

SECTION 4: PLAN ELEMENTS

4.1 Cultural + Historic Resources

4.2 Economic Vitality

4.3 Housing

4.4 Land Use

4.5 Mobility + Transportation

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4.7 Public Facilities + Infrastructure

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Each plan element section contains the following information:

- Introduction
- What the Community Said
- This “Element” Today (Existing Conditions)
- Goals + Policies, Strategies, and Actions
- Systems Matrix



Old Calf Pasture

SECTION 4.6 OPEN SPACE + NATURAL RESOURCES

INTRODUCTION

Concord’s town character is inextricably linked to its natural and rural character – from its large amount of conserved lands to its local farms – and the incredible natural assets and recreational resources that they support. Open space and natural resources are key elements of the historical narrative of the town and the naturalist and literary traditions that were born here, with the landscape and natural resources inspiring the likes of Henry David Thoreau, Ralph Waldo Emerson, Margaret Fuller, Louisa May Alcott, and other transcendentalist authors. Through generations, Concord residents have maintained these strong connections to the landscape and natural resources, demonstrated by conserving and stewarding the town’s natural lands and waters. Current residents still treasure these resources, consistently ranking protecting open space and natural resources as top priorities for the Town. Furthermore, many residents regularly use and enjoy the Town’s trails and parks. As a result, Concord has been able to retain a greater abundance of active agricultural land uses and to commit significant resources towards conserving lands that are considered ecologically or culturally significant as compared to its neighboring towns.

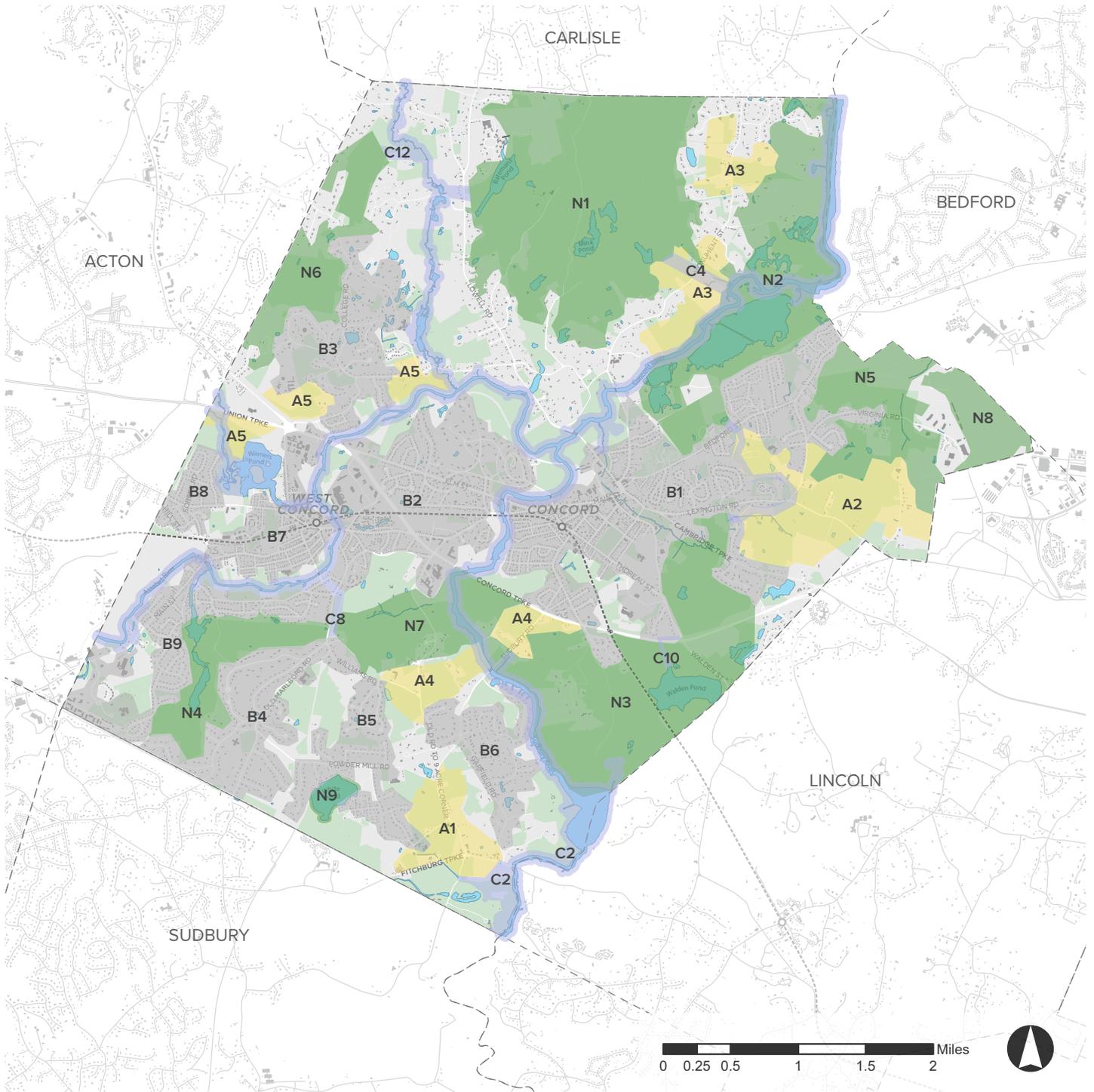
Concord values the many benefits of its public and privately-owned open space and natural resources as a contributor to healthy living in the town. The town’s many conservation lands, trails, parks, facilities and recreational programs have long been treasured by residents and non-residents. The town has continually encouraged and offered an abundance of healthy recreational activities including walking, hiking, running, nature study, swimming, and biking and is committed to providing the facilities and resources to encourage and enable recreational activities for families and individuals of all ages and abilities. Concord’s commitment to providing the resources to improve access and use of these resources is a priority now and in the future, as well as recognizing that some lands are important to protect for the preservation of wildlife and ecological processes that depend on intact and unfragmented natural areas.

The abundance of natural areas and conservation land in Concord contributes to the biodiversity that is unique to a community so close to Boston. Concord has 22 core habitats mapped by the state that contain a concentration of rare natural communities, animals, and/or plants. Concord is home to 16 species listed by the Massachusetts Endangered Species Act and seven non-listed Species of Conservation Concern. As noted in the [2015 Open Space and Recreation Plan](#) (OSRP), a key reason for this is the large intact areas

of natural lands (forests, wetlands, grasslands, etc.) as well as wildlife and water-protection corridors that allow many species to thrive. Notably, Estabrook Woods is Concord’s largest remaining tract of contiguous natural lands with approximately 1,550 acres of intact woodlands in the north section of Concord, 900 of which have been permanently protected. The confluence of three Scenic and Wild Rivers (Sudbury, Assabet, and Concord Rivers) at the heart of Concord also contributes an array of wetlands that provide critical habitat and additional environmental benefits.

This Comprehensive Long Range Plan recognizes the 2015 Open Space and Recreation Plan (OSRP) and the [2014 Recreation Facilities Strategic Plan](#) (RFSP) and reaffirms the importance of the Open Space Framework and multiyear Action Plan detailed in the plans. The opportunity to preserve the parcels (large or small) that have not yet been permanently conserved for conservation or recreation will come only once. When and if these parcels are converted to other public or private uses, the stock of open space is permanently reduced.

In addition to Estabrook Woods, eight other Large Natural Areas are identified throughout town and defined as “patches of relatively natural vegetation that are intact and wide enough to provide a large interior area of forest or wetland (i.e. remote from edge effects and anthropogenic influences).” The Open Space Framework also characterizes Large Agricultural Areas, Built Areas, and Wildlife- and Water-Protection Corridors within Concord (see Fig. 41). Many of the Town goals and priorities regarding open space highlighted in the multiyear Action Plan coincide with the systems-based approach of strategies presented here in the CLRP. For example, the Smart Growth analysis included in Section 4.4: Land Use specifically focuses on siting potential locations for development within Built Areas, prioritizing sites within a half-mile of the rail stations that could accommodate higher density. Such strategic planning can help the Town to balance a variety of land uses into the future, ensuring that priority open space and natural resources are preserved and protected while meeting other land use interests.



2015 Open Space Framework

- Large Agricultural Area
- Large Natural Area
- Built Area
- Wildlife / Water Corridor

Figure 41 Open Space Framework. (Data Source: 2015 Open Space & Recreation Plan)

Large Agricultural Areas	
A1	Nine Acre Corner
A2	Lexington Road
A3	Monument Street
A4	Williams Road/Sudbury Road/Route 2
A5	Reformatory Farms/Barrett's Mill Road

Large Natural Areas	
N1	Estabrook Woods Area
N2	Great Meadows/Ball's Hill Area
N3	Walden Woods/Town Forest
N4	Second Division Brook Area
N5	Virginia Road Woods
N6	Annursnac Hill/Strawberry Hill Road
N7	Jennie Dugan Kames
N8	Hanscom
N9	White Pond

Large Built Areas	
B1	Concord Center/Bedford Street
B2	West Concord/Elm Street
B3	Annursnac Hill/Barrett's Mill Road
B4	Peabody/Sanborn Schools
B5	White Pond Area
B6	Garfield Road
B7	Thoreau School
B8	Hillside Avenue/Sorrel Road
B9	Second Division Brook

Major Wildlife and Water-Protection Corridors	
C1	Assabet River
C2	Sudbury River
C3	Concord River
C4	Saw Mill Brook
C5	Spencer Brook
C6	Second Division Brook
C7	Jennie Dugan Brook
C8	Second Division Brook/Jennie Dugan Kames to Assabet River
C9	Virginia Roads Woods Area to Walden Woods/Town Forest
C10	Town Forest to Walden Reservation via Railroad Underpass and School Land
C11	Nashoba Brook/Warner's Pond
C12	Annursnac Hill/Strawberry Hill Road Area to Estabrook Woods Area
C13	Virginia Road Woods to Great Meadows/Ball's Hill Area

Data Source: 2015 Open Space & Recreation Plan

Conservation planning faces trends and conditions that may make it difficult to continue to preserve current unprotected open space and conserve additional land. These threats to networks of natural habitats including conserved land, residential yards, and other natural areas include (1) increased development, (2) human encroachment on and increased use of open space and the impact this has on natural resources, (3) lack of understanding of the value of conservation land, and (4) allocating adequate resources to maintain and protect the natural resources and open space properties already acquired or protected by the Town, eroding their value.

Continuing to protect open spaces and natural resources in Concord provides the following benefits:

- Maintains the town's character.
- Protects water resources and biodiversity.
- Improves recreational access and connectivity.
- Protects agricultural land.
- Recognizes that open space and natural resources are irreplaceable.
- Increases climate resiliency.

Climate resiliency is an essential component of the Town's larger commitment to its sustainability principles and to implement best practices. In this context, conservation land and natural resource protection provides the following benefits:

- Allows more water absorption to protect water supplies, mitigate pollution, and reduce flooding.
- Protects valuable wildlife habitat and ecosystems that may be vulnerable to climate change, which, in turn, can buffer the built environment from the effects of climate change.
- Protects the human environment by reduced temperatures – surface, building, and water – by shade and reduced built environment.
- Provides opportunities for land to sequester carbon in the soil.

WHAT THE COMMUNITY SAID...

October 2017 Envision Concord Survey

Highlights

(Total of 458 Respondents from mid-September to mid-October 2017)

- Open space and natural resources such as ponds, parks, and trails were considered the #1 category contributing to quality of life and the health of Concord.
- 61% of respondents thought current open space and natural resources are in good shape.
- Open space and recreation opportunities are a major reason people move to Concord.
- Open space conservation, passive and active recreation uses, and farming were four of the top five desired uses for Town-acquired undeveloped land in the future.
- Conservation of open space and land ranked as the #2 priority for the comprehensive planning process.
- Residents regularly use Concord's parks and trails (40% claimed to visit multiple times per week).

Envision Concord website and other input:

- The Natural Resources Commission (NRC) pointed to the *2015 OSRP* as a comprehensive roadmap to use for open space, natural resources, and recreation components of the CLRP.
 - » Highlighted the opportunity for Transferrable Development Rights to help balance the desire to protect open space and promote development in targeted areas.
 - » Encouraged the use of Agricultural Preservation Restrictions to permanently protect farmland.
 - » Recommended increased financial resources to maintain current Town-owned open space and natural resources.
 - » Proposed connecting trails within town and with adjoining communities to improve accessibility.

- » Created the Seven-Year Action Map with recommendations to improve, preserve, and identify new lands and projects for conservation, agricultural, and recreational uses.
- » The NRC continues to promote Public-Private Partnerships as an effective way to acquire and protect conservation land.
- The Agricultural Committee, established after the 2005 CLRP, provided extensive comments regarding the needs of the farmers in Concord. Their report asserts the future of farming in Concord is uncertain for both new and established farms due to the following issues in addition to preserving the land to farm:
 - » Need for farmer and farm worker housing that they can afford.
 - » Providing the infrastructure to successfully run a farm operation, including access to affordably priced clean water and electricity, ability to store farm equipment close to farmland, and out buildings needed for storage, growing, and processing operations.
 - » Developing a stable, local marketplace for locally grown farm products.
 - » Farm succession planning so that farmland is not sold for development and, thus, permanently taken out of farm production.
 - » Access to a farm worker labor pool and the ability to pay them a fair wage.
 - » Town leaders and citizens should generally endeavor to better understand the local farm economy so that sustainable solutions can be developed and implemented, including several innovative solutions identified by the Agricultural Committee.
- Recreation: The 2014 *Recreation Facilities Strategic Plan* highlighted the need for additional parks, fields, and trails to foster healthy living in the community.
 - » Many comments expressed strong support to connect trails throughout town and provide easier access to open space and recreational activities. Several specific sites were identified with suggestions for achieving opportunities to better connect trails to Village Centers, around West Concord, and to the Bruce Freeman Rail Trail.
- Commenters expressed strong support for continued protection of open space and natural resources including protecting more open space in town. Benefits cited included improving climate resiliency and protecting valuable natural resources.
 - Protecting neighborhood trees and planting more trees throughout town.
 - Encouraging the Town and citizens to think about open space, natural resources, and sustainability broadly and systemically, in particular, as its preservation would improve resiliency in the face of climate change.
 - Protecting water resources – rivers, streams, ponds, vernal pools, and wetlands – was a common theme in both Envision comments and reports from groups such as the NRC, OARS, and ConcordCAN.
 - Encouraging more sustainable use of water through innovative new systems such as gray water reuse, finding ways to recharge groundwater in Concord, and educating private property owners on sustainable landscaping.
 - Educating private property owners on how to reduce the use of water, pesticides, and fertilizers on lawns and reduce the need to maintain lawns with gas powered equipment.
 - Strong support in Envision Concord web comments to preserve farmland and promote gardening, including support for community gardens.
 - Commenters encouraged the CLRP to include privately owned land (such as yards) as open space and natural resources to be preserved.

The 2013 survey administered as part of the 2015 OSRP process offers important information on resident views regarding the acquisition of land for conservation purposes:

Rank of Town actions favored to preserve open space, from 2013 Survey (417 respondents)

- | | |
|---|--|
| 1. Promote zoning/planning changes to encourage open space conservation (173) | 4. A combination of public and private partnership funding (131) |
| 2. Acquire/accept conservation restrictions (152) | 5. Acquire easements to connect open space (117) |
| 3. Town purchase of land (139) | 6. Dedicate more town lands for conservation and/or recreational use (105) |
| | 7. Dedicate more town funds to maintain existing facilities (62) |

OPEN SPACE + NATURAL RESOURCES TODAY

The OSRP was completed in 2015 and provides a robust framework for open space and natural resource planning in Concord. Following public meetings and input, there were four “overarching goals” identified by the plan:

1. Protect water resources and biodiversity.
2. Improve connectivity and access to recreational resources.
3. Protect agricultural land including fields, meadows, and orchards.
4. Improve collaboration and land management.

These overarching goals informed planning around the CLRP and are reflected in the open space and natural resources goals listed later in this section. As noted in the introduction to this section, existing open space in town provides a myriad of benefits and serves a variety of needs for residents and area wildlife. Given that public and privately-owned open spaces encompass natural resource protection and recreational resources, it is important to distinguish the role that each of these play in Concord today.

Natural Resources

The OSRP was a comprehensive review of natural and recreational open spaces, geology, regional connectivity, and the Town’s unique natural resources. It identified just under 60% of the town’s land as open space with approximately 38% protected as of 2015, though not all under permanent protection. Since that time, additional properties have been added to the protection list, including Baptist Brook, Black Birch, and October Farm Riverfront conservation lands.

Key characteristics of the town’s open space and natural resources from the OSRP* include:

- Of the 15,936 acres of land in Concord, approximately 6,120 acres, (about 38%) are permanently protected open space, not including the recent additions of Baptist Brook, Black Birch, and October Farm Riverfront conservation lands.
- Publicly-owned open space makes up over 30% of the town’s total land area, of which over 70% is permanently protected, while privately-owned open space makes up approximately 27% of the town’s total land area, of which approximately 57% is permanently protected .

- Five private land trusts protect over 1,000 acres of land. The town is home to the Concord Land Conservation Trust (CLCT), which owns the vast majority of privately protected land in town. Additional land trusts with ownerships in Concord include the Walden Woods Project, Sudbury Valley Trustees, The Trustees of Reservations, and the Lincoln Land Conservation Trust.
- Concord has maintained a rich array of habitat types due to significant conservation that has taken place since the 1960s. In fact, the OSRP notes that “Concord has the highest density of documented rare-species records (about 2 per square mile) of any town between Plymouth and the Sturbridge area.”

** Figures are from the OSRP and differ from acreage calculations in Section 4.4 Land Use + Zoning where Town GIS and Tax Assessors data were used for purposes of identifying existing land uses in town. The prior includes public and private lands dedicated to conservation and includes lands permanently protected through perpetual Conservation Restrictions. The latter only considers the primary use code associated with each parcel as listed in the Tax Assessors data. Additionally, it should be noted that the 2015 OSRP does not include water bodies in the calculation of Concord’s total area and includes state and school land that is subject to temporary protection. If one applies the Town’s total acreage of 16,640 acres to the land that is truly permanently protected, or 5,379 acres, then only 32% of the Town’s area is permanently protected.]*

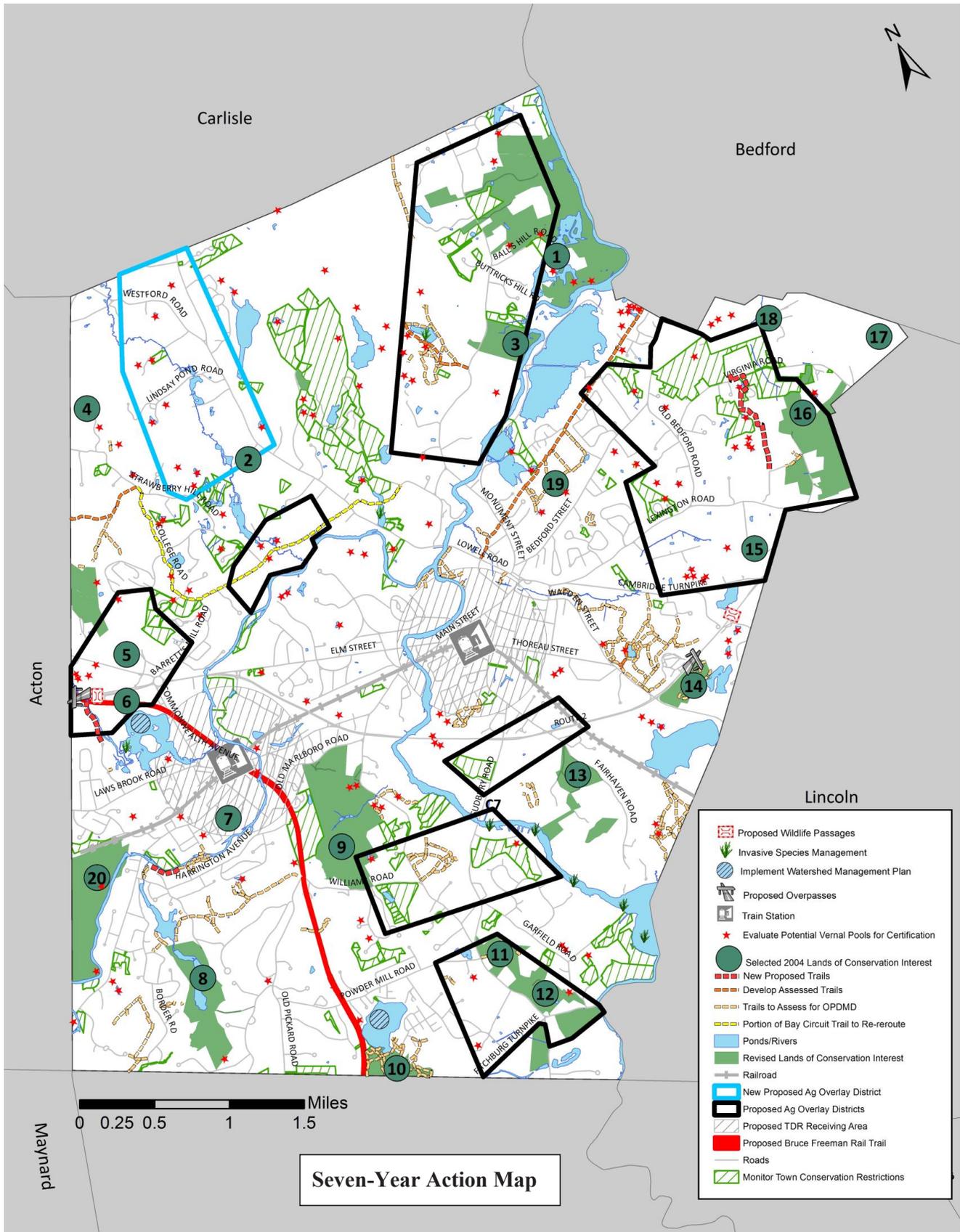


Figure 42 OSRP Seven-Year Action Plan (Source: 2015 Open Space & Recreation Plan)

Along with these assets, Concord faces less favorable trends and important challenges to its open spaces and natural resources.

- Many ponds and waterways in Concord are on the Impaired Waters list, including the Assabet, Sudbury, and Concord Rivers, as well as Warner's Pond. Issues impacting Concord's waterbodies include chemical and pathogenic pollution (current and historic) and the invasion of exotic species (plants and fish).
- According to the 2013 survey that was part of the OSRP, the top three resident concerns around open space and recreation were, "excessive development," "groundwater quantity and quality," and "loss of the natural habitat."
- The community expresses strong concerns around economic pressures to develop open areas, which according to the 2013 Open Space and Recreation Survey, would "negatively impact Concord's character and create spillover effects which would impact natural systems."
- Changes in climate patterns may impact water supplies (quantity and quality), flooding intensity and frequency, natural habitat, ecosystems, disease vectors, and outdoor recreation.

Agriculture

Agriculture has played a significant role in the history and growth of the Town of Concord. It is a major reason for the existence of open land in Town and a key to the preservation and enhancement of Concord's rural character. Earlier Comprehensive Long Range Plans and Open Space and Recreation Plans recognized the value of protecting agricultural land to support Concord's agricultural heritage, improve opportunities for a sustainable local agricultural economy, and preserve scenic vistas. Agriculture is critical to ensuring Concord's rural character is retained.

As shown in Table 9 in Section 4.4: Land Use + Zoning, the 2017 total amount of land in the town protected under Massachusetts Chapter 61, 61A, and 61B (2,101 acres), has remained similar to the 2005 total (2,024 acres). Under this program, property owners of specified size and use receive reduced property tax rates in exchange for the Town receiving first right of refusal for a property sale. However, it is important to note that there has been a noticeable decrease in farmland in the program (Chapter 61A), with forest (Chapter 61), and recreational (Chapter 61B) lands increasing. This is consistent with the concern about the

loss of farmland, although since 2005 the community's efforts have slowed the loss, including the purchase of Hubbard Brook Farm Field (approximately 18 acres) in 2008 and the Irwin land (approximately five acres) in 2017. Currently owned Town parcels including Willow Guzzle and Peter Spring Farm field are in agricultural production, and the OSRP recommended that these parcels be transferred to conservation purposes to protect agricultural interests and, in the case of Peter Spring Farm, to also protect rare species. Permanent protection of these parcels will need to be evaluated in concert with other municipal needs, such as wastewater treatment facilities at the Peter Spring field.

Recreation

Concord's recreational assets contribute vitally to the quality of life in Town and are highly valued. The abundance of publicly accessible open space and trails, including smaller scale spaces located within residential neighborhoods, supports other essential characteristics of the town. Consistent feedback during the Envision Concord planning process has indicated that trails and other recreational planning should remain a high priority for the town. This coincides with surveys completed in 2015 around the OSRP, which found that bike paths, hiking and walking trails, and conservation areas were the top three priorities of residents around recreational facility needs.

Currently, Concord's public recreational resources include seven boat launches, the Beede Center, Cousins Park, Emerson Field and Playground, Hunt Recreation Center, 55 Church Street, Rideout Field and Playground, Ripley Field and Playscape, South Meadow Field, a number of school athletic fields located at the elementary, middle, and high schools, Warner's Pond and White's Pond, and additional facilities located throughout the town. The town also has a wide range of trail types, from formalized bike trails to footpaths, and is actively working with regional partners to connect town trails to a greater active network. The development of the Bruce Freeman Rail Trail in West Concord illustrates one such example that eventually will link 25 miles of trail from Lowell to Framingham.

GOALS + POLICIES, STRATEGIES, AND ACTIONS

Concord’s unique conservation areas, recreational lands and agricultural areas contribute to the town’s character, its quality of life, and its desirability as a place to live, work, and visit. The network of green spaces, wildlife corridors, and waterbodies provide rare/core habitat for flora and fauna. Additionally, these natural resource areas along with recreational facilities and agricultural lands offer protection and resilience in the face of climate change and catastrophic weather events. This network, taken as whole system, is much greater than the sum of the parts and contributes to the overall desirability of the town as a place to live and visit and to the village centers as shopping and dining destinations. The health of the village centers and tax base of the town also provide the necessary resources for ongoing protection and management of these natural assets—creating a mutually beneficial relationship where all elements must be looked at cohesively to ensure ongoing vitality and success in achieving goals.

Active management requires ongoing support in response to a variety of challenges (such as invasive species management, over-use of trails, and climate change). The community’s emphasis on maintenance of its natural resources, including agricultural lands, aligns with the town’s greater goals of sustainability – protecting biodiversity and native species (some of which are rare and under threat), providing climate resiliency, protecting water supplies, and supporting local food systems

Agricultural land management should consider measures to support viable farms, including such infrastructure as housing for farm workers and managers of agricultural lands and other structures (e.g., barns, hoop-houses, greenhouses, farm stands, etc.) in support of modern farming. The long-term financial viability for Concord farmers also rests in attracting new and regular customers in order to support and grow their businesses. Enhanced collaborations are important to supporting agriculture and natural resources and can include raised awareness of these assets and an acknowledgement of how they contribute to the cultural and business vitality of the town by attracting visitors and residents.

The CLRP vision statement embodies many town values, and it will be important to prioritize open space and natural resource protection and growth in a manner that also complements other goals that are important to the town’s overall vitality. Clear guidelines are necessary to protect land for appropriate purposes and to ensure goals are clear and funding is allocated for important conservation and maintenance efforts. In all, this CLRP approaches open space and natural resources not only as an integral part of

town character but also as an element of environmental sustainability, two of the Community Criteria in Section 2: The Vision in Practice, to be woven through all aspects of the plan.

Envision Concord’s plan for Open Space + Natural Resources is organized around the following goals that are divided into three categories: Natural Resources, Recreation, and Agriculture. These goals seek to preserve, strengthen, and capitalize on Concord’s critical natural assets while addressing key challenges in the coming decade and addressing other priorities in town. This section presents each goal along with the specific strategies, policies, and actions necessary to advance it.

NATURAL RESOURCES

Goal 1: Maintain and increase the amount of conservation land and protected open space in order to protect important ecosystems and natural systems.

A look at the map of open space in the OSRP shows an encouraging amount of lands dedicated to agriculture, natural resources, and recreation. The goals of this CLRP recognize the importance of protecting and preserving conservation land for reasons of character and sustainability/resiliency and seek to ensure that the open space that exists today is protected for the future. Rather than take for granted that Concord has an abundance of protected conservation land, the Plan recommends strategies to ensure that appropriate green spaces are protected in perpetuity.

Main protection and enhancement strategies, policies, and actions to advance this goal are:

- Clearly identifying lands to be acquired and conserved within a systems-based approach of balancing goals and values.
- Incentivizing private protection and enhancement of natural resources to support an ethos of land protection throughout the town.
- Utilizing regulatory tools to increase opportunities to protect and enhance natural resources during land planning and development processes.
- Support these goals with public resources and private efforts.
- Identifying additional financial resources to maintain and protect current open space and to acquire new open space for conservation purposes.

Seven action areas will be used to advance this goal:

1. Increase financial resources allocated to maintain and protect current open space and conservation land, as well as supporting acquisition of targeted lands as identified in action item #2 below. Study other possible revenue sources to supplement funds from the Community Preservation Act and state grants, such as a land transfer tax or development tax to be used for land conservation and management. Consider developing public campaigns to raise money for special land acquisition or resource protection projects, particularly those enhancing public access and natural areas for enjoyment and recreation or other specific agricultural or environmental needs.
2. Identify lands of conservation interest using the criteria laid out in the OSRP Seven-Year Action Map, the 2014 Recreational Facilities Strategic Plan, and in this CLRP. Create a definitive map with criteria and priorities that identify acquisition targets for open space, recreation and conservation land. Create this map with consideration for other priorities in town as identified in this CLRP.
3. Expand implementation of Transferrable Development Rights. The 2015 OSRP outlines considerations for new housing and/or an increase in population and these are in line with feedback received during the CLRP planning process (locate housing in walkable areas near services, existing infrastructure, and transit to create more sustainable communities, support the village centers, and reduce auto dependence, among other reasons).
4. Provide education, incentives and support for the creation and protection of natural habitat on private lands. Provide technical assistance to business owners and residents regarding the importance of privately owned lands, vacant lots, residential yards, and other undesignated spaces to the larger network of Town open space. Technical assistance can be provided by the Town to help property owners consider how their land contributes to the overall natural ecosystems and wildlife habitat of Concord and the region.
5. Collaborate with abutting towns and the region on the health and continuity of open space networks and ecosystems across town borders. Land conservation

doesn't stop at the town boundary and flora and fauna exist irrespective of political domains. The Town should continue to work with the West Suburban Conservation Council, the Sudbury/Assabet/Concord Cooperative Invasive Species Management Area, and MAGIC/MAPC as regional initiatives that are currently underway. The Town should seek out opportunities to collaborate with other towns in the region on a host of issues including transportation initiatives, trail connectivity, and coordination of sustainability initiatives to ensure that Concord is contributing to and benefiting from a regional approach to the protection of the ecosystem and the use of resources.

6. Explore impacts of using the 500-year flood plain in the Zoning Bylaw. Consider coordinating with and using regional resources (MAPC) regarding floodplain protection.
7. Encourage private landowners to develop Conservation Restrictions for their land including allowing for public access .

Goal 2: Protect rivers, wetlands, ponds, vernal pools, upland habitats, and other natural resources.

1. Support implementation and enforcement of Wetlands Protection Act (WPA) and Wetlands Bylaw. Both of these protections are proven tools for the Town to protect critical habitat (approximately 50% of the town is under the NRC jurisdiction per the Wetlands Bylaw and WPA) and supporting both implementation of these rules and enforcement with significant penalties for offenders is a good way to ensure that at the local level, the Town is protecting wetland resource areas. The Wetlands Protection Act and Wetlands Bylaw are important first lines of defense that rely on Concord rather than state or federal protections.
2. Educate the public on the Wetlands Bylaw and WPA, including the benefits accrued to the community by its implementation and enforcement and the cumulative impact development in the buffer zones has on ecosystem services provided by rivers, wetlands, uplands, and other natural resources.
3. Restore White Pond and Warner's Pond as part of the Town's efforts to protect and improve the recreational accessibility of its water resources. White Pond is a fragile aquatic ecosystem and as part of the larger



Ponds and Water Bodies

- Water
- Open Space

Figure 43 Ponds and Water Bodies Map (Data Source: Town of Concord GIS.)

White Pond Reservation, provides an important wildlife habitat (it is also designated a Great Pond). Warner's Pond, with its ecological and recreational value to the town, requires extensive dredging to restore its biological resources and recreational usability. Further study and data collection are needed for both projects, and funding should be allocated to restore these important bodies of water.

Goal 3: Ensure that all Concord residents understand the value of conservation lands and natural resources, including the ecosystem services these resources provide, protection of wildlife habitat, rare species habitat, and fisheries, and that actions outside of these resources play a role in their protection.

Natural resource protection is central to the character and values of the town; therefore, it is important that education and information regarding these values be woven into diverse aspects of town life including education curricula, town policies and expenditures, and business practices. The Town's commitment to sustainability is an integral part of its identity and fits well with the history of conservation, agricultural practices, and philosophy in Concord. Ongoing education about the importance to the ecosystem services these conserved natural resources provide (e.g., water filtration, acidification buffering, flood/drought protection), protection of wildlife and rare species habitats, and fisheries and their value to the town can ensure positive impacts for the natural environment and priorities for protecting these resources and promoting a healthy community.

Main educational and communications strategies, policies, and actions to advance this goal through educational efforts, new communications strategies and partnerships, and citizen engagement tools are:

- Ensure that residents and businesses understand the importance of sustainability, land conservation, and natural resources to the town's quality of life and identity.
- Educate residents and businesses on the cumulative impact of human activities and development has on natural resources and the ecosystem services they provide. This includes the activities in wetlands, buffer zones, yards, and upland areas.
- Provide opportunities for residents, and businesses to "live their values" by contributing to tangible strategies to conserve land and natural resources.

- Include sustainability language in descriptions of the town to ensure that key values become part of the everyday life and the attractiveness of the town to like-minded residents and businesses, influence behaviors regarding sustainability and natural resource and land conservation, and build support for associated Town efforts.
- Incorporate "learning by doing" into town life through volunteer days and other opportunities for a grass roots approach to natural resource conservation.
- Incorporate values regarding open space and natural resource protection into educational curricula (e.g. current Blanding's turtle initiatives).

Five core action areas will advance this goal:

1. Promote the civic benefits and ecosystem services that accrue from the cumulative actions of all residents to protect and preserve natural habitats; wetlands, rivers, ponds, and vernal pools and their buffer zones; flood plains, and trees throughout town.
2. Incorporate information about Concord's values and the Town's commitment to sustainability into visitor information and marketing materials for current and potential residents and businesses. Provide educational information and opportunities for visitors about the Town's land conservation efforts and the importance of sustainability.
3. Promote a robust series of volunteer opportunities and service days that are regularly scheduled and become town-wide commitments to sustainability and natural resource protection. Opportunities may include service days that provide volunteer and project options in a wide range of areas including recycling awareness, special projects on farms, open space trash cleanup, poster competitions, and other ideas. The Town already contributes to robust volunteer events and opportunities such as the Concord Cleanup, Migratory Bird Walk, garlic mustard eradication, and Trails Committee initiatives.
4. Provide information on "how the town is doing" regarding land conservation and natural resources preservation and supporting agriculture. This information could include reports on progress towards natural resource and land conservation goals, bird counts and wildlife corridors protected, invasive plant eradication efforts, and educational initiatives.

5. Working with Town educators, student representatives, open space and natural resource advocates, and the Town’s sustainability officer, identify ways to build on the Rivers and Revolutions program to identify additional ways to support natural resources, sustainability values, and the town’s historical ties and support for these things can be woven into school curricula, community service choices and requirements, and student leadership positions.

Goal 4: Provide responsible management of conservation lands, including protection, preservation, and restoration.

In addition to expanding publicly-owned protected open space, it is important to maintain and manage existing assets and to provide ongoing ecosystem management and monitoring to ensure healthy habitats and identify areas for concern and intervention. Strategies, policies, and actions to advance this goal through support programs, management approaches, and programming efforts include:

- Continuing active stewardship, which is an important responsibility for the Town, should be a first priority of ownership.
- Improving the ecological quality of existing protected open space, which will improve the entire open space framework with great benefits to the environment and wildlife.
- Recognizing that natural resources are not static and that ongoing human use, development, and climate changes require active observation, data collection, and management.

Four core action areas will advance this goal:

1. Hire a land manager to provide more comprehensive and consistent management of Town conservation lands.
2. Support the implementation of the OSRP Seven-Year Action Plan and all subsequent plans. Update the OSRP on a timely and regular basis.
3. Maintain the current citizen volunteer commissions and committees that protect and preserve the Town’s natural resources, conservation lands, and open spaces.
4. Continue to collaborate with private land trusts and promote public/private partnerships to protect and preserve natural resources and conservation lands.

Goal 5: Promote ecosystem health and biodiversity as critical factors to achieve town-wide long-term sustainability and resiliency goals.

This CLRP has identified many ambitious goals and priorities for the Town. The OSRP provides clear maps that identify open space characteristics that are important in conservation and recreation planning and outlines the rationale behind prioritization of spaces to be acquired and protected. Town boards, committees, and commissions (such as the Planning Board and NRC) should continue to work together and use this information when considering and reviewing residential and commercial development and other public usage (e.g., PRD’s, solar farms, municipal facilities) proposals to provide a coordinated approach to addressing multiple priorities and to ensure that land best-suited for housing, business development, or public use is identified while protecting the Town’s natural resources and open spaces and ensuring the ecosystem services provided are protected. Big Idea 2 in Section 2: The Vision in Practice explores this goal.

Strategies, policies, and actions to advance this goal through a comprehensive systems-based approach that recognizes the mutually-dependent nature of Concord’s priorities and goals include:

- Prioritizing land conservation goals by identifying lands that have conservation values that should be protected. Collaborate with other Town boards, committees and commissions to meet the Town goals for open space and natural resource protection, housing, business development, and other public uses.
- Thinking longer-term in relation to protections and modeling regarding flood hazards, climate change events, and other environmental changes.

Three core action areas will advance this goal:

1. Overlay the OSRP Seven-Year Action Plan map with a housing/development goals map that recognizes the most suitable characteristics for each type of land acquisition/development. Overlaying maps will help with the preliminary selection of potentially appropriate parcels for certain types of development while ensuring identified priority or sensitive natural resources, habitats, wildlife corridors, scenic views and lands are protected,

2. Assess Concord's climate and environmental vulnerabilities (aligned with the MAGIC Climate Resilience Report and the OSRP) and integrate these considerations in all Town land and water decision-making to create resiliency goals that protect the town's infrastructure.
 3. Instill amongst residents and business leaders the importance of protecting and preserving natural resources and open spaces because they are irreplaceable. Educate residents, economic development proponents, and housing developers on the cumulative impact human activities have on natural resources and the long-term benefits of protecting Concord's natural resources and natural lands. Use the protection of Estabrook Woods in the 1990's as an exemplar of this visionary approach.
- Ensuring farms are considered an active part of a consortium of businesses, historical/cultural organizations, and arts when developing strategies to attract customers and visitors.
 - Recognizing that support services and structures such as support for farmer vacation time (perhaps a regional farmer co-op system of sharing and guest workers), farm hospitality stays and appropriate supportive land uses, assistance with affordable housing for farmers and farm workers, etc., is as important as protecting land for agricultural use.
 - Supporting farmers and local food in Concord through marketing and use of locally produced food products in town and providing information to the local farming community on best practices.

AGRICULTURE

Goal 6: Protect and promote local agricultural activities, land use, and traditions with sustainable practices.

Concord's active agricultural community is a valued feature of the town. The Agriculture Committee (Ag Committee) was created in 2006 to assist the local agricultural community. Protecting agricultural lands from development is a key concern in town. Consequently, a key goal of the 2015 OSRP was the protection of agricultural land with additional support necessary to maintain active uses on these properties. In addition to farmland itself, however, the Ag Committee has been advocating for additional needs to create a "viable farming situation" that includes needed farming infrastructure and affordable farmer and farmworker housing.

Strategies, policies, and actions to advance this goal through support programs, land acquisitions, zoning changes, affordable worker housing, and marketing/business plans include:

- Incorporating the needs of farmers and farms into Town policy, such as clarifying definitions or zoning to allow necessary accessory farmer-uses that may not already be allowed by right.
- Promoting zoning changes to protect agricultural land including agricultural overlay districts and transferrable development rights.

Five core action areas will advance this strategy and agricultural support vision:

1. Support sustainable and viable farming in Concord. Incorporate the Ag Committee's recommendations in Town decision- and policy-making to create a "viable farming business" that includes farmland, infrastructure, and affordable farmer and farmworker housing.
2. Implement policies and programs to protect and promote local agriculture. Support farmer's Community Supported Agricultural initiatives and other efforts to protect Concord's agricultural heritage. Consider adopting policies to buy local produce for use in school lunches to support local farmers and encourage local businesses to do the same.
3. Protect and retain land that is in agricultural use through Town purchase of farmland (and lease this land to new farmers) or by encouraging farmers to place their lands under an Agricultural Preservation Restriction (APR). The outright purchase of privately-owned farmland or purchase of an APR should continue to be top priorities for the Town. Apply for Community Preservation Act funds and State funds to acquire agricultural lands as they become available, or to purchase an APR. Maintain and prioritize Chapter 61A lands for acquisition.
4. Continue to support community garden programs. Offer plots to and encourage afterschool programs, families, Minuteman ARC, and senior programs to use the space for a multi-generational experience. Encourage the donation of excess produce to community food banks.

5. Continue to actively promote the agricultural community. It is important to see the farming tradition of the town as an intrinsic part of the overall historical and cultural traditions of Concord and to provide high visibility for local farms to visitors, in the school curriculum, and to residents and businesses.
2. Increase financial resources allocated to maintain and provide programming of current open space and recreational facilities. While the maintenance of existing public open spaces has been built into long-term capital improvement plans, additional resources to assist with costs (e.g., membership fees to the Beede Swim & Fitness Center), and possible new open spaces, such as a small outdoor eating/picnic area within Concord Center, could be generated with public-private partnerships or other state or federal funding as well as the schools that utilize these facilities. Consider developing public campaigns to raise money for special projects or programs, particularly those enhancing public accessibility to open space and recreation.

RECREATION

Goal 7: Maintain and increase the amount of protected open space to ensure community sustainability and resilience.

The 2015 OSRP and 2014 RFSP describe the town’s open space and recreational areas. The goals of this CLRPP recognize the importance of open space and recreation as part of character and community health and the need to ensure that open space and recreation areas are protected and maintained for the future.

Strategies, policies, and actions to advance this goal through recommendations for increased financial resources, management and maintenance of open spaces, and prioritization of improvements include:

- Clearly identifying open spaces and recreational areas for improvements or new facilities.
- Ensuring diverse programming of the existing parks, trails, playgrounds, playing fields, and facilities for the whole community.
- Supporting these goals with public resources and private efforts.

Two actions will advance this goal:

1. Starting with the open spaces and recreational areas described in the OSRP and the 2014 RFSP, prioritize open space and recreational facility projects that ensure diverse and equitable improvements and programming for the community as whole. Conducting a survey of programming needs may assist in the identification and prioritization. Update both the OSRP and RFSP on a timely and regular basis targeting the next update for 2022.

Goal 8: Ensure all Concord residents understand the value of open space and recreational amenities.

Open space and recreational space maintenance and management are critical to the community character and health of the town; therefore, it is important that education and information regarding these community assets be promoted.

Two key actions to advance this goal include:

1. Through the Natural Resources Commission, bring together a group that would include open space and recreation advocates, the Town’s Recreation Commission, and Health Division. This group would seek to identify additional ways to support the Town’s open spaces and recreation facilities, community health, and the town’s sustainability goals. Where possible, develop incentives for individuals to make choices to support the Town’s sustainability goals.
2. Ensure that Concord’s open space and recreation facilities are physically and financially accessible to all residents and improvements or new facility projects are fiscally sound. The potential for public-private partnerships for specific projects should be explored to make projects more feasible.

Goal 9: Enhance the connections and access to (physical and programmatic) bike paths and walking trails between open spaces and the village centers, the locations of institutions and organizations, and recreation sites.

The 2015 OSRP articulated a major theme of connectivity. In addition, the CLRP planning process has illuminated a general desire to better connect the village centers to open space as well as to recreational facilities. The interconnected nature of many of Concord’s areas, land uses, and needs is clearly felt by residents and business owners and this CLRP highlights a number of recommendations in this section and others, where enhanced connectivity can be beneficial to achieving multiple goals.

Main connection and access strategies, policies, and actions to advance this goal through urban design, infrastructure improvements, and better communication include:

- Increasing access and visibility for the Town’s natural resources and open spaces, as well as active agricultural areas to increase support of these assets through awareness and use.
- Providing enhanced connectivity, trails, and shared-use paths to support other CLRP goals such as reducing car dependence and supporting the overall sustainability and resiliency commitment made by town residents.
- Increasing connectivity between the village centers, active agricultural areas, and publicly accessible open space to attract more visitors to appreciate Concord’s commitment to sustainability and provide a much-needed market for independent businesses and farms.
- Providing enhanced opportunities for residents to be outside and physically active encourages overall health and wellness.

Ten core actions to advance this connectivity vision:

1. Connect hiking trails and pedestrian/bike paths for nature enjoyment, recreation, and access to the village centers. Enhanced connectivity will provide more opportunities for accessing the entire network of publicly accessible open space and may also support wildlife corridors and movement throughout the town. Ensuring the village centers are well connected to surrounding cultural and open space assets and trail networks may encourage residents and visitors to park their cars and walk, reducing automobile congestion. Examples of potential improvements include: another path over the Mill Brook to better integrate Concord Center, a pedestrian bridge over the Assabet River in West Concord, and a trail along the Assabet River connecting natural areas to Thoreau School. Trail access should also be included whenever possible in planning and redevelopment of larger sites, such as at the 2229 Main Street (Starmet) site.
2. Evaluate including landscape preservation for historical and archaeological value as a supplement to those protected under the OSRP criteria for land preservation. Develop and include predictive archaeological sensitivity map in open space plan with strategies. Consider providing historic interpretation along trails (e.g., Brister’s Hill or Harrington Park). This should be done recognizing preserving the natural resources of these areas is the primary purpose of conservation lands, not re-establishing the historical landscape.
3. Involve the Historical Commission and economic development/cultural representatives in open space planning and strategies. Educate about and promote the joint natural resource and historical values of town’s protected open spaces (i.e., Barrett Farm, Wheeler-Harrington House and Park, Emerson–Thoreau Amble) in collaboration with the Historical Commission and

2013 Survey (425 respondents)

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|--|--|
| 1. Extend sidewalks/walking paths to improve walkability of Town (153) | 6. Develop additional community gardens (13) |
| 2. Develop Bruce Freeman Rail Trail (102) | 7. Develop additional regulation-size playing/ ballfields (13) |
| 3. Update town trail map and develop a trail guidebook (50) | 8. Develop trail connection from the Battle Road Trail to the Thoreau Birth House (12) |
| 4. Return conservation lands to agricultural production (28) | 9. Improve handicap accessibility to town trails (8) |
| 5. Invasive species control efforts (26) | 10. Develop additional informal playing fields/ baseball diamonds (3) |

economic development/cultural representatives. Ensure that open spaces, the Town’s commitment to sustainability, and cultural destinations are included in maps and in marketing strategies to attract increased tourism consistent with capacity limits for protected spaces.

4. Evaluate the needs for maintaining and improving our parks, fields and recreational facilities, including soliciting feedback from the users. Develop strategies and assess the organization to better coordinate the Parks department with the Recreation Department to plan, use and maintain town parks, fields and recreational facilities. Consider CPC funding and funding resources including the sports (school and private) programs that utilize the parks and fields to fund the maintenance and improvements in the town parks, fields, and recreational facilities.
5. Assess the need for additional parks, fields, and recreational facilities within the town.
6. Better communicate with residents and visitors about how trails, natural spaces, agricultural lands, and historical assets fit together.
7. Provide increased accessibility at all publicly accessible open space, natural resources, and cultural destinations in the town consistent with the OSRP. Consider providing improved handicapped access to recreation areas, open spaces, and natural areas.
8. Provide for enhanced public amenities and improved access for recreation areas, natural areas, and open spaces such as additional parking spaces, public beaches, picnic pavilions, fitness circuits, restrooms, drinking fountains, bicycle racks, etc.
9. Consider development of one or more dog parks to provide places for dogs to run unencumbered and reduce use of existing playing fields for this purpose.
10. Provide walkways or running trails to generate more appreciation and recreational use of the Assabet River and Nashoba Brook in West Concord.



Hutchins Farm

Goal 10: Provide responsible management of recreation amenities, including programming of open spaces, public spaces, trails, and recreational facilities to allow ubiquitous and equitable opportunities to encourage use by all residents.

It is important to maintain Concord’s existing open space and recreational assets and to provide efficient management of both physical spaces and programming.

- Practicing active stewardship is an important responsibility for the Town and should be a first priority of ownership.
- Recognizing that open space and natural resources are not static and that ongoing human use, development, and climate changes require active observation, data collection, and management.

One core action area will advance this management and programming vision:

1. Along with the action in Goal 4, allow for allocation of staff time specifically to coordinate the management of open spaces and recreational facilities in concert with the Town’s natural resources.

OPEN SPACE + NATURAL RESOURCES SYSTEMS MATRIX

		Section 4.1				Section 4.2				Section 4.3						Section 4.4					Section 4.5				
		Cultural + Historic Resources				Economic Vitality				Housing						Land Use					Mobility + Transportation				
		Goal #1	Goal #2	Goal #3	Goal #4	Goal #1	Goal #2	Goal #3	Goal #4	Goal #1	Goal #2	Goal #3	Goal #4	Goal #5	Goal #6	Goal #1	Goal #2	Goal #3	Goal #4	Goal #5	Goal #1	Goal #2	Goal #3	Goal #4	Goal #5
Goal #1	#1																								
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Note: The Systems Matrix is intended to depict crossover between goals and actions throughout the Plan Elements section. It is intended as a tool to assist in prioritization of actions based on the "breadth" of their crossover with formalized goals both within and outside of their respective sections.

