sunderland unique. The town's landscape and terrain helped shape the patterns of development in Sunderland. Like many Franklin County towns, Sunderland's population settled first along the river, while much of the flat flood plain land was – and still is – used for farming. The primary north/south road, Route 47, travels alongside the Connecticut River.

Many areas in the town, such as Mt. Toby, the Connecticut River, and lands containing prime agricultural soils are of regional importance for conservation, recreation, cultural, and economic uses. Sunderland is also rich in biological diversity. There are more than 20 endangered or threatened plant species in town, as well as numerous rare or endangered animal species. These conservation, recreational and scenic values of Sunderland are vitally important to the regional landscape.

Sunderland is located within easy commuting distance of several of the region's major cities and employment centers. Northampton and Greenfield are approximately 15 miles away, while Holyoke and Springfield are within 30 miles. The University of Massachusetts, Amherst College, Hampshire College, Smith College, Mt. Holyoke College and Greenfield Community College are also easily accessible from Sunderland, via good roads and a free regional bus system. Many of Sunderland's residents travel outside of town for work and shopping.

3.b. History of Sunderland

Sunderland was an important area of pre-historic and historic settlement. Prior to European settlement, native peoples used a major north-south trail following the river terrace near North Silver Lane. Numerous areas throughout town are believed to have been sites used by Native Americans, including: the Long Plain delta, quarry sites around Mt. Toby, and North Sunderland around Whitmore Pond. These historic and archeological resources give the community special character. Native planting fields were probably established on the flood plains in the north of town. Northern Sunderland most

likely demarcated the boundary between the territory of the Norrwottucks, to the south, and the Pocumtucks, traditionally centered in Deerfield.

The present site of Sunderland was purchased from the Norwottucks in 1674. The town was first known as Swampfield, so named for the abundance of wetlands found by the first English settlers. Swampfield was separated from neighboring Hadley in 1673, and the Connecticut River served as the border with Deerfield, just as it does today. The first settlers in Swampfield abandoned their settlements during the upheaval that occurred during King Philip's War (1675), when settler massacres occurred in neighboring Deerfield and Northfield. In 1714, the town was re-settled and originally included parts of Montague and Leverett, as well as present-day Sunderland. Houses dating back to the early 1700s still stand in Town and serve as a valuable record of Sunderland's history. The Sunderland Historical Society's **History through Houses**, included in the Appendix of this plan, provides details of some of the Town's historic houses.

The primary focus of Sunderland's colonial residents was agriculture, particularly crop production. In the early 19th century, the commercial tobacco and onion industries developed. Tobacco grows best in the rich flood plain soils found throughout the southern part of town, and by 1865, tobacco was Sunderland's leading crop. By 1885, Sunderland was also the leading onion producer in the valley. The pattern of agricultural lands that we see today, with the majority of farms located in the river flood plain, is the result of this period. Also, very much evident from this period are the numerous tobacco barns that grace the landscape.

Although farming was the primary economic activity found in Sunderland, there were also numerous supporting industries, such as sawmills, gristmills, farm machinery suppliers, tobacco shops, blacksmiths and gravel operations. In the early 1800s, Sunderland also had a major broom making industry, one of the largest in the area. To this day, there are many similar industries, including large gravel removal operations and numerous vegetable farms.

Sunderland has always been important to regional transportation. The town was a historical crossing point of the Connecticut River, first with ferries, and then by bridge as early as 1812. Sunderland is still a crossing point, with the Route 116 Bridge a major artery for the region. The other two bridges crossing the river in the northern valley are 10 miles away.

By the turn of the 20th century, development patterns throughout the valley were strongly influenced by the extensive system of inter-urban trolleys. Sunderland was home to the "Amherst to Sunderland Street Railway." Residential and commercial development sprang up along these transit lines, creating linear settlement patterns. This settlement pattern is still seen today, as evidenced by the "strip development" along Route 116. Today, many residents who feel frustrated by their dependence on cars wish the street railway could be rebuilt!

3.c. Population Characteristics

Historically, Sunderland has experienced several periods of significant population fluctuation. Between 1790 and 1860, the town recorded significant growth, reaching a peak of 839 residents in 1860 (Table 1). During the post-Civil War era, Sunderland's population declined to 663. However, after 1890, there was a tremendous increase in Central European immigrants, mostly from Poland. Between 1890 and 1920, the town's population more than doubled to 1,289 residents. By 1950, Sunderland's population had declined to 905 residents. Since the 1950s, Sunderland has once again been growing. Like many communities in the Connecticut River Valley, Sunderland experienced significant growth between 1970 and 2000. Between 1970 and 1990, the population of Sunderland increased by more than 65%, to 3,399 people. Then between 1990 and 2000, the population grew by another 11% to 3,777 people. Between 2000 and 2010, the town's population decreased slightly, by 2.5 percent, to 3,684. The recession of 2008 has likely contributed to this change, as development slowed to a mere trickle.

Table 1: Franklin County Census Population Data

FRANKLIN COUNTY	21,743	26,300	27,421	29,418	29,630	28,812	30,864	31,434	32,635	36,001	38,610	41,209	43,600	49,361	49,612	49,453	52,747	54,864	59,233	64,317	70,092	71,535	71,372	
ASHFIELD	1,765	1,459	1,741	1,809	1,748	1,732	1,610	1,394	1,302	1,180	1,066	1,025	955	959	869	860	872	977	1,131	1,274	1,458	1,715	1,800	1,737
BERNARDSTON	1,762	691	780	811	912	918	992	937	968	961	934	770	792	741	769	893	954	1,117	1,370	1,659	1,750	2,048	2,155	2,129
BUCKLAND	1,779	718	1,041	1,097	1,037	1,039	1,084	1,056	1,702	1,946	1,739	1,570	1,446	1,573	1,433	1,497	1,527	1,605	1,664	1,892	1,864	1,928	1,991	1,902
CHARLEMONT	1,765	665	875	967	1,081	1,065	1,127	1,173	1,075	1,005	932	972	1,094	1,001	808	816	789	855	897	897	1,149	1,249	1,358	1,266
COLRAIN	1,761	1,417	2,014	2,016	1,961	1,877	1,971	1,789	1,798	1,742	1,777	1,671	1,748	1,741	1,607	1,391	1,497	1,546	1,426	1,420	1,552	1,757	1,813	1,671
CONWAY	1,767	2,092	2,013	1,784	1,705	1,563	1,409	1,831	1,689	1,460	1,760	1,451	1,458	1,230	961	900	944	873	875	998	1,213	1,529	1,809	1,897
DEERFIELD	1,673	1,330	1,531	1,570	1,868	2,003	1,912	2,421	3,073	3,632	3,543	2,910	1,969	2,209	2,803	2,882	2,684	3,086	3,338	3,873	4,517	5,018	4,750	5,125
ERVING	1,838	--	--	160	331	488	309	449	527	579	972	972	973	1,148	1,295	1,263	1,328	1,322	1,272	1,260	1,326	1,372	1,467	1,800
GILL	1,793	--	700	762	800	864	798	754	683	653	733	960	1,015	942	879	983	931	1,070	1,203	1,100	1,259	1,583	1,363	1,500
GREENFIELD	1,753	1,499	1,254	1,165	1,361	1,540	1,756	2,570	3,198	3,589	3,903	5,252	7,927	10,427	15,462	15,939	15,672	17,349	17,690	18,116	18,438	18,696	18,168	17,456
HAWLEY	1,792	539	678	1,031	1,089	1,037	977	881	671	672	592	515	425	424	399	313	257	244	251	224	289	317	336	337
HEATH	1,796	379	604	917	1,122	1,199	895	903	661	613	560	503	441	346	325	321	359	305	304	383	482	716	806	708
LEYRETT	1,774	524	711	769	857	938	875	948	964	877	742	792	744	729	695	677	688	791	914	1,005	1,471	1,785	1,683	1,851
LEYDEN	1,784	989	1,095	1,009	974	796	632	716	606	518	507	407	379	363	330	281	260	306	343	376	498	662	772	711
MONROE	1,822	--	--	--	--	265	282	254	236	201	166	282	305	246	173	218	207	174	210	216	179	115	93	121
MONTAGUE	1,753	906	1,222	934	1,074	1,152	1,255	1,518	1,593	2,224	4,875	6,296	6,150	6,866	7,675	8,081	7,582	7,812	7,836	8,451	8,011	8,316	8,489	8,437
NEW SALEM	1,753	1,543	1,949	2,107	2,146	1,889	1,305	1,253	957	967	869	856	807	639	512	414	357	392	397	474	688	802	829	590
NORTHFIELD	1,714	868	1,047	1,218	1,584	1,757	1,673	1,772	1,712	1,720	1,603	1,869	1,966	1,642	1,775	1,888	1,975	2,246	2,320	2,631	2,386	2,951	3,032	
ORANGE	1,783	784	766	764	829	880	1,501	1,701	1,622	2,091	3,169	4,568	5,520	5,282	5,393	5,365	5,611	5,894	6,154	6,104	6,844	7,312	7,518	7,839
ROWE	1,785	443	575	839	851	716	703	659	619	581	502	541	549	456	333	298	233	199	231	277	336	378	351	393
SHELburne	1,768	1,183	1,079	961	1,022	995	1,022	1,239	1,448	1,582	1,621	1,553	1,508	1,498	1,436	1,544	1,636	1,756	1,739	1,936	2,002	2,012	2,058	1,893
SHUTESBURY	1,761	674	930	939	1,029	986	987	912	798	614	529	463	382	267	242	222	191	213	265	489	1,049	1,561	1,810	1,771
SUNDERLAND	1,714	462	537	551	597	666	719	792	839	832	755	663	771	1,047	1,289	1,150	1,085	905	1,279	2,236	2,929	3,399	3,777	3,684
WARWICK	1,763	1,246	1,233	1,227	1,256	1,150	1,071	1,021	932	789	713	565	619	477	327	367	444	429	426	492	603	740	750	780
WENDELL	1,781	519	737	983	958	874	875	920	704	539	465	505	492	502	346	353	391	342	292	405	694	899	886	848
WHATELY	1,771	736	773	891	1,076	1,111	1,072	1,101	1,057	1,068	1,074	779	769	846	1,234	1,136	979	939	1,037	1,145	1,341	1,375	1,573	1,496
ZOAR	--	78	215	120	150	129	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Source: US Census and Massachusetts Census, various years. Note: Early census counts (18th century, 1st part of 19th century) include only free, non-slave persons.

*Part of Zoar was annexed to Rowe and part to Charlemont, 1838.

Population trends over the next seven years are somewhat difficult to predict. While the vast majority of Sunderland residents want to preserve the town's rural character, development pressures may return. A key factor in Sunderland's potential development is whether plans go forward for a new development, which would add 150 units. These new residents could increase the population of town, also potentially increasing demand for recreational facilities and programs for children.

In the past, the town has seen dramatic shifts in its demographics. According to Census data, before 1970, people aged under 17 and over 40 were a majority in town. By 1993, the number of 18- to 35-year-olds had risen sharply, most likely due to the increase in college-aged residents living in the apartment complexes in Town. Sunderland is unique among Franklin County towns in having a high percentage of multi-family housing, and approximately half of the town's housing is rental housing. Together, the four major apartment complexes in town contain 683 housing units, equal to 41 percent of the town's housing stock. Many of these are rented by students affiliated with the University of Massachusetts at Amherst, located less than 10 miles to the south.

Only a small number of Sunderland's population works in town. The vast majority of residents are affiliated with the University of Massachusetts in some way, either as students or as employees. The most common occupations are professional and management, particularly educational services. The various employers in town tend to be small (20 employees) service-oriented industries, such as Sinauer Associates, a publishing house, and Warner Brothers, involved in road construction and gravel operations.

Between 1970 and 1990, there was an 81% increase in proportion of children (ages 0-17) within the town's population. The recreational needs of this age group tend to be greater than for other age groups. According to the 2010 census, 20 percent of the households in town had children. While this is about the same proportion as in 2000, the number of children enrolled at Sunderland Elementary School has declined in recent years. When the new school was built in 1989, more than 300 children attended. That number has gradually fallen, dropping to 214 in 2008, and to 172 in 2011. Participation in the town's youth sports teams has also declined in recent years, and thus there has not been pressure to increase the number of athletics fields. However, if the Sugarbush development goes

forward, adding 150 households, an assessment of the demand for playing fields may be needed.

3.c.1. Aging Population

According to the 2011 Regional Transportation Plan¹, the average age of the Sunderland population is projected to rise over the next few decades, matching a nationwide trend. However, Sunderland's high proportion of college-age students may keep the town's average age somewhat lower than in the rest of the county. As residents reach retirement age, they may spend more hours outdoors and seek more recreation opportunities, such as fishing on the Connecticut River, hiking, bird watching, and possibly cycling (if safe routes can be created). Moreover, an aging population may increase demand for handicapped-accessible recreational facilities and for elder-focused recreational programs.

3.c.2. Environmental Justice Populations

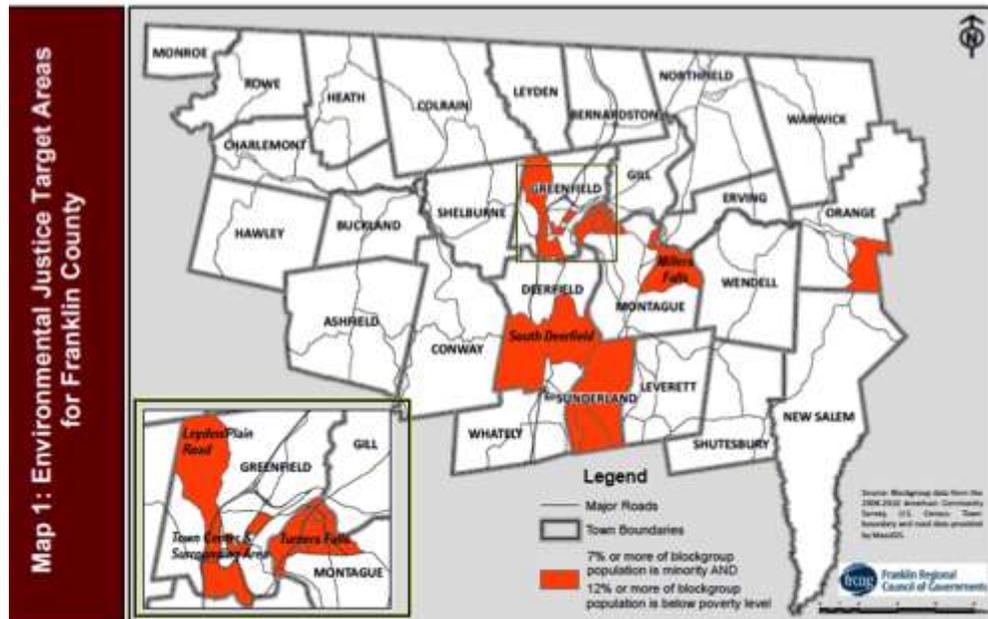
In Sustainable Franklin County: A Regional Plan for Sustainable Development², Environmental Justice Targets Areas were analyzed for Franklin County. Environmental Justice Targets Areas are defined as U.S. Census block groups in which racial minorities comprise seven percent or more of the population and at least 12 percent of the block group's population lives below the poverty level. Based on this analysis, there are several Environmental Justice Target Areas within the County, including Sunderland. See Map 2: Environmental Justice Target Areas.

The Town of Sunderland is a relative outlier as a Target Area for Franklin County. Many of the minorities in the town are Asian students from the University of Massachusetts, Amherst. The presence of so many students causes the median income of the Town to drop. It is worthwhile to note that while the incomes may be low in the Town, it does not necessarily accurately reflect the economic condition of students who may be receiving additional support from their families or other sources.

¹ http://www.frcog.org/pubs/transportation/2011RTP/Draft_Chapter_4_CountyProfile.pdf

² <http://www.frcog.org/>

Map 2: Environmental Justice Target Areas



Source: Sustainable Franklin County 2013, FRCOG.

The town's three large apartment complexes – located on Routes 116 and 47 - are rented primarily by college and graduate students at the University of Massachusetts. Residents of these apartment complexes can take buses run by Pioneer Valley Transportation Agency, which stop close to all three apartment complexes, run frequently during the school year, and are free to students. This bus service provides easy access to town sports fields and to the Connecticut River, as well as to sports and recreation facilities at the university and in the town of Amherst.

3.d. Growth and Development Patterns

3.d.1. Patterns and Trends

Sunderland began as a traditional New England farming town, with a village center, surrounded by farms. As agriculture increased, new villages, such as North Sunderland, developed. With increased development of farmlands into housing, this pattern of traditional development is increasingly difficult to discern.

According to 2005 Mass GIS land use data, the most recent available, 20.6% (1,946 acres) of Sunderland was classified as agricultural land use, including intensive cropland,

hay fields and pasture. This figure is down from 2,300 acres of agricultural land in 1985 land-use data. In 2005, forested land comprised 62.1% (5,859 acres) of total town acres, including active timber lands, and non-commercial land with forest cover. Residential land, which includes multi-family, medium- and low-density residential, comprised 8.2% (772 acres) of the land in town. Mines, utility corridors, public and transitional lands made up about 4% (402 acres) of the total land area.

Between 2000 and 2010, the town saw relatively modest development, in part due to the recession that struck in 2008. According to census data, there were 62 new single-family homes built during that decade, raising the total number of single-family homes in Sunderland as of 2010 to 786. Over that same period, 7 condominiums and 2 two-family houses were constructed. From 2007 to 2010, fewer than 5 housing units were added per year. Although town zoning encourages clustered developments, the new single-family homes were scattered, built mainly on former farmland in the south part of town.

Table 2: Land Use Data

Sunderland Land Use	Description	Total Acres	% Overall Acres
All Land		9,431	100%
Forested	Includes forest, transitional, forested wetland, and brushland/successional land uses	5,859	62.1%
Agricultural	Includes cropland, pasture, and nursery	1,946	20.6%
Residential	Includes multi-family residential, medium density residential, low density residential, and very low density residential	771	8.2%
Commercial	Commercial	52	0.5%
Industrial	Industrial	17	0.2%
Water	Includes non-forested wetland, water-based recreation, water	420	4.5%
Other	Includes mining, open land, participation recreation, transportation, waste, powerline/utility, urban public/institutional, cemetery	367	3.9%

Source: Mass GIS 2005 Land Use Data

In 1990, Sunderland approved a Development Rate Limitation by-law, which limits the number of building permits issued annually. The cap is currently set at 18. The measure is designed to help preserve Sunderland's rural character, a priority for most residents. As the town looks toward the future, one important unknown is the proposed Sugarbush development off of Plumtree Road, which would build 150 new units, 25 percent of them low/moderate-income. Because these fall under Chapter 40B affordable housing preferences - and Sunderland's existing affordable apartment units do not count toward this program, as they are not legally set aside in perpetuity - these new units would be exempt from the town's development cap. Only when the town has officially designated 10 percent of its housing stock as 40B will this exemption from development restrictions be retired.

3.d.2. Infrastructure

(Extracted from the 2004 Sunderland Community Development Plan)

Water Infrastructure

Approximately 75 percent of Sunderland's population (2,900-3,000 people) is served by Sunderland public water. Although a large percentage of the population is served, this is not to say that there is a large land area that is served as well. Water lines are located along some of the major roads. There are two wells that supply Sunderland's public water and two water storage tanks in Town.

Projected Future Water Demand

According to the buildout analysis conducted by the Executive Office of Environmental Affairs in 2001, at full buildout (a total of 14,265 residents) the Town would need additional water supply. The current water supply is more than adequate to meet additional demands that projected population growth might generate.

Sewer Infrastructure

The Sunderland Wastewater Treatment Facility receives the wastewater from the sewer lines in Sunderland. According to a Water and Sewer Survey conducted by the FRCOG in 2013, the facility and sewer lines were installed in 1975 and serve approximately 2,300

households. Public sewer serves a limited area of the Town, including the village center district, and the 4 major apartment complexes.

Projected Future Sewer Demand

The current system is designed to handle 500,000 gallons per day. Currently, the average daily flow is 165,000 gallons. The Town is currently exploring options to expand public sewer along Russell Street, River Road, and Hadley Road. Tighe and Bond is doing a survey of the area, breaking it into three separate expansion phases.

Transportation Infrastructure

Sunderland has an excellent transportation system, with easy access to a major interstate highway (I-91) in the neighboring town of Whately (southbound) and Deerfield (northbound). Sunderland residents are fortunate that they can access the Interstate without encountering the notorious traffic snarls that often occur near the Coolidge Bridge in Northampton. In addition, Sunderland is served by two state highways. Route 116 provides a direct path to the University of Massachusetts, as well as to the shops and malls on Route 9 in Hadley. A second state highway, Route 47, intersects with Route 116 in Sunderland center. Route 47, which generally follows the path of the Connecticut River, crosses through more rural and agricultural areas of town. As a designated part of the Connecticut River Scenic Farm Byway, the route attracts tourists and is heavily traveled by cyclists during the warmer months. All told, the Town maintains about 40 miles of local roads.

The Town of Sunderland is a member of the Pioneer Valley Transit Authority (PVTA). The PVTA region includes 23 towns in Franklin, Hampshire, and Hampden Counties. The PVTA provides the primary fixed-route bus service for the Town of Sunderland. The primary transit route serving the Town of Sunderland is the PVTA's Pink 31 Route, which runs primarily along Route 116 between Sunderland and South Amherst. The route operates seven days a week throughout the year, except on holidays. It makes over 300 runs to Sunderland Center each week (55-57 run each weekday) during the regular

UMass school year and about half that many runs during the summer and when UMass is not in session. The route's ridership is comprised primarily of UMass students, with other riders such as UMass employees, other college students, and low-income non-students accounting for approximately 10-15% of the route's total passengers. The PVTA also operates other routes through Sunderland.

The Franklin Regional Transit Authority also serves Sunderland, with bus runs to Northampton and Greenfield available. Greenfield-Montague Transportation Area also serves Sunderland, with routes between Greenfield and Amherst, including stops in Sunderland.

3.d.3. Long-term Development Patterns

In general, Sunderland has been innovative and progressive in attempting to deal with growth issues. This effort was in response to rapid changes in the landscape and in hope of reducing sprawl.

In the 1990s, low-density development occurred both in the Critical Resource and Watershed Protection districts, changing the land use from sustainable natural resources dependent uses, such as timber production, to residential use. There continued to be conversion of agricultural lands to housing, especially in the Prime Agricultural District. Lands originally placed in the Chapter 61A program have been taken out and converted to non-agricultural uses, emphasizing the limited resource protection this program offers. Although the Development Rate Limitation by-law will help to ease some of these pressures, this by-law is not a substitute for long-term planning and growth management.

Zoning

Zoning by-laws provide the legal framework for planning and guiding growth in Sunderland. Sunderland has five basic zoning districts: Village Center, Village Residential, Commercial 1, Commercial 2, and Rural Residential. Further, there are several overlay districts that also moderate development. These overlay districts help protect significant resources, such as watersheds or agricultural areas (see Map 3).

In 2012, Sunderland approved a Large-Scale Ground-Mounted Solar Electric Installation Bylaw, designed to provide standards for the placement, design, construction, operation, monitoring, modification, and removal of such facilities. The standards are intended to address public safety, minimize impacts on environmental, scenic, natural, and historic resources.. The bylaw requires a special permit and a site plan review for arrays over 1,000 square feet and places a height limit of 15 feet. Roof-mounted solar arrays and ground-mounted arrays under 1,000 square feet are allowed by right. In late 2012, plans were going forward for two solar farms on town-owned land, one near the Elementary School and one near the Public Safety Complex.

Zoning Districts

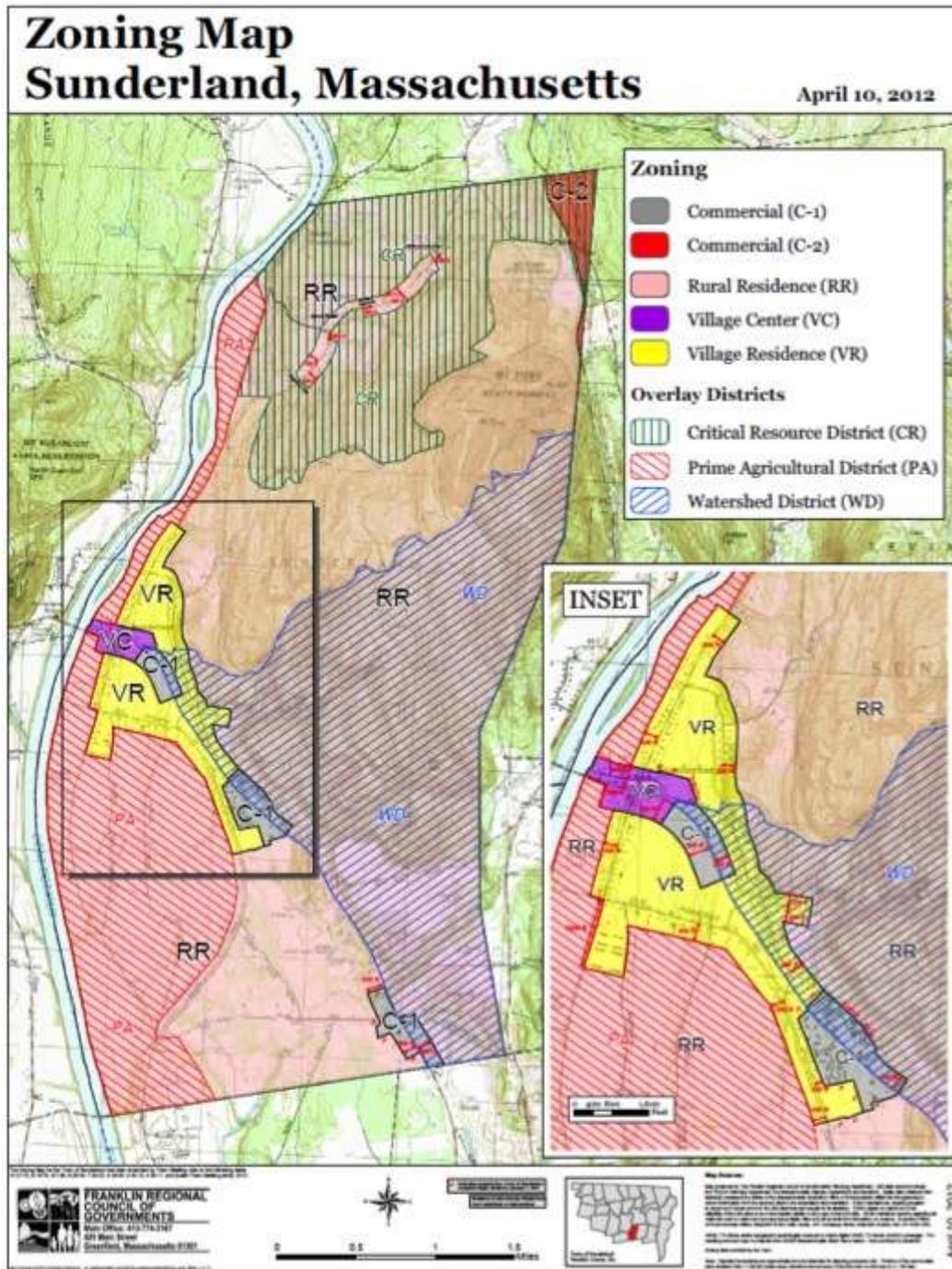
Village Center: In 2012, the town approved a new Village Center district, located at the intersection of Routes 116 and 47, designed to encourage small business. Minimum lot size is 20,000 square feet. This zoning, along with Village Residential, allows for the most dense development in town.

Village Residential: Minimum lot size requirement: 20,000 square feet. This zone lies in the traditional village area of town, but also includes much of the developed areas where the apartment complexes are located. A majority of this area is served by town water and/or town sewer.

Commercial 1 and 2: Minimum lot size: 32,000 square feet. This zone is located primarily along the major roads, Rtes. 116 and 47. Limited industrial development has occurred by variance outside of the commercial area. A second, very small commercial area is located near the Montague line.

Rural Residential: The remaining area which is not zoned commercial or village residential is zoned rural residential, with a minimum lot size of 32,000 square feet. There are several overlay districts that apply to specific areas that place further restrictions on development (see below).

Map 3: Zoning



Source: Franklin Regional Council of Governments, 2012.

Overlay Districts

The three overlay districts in town (Watershed Protection, Critical Resources, and Prime Agricultural) are all special resource districts. The purpose of these special resource districts is "to insure that lands critical to the environmental structure of Sunderland not be physically developed prior to public consideration of alternatives to such development." For proposed development to take place, they must meet the requirements of the underlying district in addition to other protective measures. These measures include the submission of a "flexible development" plan in addition to the basic plan to the Planning Board. Further, the town reserves the right to purchase the property or development rights to the property, if the resource values of the property are not adequately protected by the plan.

In 1975, in response to concern about the increased growth pressures that were occurring, Sunderland enacted one of the state's most innovative zoning by-laws, a TDR or Transferable Development Rights by-law. The goal of this by-law is to protect the visual, economic and ecological values of town with the additional benefit of preserving watershed and agricultural lands. Two of the special resource districts are the source areas for the transfer of development rights to other areas of town. Lands proposed for a major residential development if located within the Prime Agricultural or Watershed Protection Districts may be designated "agricultural protection land" or "watershed protection land." Development unit credits can then be transferred out of the resource district into other districts, in exchange for a perpetual conservation restriction on the lands in the resource district that were proposed for development. By agreeing to transfer these development unit credits to other areas of town that are less sensitive, the developer can build at a higher density than normally would be allowed under regular zoning requirements. This innovative tool has only been used once since it was passed. This is because most development that has occurred in town have not reached the threshold to qualify as a major residential development (having six or more units); thus, they do not qualify for review under this program. Modifications could be made to this by-law to make it more effective for preserving critical resource values in Sunderland.

Watershed Protection District: This area, expanded in 1989, is designed for protection of the recharge and watershed area of the main public water supply in Sunderland. Within this district, the minimum lot size is 3 acres, except for lots that have 200 feet of road frontage on Rte. 116, Bull Hill Road or East Plumtree Road, where the minimum lot size

is 32,000 square feet. Most commercial activities, especially those that involve the manufacture or storage of hazardous wastes, are not permitted in this district. Removal of sand or gravel is permitted down to ten feet above the mean maximum groundwater table. To further protect the resource, road salt is to be minimized in the district, and it is recommended that tilled lands in agricultural use have cover crops established on them.

Critical Resources District: The Critical Resource District was established to help protect many important and critical resources from adverse impact from development. It encompasses the Whitmore Pond area in the northern section of town, and overlays "rural residence" zoning in that area. Within this district; any change in land use other than additions or alterations, is subject to review by the town.

Prime Agricultural District: Most of the significant and important farmlands are located within the Prime Agricultural District. The purpose of this district is to protect those areas of town that have the most significant agricultural resources, namely soils classified as "state significant" and "important agricultural." The majority of active farms in town are located in this district, adding significantly to the town economy and the scenic rural character of town.

Sunderland has several other by-laws that influence development in town. Currently, a Development Rate Limitation by-law is in effect. This by-law limits the number of building permits issued annually, currently set at 18. To encourage open space and cluster development, there is also a Flexible Development by-law. This by-law applies to projects of not more than 6 lots, and allows for alternative frontage and lot requirements. Any "flexible development" has to be approved by the Planning Board. Also, to further safeguard Sunderland's wetlands resources, the town passed a Wetland Protection By-law in 1990, and subsequently wrote regulations to implement it.

In addition to town by-laws, there are many state programs that help regulate growth. Chapters 61, 61A and 61B of the Farmland Assessment Act are differential tax assessment provisions of the State Tax Code that enable qualifying forest, farm and recreational lands to be taxed at their use value rather than at full market value. Lands enrolled in Chapters 61, 61A and 61B provide significant tax savings to landowners and provide an incentive for a land owner to maintain their property for farming, forestry or recreational uses. It is a mechanism to help land owners, particularly farmers, to keep

their land in farming as the market value of their lands escalate. Once the parcel is enrolled, the Act gives the town the "right-of-first-refusal" to buy Chapter 61, 61A or 61B lands should the owner decide to sell or convert their property to a different use. Land under the various Chapter 61 provisions are only protected as long as the owner keeps it in the program. If a landowner sells or converts classified land to another use within ten years of its inclusion, a penalty of a conveyance tax or a roll back tax is assessed.

Another State program that serves to lessen development pressure and to preserve the town's rich farmland is the Agricultural Preservation Restriction Act (APR). The APR program provides funding to buy the development rights for farmland, paying the landowner upwards of 80% of the appraised development value. The farmer stills owns the land and can still sell it, but only for agricultural uses. This prevents non-agricultural development of the property in perpetuity. This program is a valuable tool for protecting farmland in Sunderland.

4. Environmental Inventory and Analysis

4.a. Geology, Soils and Topography

Sunderland is dominated by two major landform features, the Connecticut River and Mt. Toby Range. The juxtaposition of these features gives Sunderland striking visual vistas and beauty. These features also helped to determine some of the Town's development patterns, such as where homes are concentrated and where the best locations for farming exist. The Connecticut River Valley has its origins in glaciers that blanketed the area more than 15,000 years ago. As the glaciers retreated, a massive lake, known as Lake Hitchcock, was formed behind a rubble dam near Middletown, Connecticut, and extended north to Hanover, New Hampshire. Many of the town's valuable natural resources and distinctive features originated from this glacial period. For example, the thick silt deposits that settled on the ancient lake bottom, helped build the rich farmland found on the river flood plains. The gravel deposits formed by the ancient alluvial outwash of tributaries flowing into Lake Hitchcock formed the aquifer that provides our town its

abundant, pure water. Even the Mt. Toby area, which is dominated by thin soils, ledge and steep slopes, provides unique habitats for rare and sensitive plants and animals.

Several categories of soil (see maps 4A, 4B and 4C)) are present in town and are categorized as follows:

Prime and significant agricultural soils. These soils include: Hadley, Agawam, Winooski, Hartland, Deerfield and Sudbury soil types. These soils are mostly located on flood plains or in outwash plains in south and southeastern Sunderland. Many of these soils have moderate to severe limitations for development due to slow percolation rates, high water table, or excessive drainage, which can impact septic system function and possibly lead to ground water contamination. However, many of the prime and significant agricultural soils can accommodate development with drainage or special septic designs. These soils usually are the easiest, most cost efficient areas to develop. If town sewer or water are provided, then the soil limitations of these areas are generally not a limiting factor for development.

Water impacted soils. These are soils that are poorly drained, seasonally flooded, or have a seasonal high water table. Much of these soils are found throughout town in areas classified as wetland resource areas, and include Limerick, Saco, Walpole, Wareham and various muck soils. These soils have severe development limitations.

Shallow, Stony and Hardpan Soils. These soils are mostly found in the upland areas of town, especially in the Mt. Toby Range. The Mt. Toby highlands, including Mt. Toby, Ox Hill, Roaring Mountain, Bull Hill and the surrounding terrain, have steep slopes covered with a thin-fragile soil. These soils, along with the abundant ledge also found in this area, impose limitations on development, mainly due to increased costs associated with specialized septic and road designs. Until recent years, these added costs have limited development pressure on the mountain. However, with increased demand for housing, the potential for development in these areas is increasing. Increased development in this area could threaten the town water supply and cause erosion and habitat degradation.

**SEE MAP 4A (SOILS AND GEOLOGIC FEATURES) IN SEPARATE
MAP FILE**

SEE MAP 4B (PRIME FARMLAND SOILS) IN SEPARATE MAP FILE

**SEE MAP 4C (WETLAND AND HYDRIC SOILS) IN SEPARATE MAP
FILE**

4.b. Landscape Character

Sunderland, for both residents and visitors, represents a traditional, quaint New England Town of by-gone days. Many residents cite the rural atmosphere, the pleasing combination of woods, river, mountain, and farms as the qualities that make Sunderland so special. Sunderland has a diversity of beautiful views, well preserved architectural heritage, and a rural way of life that make it stand out from its neighbor towns. However, many of these features can be adversely affected by inappropriate or poorly planned development. Views can be marred by ridge-top development. The pleasing mix of land use, such as farm and housing, can be changed to a monotonous view of tract houses. Knowing what makes Sunderland will help to guide development to complement rather than harm the unique character of town.

A significant portion of Sunderland is classified as containing NHESP BioMap Core Habitat. Also, the entire length of the Connecticut River in Sunderland is classified as NHESP Estimated Habitat of Rare Wild Life.

4.c. Water Resources

Sunderland has a great variety of water resources. These resources not only provide public drinking water, but also provide recreational opportunities and wildlife and fisheries habitats (see Map 5A).

4.c.1. Watersheds

The Town of Sunderland lies within the Connecticut River Watershed. Local watershed associations include the Connecticut River Watershed Council (CRWC) which advocates for the entire, four-state Connecticut River watershed. The CRWC works to protect water—the river, its tributaries, lakes, fish; and the land, plants, and creatures connected to that water.

4.c.2. Surface Waters

One of the most defining features of Sunderland is the Connecticut River, which forms the western border of town. The river is used for boating, swimming and fishing. It also provides habitat for numerous species of plants, fish and wildlife, some rare or endangered. The water quality of the river has increased significantly in recent years and is now rated as class B: fishable and swimmable. With this improvement, there have

been increases in anadromous fish species that migrate in the river, such as Atlantic Salmon and American Shad. The stretch of river that flows through Sunderland is characterized by shallow, swift currents and shifting sandbars. These make this part of the river ideal for canoeing and fishing. To help preserve these characteristics of the river, the State restricts the speed limit of water craft (15 mph) permitted on this section of river that runs through Sunderland. In the Open Space and Recreation Plan survey, 82% of the town's people responding to the survey supported reduction of speed limits along the Connecticut River.

SEE MAP 5A (WATER RESOURCES) IN SEPARATE MAP FILE

SEE MAP 5B (STREAM NETWORK) IN SEPARATE MAP FILE

Adding to the variety of water resources in Sunderland are the numerous ponds, streams and brooks found throughout town. These areas provide recreational opportunities, wildlife habitat, and scenic beauty. Cranberry Pond is the largest pond in Sunderland. It is much used for fishing, including ice fishing, and boating. Many of the streams and brooks in town, such as Mohawk and Russelville brooks, have native trout populations and are popular areas for fishing. These streams and brooks also provide great scenic beauty, especially the waterfalls found along the brooks. Map 5B shows the stream network located in Sunderland.

4.c.3. Aquifer Recharge Areas

The largest public water supply in town is the Long Plain aquifer, located at the south end of the Mount Toby highlands. This geologic formation is a two square mile highly permeable glacial sand and gravel delta deposit. The major source of recharge to this aquifer is from precipitation and stream flow in the Long Plain Brook. The entire drainage for Long Plain Brook functions as a recharge area for the aquifer, since there is no confining impervious soil layer between the brook and the aquifer. This aquifer not only supplies water to a town well, numerous private wells on East Plum Tree Road, but also to three fish hatcheries, a state trout hatchery operated by the MA Division of Fisheries and Wildlife, a federal salmon hatchery operated by the U.S. Fish and Wildlife Service, and a private commercial hatchery.

4.c.4. Wetlands

Like many towns in the area, Sunderland has a wealth of wetlands (Map 4B). Wetlands provide many functions that contribute to maintaining the quality of the environment, including aquifer recharge, control of local flooding, pollution filtration, and recreational and scenic opportunities. Wetlands are also vital in helping maintain the biological diversity found in Sunderland. Many of the rare, threatened or endangered species found in Sunderland are dependent on wetlands for some part of their life cycle. The U.S. Fish and Wildlife Service National Wetlands Inventory Program has delineated many of the major wetlands found in Sunderland. They include a wide variety of wetland types including river flood plain forests, cattail marshes, red maple swamps, and vernal pools. Many of these wetlands occur in mosaics with more than one type of wetland occurring in the complex.

Sunderland has a politically autonomous water district that provides water to the central and southern parts of town. This water is provided from two town wells, the Ralicki Well

off Reservoir Road, and the Hubbard Well on Rte 116 off Hubbard Hill Road. Both of these wells and surrounding areas are protected to some degree by overlay zones.

Areas of town that are not served by the water district obtain their water from private wells. There have been some instances of well contamination, in one instance from agricultural contamination in the prime agricultural district. The subsequent extension of the water main into this area helped facilitate development in the area.

As Sunderland's original name of Swampfield suggests, many areas of town are low and subject to saturated ground conditions for some part of the year. A series of town-maintained drainage ditches, located mostly in the Prime Agricultural District, helps to reduce the duration and severity of flood conditions and subsequent impacts on agricultural land and houses in this area.

4.c.5. Flood Hazard Areas

The 2013 Draft Sunderland Natural Hazard Mitigation Plan states that there are 592 acres of land in Sunderland located in the 100-year flood plain. There is only one residence located in a flood hazard area and no commercial, industrial or public/institutional land uses in the flood hazard area.

4.d. Vegetation

4.d.1. General Inventory

Sunderland has a mosaic of different types of habitats: forest, wetlands, old field, and agricultural lands. The town also has many unique and special plant communities, as well as those that are more typical of southern New England. The plant communities found in Sunderland today are very different than what occurred prior to European colonization. Originally, the low areas of town along the river were probably dominated by extensive floodplain forests and large wetlands. However, as these rich lands were developed for agriculture, wetlands were drained and forests cut. When agriculture reached its peak in the later half of the last century, much of the land suitable for agriculture had been cleared.

4.d.2. Vegetation Mapping Projects

According to the BioMap2 Town Report for Sunderland, produced by Natural Heritage and Endangered Species Program and the Nature Conservancy, “Sunderland lies on the border of the Connecticut River Valley and the Worcester Plateau Ecoregions. The Connecticut River Valley Ecoregion, the borders of which are primarily defined by the bedrock geology, has rich soils, a relatively mild climate and low rolling topography. The valley floor is primarily cropland and built land. Central hardwoods and transition hardwood forests cover the ridges. The Worcester Plateau Ecoregion is an area that includes the most hilly areas of the central upland of Massachusetts with a few high monadnocks and mountains. The dominant forest types present are transition hardwoods and some northern hardwoods. Forested wetlands are common.”

Figure 1 summarizes the core habitats and landscapes found in Sunderland. The complete report is available at <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/land-protection-and-management/biomap2/biomap2-town-reports.html>.

Figure 1: BioMap2 Summary

Sunderland at a Glance

- Total Area: 9,431 acres (14.7 square miles)
- Human Population in 2010: 3,684
- Open space protected in perpetuity: 3,096 acres, or 32.8% percent of total area*
- BioMap2 Core Habitat: 7,069 acres
- BioMap2 Core Habitat Protected: 2,413 acres or 34.1%
- BioMap2 Critical Natural Landscape: 1,022 acres
- BioMap2 Critical Natural Landscape Protected: 348 acres or 34.1%.

BioMap2 Components

Core Habitat

- 1 Exemplary or Priority Natural Community
- 1 Wetland Core
- 6 Aquatic Cores
- 3 Species of Conservation Concern Cores**
 - 3 birds, 3 amphibians, 1 fish, 9 insects, 1 mussel, 1 flatworm, 24 plants

Critical Natural Landscape

- 2 Wetland Core Buffers
- 6 Aquatic Core Buffers

* Calculated using MassGIS data layer "Protected and Recreational Open Space – March, 2012".

** See next pages for complete list of species, natural communities and other biodiversity elements.



DEFINITIONS:

Core Habitat: Core Habitat identifies specific areas necessary to promote the long-term persistence of rare species, other Species of Conservation Concern, exemplary natural communities, and intact ecosystems.

Critical Natural Landscape: Critical Natural Landscape identifies intact landscapes in Massachusetts that are better able to support ecological processes and disturbance regimes, and a wide array of species and habitats over long time frames.

Of Sunderland’s total area (9,431 acres), over 7,000 acres are classified a Core Habitat. The location of the Core Habitat can be seen in Map 6: BioMap2.

4.d.3. Rare Plant Species

Sunderland is considered one of the most important areas in central New England for plants requiring calcareous conditions. Many rare plants are found in these rich calcareous woods, including narrow-leaved spleenwort, climbing fumitory, ginseng, and wall rue. Sunderland is also a rich area for orchids and ferns. Almost all the fern species present in the Commonwealth have been found in the Mt. Toby area (42 species), and numerous orchid species are also present.

Table 3: BioMap2 Summary Plants List

Genus and Species	Common Name	Status*
Adlumia fungosa	Climbing Fumitory	SC
Aplectrum hyemale	Putty-root	E

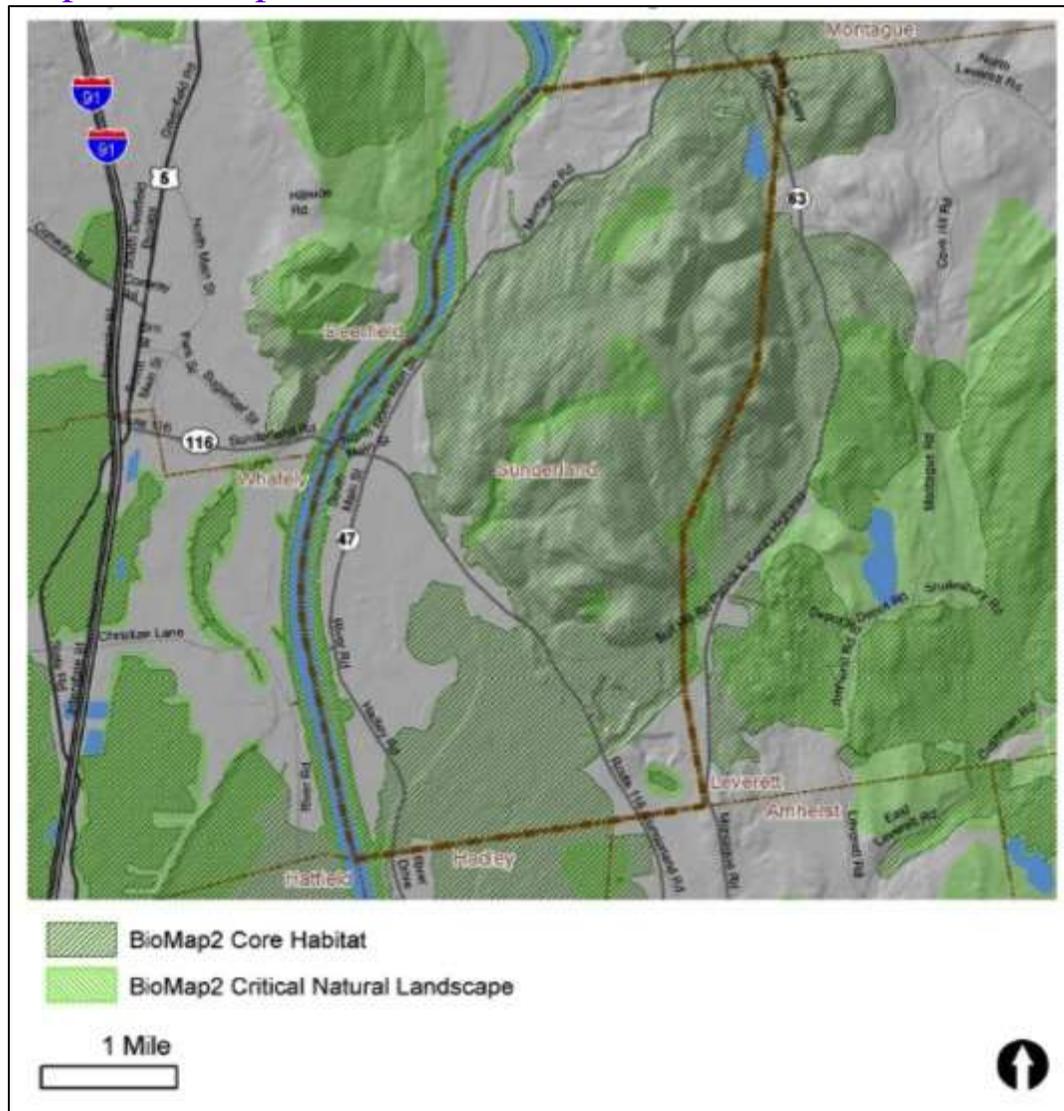
<i>Asclepias verticillata</i>	Linear-leaved Milkweed	T
<i>Asplenium ruta-muraria</i>	Wall-rue Spleenwort	T
<i>Boechera laevigata</i>	Smooth Rock-cress	SC
<i>Boechera missouriensis</i>	Green Rock-cress	T
<i>Carex lenticularis</i>	Shore Sedge	T
<i>Clematis occidentalis</i>	Purple Clematis	SC
<i>Corallorhiza odontorhiza</i>	Autumn Coralroot	SC
<i>Elatine americana</i>	American Waterwort	
<i>Eleocharis intermedia</i>	Intermediate Spike-sedge	T
<i>Eragrostis frankii</i>	Frank's Lovegrass	SC
<i>Lygodium palmatum</i>	Climbing Fern	SC
<i>Minuartia michauxii</i>	Michaux's Sandwort	T
<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T
<i>Platanthera dilatata</i>	Leafy White Orchis	T
<i>Platanthera flava</i> var. <i>herbiola</i>	Pale Green Orchis	T
<i>Poa saltuensis</i> ssp. <i>languida</i>	Drooping Speargrass	E
<i>Prunus pumila</i> var. <i>depressa</i>	Sandbar Cherry	T
<i>Salix exigua</i> ssp. <i>interior</i>	Sandbar Willow	T
<i>Sphenopholis nitida</i>	Shining Wedgegrass	T
<i>Trichomanes intricatum</i>	Appalachian Bristle-fern	E
<i>Liparis liliifolia</i>	Lily-leaf Twayblade	T
<i>Deschampsia cespitosa</i> ssp. <i>glauca</i>	Tufted Hairgrass	E

***Status Key**

Status	Status Description
E	Endangered
T	Threatened
SC	Special Concern

Sunderland's remaining lands that are not forested include developed land and playing fields, intensively farmed agricultural land, pasture and abandoned fields. Abandoned fields are extremely important to many early successional plant and animal species. As these abandoned pastures and fields continue to revert back to forest, this habitat is becoming rarer throughout the state. According to BioMap2, there 24 plant species of special concern. Table 3 shows the genus, species, common name, and classification of each. Plant fact sheets for each are available on NHESP's website.

Map 6: BioMap2



Source: Mass GIS Oliver Online Mapping Service; BioMap2

4.d.4. Forest Land

The types of forests found in town today are largely the result of soil types, elevation, and past land-use history. West and south facing slopes of the Mt. Toby area support the oak-hickory forest type, while the north facing slopes are dominated by hemlock and northern hardwood forests. Plantations of white pine occur on the sandy outwash soils. Red oak forests are found on thin, stony soils. Cottonwoods and silver maples are found in the

flood plain area. The dominant species of trees found in Sunderland are hemlock, red oak and sugar maples. White pine, white ash, red maple, black birch and paper birch are also present. Common understory plants include huckleberry, blueberry, shadbush, mountain laurel, azalea and hornbeam.

4.d.5. Wetland Vegetation

There is a moderate-size Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps located in the vicinity of Mount Toby, according to BioMap2. This swamp is vegetated with a mixed deciduous-coniferous forest occurring in areas where there is calcium-rich groundwater seepage. This nutrient enrichment supports many rare calcium-loving plant species. This swamp is in good condition and is part of a larger complex of naturally vegetated wetlands. It is particularly unusual this far east in the state.

4.d.6. Natural Communities

According to BioMap2, there are five Priority Natural Communities in Sunderland – “assemblages of plant and animal species that share a common environment and occur together repeatedly on the landscape. BioMap2 gives conservation priority to natural communities with limited distribution and to the best examples of more common types. The five Priority Natural Communities in Sunderland are:

- Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp
- Major-river Floodplain Forest
- High-energy Riverbank
- Calcareous Rock Cliff Community
- Calcareous Talus Forest/Woodland

4.d.7. Public Shade Trees

Sunderland is home to the famous Buttonball Tree, the largest sycamore tree in Massachusetts. According to the Sunderland Historical Commission’s informational flyer, “the Sunderland Buttonball tree (American Sycamore) is a center-of-town tree that

has been standing observing Sunderland residents for centuries. It has a strong welcoming presence overhanging road, sidewalk and yard.” As of October 2003, the tree stood 114.4 feet tall and had a girth of 24.9 feet

Along with the Buttonball Tree, the Town has many other old and grand trees lining its historic streets. Among other potential projects, the Sunderland Historical Society has a goal of conducting an inventory of its street trees in its village center, with the goal of providing better maintenance and planting additional trees as needed.

4.d.8. Agricultural Land

Agricultural fields and their edges provide important wildlife habitat to a number of wildlife species. As indicated earlier in this report, 2005 Mass GIS land use data shows that 20.6% (1,946 acres) of Sunderland was classified as being in agricultural land use. This included intensive cropland, hay fields and pasture. This is down from 2,300 acres of agricultural land in 1985 land use data.

The 2013 FRCOG **Sustainable Franklin County** looks at trends in agricultural land in the region and cites the USDA’s 2007 Census for Farmland. This data shows that although the average size of farms has decreased by 16 percent since 2002, the number of farms has increased by 26 percent and the amount of land in farms has increased by seven percent during the same time period. More community-supported agricultural ventures and more farmers’ markets, even throughout the winter months, are being supported by Franklin County residents. People in the region feel strongly about protecting their farmland. Despite this positive trend, Sunderland’s location nearby area colleges and population centers makes it particularly vulnerable to development pressures on its farmland and farmers.

4.e. Fish and Wildlife

4.e.1. General Inventory

Sunderland has a great diversity of fish and wildlife habitats; thus, there is a great diversity of animal species. The great variety of wildlife in Sunderland is very important to many of the town’s residents and visitors. Bird watching is a popular activity for

many, as is fishing and hunting. As one person said, "knowing that there are wild turkeys, bluebirds and deer living next door makes this place all the more special."

The Connecticut River is important breeding habitat for many invertebrate species, such as mussels, as well as numerous fish, bird and mammal species. For many endangered species, such as the Short Nose Sturgeon, the Connecticut River provides breeding, foraging and wintering habitats. Many important commercial and recreational species, such as American shad and large-mouth bass also are found in the river. Many species of birds, such as belted kingfisher, osprey, bank and rough-wing swallows use the river for nesting and feeding. Bald eagles are also often seen perched in the trees along the river.

Mammal species common in Sunderland include white-tail deer, cottontail rabbit, raccoon, coyotes, woodchuck, foxes, mink, otter, numerous small mammal species and, on occasion, black bear.

There are numerous bird species that can be found in Sunderland as well. Many, such as the neotropical migrant songbirds, breed in various habitats found in town. Several species that are dependent on large, unfragmented forest tracts are common breeders in the Mount Toby area. These include wood thrush, veery, ovenbird, black-and-white warbler and scarlet tanager. Many species of migrant birds also pass through Sunderland during the spring and summer migration, stopping to feed and rest before moving on. The bird species list for Sunderland numbers over 200!

Not all of the wildlife found in Sunderland are of the furry and feathered kind. The diverse natural habitats that occur throughout town are habitat for many species of amphibians and reptiles.

4.e.2. Corridors for Wildlife Migration

In general, the wildlife habitat found in Sunderland is typical of southern New England. There is a large amount of maturing mixed hardwood forests or mixed hardwood/conifer forests with areas that are dominated by agricultural and developed lands. Scattered throughout the forested area are wetlands, and increasingly, housing development. However, unlike many areas throughout the region where the large blocks of forested habitat have been fragmented by suburban development, there are still relatively large, unfragmented tracts of forest land. While it is true that edges (where two different habitat

types meet) attract diverse species, many species require forest interior habitat that has no edge present. When large blocks of forest are bisected by roads, power lines and housing developments, edge is created. The overall result is the reduction of forest interior habitat for those species that depend on it. The maintenance of the biological diversity found in Sunderland depends, in part, on the maintenance of some large unfragmented forest lands.

Many wildlife species also inhabit the fields and agricultural lands of Sunderland. Indeed, many of the more unusual birds, such as bobolinks, upland sandpipers and grasshopper sparrows, require open field habitat. This is important to consider in future open space planning, because as more pasture and old fields revert to forest, there is less of this essential habitat for those species that depend on them.

Mobility is essential for wildlife. Many species of wildlife need to move between different habitats. For example, many species of salamanders winter in upland areas, then migrate to vernal ponds to breed in spring. Wildlife also need to be able to find mates, and young need to disperse. Thus, habitat corridors are a vital element in the landscape, especially as more and more habitat becomes fragmented. Recognizing this need for movement is vital to maintaining viable wildlife populations.

4.e.3. Vernal Pools (Map 7)

According to NHESP, vernal pools are “unique wildlife habitats best known for the amphibians and invertebrate animals that use them to breed. Vernal pools, also known as ephemeral pools, autumnal pools, and temporary woodland ponds, typically fill with water in the autumn or winter due to rainfall and rising groundwater and remain ponded through the spring and into summer. Vernal pools dry completely by the middle or end of summer each year, or at least every few years. Occasional drying prevents fish from establishing permanent populations, which is critical to the reproductive success of many amphibian and invertebrate species that rely on breeding habitats free of fish predators.”

Map 8 shows the eleven certified vernal pools in Sunderland.

Map 7: Certified Vernal Pools



Source: OLIVER: MassGIS's Online Mapping Tool: NHESP Certified Vernal Pools

4.e.4. Rare Species

As with plant species, NHESP also lists plants classified as endangered, threatened, and of special concern as well as those plants identified on the State Wildlife Action Plan (SWAP). Rare animal species identified in Sunderland are shown in Table 4.

Table 4: BioMap2 Summary Animals List

Common Name	Genus and Species	Status*
<i>Flatworms</i>		
Sunderland Spring Planarian	<i>Polycelis remota</i>	E
<i>Mussels</i>		
Yellow Lampmussel	<i>Lampsilis cariosa</i>	E
<i>Dragonflies</i>		
Spine-crowned Clubtail	<i>Gomphus abbreviatus</i>	SC
Midland Clubtail	<i>Gomphus fraternus</i>	E

Rapids Clubtail	Gomphus quadricolor	E
Cobra Clubtail	Gomphus vastus	SC
Skillet Clubtail	Gomphus ventricosus	T
Stygian Shadowdragon	Neurocordulia yamaskanensis	SC
Riverine Clubtail	Stulurus amnicola	E
Arrow Clubtail	Stylurus spiniceps	Non-listed SWAP species
Zebra Clubtail	Stylurus scudleri	Non-listed SWAP species
<i>Amphibians</i>		
Blue-spotted Salamander	Ambystoma laterale	SC
Eastern Spadefoot	Scaphiopus holbrookii	T
Northern Leopard Frog	Rana pipiens	Non-listed SWAP species
<i>Fishes</i>		
Shortnose Sturgeon	Acipenser brevirostrum	E
<i>Birds</i>		
Grasshopper Sparrow	Ammodramus savannarum	T
Bald Eagle	Haliaeetus leucocephalus	T
Vesper Sparrow	Poocetes gramineus	T

***Status Key**

Status	Status Description
E	Endangered
T	Threatened
SC	Special Concern

4.f. Scenic Resources and Unique Environments (See Map 8)

4.f.1. Scenic Landscapes

An important element contributing to Sunderland's rural character and scenic beauty is its diverse environmental and cultural features. There are outstanding vistas of natural features throughout town, such as views of mountains (Mt. Toby and Sugarloaf) and pleasing views of both river and upland. However, development on ridge lines or mountainsides can have an adverse impact on these treasured scenic views.

The landscape of Sunderland is not only defined by the vistas and views, but also by the many unique features that can be found throughout town. Sunderland has the longest cave in Massachusetts and some of the tallest waterfalls in the area. There are large areas

of relatively unfragmented forest habitat found in the Mt. Toby area and other regionally important wildlife habitats. The Long Plain Aquifer provides very high quality water. Indeed, Sunderland is a very special place.

4.f.2. Cultural, Archeological, and Historic Areas/Unique Environments (See Map 5)

Sunderland Center Historic District

Sunderland also has a village center of exceptional beauty and architectural interest. In 2001, those qualities earned it national recognition, when Sunderland Center became officially listed on the National Register of Historic Places. The district comprises 180 historic properties along North and South Main Streets (from Claybrook Road to Old Amherst Road), and also along a stretch of Route 116.

The Sunderland Center Historic District also features the immense and much-visited Buttonball Tree, a sycamore of national significance, likely 400 or 500 years old. The nearby plaque says the tree was alive in 1787, at the time of the signing of the American Constitution.

National Register status does not impose restrictions on homeowners. Rather, it serves as an honorary designation, acknowledging the significance of the buildings in town, as well as Sunderland's unusual linear layout, different from the usual square town-common layout. The houses in this district represent most of the architectural styles of the 18th, 19th and 20th centuries. This pleasing mix of architecture styles, coupled with sugar maple trees that line the roads, help to give Sunderland a quiet, rural atmosphere. Additionally there are numerous areas that are potential Native American sites, many which still have yet to be surveyed.

Silvio O. Conte Refuge

The Silvio O. Conte National Fish & Wildlife Refuge was established in 1997 to protect and enhance the ecosystems of the 7.2-million acre Connecticut River watershed, which spans from the river's headwaters in northern New Hampshire down to where it meets the sea in Old Lyme, Connecticut. The refuge comprises nine tracts of land, including one in Sunderland: a 30-acre parcel at the base of Mt. Toby where many rare plant species can be found.

The Conte refuge works together with a wide range of individuals and organizations to provide environmental education and encourage habitat conservation. In addition, the refuge provides technical support to improve management of the lands throughout the watershed.

Notable projects have included: the Connecticut River songbird stopover habitat survey; a cooperative project with the Natural Resources Conservation Service to target important wildlife habitats; and construction of fish passages at small dams. The refuge also formed the New England Invasive Plant Group, a consortium dedicated to stopping new invaders from entering the region.

Connecticut River Scenic Farm Byway

The National Scenic Byway Program is a federal transportation program that provides funding for official state-designated scenic roads. In 2003, the Massachusetts Legislature gave that official designation to Route 47 – including the stretch that passes through Sunderland - creating the Connecticut River Scenic Farm Byway. The Scenic Farm Byway passes through the Pioneer Valley towns of South Hadley, Hadley and Sunderland before continuing north. The program recognizes the distinct natural beauty of the landscape and its classic New England farm village patterns.

The Corridor Management Plan for the Byway was completed in 1998, establishing priorities for promoting economic opportunities while protecting the Byway's natural, cultural, and historic resources. A number of projects and programs have been awarded funding through the National Scenic Byway Program, including: two grants for land protection along the corridor totaling \$1.5 million, and a tourism signage project to direct tourists to farm stands and other features.

Connecticut River Greenway State Park

The Connecticut River Greenway is one of the Massachusetts' newest State Parks, connecting open spaces, parks, scenic vistas, and archeological and historic sites along the length of the Connecticut River as it passes through the state. The park comprises more than 12 miles of permanently protected shoreline, and offers numerous access points to the river, including the Sunderland access point at the end of School Street, on the north side of the Sunderland Bridge.

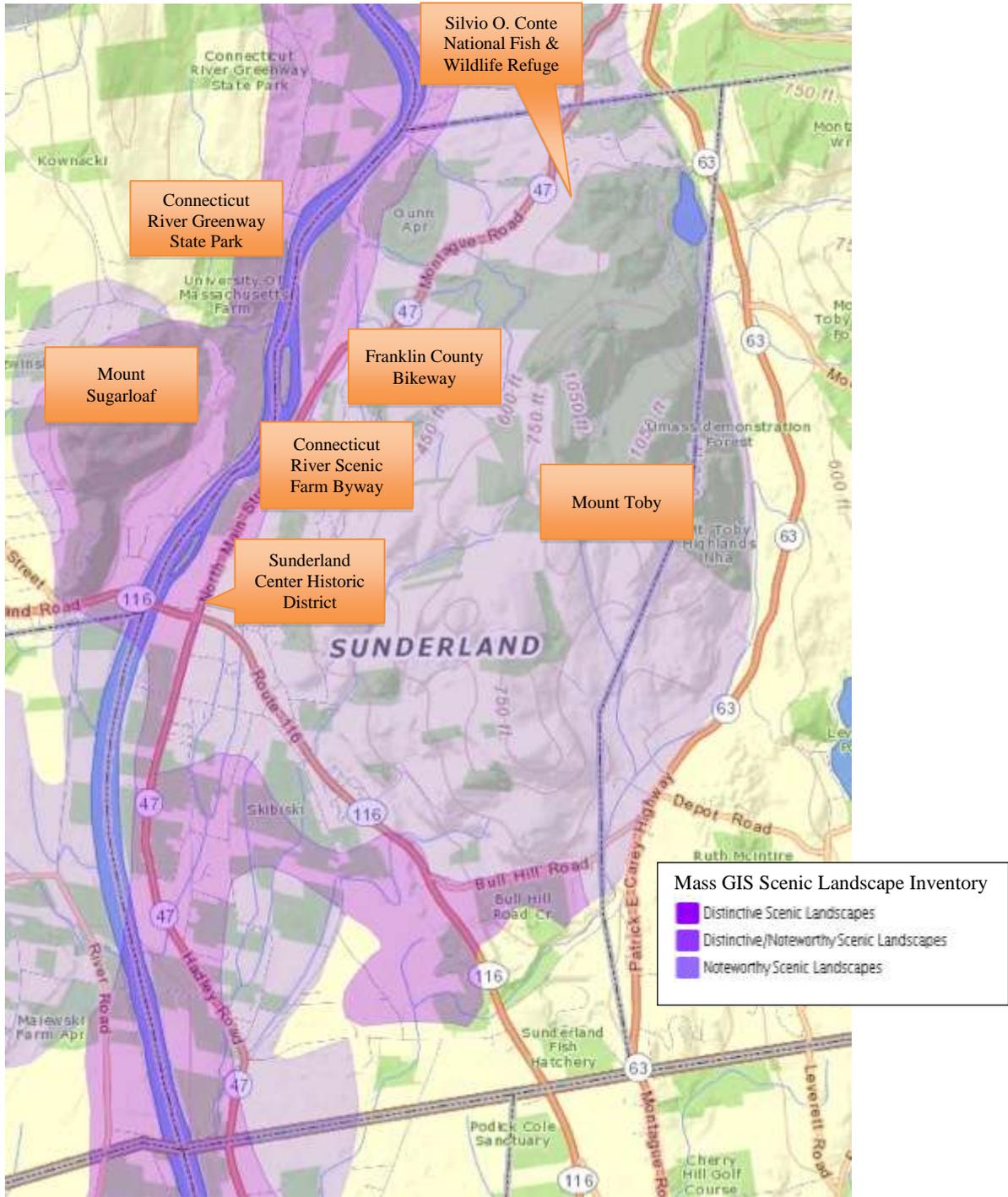
The stretch of the Connecticut River that flows past Sunderland is mild and fairly narrow. Because the water is shallow, this part of the river is not suited to large powerboats. Instead, it is meant for quiet recreation, observation and wildlife protection.

Franklin County Bikeway

The Franklin County Bikeway totals about 44 miles in length, consisting of a main loop through Greenfield, Deerfield, Montague and Gill, with a southern spur through Sunderland. Construction of the central core of the Bikeway was completed in phases starting in 2004, with the off-road paths built first.

Most of the network consists of “on-road” or “shared roadway” sections that make use of predominantly low traffic roads, such as Falls Road in Sunderland. Some portions – such as the section of the Bikeway that follows Route 47 - are best used by experienced cyclists, due to higher traffic volumes and vehicle speeds. Recently, Franklin County Bikeway logo signs were installed on the shared roadway sections, connecting the off-road paths to each other and providing continuous routes to Northfield, Amherst and Sunderland.

Map 8: Scenic Resources and Unique Environments



4.g. Environmental Challenges

Although Sunderland has very little industry, being mainly a residential and farming town, it does face its share of environmental challenges. While some threats are localized, others are driven by regional and even global forces. The town's environmental challenges include hazardous spills and leaks, chronic flooding in low-lying areas, sewer plant overflows, invasive plants, high mercury levels in the Connecticut River, smog, and the possibility that climate change will bring heavier rainstorms that worsen flooding and threaten roadways and culverts.

- **Hazardous Waste Sites.** Sunderland is fortunate not to have any Superfund or Brownfields sites within its borders (these being sites identified by the U.S. Environmental Protection Agency as contaminated by hazardous waste, and eligible for cleanup).
- **Landfills.** Sunderland's former landfill, off of Reservation Road near the Montague line, has been closed and capped. As of 2014, there have not been any reported problems related to leaching. Residents pay for private pickup of trash, which is hauled to a variety of landfills and recycling centers in the region.
- **Chronic Flooding.** In 1675, the original town settlement was named Swampfield, in reference to its low-lying, swampy geography. Although the name was changed to something more poetic, and the swamps were drained, Sunderland's basic geography has not changed. The water table remains high in the flat areas of town, due in part to the underground aquifer connected to the Connecticut River. The Meadowbrook Stream watershed area seems particularly vulnerable to flooding, and many residents there have complained about flooded basements during rainy periods. (The watershed runs parallel to Route 47, to its east, in the flatlands from the Hadley line to the Sunderland Bridge.) Also, the town's drainage ditches, traditionally maintained by farmers, have become clogged in recent years. This clogging may be contributing to the local flooding problem. However, a 2013 master's thesis by Colleen Samson studying the local hydrology concluded that the underground aquifer is likely the major cause of flooding in the

Meadowbrook Stream watershed. Anyone considering construction in this watershed should be advised against building a basement.

Moreover, climate change has been bringing heavier rainfalls that may exacerbate the problem. In 2014, the National Climate Assessment—a report by a large group of U.S. scientists—concluded that the Northeast is already experiencing a major increase in torrential rains.

- **Sedimentation.** Sedimentation changes the physical features of a body of water, affecting water depth, surface area, circulation patterns, and flow rates. These alterations can negatively impact water quality, by upsetting the natural process of self-purification. Soil erosion on Sunderland’s many agricultural fields contributes to sedimentation. To prevent sedimentation at construction sites, the town Conservation Commission monitors the sites and often requires siltation fences and hay bales.

- **Development Impact.** Since the recession of 2008, very little development has occurred in Sunderland. The weak economy has provided a window for land to be added to the APR program, and has meant that environmentally sensitive areas of town—such as Mt. Toby—have remained unaltered. At the time of this update, it appears likely that construction of the 150-unit Sugarbush Meadows apartment complex will move forward on Plumtree Road. This development would be exempt from local environmental bylaws, due to its Chapter 40B affordable housing status. However, Sugarbush Meadows will still need to comply with state and federal environmental regulations, which are designed to minimize environmental impacts.

- **Ground and Surface Water Pollution.** Since 2010, there have been four documented cases of hazardous spills and leaking underground storage tanks in Sunderland, some of which have led to groundwater contamination. Sunderland’s proximity to the Connecticut River makes it all the more important that spills and leaks be prevented and quickly cleaned up. In 2010, a spill occurred on Bridge Street at Ben’s Service, a gas station that has since closed. That same year, the Sunoco Station on Amherst Street was found to

have a leaking underground storage tank. Also in 2010, a spill occurred at Delta Sand & Gravel on North Main Street. And lastly, in 2012, a leak was detected in an underground gasoline storage tank at Christy's Market (7-Eleven) on Amherst Road.

Historically, failing septic systems have also contributed to surface and groundwater pollution. Often, these failing systems have not been discovered until a house is sold and found to be non-compliant with Title V septic system regulations.

Another water pollution problem concerns the fish in the Connecticut River. Sadly, most fish species in the river—including American Shad, Yellow Perch and Striped Bass—have been declared unfit for human consumption by the Massachusetts Department of Fish and Game, due to high levels of mercury and/or PCBs. The main source of mercury is coal-fired power plants, located in Massachusetts as well as in the Midwest, which spew particulates into the air that eventually end up in the river. Possibly, improvements may be coming. In April of 2014, the U.S. Supreme Court backed the EPA's authority to regulate emissions from coal-fired plants through the Clean Air Act.

As for PCBs, they were banned in the U.S. in 1977, after production of more than 1.5 billion pounds. Unfortunately, PCBs break down very slowly in the environment and accumulate in food chains. There are no known current sources of PCBs in the Connecticut River, so the toxins in the fish must result from historic contamination.

● **Forestry Issues.** The forests in Sunderland face a number of diseases and pests, with perhaps the most troubling being the Hemlock Woolly Adeldig, an invastive insect that feeds on and kills hemlock trees. The pest, a native of Asia, has no natural predators in the U.S. The hemlocks on Mt. Toby are at risk.

Invasive plants pose an ongoing problem in Sunderland, especially in ponds and wetlands. In Cranberry Pond, the invasive Eurasian Water Milfoil (*Myriophyllum spicatum*) crowds out native aquatic plants and reduces fish habitat. Another invasive, the Common Reed (*Phragmites australis* subsp. *australis*), has been identified in Sunderland

wetlands along Russell Road. The reed produces a toxin that kills neighboring plants, and its deep roots make the reed difficult to eradicate. A third aggressive and invasive plant, Japanese Knotweed (*Fallopia japonica*), is spreading in many of the town's wetlands, overtaking native ferns and other natives.

- **Smog.** Sunderland lies within the Pioneer Valley, whose geography acts as a trap for smog. This makes air quality poor during ozone season, which runs from May through September. In 2014, the American Lung Association again gave neighboring Hampshire County an F (its lowest grade) for air quality, due to the number of days with high ozone levels. Although Franklin County does not own air-quality monitors that track ozone pollution, it is safe to assume that Sunderland's river valley—lying contiguous to the Hampshire County valley—shares the same poor-quality air in the summertime. The smog results from a combination of locally produced air pollution and particulates blowing east from coal-fired power plants in the Midwest.

- **Environmental Equity.** This section requires identifying areas of town that lack open space, for future planning purposes, and evaluating ease of access and quality of resources for different family types, income levels, and physical abilities. Sunderland residents enjoy good access to open space. A free bus PVPA bus runs along Route 116 that can bring residents to the town center, where the playing fields, Town Park, and elementary school playground are located. In the future, if the Sugarbush Meadows apartment complex is built on Plumtree Road, families there might want a playground or playing fields constructed nearby.

Also, town residents can either drive or cycle to the many free hiking trails located on Mt. Toby, which is beautiful in every season.

Progress needs to be made in the area of handicapped accessibility, to bring more town recreational facilities that are “informally accessible” up to code.

5. Inventory of Lands of Conservation and Recreational Interest

Open space is extremely important to Sunderland's quality of life, especially given that Sunderland is a small town with few businesses or commercial diversions. Residents and visitors alike appreciate the beauty of the town's landscape, which offers a pleasing mix of river, farm fields, and mountains. The public associates open space with such positive values as good health, clean air, pure drinking water, locally grown food, wildlife habitat preservation, and a wide range of recreational opportunities. Many residents make active use of the town's open space, through such outdoor pursuits as walking, cycling, boating, fishing, hunting, hiking, camping, bird-watching, cross-country skiing, snowmobiling, and ball sports.

The term "open space" generally refers to land owned by the town and protected from development by town organizations, such as the Water Department or the Conservation Commission; also properties maintained as open space by the State or Federal government; also conservation land owned by nonprofit organizations; and also certain privately owned farm, forest and open-space land.

Open space lands can be grouped into two main classifications: protected and unprotected:

Protected — To protect land under the Massachusetts constitution, a property owner must file a formal dedication by deed or restriction. Land in the Agricultural Preservation Restriction (APR) program is considered permanently protected. Land is also considered permanently protected if the Town of Sunderland or a State conservation agency or public or private landowner has filed a deed or conservation restriction at the Franklin County Registry of Deeds specifying that the land has been reserved in perpetuity and is devoted to conservation, recreation and/or water supply protection purposes.

Unprotected — Private lands are considered unprotected if regulated under Massachusetts General Law, Chapter 61A and 61B; or if State-assessed recreational, agricultural or forested lands. These programs are voluntary, and land can be sold by the

owners at any time. Land is also considered unprotected if owned by a private entity that has not filed a deed/conservation restriction at the Franklin County Registry of Deeds, specifying that the land has been reserved in perpetuity as open space and is devoted to conservation purposes. As of 2014, Sunderland had 1,037 acres enrolled in the Farmland Assessment Program (Chapter 61A), which provides the owner with an annual tax break but does not permanently protect farmland from development.

The town of Sunderland encompasses 9,431 acres. More than 60 percent of its land (just under 6,000 acres) falls under some kind of conservation restriction – meaning the property is owned by a government entity, nonprofit organization, or land trust; or belongs to the state’s Agricultural Preservation Restriction Program (APR); or is in a state Chapter 61 program; or else has its development rights limited in some other way. To date, no land has been protected using CPA funds. Table 5 provides a summary of land with some type of conservation restriction in Sunderland (including unprotected land in Chapter 61 programs), while Table 6 provides a detailed inventory of these properties.

Table 5: Summary of Restricted Land

	Enrolled Acres	Total Acres
APR	891	1,181
Ch 61 (TOTAL)	1,961	2,012

Conservation & Recreation	2,360	2,360
Conservation Restriction	268	314
Watershed	126	126
TOTAL	5,606	5,993
Total area in Sunderland:		9,431
Ch 61 Breakdown:		
<i>Ch 61 (Forest)</i>	835	830
<i>Ch 61B (Rec)</i>	60	62
<i>Ch 61A (Ag)</i>	1,037	1,091
<i>Unknown</i>	29	29

5.a. Private Parcels

More than 1,100 acres of Sunderland’s wonderfully rich farmland have been permanently preserved through the state’s Agricultural Preservation Restriction Program (APR). Some 260 of those acres have been added to the program since 2001. While most of the town’s largest farms have already been conserved, Sunderland continues to actively encourage farmers to participate. Also, as of 2014 there are 1,037 acres enrolled in the Farmland Assessment Program (Chapter 61A), which provides an annual tax break but does not permanently protect farmland from development. As Map 9 illustrates, much of the preserved farmland is located along the Connecticut River and in the southwest portion of Sunderland.

As for Chapter 61’s forestry component, 835 acres of the town’s forested lands are enrolled in 2014. The majority of that land is owned by a local timber products company. Additionally, there are 60 acres in Sunderland enrolled in the recreational component of Chapter 61 (61B). There is a significant area of preserved forestland in northeast area of Sunderland.

Private recreational facilities are provided by many of the apartment complexes, though these are for use by residents and their guests. In 2012, the private Maple Ridge Community Center opened its doors for community use of its indoor tennis courts, performance stage and meeting places. The local Cub Scouts meet there for free.

5.b. Public and Nonprofit Parcels

A total of 2,664 acres in Sunderland are protected conservation, open space or recreational lands owned by government or nonprofit entities. The town owns 198 acres, including lands managed by the Water District (126 acres), Conservation Commission (18 acres), recreational land (19 acres), cemetery lands (7 acres), and other parcels.

The Commonwealth owns 2,184 acres, or roughly 80 percent of the protected public lands found in Sunderland. Most of this land is protected for conservation, recreation or research purposes. These tracts are found mainly in the Mt. Toby area and also include two islands in the Connecticut River. In addition, the U.S. government own 86 acres, including 30 acres on Gunn Mountain Road at the base of Mt. Toby (part of the Silvio O. Conte Refuge) and 56 acres for the Department of Interior Salmon Station on East Plumtree Road.

Several nonprofit entities also own land in town. The Nature Conservancy, a private, non-profit conservation organization, owns 151 acres, located in the Bull Hill area. Amherst College owns 16 acres off of Reservoir Road. The Kestrel Trust owns 5 acres on Mt. Toby. In addition, the Nature Conservancy owns the development rights for 104 acres on Reservoir Road, and the Trustees of Reservation owns the development rights for about 50 acres in various parts of town.

Table 6: Detailed Inventory of Protected Land

Type of Restriction	Map/Parcel	Location	Owner(s)	Protected Acres	Present Holder of Right
APR	9 0 63	Silver Lane	Bagdon, Theresa, Robert & Julie	12.970	C/M (F&A)
APR	10 0 22	Hadley Rd.	Bak, Gerald S. & Wanda M.	8.335	C/M (F&A)
APR	10 0 7	Hadley Rd.	Bak, Gerald S. & Wanda M.	6.274	C/M (F&A)
APR	10 0 9	River Rd.	Bak, Gerald S. & Wanda M.	4.005	C/M (F&A)
APR	11 0 107	Russell St.	Burleson, Mary Ann & Katherine G. Mokrzecky	13.500	C/M (F&A) & Town (SM)
APR	11 0 20	Russell St.	Burleson, Mary Ann & Katherine G. Mokrzecky	14.770	C/M (F&A) & Town (SM)
APR	11 0 30	Russell St.	Burleson, Mary Ann & Katherine G. Mokrzecky	1.205	C/M (F&A) & Town (SM)
APR	11 0 32	Russell St.	Burleson, Mary Ann & Katherine G. Mokrzecky	4.005	C/M (F&A) & Town (SM)
APR	12 0 56	Russell St.	Burleson, Mary Ann & Katherine G. Mokrzecky	10.000	C/M (F&A) & Town (SM)
APR	14 0 21	off Plumtree Rd.	Burleson, Mary Ann & Katherine G. Mokrzecky	22.005	
APR	10 0 139	off Silver Lane	Chin-Yee, Ferdene & Scott Reed	9.400	C/M (Agr) & Town
APR	6 0 119	off South Main St.	Clark, Helen F.	6.330	Trustees of Reservation
APR	10 0 2	River Rd.	Grybko, John A. Jr. & Ann L.	15.000	C/M (F&A)
APR	6 0 132	River Rd.	Grybko, John A. Jr. & Grace J., Irene H. Clancy	17.406	C/M (F&A)
APR	10 0 10	River Rd.	Grybko, John A. Jr. & Grace J., Irene H. Clancy	17.906	C/M (F&A)
APR	13 0 37	Amherst Rd.	Hubbard, Stephen A.	37.700	C/M (DAR) & Town
APR	10 0 8	River Rd.	Kinchla, John W.	5.500	C/M (Agr Res)
APR	10 0 82	Russell St.	Kulesa, Alexander & Joyce	13.764	C/M (DAR) & Town
APR	10 0 43	River Rd.	Lynch, Robert & Meghan Arquin	1.250	C/M (DFA)
APR	10 0 46	River Rd.	Lynch, Robert & Meghan Arquin	12.189	C/M (DFA)
APR	9 0 4	Silver Lane	Manheim, Hugh D.	58.489	C/M (F&A) & Town
APR	10 0 67	Russell St.	Manheim, Hugh D.	10.016	Trustees of Reservation
APR	15 0 3	Hadley Rd.	Manheim, Hugh D.	54.530	C/M (F&A, EM) & Town

Type of Restriction	Map/Parcel	Location	Owner(s)	Protected Acres	Present Holder of Rights (8-
APR	10 0 39	River Rd.	Samson, Raymond & Ann	2.005	
APR	10 0 12	River Rd.	Samson, Raymond & Ann	5.400	
APR	11 0 18	Hadley Rd.	Smiarowski, Charles W. Living Trust	19.104	C/M (F&A) & Town (ConCom
APR	11 0 19	Russell St.	Smiarowski, Charles W. Living Trust	3.300	C/M (F&A) & Town (ConCom
APR	1 0 73	Falls Rd.	Smiarowski, Daniel	17.561	C/M (DEM,DFA)
APR	1 0 155	Falls Rd.	Smiarowski, Daniel	1.600	C/M (DAR) & Town
APR	1 0 72	Falls Rd.	Smiarowski, Daniel	17.300	C/M (DAR) & Town
APR	9 0 67	Russell St.	Storozuk (W&E) Family Trust	20.450	C/M (F&A)
APR	11 0 106	Hadley Rd.	Storozuk, Thomas	11.600	C/M (DFA) & Town
APR	12 0 4	Silver Lane	Storozuk,(Sophie) Family Trust	51.865	C/M (F&A)
APR	15 0 1	Hadley Rd.	Szawlowski Realty, Inc.	33.075	C/M (DFA) & Town (SM)
APR	11 0 33	Hadley Rd.	Telega, Peter M.	3.554	C/M (Secy of Agr) & Town (C
APR	11 0 54	Hadley Rd.	Telega, Peter M.	3.556	C/M (Secy of Agr) & Town (C
APR	11 0 100	Ferry Rd.	Telega, Robinson & Casey	9.700	C/M (DFA) & Town
APR	11 0 35	Ferry Rd.	Telega, Robinson & Casey	5.005	
APR	11 0 36	off Ferry Rd.	Telega, Robinson & Casey	2.005	
APR	11 0 37	Hadley Rd.	Telega, Robinson & Casey		
APR	11 0 31	Hadley Rd.	Telega, Robinson, Casey & Powers	1.005	C/M (DFA), Mass. Highway C
APR	11 0 71	Ferry Rd.	Telega, Robinson, Casey & Powers	1.004	C/M (DFA), Mass. Highway C
APR	11 0 72	Ferry Rd.	Telega, Robinson, Casey & Powers	1.467	C/M (DFA), Mass. Highway C
APR	11 0 91	Ferry Rd.	Telega, Robinson, Casey & Powers	1.006	C/M (DFA), Mass. Highway C
APR	11 0 92	Ferry Rd.	Telega, Robinson, Casey & Powers	0.743	C/M (DFA), Mass. Highway C
APR	10 0 141	Hadley Rd.	Thomas, James E.	8.000	C/M (DAR) & Town
APR	10 0 17	Hadley Rd.	Thomas, James E.	11.480	C/M (DFA)
APR	10 0 40	River Rd.	Thomson, H. DeWitt	4.500	C/M (DFA)

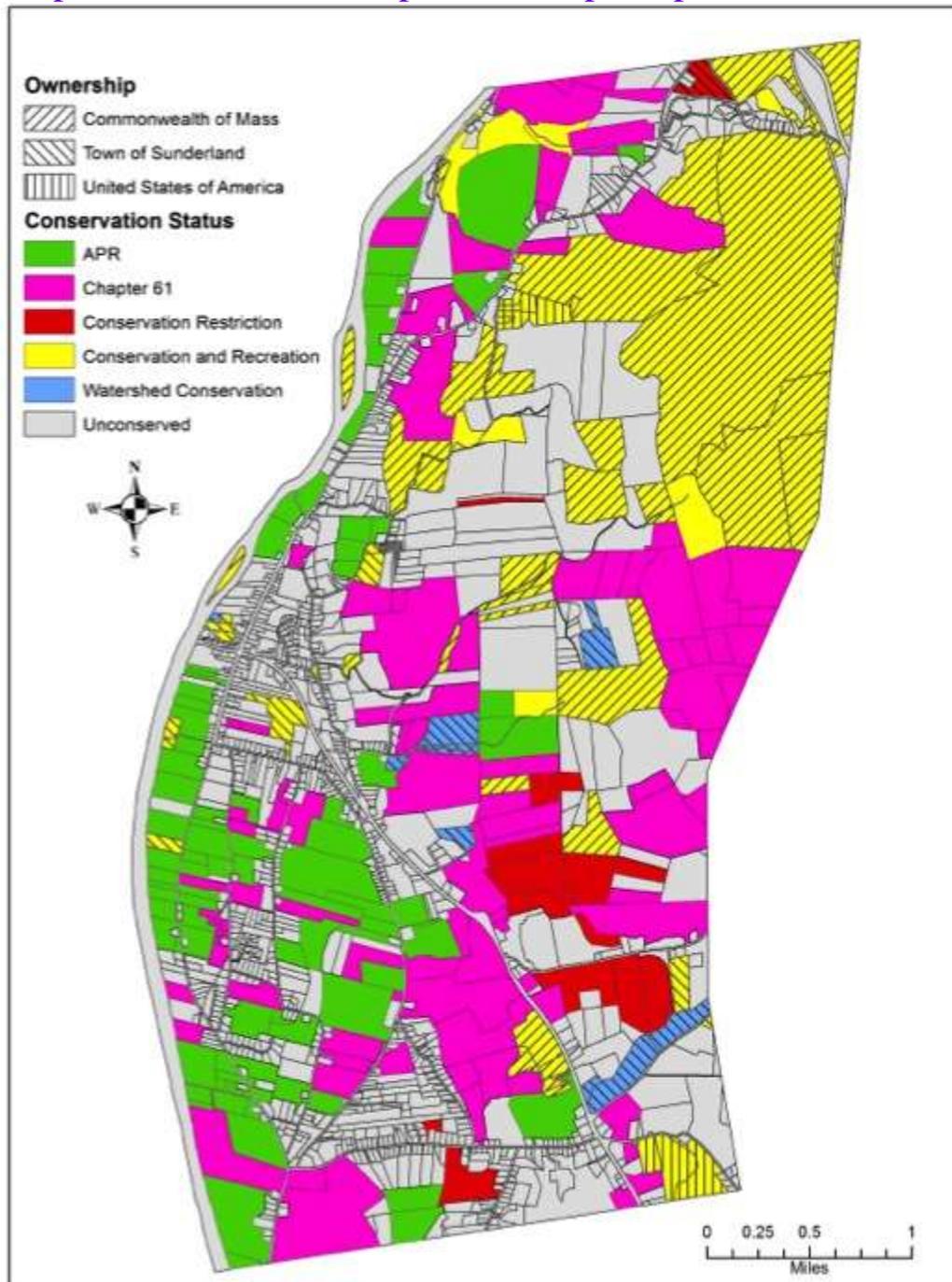
Type of Restriction	Map/ Parcel	Location	Owner(s)	Protected Acres	Present Holder of R
APR	5 0 2	North Main St.	Williams, Robert O. & Barbara E.	6.850	
APR	5 0 5	North Main St.	Williams, Robert O. & Barbara E.	16.145	
APR	2 0 14	North Main St.	Williams, Robert O. & Barbara E.	8.006	
APR	4 0 19	Park Rd.	Williams, Robert O. & Barbara E.	9.605	
APR	4 0 2	Park Rd.	Williams, Robert O. & Barbara E.	11.205	
APR	4 0 20	Park Rd.	Williams, Robert O. & Barbara E.	6.245	
APR	10 0 11	River Rd.	Wissemann, Michael A.	3.863	Trustees of Reservat
APR	6 0 127	off South Main St.	Wissemann, Michael A.	13.390	Trustees of Reservat
APR	6 0 130	off South Main St.	Wissemann, Michael A.	6.929	Trustees of Reservat
APR	6 0 25	off South Main St.	Wissemann, Michael A.	7.940	Trustees of Reservat
APR	10 0 38	River Rd.	Wissemann, Michael A.	6.700	C/M (DFA)
APR	6 0 131	River Rd.	Wissemann, Warner & Pare	14.805	C/M (DFA)
APR	7 0 61	Old Amherst Rd.	Wissemann, Warner & Pare	8.552	
APR	9 0 3	Silver Lane	Wissemann, Warner & Pare	27.049	
APR	10 0 135	River Rd.	Yokubaitis, Estelle M.	6.871	C/M (F&A) & Town
APR	15 0 12	Hadley Rd.	Zuzgo, Jacqueline M. et al	5.000	C/M (F&A, DEM)
APR, CR	1 0 158	River Rd.	Gunn, Stephen	108.783	C/M(Agr Res), USDA
APR in process	6 0 19	off South Main St.	Wissemann, Michael A.	2.285	
APR in process	6 0 20	off South Main St.	Wissemann, Michael A.	1.705	
APR in process	6 0 22	63 South Main St.	Wissemann, Michael A.	2.879	
Cons & Rec	7 0 83	Kellogg Hill	Comm. of Massachusetts	11.163	C/M (FWELE)
Cons & Rec	4 0 30	Middle Mtn. Rd.	Comm. of Massachusetts (DFG)	7.005	C/M (DFG)
Cons & Rec	7 0 120	Middle Mtn. Rd.	Comm. of Massachusetts (DFWELE)	9.420	C/M (DFWELE)
Cons & Rec	7 0 17	Middle Mtn. Rd.	Comm. of Massachusetts (DFWELE)	5.620	C/M (DFWELE)
Cons & Rec	7 0 4	Middle Mtn. Rd.	Comm. of Massachusetts (DFWELE)	19.670	C/M (DFWELE)

Type of Restriction	Map/Parcel	Location	Owner(s)	Protected Acres	Present Holder of R
Cons & Rec (Art. 97)	3 0 32	off Middle Mtn. Rd.	Comm. of Massachusetts (F&G)	30.735	C/M (F&G)
Cons & Rec (Art. 97)	4 0 12	Middle Mtn. Rd.	Comm. of Massachusetts (F&G)	20.000	C/M (F&G)
Cons & Rec (Art. 97)	3 0 6	Middle Mtn. Rd.	Comm. of Massachusetts (F&G)	44.805	C/M (F&G)
Cons & Rec (Ch 132A)	1 0 132	Montague Rd.	Comm. of Massachusetts (DEM)	180.000	C/M (DEM)
Cons & Rec (Ch 132A)	1 0 41	340 Montague Rd	Comm. of Massachusetts (DEM)	46.405	C/M (DEM)
Cons & Rec (Ch 132A)	1 0 34	Reservation Rd.	Comm. of Massachusetts (DEM)	42.630	C/M (DEM)
Cons & Rec (Ch 132A)	1 0 36	Long Plain Rd	Comm. of Massachusetts (DCR)	27.170	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 3	Falls Rd.	Comm. of Massachusetts (DCR)	0.450	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 14	Whitmore Cross Rd.	Comm. of Massachusetts (DCR)	10.605	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 15	Whitmore Cross Rd.	Comm. of Massachusetts (DCR)	3.905	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 16	Whitmore Cross Rd.	Comm. of Massachusetts (DCR)	12.305	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 5	Falls Rd.	Comm. of Massachusetts (DCR)	1.085	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 66	Falls Rd.	Comm. of Massachusetts (DCR)	17.005	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 107	Falls Rd.	Comm. of Massachusetts (DCR)	0.500	C/M (DCR)
Cons & Rec (Ch 132A)	1 0 67	Falls Rd.	Comm. of Massachusetts (DEM)	2.938	C/M (DEM)
Cons & Rec (Ch 132A)	1 0 152	Reservation Rd.	Comm. of Massachusetts (DEM)	7.000	C/M (DEM)
Cons & Rec (Ch 132A)	3 0 5	Toby Wdlt	Comm. of Massachusetts (DEM)	524.247	C/M (DEM)
CR	8 0 38	Bull Hill Rd.	Delta Materials Corp.	29.187	Franklin Land Trust,
CR	1 0 25	Montague Rd.	Sunderland, Town of	17.656	C/M (DEM)
CR (wildlife habitat)	8 0 29	Bull Hill Rd.	Delta Materials Corp.	36.995	Franklin Land Trust,
CR (wildlife habitat)	13 0 110	Bull Hill Rd.	Delta Materials Corp.	1.500	Franklin Land Trust,
CR (wildlife habitat)	14 0 24	off Plumtree Rd.	Klemyk Family Trust	24.800	
CR (wildlife habitat)	12 0 168	Plumtree Rd.	Loos, Ralph & Danielle	0.976	
CR, APR	14 0 20	off Plumtree Rd.	S&J Land Trust LLC	19.035	C/M (DAR), Valley La
Hubbard Well					

Type of Restriction	Map/Parcel	Location	Owner(s)	Protected Acres	Present Holder of Restriction
exempt owner*	4 0 6	Mt. Toby	Kestrel Trust	5.000	
exempt owner*	8 0 26	Bull Hill Rd.	Nature Conservancy	29.825	
exempt owner*	9 0 57	Clark Mtn. Rd.	Nature Conservancy	38.294	Nature Conservancy
exempt owner*	8 0 3	Russell Hill Rd.	Nature Conservancy	13.000	Nature Conservancy
exempt owner*	8 0 19	off Bull Hill Rd.	Nature Conservancy	10.000	Nature Conservancy
exempt owner*	9 0 56	Clark Mtn. Rd.	Nature Conservancy	19.705	Nature Conservancy
exempt owner*	7 0 84	Reservoir Rd.	Nature Conservancy	10.005	Nature Conservancy
exempt owner*	8 0 51	Bull Hill Rd.	Nature Conservancy	9.146	Nature Conservancy
exempt owner*	8 0 27	Bull Hill Rd.	Nature Conservancy	21.704	Nature Conservancy
exempt owner*	7 0 26	Reservoir Rd.	Amherst College	15.105	
exempt owner*	7 0 81	Reservoir Rd.	Amherst College	1.005	
exempt owner*	13 0 109	Hubbard Hill Rd.	Sunderland ConComm	1.512	Sunderland, Town of
Riverside Cemetery	6 0 129	South Main St.	Sunderland, Inhabitants of	0.098	cemetery commissio
accepted as town road	6 0 53A	Warner Way	Sunderland, Inhabitants of	0.077	
accepted as town road	12 0 148	Country Lane	Sunderland, Inhabitants of	0.978	Sunderland, Inhabita
exempt owner*	10 0 3	105-113 River Rd.	Sunderland, Inhabitants of	8.005	Sunderland, Inhabita
no deed restrictions	8 0 43	Bull Hill Rd.	Sunderland, Inhabitants of	14.205	Sunderland, Inhabita
no deed restrictions	8 0 47	Bull Hill Rd.	Sunderland, Inhabitants of	0.190	Sunderland, Inhabita
playground, recreation	5 0 59	School St.	Sunderland, Inhabitants of	1.529	Sunderland, Inhabita
wastewater trtmt plant	5 0 60	School St.	Sunderland, Inhabitants of	1.489	Sunderland, Inhabita
agr or municipal use	6 0 30	76 Swampfield Rd.	Sunderland, Inhabitants of	22.731	Sunderland, Inhabita
exempt owner*	5 0 134	20 School St.	Sunderland, Town of	0.885	
exempt owner*	5 0 65	12 School St.	Sunderland, Town of	1.550	Town (SM)
exempt owner*	4 0 47	Park Rd.	Sunderland, Town of	2.019	Sunderland, Town of
exempt owner*	5 0 24	North Silver Lane	Sunderland, Town of	0.240	

Type of Restriction	Map/Parcel	Location	Owner(s)	Protected Acres	Present Holder of Record (8-2012)
exempt owner*	12 0 27	Amherst Rd.	Comm. of Massachusetts	1.005	
exempt owner*	12 0 28	Amherst Rd.	Comm. of Massachusetts	0.040	
exempt owner*	1 0 38	Long Plain Rd	Comm. of Massachusetts	2.405	
exempt owner*	1 0 40	Long Plain Rd	Comm. of Massachusetts	3.005	
exempt owner*	12 0 26	Amherst Rd.	Comm. of Massachusetts	6.655	
exempt owner*	13 0 1	Amherst Rd.	Comm. of Massachusetts	22.006	
exempt owner*	13 0 2	Amherst Rd.	Comm. of Massachusetts	5.975	
exempt owner*	13 0 32	Amherst Rd.	Comm. of Massachusetts	0.600	
exempt owner*	13 0 33	559 Amherst Rd.	Comm. of Massachusetts	43.495	
exempt owner*	13 0 34	Amherst Rd.	Comm. of Massachusetts	0.200	
exempt owner*	13 0 35	Amherst Rd.	Comm. of Massachusetts	2.305	
exempt owner*	13 0 36	Amherst Rd.	Comm. of Massachusetts	1.195	
exempt owner*	3 0 3	Toby Wdlt	Comm. of Massachusetts	726.200	
exempt owner*	3 0 4	Toby Wdlt	Comm. of Massachusetts	54.505	
exempt owner*	8 0 21	Russell Hill Rd.	Comm. of Massachusetts	25.500	
exempt owner*	2 0 64	Second Island	Comm. of Massachusetts (DFW)	6.000	
exempt owner*	5 0 103	First Island	Comm. of Massachusetts (DFW)	3.000	
exempt owner*	2 0 12	North Mtn. Rd.	Comm. of Massachusetts (F&G)	8.946	C/M (F&G)
exempt owner*	2 0 25	North Mtn. Rd.	Comm. of Massachusetts (F&G)	18.027	C/M (F&G)
exempt owner*	13 0 66	E. Plumtree Rd.	United States of America	21.605	
exempt owner*	13 0 21	E. Plumtree Rd.	United States of America	0.200	
exempt owner*	13 0 65	51 Amherst Rd.	United States of America	10.405	
exempt owner*	16 0 16	E. Plumtree Rd.	United States of America	24.025	
exempt owner*	1 0 147	Gunn Mtn. Rd.	United States of America (Interior)	2.627	US Fish & Wildlife Service

Map 9: Protected and Unprotected Open Space Lands



Source: Sunderland Open Space and Recreation Committee; Sunderland Assessors Office

5.b.1. Accessibility

Sunderland is committed to ensuring that all townspeople benefit from and have access to the unique scenic, cultural and recreational resources and opportunities in town.

Sunderland meets the administrative requirements of the ADA Self-Evaluation report in

that: the town has a designated ADA Coordinator; there is a grievance procedure for the general public; the town has an EOE clause; and individuals with disabilities are active on town committees that assisted with the development of this plan update. Also, the town's ADA Coordinator confirms that the town's employment practices are consistent with ADA regulations.

The town owns 19 acres that are classified as recreational lands. The Town Park, 10 acres in size, is open for public use. The remaining town-owned recreation lands are located around the Town Hall. At this time, this site is well developed for recreational activities with parking, restrooms, and baseball and soccer fields. The parking lot is accessible, and has several designated handicapped parking spaces. The area is flat and grassy, with no curbs present, thus the site is relatively accessible. While the recreational facilities at Town Hall are fully accessible, the bathrooms are not, as the stalls are too narrow to accommodate wheelchairs. Fortunately, the Sunderland Public Library, built in 2004, has fully accessible bathrooms adjacent to the playing fields.

The Conservation Commission manages the Mt. Toby Meadows Conservation Area (18 acres). Pull-in parking is available at this site and there is one handicapped parking space directly adjacent to the trailhead. The Conservation Commission manages one other site, a small area, 1.5 acres, which is primarily used for conservation. No public access is provided at this site, nor is there any planned in the future. At present the Conservation Commission works on a case-by-case basis with permittees, thus ensuring the permitting processes are accessible for those with visual or auditory impairments. Future educational and informational material will include large-print and auditory material, where practical.

The ADA Self-Evaluation Inventory can be found at Appendix 3.

6. Community Goals and Vision

6.a. Description of Process

Sunderland residents have played an important role in shaping this plan, through a public forum, a paper survey, and a townwide phone survey. In addition to public participation, members of various boards were interviewed to help further enhance and refine the goals.

A public forum was held on October 10, 2012 at the Sunderland Public Library, at which more than a dozen residents discussed their ideas and completed paper surveys identifying their open space and recreation priorities.

During the fall of 2012, a total of 53 residents completed that survey (see detailed results, Appendix 1). In summary, the surveys found:

- Protecting the town's drinking water supplies is a "high priority" for virtually everyone in Sunderland.
- Hiking and biking trails represented a "high priority" for 31 (60 percent) of the respondents. These trails were "somewhat important" for another 22 respondents. No one said they were "not interested" in hiking and biking trails.
- Youth sports, activities on the Connecticut River, and townwide events such as the Fall Festival were all a "high priority" for at least 30 of the respondents. Only five people responded they were "not interested" in these activities. The balance replied that they were "somewhat important."

In addition, a town-wide phone survey conducted on Nov. 11, 2012 resulted in the following input. (The full results are shown in Appendix 2.)

- An overwhelming majority (more than 90 percent) said it is important for Sunderland to keep its rural character.
- Residents were equally divided on whether Sunderland needs more recreation facilities, such as playing fields and bicycle trails.
- A majority of respondents (more 60 percent) think Sunderland should improve access to the river.

6.b. Statement of Open Space and Recreation Goals

In essence, the goal of this plan is to balance the desire for protecting what is "Sunderland" with the rights of landowners, the needs for recreation, and responsible natural resources stewardship.

Sunderland has many rich and valuable natural resources. The water supplied by the aquifer on Mt. Toby is extraordinarily pure and abundant. There are outstanding views of farm, field, river and mountain. The town has some of the most productive farmland in New England, and outstanding recreational and cultural opportunities. There are also

regionally important fish and wildlife habitats. These exceptional natural and cultural resources provide many values to the residents of Sunderland. It was obvious in survey responses that the residents of Sunderland hold many of these resources close to their hearts. The overriding concern identified by townspeople remains preserving the quality of life found today in Sunderland, i.e. how to protect that "rural, small-town feeling."

The overall goal of this plan can best be stated using the words of one of the board members interviewed: "What I'd like to see in 50 years when I stand on top of Sugarloaf and look down on Sunderland is what I see now: productive farmlands, beautiful green mountains, and a nice place to live."

7. Analysis of Needs

7.a. Summary of Resource Protection Needs

7.a.1: Agricultural Preservation

Agricultural preservation is one of the important needs in town. Sunderland has a large amount of state prime and significant agricultural soils, and is thus of regional and state importance. Though most of the prime and significant agricultural soils are in the Prime Agricultural District, there are continuing pressures to develop these lands. From 1971, there has been a loss of over 400 acres of agricultural land, most of which has been due to residential development. Although there are programs that do help reduce these pressures, their effectiveness varies. Chapter 61A, which provides a tax abatement for enrolled agricultural lands is of limited protection value. This is evident by the continued removal of agricultural lands for development from the program. The best long-term conservation tool for preserving farmland in town remains the APR Program.

7.a.2: Water Supply Protection

The town's water supply also needs to be protected. This is supported by the results of the paper survey, in which nearly all respondents listed water supply protection as a high priority. The primary tool used to date to address water supply protection is Sunderland's Water District Overlay Zone, added to the zoning bylaws in 1982. There is also a similar aquifer protection district designation for portions of the watershed that are in neighboring Leverett. However, even with these overlay districts, zoning alone cannot ensure the protection of Sunderland's water supply. Unsuitable development - either housing development or commercial resource development - could still occur in the

various recharge areas. This could impact recharge areas and cause contamination, reduction in recharge ability or changes in drainage patterns that could put the aquifer at risk. The other major water supplies in town also receive their waters from the same general area as the Long Plain aquifer, and are similarly at risk. Zoning, even at low densities, does not address all contamination threats facing the water supply (i.e. use of pesticides and fertilizers, severe erosion and disruption of recharge ability).

Most of the innovative planning tools in town, (i.e. flexible development, Transfer of Development Rights (TDR), and open space developments), are only suitable for larger subdivision type development. What is lacking are equally innovative tools for frequent single-lot development. For this type of development, current zoning may not be adequate for fulfilling the goals of the town or for the protection of critical resources. This may especially be true in the Watershed District. In the past, the added costs of road building and special septic design kept building pressure low in this area. If housing demands increase, however, these added costs may not be an adequate deterrent. Moreover, with low-density development, fragmentation of habitat may be increased due to road building, lot clearing and utility access. This fragmentation reduces the amount of forest interior available for those wildlife species that require it. These same factors may also pose risks to the aquifers. The majority of this area is privately held forest lands. A small portion of this land is in chapter 61.

7.a.3: Wildlife and Fish Habitat Protection

There is also a continued need to ensure adequate wildlife and fish habitat protection, particularly in the northern part of town in the area of Mt. Toby. An inventory of wildlife and fish species and native habitats is needed to determine areas of high biodiversity and unique fauna communities in town. There also needs to be an increased awareness about the various threats to the natural communities found in Sunderland (i.e. pollution and habitat degradation). Finally, some of the habitats found in town, such as old fields, may need to be actively managed or created. Working with private landowners to promote wise land stewardship and conservation on their lands is a vital part of ensuring the viability of the fish and wildlife species and natural communities in town.

7.a.4: Scenic Resource Protection

The protection of scenic resources is also important to maintaining the overall rural, small-town feeling of Sunderland. The loss of almost 700 acres of agricultural land and

forest over the past 40 years demonstrates how the rural, small town feeling of Sunderland can be overtaken by development pressures. Progress towards the goal of maintaining the scenic character of the town has been achieved in recent years, through passage of the River Protection Act and Scenic Byway designation for Route 47.

7.b. Summary of Community's Needs

7.b.1: Rural Character and Farmland Protection

Preserving Sunderland's rural character, and especially its prime farmland, remains very important to many residents. Between 2001 and 2013, the amount of farmland enrolled in the APR program increased from 700 acres to 1,140 acres. A study conducted in 1998 by Kristen K. Norwood helped to identify and prioritize key agricultural lands in Sunderland for future protection.

The Cranberry Pond Watershed Conservation and Management Plan, established in 1996, also demonstrates progress towards achieving the goals set forth in prior Open Space Plans. Management of the Cranberry Pond Watershed has led to the protection of a highly diverse area that also provides an important habitat linkage between the Mt. Toby highlands and the Connecticut River. The area also provides numerous recreational opportunities including hiking, fishing, and canoeing. In addition to the Cranberry Pond Watershed, the Conservation Commission also established the Mt. Toby Meadows Conservation area in 1996, for the purpose of the conservation and protection of wildlife habitat and natural environmental systems as well as outdoor recreational uses.

7.b.2. Connecticut River Access

Access to the Connecticut River is also an important issue for many residents.

7.b.3. Scenic Area Access

Many of the most scenic spots in town are on private property, especially the many popular waterfalls. Many residents are concerned about having access to these valued places denied in the future.

7.b.4. Fostering a Sense of Community

Another concern is how to foster the sense of community in Sunderland. Additional opportunities for recreation and town activities that could occur adjacent to the school

and town offices are in the process of being assessed. Taxes are an issue for many Sunderland residents. Some people feel that the town cannot afford to protect land or natural resources because it will increase the tax burdens on the landowners in town. Thus, the Conservation Commission has developed a special information pamphlet on the financial benefits to the town of protecting open space.

7.b.5. Meeting the Needs of the Elderly and People with Disabilities

Although the UMass student population of Sunderland remains eternally young, the average age of other Town residents continues to rise. Currently, Sunderland does not have an Elder Recreation Program Committee to oversee recreational facilities and programs for its aging population. In general, the elderly need indoor exercise facilities for the winter months, along with flat outdoor walking trails and short trail circuits that can provide exercise without being overly strenuous.

The needs of the elderly may in some cases overlap with the needs of people with disabilities, particularly regarding pathways that are flat and handicapped accessible. The town needs more handicapped-accessible bathrooms, particularly at the town playing fields. The town sidewalks, which are bumpy and uneven in many places, need to be upgraded so that they can be navigated in wheelchairs, providing access to town facilities and playing fields. Additional town facilities such as the Town Park need to be upgraded to meet ADA regulations.

7.b.6. Statewide Comprehensive Outdoor Recreation Plan

The Statewide Comprehensive Outdoor Recreation Plan (SCORP), Massachusetts Outdoors 2006, is a five-year plan that can help Sunderland identify broader statewide and regional needs. (A 2012 SCORP update remains in draft form.) Massachusetts and other individual states develop SCORPs as planning tools and to establish eligibility for federal Land and Water Conservation Fund grants.

The Massachusetts SCORP provides an overview of current recreational opportunities in the state, and reports on what residents have requested for the future. Across the state, “the need for more trails, especially those closer to where people live, was most frequently mentioned as a real need,” the SCORP states. “There is a strong desire for more car-free recreation options, meaning options where a resident would not have to get in his or her car to access a recreational activity. Respondents want more town or city-

wide trail systems, loop trails within long distance trail networks that can be completed in a shorter amount of time, and urban trails that connect to water bodies.” Many Sunderland residents agree. They too have expressed a desire for trails in the town center that would also be handicapped-accessible and usable by the elderly—and the Sunderland Community Pathways Committee is currently involved in the planning process to make this a reality.

Regarding the Western Massachusetts region, the SCORP found that:

- Hiking is a popular activity. When asked about facilities respondents would like to see more of, Western Massachusetts residents mention hiking trails more often than residents of other regions.
- Western Massachusetts residents have to travel farther to their recreation destination than those living in the eastern part of the state.
- Western Massachusetts residents are most likely to drive to places of recreation, likely due to the travel time involved and the lack of public transportation.
- SCORP survey respondents from Western Mass. placed the highest priority for new facilities on road biking (14%), walking (14%), swimming (14%), playgrounds (11%), hiking (10%), and mountain biking (10%)”.

Lastly, residents who attended SCORP public meetings often cited the need for more boat ramps and better access to the water. This is relevant for Sunderland, which lies along the Connecticut River—yet whose main boat access is a steep and poorly maintained dirt road near the Sunderland bridge.

7.b.7. Additional Needs and Ideas

During the fall of 2012, Sunderland residents submitted many excellent ideas for improving open space and recreation opportunities in town. If town volunteers become inspired - or if tax revenues improve - some of these could become reality!

- Park with gardens and benches
- A second playground in the Town Center
- Outdoor concerts

- Community gardens
- Weekly farmer's market
- Cross-country ski trail/circuit
- Mountain biking tours on Mt. Toby
- Kayak/canoe rentals on Connecticut River
- Boardwalk along Connecticut River
- Guided tours of the Sunderland Caves
- Guided tours of the Irish Paddy Farms
- Guided farm tours

7.c. Management Needs, Potential Change of Use

Communication could be improved between the autonomous Water District and other town boards. The Water District is politically autonomous from the Sunderland Board of Selectmen, established by authority of the State legislature. The Water District may install water lines, raise rates, or reallocate water amounts, independently from the Board of Selectmen, other town boards or input from a wide cross-section of Sunderland residents. This often leads to decisions being made by the Water District that can directly threaten many town goals for resource protection and growth management. By working together, the town can use the provision of town services to guide growth into areas that are most suitable.

Communication is also very important between the Planning Board, Conservation Commission, and Select Board. This is especially important when considering the town's right of first refusal option for Chapter 61 lands and areas in the resource protection districts.

It is important to recognize that aquifers and other water resources do not necessarily fall within the limits of a single town. For example, town wells in Montague and Turner's Falls are fed by an aquifer that originates from the area of Cranberry Pond in Sunderland. This aquifer is the source of public water for three communities of Montague. This demonstrates the critical need for cooperation between towns to ensure the future quality and quantity of these important resources.

8. Goals and Objectives

The overriding goal of this plan is to ensure the protection and conservation of the various resources that create the high-quality living environment that Sunderland residents value. Many town residents are interested in making Sunderland a greener place, whether that means preserving rare species or improving bicycle lanes. The following list of goals and objectives were developed with various town committees and public input via a survey of town residents, and informal discussions with committee members involved in the planning process.

While townspeople have put forward many excellent ideas for additional programs and facilities, it is important to set realistic goals. Limiting factors include Sunderland's small population, its tight budget, and the decline of volunteerism. In addition, it is important to recognize that any new facilities – whether a softball field, a pavilion for town festivals, or a scenic vista – will need to be cleaned and maintained over the long term.

Responsibility for upkeep must be clearly designated, and long-range costs must be taken into consideration.

Moreover, the goals set forth here must take account of open space and recreation priorities already agreed upon by other town committees in recent years, including the Community Preservation Committee and the Board of Selectmen. Many people have invested long hours in developing these objectives, and this plan – in light of the town's limited resources – should enhance those efforts, rather than divert energy to additional projects.

Goal One: Protect the Natural Resources of Sunderland

- a. Protect agricultural land, especially prime farmland in the southern part of town.
- b. Protect wildlife habitats, especially around Mt. Toby in the northern part of town.
- c. Strengthen protection of water supply.
- d. Support development of solar farms and other forms of alternative energy production.

Goal Two: Preserve Sunderland's Rural Character

- a. Protect the town's scenic resources.
- b. Protect and enhance historic and cultural sites, buildings and landscapes that give Sunderland its rural character.

Goal Three: Provide Diverse Recreational Opportunities for Residents

- a. Enhance Sunderland's sense of community.
- b. Expand and enhance recreational facilities.
- c. Improve access to the Connecticut River.
- d. Develop and expand opportunities for outdoor activities.
- e. Support efforts to enhance bikeways and other alternatives to car travel.

Goal Four: Improve Management, Communication and Coordination

- a. Enhance communication and coordination between town boards and offices.
- b. Work with state and federal agencies and private groups to achieve open space and recreation planning objectives.
- c. Establish improved communication and coordination with neighboring towns.

9. Seven-Year Action Plan

Listed are actions needed to achieve the goals and objectives identified above. These actions are not rigidly prioritized, because achieving them depends on many unknowns, such as availability of funds and volunteer workers, development pressure and public support.

Table 7: Seven-Year Action Plan

<i>GOAL</i>	<i>OBJECTIVES</i>	<i>ACTIONS</i>	<i>RESPONSIBLE PARTNERING</i>
GOAL 1: Ensure that the town continues to protect its valued natural resources, including farmland, wildlife habitat, and water resources.			
	Continue to encourage the protection of farmland.	Support public education around the value of farmland in Sunderland through periodic public forums and workshops.	Ag Comm and LFG; CISA; M
		Promote the availability of funds to help preserve farmland, through Agricultural Preservation Restriction (APR) Program, or other public and private conservation programs.	Ag Comm; La MDAR; MFB
		Support education of agricultural landowners, especially concerning protection options.	Ag Comm; La FRCOG
		Provide administrative support for APR application process.	Town Ag Com
	Continue to encourage the protection and stewardship of wildlife habitat.	Continue to identify and prioritize important wildlife areas and unique habitats for conservation, especially on and near Mt. Toby.	OSRP Comm; NHESP; CPC
		Support efforts to connect existing open-space areas, in order to create continuous wildlife corridors.	OSRP Comm; NHESP
		Support public education for willing landowners to support wildlife management and conservation on private lands through periodic public forums and workshops.	OSRP Comm; NHESP; DCR
		Identify opportunities to promote the conservation and responsible management of private timberland and working forests.	Con Comm; M
		Promote increased recycling and composting to reduce the amount of materials going into the solid waste stream.	Energy Comm
		Enhance surface water quality by improving public awareness and promoting the annual household hazardous waste collection day.	Energy Comm
		Support efforts to re-open the town brush pile to minimize inappropriate disposal of materials.	Energy Comm

<i>GOAL</i>	<i>OBJECTIVES</i>	<i>ACTIONS</i>	<i>RESPONSIBLE PARTNERING</i>
GOAL 1 (cont.) Ensure that the town continues to protect its valued natural resources, including farmland, wildlife habitat, and water resources.			
	Strengthen protection of Sunderland's water supply.	Evaluate the aquifer protection provided by current zoning overlay zone.	Planning Board
		Work to implement any changes needed to ensure aquifer protection.	Planning Board
		Support acquisition of threatened aquifer lands in north Sunderland.	Town; Land Trust
		Work to prevent water pollution from septic systems and storm-water overflow.	BOH; MassDE
		Promote water conservation in town through public outreach and education.	Energy Comm
	Support the development of solar arrays and other forms of alternative energy production.	Conduct public outreach and education on alternate forms of energy production for homeowners and landlords.	Energy Comm
		Continue to encourage energy conservation on the residential, commercial, and municipal levels through public outreach and education.	Energy Comm
		Encourage the installation of solar energy for residential, commercial, and municipal sites.	Energy Comm
		Encourage siting of solar collectors on land that is not prime farmland.	Energy Comm
		Provide information to farmers on state programs for agricultural energy	Energy Comm
GOAL 2: Ensure that Sunderland sustains its rural character.			
	Protect important and valued scenic resources.	Support creation of Scenic Byway overlay district, in town's zoning bylaw.	OSRP Comm
		Provide public education about potential negative impacts to scenic resources.	OSRP Comm
		Protect scenic corridors along Connecticut River.	OSRP Comm
		Help improve maintenance of scenic vistas along Connecticut River.	OSRP Comm
	Protect and enhance historic and cultural sites, buildings and	Support activities that educate town residents about its historic district and other historic resources.	Hist Comm; C

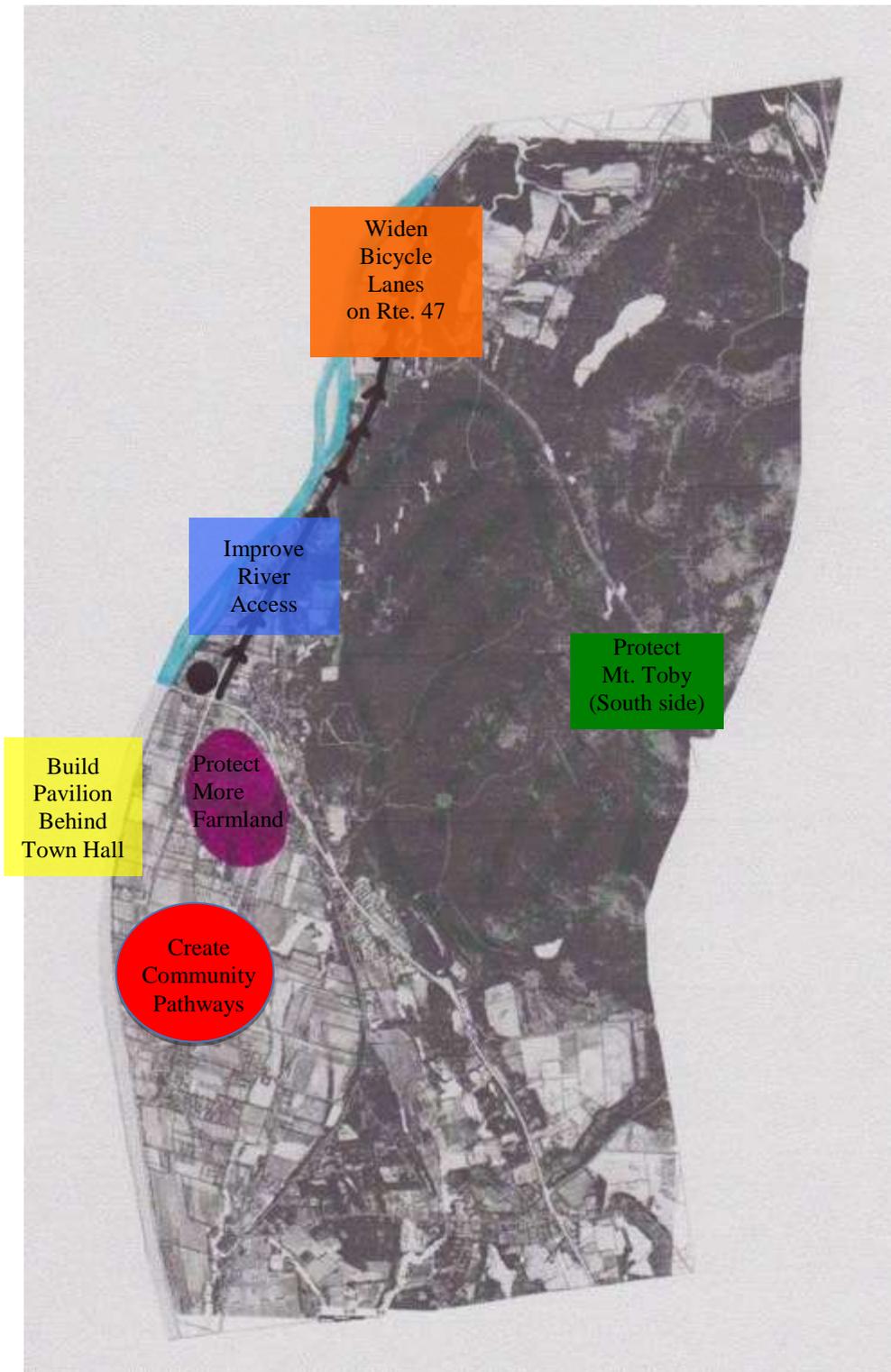
<i>GOAL</i>	<i>OBJECTIVES</i>	<i>ACTIONS</i>	<i>RESPONSIBLE PARTNERING</i>
GOAL 3: Ensure that the town provides diverse recreational opportunities for residents.			
	Enhance Sunderland's sense of community through recreation.	Support efforts to create the Sunderland Community Pathways, a series of biking and walking paths in the center of town that would link key attractions and provide places to meet.	SCPC; Rec Co Private cycling organization
		Explore possibility of building a pavilion behind Town Hall, to provide a place for more community activities.	OSRP Comm;
		Promote town-wide activities and events, including the Fall Festival.	FF Comm; Rec
		Promote use of the Town Park for recreational opportunities.	Rec Comm
	Increase and enhance recreational facilities in Town.	Support creation of the Sunderland Community Pathways, to promote exercise in the town center and throughout Town.	SCPC; Rec Co
		Enhance the capability of the school to provide for recreational activities, nature study and community activities.	Rec Comm; O officials
		Support upgrade of school playground, to meet current code and enhance safety.	Rec Comm; O
		Explore possibility of creating a softball field at the school athletic fields.	Rec Comm; O Planning Board
		Ensure equal access to recreation for all people in Sunderland.	Rec Comm; O
		Explore possibility of improving accessibility of bathrooms at the town athletics fields.	Rec Comm; O
	Assess the Town's ability to provide adequate recreational facilities and programs for its aging population.	Form an Elder Recreation Program Committee.	Selectboard
		Conduct an assessment of the Town's existing recreational facilities and programs and their suitability for the elder population.	Elder Recreati
		Engage with the Council on Aging as well as other local and regional elder focused	Elder Recreati

GOAL	OBJECTIVES	ACTIONS	RESPONSIBLE PARTNERING
	Support efforts to promote biking and other alternatives to automobile travel.	Construct bicycle lanes on Route 47, with the goal of providing safer bike travel on the popular stretch between Route 116 and Falls Road.	MassDOT; Bike Rec Comm
		Explore improvements to bikeways for bike commuters.	MassDOT; Bike Rec Comm
		Explore the possibility of linking Sunderland's bikeways with rail trails in other towns.	MassDOT; Bike Rec Comm
		Study other improvements to bicycle lanes in town, to make biking safer for families with young children.	BikeMass; Pla

GOAL 4: Improve management, communication and coordination between Town officials, boards, committees and other organizations and initiatives.

	Support an ongoing and active Open Space and Recreation Committee to help oversee the success of the plan in the coming seven years.	Work to identify a group of willing volunteers to serve on an ongoing and active OSRP Committee.	Select Board; 7
	Improve communication and coordination between Town boards and offices.	Investigate strategies for enhancing communication with all boards.	Select Board; 7
		Investigate strategies for the inclusion of wildlife conservation and recreational values in the design of major developments.	Planning Board
		Seek endorsement of the OSRP by all town boards and committees, highlighting any goals and strategies that require their attention	OSRP Comm; and committee
	Work with State and Federal agencies and private groups to achieve the Open Space and Recreation objectives.	Strengthen the working relationships with staff from the U.S. Fish and Wildlife Service's Silvio O. Conte National Fish and Wildlife Refuge along the Connecticut River.	OSRP Comm; Service

Map 10: Action Plan Map



10. Public Comments

A draft of this plan update was posted on the town website for six months, starting in November of 2012. Although the Open Space Committee did not receive any formal comments about the draft from town residents responding to the draft online, the process of preparing this update helped spark creation of the Sunderland Community Pathways project. This project promises to improve recreation opportunities in the town center before the Sunderland Tricentennial in 2018.

Letters of endorsement for this update appear below, from the Sunderland Board of the Selectmen, the Sunderland Planning Board, the Sunderland Conservation Commission, and the Franklin Regional Council of Governments (FRCOG). In addition, FRCOG has submitted comments on the update.

TOWN OF SUNDERLAND



BOARD OF SELECTMEN
12 School Street, Sunderland, MA 01375
PHONE: (413) 665-1441
FAX: (413) 665-1086

July 1, 2013

Ms. Melissa Cryan
Executive Office of Energy and Environmental Affairs
Division of Conservation Services
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Town of Sunderland Open Space and Recreation Plan

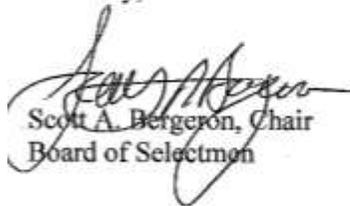
Dear Ms. Cryan:

The Town is pleased to submit the attached update of its original Open Space and Recreation Plan which reflects a thorough assessment of the Town's open space and recreation needs. As in the past, the Town will be using this plan as a guide to protect and manage its open space and recreation resources and to develop new resources to meet its recreational needs. This plan update is also based on several efforts which continue to focus on preservation and enhancement of the community's character and resources.

The Selectboard, at its July 1, 2013 meeting, unanimously voted to endorse this update. The Board authorizes its submittal, and urges the Division to approve the plan. Additional letters of support from various Town departments and boards are enclosed, and reflect the broad community support for the recommendations contained herein.

Should there be any questions regarding this draft, please contact the Board of Selectmen's office at (413) 665-1441.

Sincerely,


Scott A. Bergeron, Chair
Board of Selectmen


David J. Pierce, Vice Chair


Thomas D. Fydenkevez, Clerk

PLANNING BOARD



TOWN OF SUNDERLAND MASSACHUSETTS

Town Offices: 12 School Street
Sunderland, MA USA 01375 PHONE: (413) 665-1442
FAX: (413) 665-1446 Email: townclerk@townofsunderland.us

July 11, 2013

Ms. Melissa Cryan
Executive Office of Energy and Environmental Affairs
Division of Conservation Services
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Town of Sunderland Open Space and Recreation Plan, 2013 Update

Dear Ms. Cryan:

The Planning Board of the Town of Sunderland reviewed the 2013 Update to the Town's Open Space and Recreation Plan on Tuesday, July 9th. This plan will guide our work to protect and manage open space and recreation resources, and to develop new resources to meet our recreational needs. The update is based also on several efforts that continue to focus on preservation and enhancement of the community's character and resources.

The Planning Board voted unanimously (5-0) to endorse the plan update. We greatly appreciate the dedication and hard work of the citizens who worked to compile it.

Sincerely,

Teresa B. Jones
Clerk, Planning Board

CONSERVATION
COMMISSION



Town of Sunderland, Massachusetts

Town Offices School Street Sunderland, MA 01375 (413) 665-4414

September 10, 2013

Dear Ms. Cryan,

This letter is written in full support of the updated Open Space and Recreation Plan for the Town of Sunderland. As Chair of the Open Space Committee, Nancy Pick has coordinated an important process to seek input from town residents about what is important to preserve and enjoy in our town. Each goal presented is clearly stated and attainable, while at the same time being in alignment with the priorities of the Conservation Commission.

Throughout the process, town residents have continually expressed a desire to protect the natural resources of Sunderland, preserve Sunderland's rural character, provide diverse recreational opportunities, and improve management, communication and coordination. As we approach our tri-centennial in 2018, we are excited to bring together the success of preserving over 1,000 acres in APR, being recognized for our town's historic and scenic features, and enjoying many recreational aspects all over town.

The Conservation Commission encourages the Commonwealth of Massachusetts to approve our updated Open Space and Recreation Plan with as much enthusiasm as we have, for all its possibilities.

Sincerely yours,

Curtice Griffin, Chair
Sunderland Conservation Commission



Franklin Regional Council of Governments

December 18, 2013

Ms. Melissa Cryan
Division of Conservation Services
251 Causeway Street, Suite 600
Boston, MA 02114

Dear Ms. Cryan:

The Franklin Regional Council of Governments is pleased to endorse the work of the Sunderland Open Space and Recreation Plan Committee. We enthusiastically support their submission of the 2014 Sunderland Open Space and Recreation Plan (OSRP) to the Massachusetts Division of Conservation Services for final review and approval.

The small but dedicated committee has worked diligently to update their plan and to solicit feedback through a public forum and a survey. This comprehensive plan represents many hours of thorough work to gather and analyze data in order to update the text, maps and action plan from the previous plan. The Seven-Year Action Plan, numerous maps and other information contained in the plan provide Town officials and volunteers with an invaluable resource that they can consult to inform decisions regarding land use, recreation and open space. Once approved by the State, this plan will make Sunderland eligible for funding to implement land conservation and recreation projects. In addition, the Town will be better able to collaborate with neighboring towns, local land trusts, the Franklin Regional Council of Governments, and others to plan for growth and development that helps protect Sunderland's treasured local and regional cultural, historical, scenic, archaeological, recreation and natural resources.

We congratulate the members of the Sunderland Open Space and Recreation Plan Committee for completing this project! We look forward to receiving updates from the town as it works to implement the Seven-Year Action Plan.

Sincerely,

Kimberly Noake MacPhee, P.G.
Land Use and Natural Resources Planning Program Manager

11. References

- Connecticut River Greenway State Park, Mass. Department of Conservation and Recreation, <http://www.mass.gov/dcr/parks/central/crgw.htm>
- Executive Office of Energy and Environmental Affairs
Department of Conservation and Recreation www.mass.gov/dcr
Department of Fish and Game, www.mass.gov/dfwele
Department of Environmental Protection, www.mass.gov/dep
Department of Agricultural Resources, www.mass.gov/agr
- Franklin County Bikeway, Greenfield Area Map, Franklin County Regional Council of Governments, http://www.frcog.org/pubs/transportation/Bikeway/grfld_area_map_fr.pdf
- Massachusetts Historical Commission, Massachusetts Cultural Resource Information System, <http://mhc-macris.net/>
- Massachusetts Office of Geographic Information (MassGIS), <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/>
- Massachusetts Statewide Comprehensive Outdoor Recreation Plan, www.mass.gov/envir/dcs
- Mt. Toby Wildlife Management Area, Mass. Division of Fisheries and Wildlife, <http://www.mass.gov/dfwele/dfw/habitat/maps/wma/valleywma/mttobywma.pdf>
- Open Space Planner's Workbook, www.mass.gov/envir/dcs
- Rare Species of Sunderland, Mass. Division of Fisheries and Wildlife: www.mass.gov/dfwele/dfw/nhesp/species_info/town_lists/town_s.htm#sunderland
- Regional Transportation Plan, Draft, Franklin Regional Council of Governments, http://www.frcog.org/services/transportation/trans_rtp.php
- Silvio O. Conte National Fish & Wildlife Refuge, U.S. Fish & Wildlife Service, <http://www.fws.gov/refuges/profiles/index.cfm?id=53590>
- Town of Sunderland Housing Plan, modified April, 2007, <http://www.townofsunderland.us/Sunderland%20Housing%20Plan.pdf>
- Connecticut River Scenic Farm Byway, Route 47, Pioneer Valley Planning Commission, http://www.pvpc.org/activities/ct_river_byway.shtml
- Town of Sunderland, Massachusetts Community Preservation Act guidelines, Open Space and Recreation Projects 2012
- Town of Sunderland, FY12 Community Development Strategy
- U.S. Census, 2010, <http://www.sec.state.ma.us/census/franklin.htm>; <http://www.americantowns.com/ma/sunderland-information>

Appendix 1: Written Survey Results, Fall 2012

Total of 53 responses

What do you care about most in Sunderland?

1. Hiking and Biking

High priority – 31

Somewhat important – 22

Not interested – 0

2. Youth Sports

High priority – 30

Somewhat important – 18

Not interested – 5

3. Connecticut River – fishing, boating, kayaking, etc.

High priority – 31

Somewhat important – 18

Not interested – 4

4. Townwide events, such as the Fall Festival

High priority – 33

Somewhat important – 15

Not interested – 5

5. Protecting the Town's Drinking Water

High priority – 49

Somewhat important – 3

Not interested – 1

Appendix 2: Townwide Open Space and Recreation Phone Survey Results

Nov. 11, 2012

Total of 215 responses

The Open Space Committee conducted a townwide phone survey using Sunderland's Blackboard Connect "mass notification service" on Nov. 11, 2012. Here are the results:

Question 1: Do you think it is important for Sunderland to keep its rural character?

Yes - 199

No - 16

Question 2: Do you think Sunderland needs more recreation facilities, such as playing fields and bicycle trails?

Yes – 109

No – 104

No response - 2

Question 3: Do you think Sunderland should improve access to the river?

Yes – 139

No - 72

No response – 4

Appendix 3: ADA Self-Evaluation Inventory

Name	Address	Description	Handicap parking	Site Access (ramps, handrails)	Picnic Facilities	Accessible/Paved Trails	Playground Equipment	Fields & Courts	I & I
Connecticut River Byway Scenic Overlook	Rt. 47/ Montague Rd.	Scenic Pull-off	No	Yes (flat)	Yes	No			
Cranberry Pond	Reservation Road	Pond	No	Yes (flat to pond)		No			Y
Mt. Toby Trails	Reservation Road	Hiking, Snowshoeing Trails	Yes	No		No			
Riverside Cemetery Pathways	Cemetery Road	Walking Paths	No	Yes (flat)		Yes			
Sunderland Elementary School Playground	Swampfield Road	Playground	Yes	Yes		Yes	Yes	Yes	
Sunderland Elementary Ball Fields	Swampfield Road	Ball Fields	Yes	Yes		Yes		Yes	
Town Ball Fields	School Street	Ball Fields	Yes	Yes		Yes		Yes	
Town Boat Ramp	School Street	Ct. River access	No	No		No			Y
Town Common	North & South Main Streets	Walking Paths	Yes	Yes		Partially (uneven sidewalk)			
Town Park	Park Road	Pavilion & Trails	No	No (though reachable by car)	Yes	No			