CONWAY OPEN SPACE AND RECREATION PLAN

2022 – 2029

DRAFT

Prepared by the Conway Open Space Committee

with assistance from the

Franklin Regional Council of Governments

This project was funded by the Town of Conway and by a Direct Local Technical Assistance Grant provided by the Massachusetts Department of Housing and Community Development

TOWN OF CONWAY

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TABLE OF CONTENTS

SECTION 1: PLAN SUMMARY

The Conway Open Space and Recreation Plan (OSRP) coalesces the interest, effort, and motivation of community members to identify, prioritize, improve, and protect Conway's natural, recreational, and cultural resources. The purpose of the OSRP is to provide a framework for land use decisions and community planning efforts that impact valuable natural resources and the lands that contain unique natural, agricultural, recreational, cultural, and scenic values.

The 2022 OSRP reflects the high regard Conway residents have for the forests, streams, wetlands, clean drinking water, agricultural fields, scenic views, and significant historic and cultural resources that make the town unique. The OSRP illustrates the role that all undeveloped open spaces have in providing livelihoods, clean water, recreational resources, wildlife habitat, and climate mitigation and adaptation. The plan demonstrates how land use regulations and decisions that maximize open space and natural resources protect both ecological health and community well-being. The plan also illustrates how appropriate economic development strategies can help maintain the characteristics of the town that its residents cherish.

The Seven-Year Action Plan gives concrete substance to the goals and objectives, which were developed from the results of the Open Space and Recreation Plan survey conducted in 2021 and verified through public review. The 2022 Conway Open Space and Recreation Plan prioritizes actions that will help ensure that the Town of Conway meets the following goals:

A. Ensure that Conway maintains or improves the quality of its air and water, and the diversity and integrity of its various ecosystems through conservation of locally important natural, open space.

B. Ensure that Conway retains its rural, safe, and quiet small town character and sense of community, and its agricultural, cultural, and historic resources.

C. Ensure that Conway maintains or improves the current quality, quantity, and accessibility of its open space and recreational resources.

D. Ensure that the Conway community has good access to environmental, open space, and recreation information and opportunities.

SECTION 2: INTRODUCTION

A. STATEMENT OF PURPOSE

The purpose of this plan is to provide an accurate and thorough basis for decision making involving the current and future open space and recreation needs of the residents of Conway. This plan brings together and builds upon the planning efforts of the past several decades, and includes the 2013 Open Space and Recreation Plan (OSRP), the 2018 Municipal Vulnerability Preparedness community workshops and plan, the 2020 Hazard Mitigation Plan, the 2021 Conway Pollinator Action Plan, and the Open Space and Recreation Plan survey conducted for this plan.

While the 2022 OSRP is largely based on the 2013 plan, it has been revised and updated to reflect current thinking and consensus in town on the most important recreation and natural resource needs and the best solutions for addressing them. The collective knowledge of the Open Space Committee (the Committee) members, other Conway committee and board members, and residents' knowledge about the town's flora, fauna, forests and cultural and historical resources has produced an updated OSRP that embodies the Town's commitment to protecting and enhancing its recreational, scenic, cultural, historical, and natural resources, while encouraging appropriate economic activity. The detailed Seven-Year Action Plan provides a step-by-step guide that, when carried out by the Committee and other town boards and commissions, will successfully implement the Town's open space and recreation goals and objectives.

B. PLANNING PROCESS AND PUBLIC PARTICIPATION

The process to update the 2013 Conway Open Space and Recreation Plan officially began with the first public meeting on October 28, 2020. Over the following fifteen months, the Committee met 12 times to review sections of the plan and maps, and to develop a public survey. Staff from the Franklin Regional Council of Governments provided technical assistance. The agendas and sign-ins for each of these meetings are included as *Appendix D.* FRCOG staff worked with committee members on updating town-specific information. Committee members reviewed each of the plan chapters before they were posted for public review. In addition to the standing Open Space Committee, members of the OSRP review committee also represented the Friends of the South River group.

A widely publicized survey was used to develop Sections 6 – 9 of this plan. Because Conway does not have any Environmental Justice populations or a significant population of non-English speaking residents the survey and outreach materials were not translated and enhanced outreach was not conducted. The survey and a summary of the survey results (92 in total) are included as *Appendix C.*

An Open Space and Recreation Plan Public Forum was held virtually on October 19, 2021. 33 residents attended in addition to the Open Space Committee members present. The public forum was publicized on the Town website, via the town newsletter *Conway Currents,* the

Greenfield Recorder, the Hampshire Gazette, and Open Space Committee members disseminated an announcement through their networks via email. A copy of the flyer advertising the Public Forum and the sign-in sheet are included as *Appendix D*. Draft copies of the 2022 Conway Open Space and Recreation Plan, maps, and Seven Year Action Plan remained posted on the Town's site from October 14 thru 29, 2021 for public comment. Comments expressed at the public forum were recorded and are detailed in *Section 10: Public Comments*. After review and discussion by the Open Space Plan Committee, all relevant ideas, comments, and corrections received during the public forum and comment period pertaining to the different sections of the plan, maps and the action steps were included in the final version of the Conway Open Space and Recreation Plan.

SECTION 3: COMMUNITY SETTING

The information provided in this section, *Community Setting*, inventories and assesses the human and land use components of the landscape, moving from the present, to the past, and then to the potential future based on current development trends. The *Regional Context* gives a snapshot of Conway today, and identifies the ways in which the location of the town within the region has affected its growth and quality of open space and recreational resources. *History of the Community* looks back at the manner in which human inhabitants settled and developed the landscape. Using statistical information and analysis, *Population Characteristics* shows the reader who the people of Conway are today and how population and economic trends may affect the town in the future. Finally, *Growth and Development Patterns* describes how the town of Conway has developed over time and potential impacts that the current land use controls and open space planning efforts could have on the value of the town's open space, recreation, natural resources, and scenic and cultural qualities.

A. REGIONAL CONTEXT

Conway is located in northwestern Massachusetts, a region rich in agriculture and forest resources. The 37.8 square-mile town lies in the foothills of the Berkshire Plateau just west of the Connecticut River Valley (the Valley), a sub-region colloquially referred to as the hilltowns. Conway is part of Franklin County, the least populous county in mainland Massachusetts and the most rural. Conway is the 4th largest town in terms of area of all Franklin County towns, and the 9th most populous (1,881 residents according to the American Communities Survey [ACS] 2014-2018 Five-Year Estimates). Conway shares boundaries with seven other towns: Buckland and Shelburne to the north, Deerfield to the east and north, Whately and Williamsburg to the south, and Ashfield and Goshen to the west.

As the first hilltown north and westbound on State Route 116, Conway is a gateway to the hilltowns. Route 116 bisects the town east to west providing easy access to Interstate 91 (I-91), the north-south connection between Vermont and Connecticut. In addition to being a destination of its own, Conway is an access point to scenic parts of the hilltowns, such as Ashfield, Shelburne Falls, and the Berkshires. People heading for those places on business, especially truckers, must slow down to pass through Conway center and navigate their way along the narrow, winding roads.

The Conway Grammar School has a strong reputation as an elementary school, serving both Conway residents and students from other district towns who come through school choice. Students entering seventh grade (along with children from Deerfield, Sunderland and Whately) are bussed to Frontier Regional School in South Deerfield or to Franklin County Technical School in Montague.

Eighteen miles east of Conway is Amherst, home to the University of Massachusetts, Hampshire College and Amherst College. The cities of Greenfield (14 miles northeast), Northampton (19 miles south), and Springfield (36 miles south) are important employment centers accessible via

Route 116 and I-91. Conway's relative distance from major employment centers and lack of direct access to major railroads or highways has limited growth and preserved the town's rural landscape. Despite remaining rural, Conway is seen as a good alternative to higher-priced suburban sprawl in the Valley. Many residents remained in or moved to Conway because they value the place, education system, and community character enough that they are willing to commute to jobs elsewhere (if not self-employed).

A.1 NATURAL RESOURCES CONTEXT

Conway contributes important upland forest, streams and rivers, wetland, and farmland to the regional network of natural resources. Much of the town's forest is protected as private forest, state forest, wildlife management areas (WMA), or by neighboring municipalities to protect drinking water supply. The forested and protected areas connect to larger blocks of forested area that extend into Whately, Williamsburg, Goshen and Ashfield.

Conway is composed of three watersheds. The southeast corner drains into the Connecticut River via both the Mill River-Whately and the Mill River-Northampton watersheds. Scattered wetlands in these two watersheds form the headwaters for many neighboring public drinking water supplies. The northern two-thirds of town drain northeast to the Deerfield River via the subwatershed defined by the South and Bear Rivers. The Deerfield River serves as the town's northern boundary between Shelburne and Deerfield. Its watershed includes land in all or part of 14 towns and is a major regional resource for power supply and recreation within Franklin County. The watershed contains natural resource value unparalleled in much of the state, including less than 3% impervious surface, highly intact forestlands, coldwater fisheries, and some of the best farmland in the world.[1]

Farmland and prime agricultural soils are another natural resource of regional significance. The Natural Resources Conservation Service (NRCS) classifies approximately 8% of the land in Conway as prime agricultural soil and 11% as soil of statewide importance. Over ten properties totaling 1,150 acres (4.7% of town) are protected by the Massachusetts Department of Agricultural Resources (MDAR) through the Agricultural Preservation Restriction (APR) program. Protecting farmland and keeping it affordable helps to ensure the region's sustainability, where currently only 25% of the region's farmland is permanently protected.[2]

In 2014, the Harvard Forest published *Changes to the Land: Four Scenarios for the Future of the Massachusetts Landscape*, an evaluation of the consequences of four different trajectories for how land use could change in the state over the next 50 years, with a specific focus on the impacts to the greater region's forests. [3] The scenarios reflect different amounts and intensities of land development, timber harvesting, farmland expansion, and forest conservation. Key findings from the study show that the "Forest as Infrastructure" scenario ranked first in terms of benefits to people

[1] Franklin Regional Council of Governments. *A Framework for Resilience in the Deerfield Watershed*, 2019: https://frcog.org/a-framework-for-resilience-responding-to-climate-change-in-the-deerfield-river-watershed-report-just-released/

[2] http://harvardforest.fas.harvard.edu/changes-to-the-land

[3] http://harvardforest.fas.harvard.edu/changes-to-the-land

and nature, thanks to the strategies of more target conservation, smart growth development,[4] and sustainable forestry (cutting practices that preserve critical forest benefits while maintaining local wood production). Within the "Forest as Infrastructure" scenario, the majority of new development would be clustered and concentrated near existing cities and towns to minimize forest loss and reduce the impact of growth on water resources and forest habitat. The report also emphasizes how local land-use decisions can greatly influence the ability of the state's forests to offset greenhouse gas emissions and moderate the effects of climate change. The overarching policy implications from the study show that there is much to gain by conserving forests by:

- Recommitting to land conservation;
- Redoubling land-use policy and smart-growth efforts through local and state zoning reform that supports transit-friendly, walkable communities where new growth uses land efficiently, and limits impacts on natural resources; and
- Promoting sustainable forestry in the Commonwealth.

In 2017, Harvard Forest published an update to their vision for the protection of the Massachusetts landscape titled *Wildands and Woodlands, Farmlands and Communities: Broadening the Vision for New England.*[5] The vision reaffirms the basic goal of protecting 70% of the New England landscape as forest and 7% of the New England landscape in farmland by 2060, "slowing and shifting development in a way that maintains the connection between communities and the land that sustains them." The vision would manage most of the forest as woodlands for sustainable wood products and other benefits and 10% as unmanaged wildland reserves.

The Nature Conservancy and Open Space Institute has identified parts of Conway as being part of the Middle Connecticut River region resilient landscape.[6] The Middle Connecticut River region runs west of the Connecticut River from southern Vermont to the north border of Hampden County. The Nature Conservancy has identified underlying geological types and complex associated landforms above ground—slopes, cliffs, valleys, ravines, caves, and lowlands—that provide the best landscapes for wildlife adaptation to climate change. The absence of roads, buildings, and other infrastructure helps facilitate species access to these complex features. The Nature Conservancy's Resilient Sites for Terrestrial Conservation Program identified the Middle Connecticut River region as one of four landscapes across the Northeast and Mid-Atlantic that may best facilitate wildlife adaptation to climate change.

Natural landscape, climate resilience, farmland, and drinking water are important not just to Conway residents but the region as a whole. State and regional agencies and local land trusts are able to implement natural resource protection and climate resilience planning at the regional scale, but local planning and conservation boards and commissions have critical roles to play. Municipalities are responsible for implementing zoning changes, identifying land protection priorities, and protecting land that will ensure the long-term preservation of the town's vulnerable

[4] To learn more about Smart Growth, see the Massachusetts Executive Office of Energy and Environmental Affairs' Smart Growth/Smart Energy Toolkit at http://www.mass.gov/envir/smart_growth_toolkit/.

[5] http://wildlandsandwoodlands.org/vision/ww-vision-reports

[6] https://www.openspaceinstitute.org/northeast-resilient-landscapes-fund

natural and recreational resources. Conway can play a prominent role in helping to enhance the value of the region's open space by protecting key water resources and open space parcels.

A.2 Regional Recreation Resources

In 2017, the state published the State Comprehensive Outdoor Recreation Plan, "a planning document that discusses the available recreational resources in the Commonwealth, along with the needs of its residents, and identifies the gap between them."[7] The plan identifies four primary goals for recreation and open space opportunities statewide: a) increase access for underserved populations, b) support of the statewide trail network, c) increase the availability of water-based recreation, and d) support the creation and renovation of neighborhood parks. Conway has the potential to further the State's goals not only for local residents, but for residents of the region and state as a whole. *Section 7: Analysis of Needs* elaborates further on the relationship between statewide outdoor recreation goals and actions in Conway.

Residents value Conway's landscape and facilities for their recreational opportunities. Within Conway, residents have access to passive recreation activities such as hunting, hiking, cross-country skiing, horseback riding, and fishing, and active recreational activities such as snowmobiling, mountain biking, disc golf, and shooting. Publicly accessible multi-use trail networks are found on most public lands (excluding public water supply areas), especially the Conway State Forest and South River State Forest. Many Conway residents also recreate on public-access trails on private land. Conway residents have access to ball fields, tennis and basketball courts, and a playground in the center of town, the Conway Community Swimming Pool a mile south of town center, and ball fields and a playground at the Conway Grammar School two miles east of town center. The recreational facilities at the junior high/high school are almost 10 miles from Conway and are therefore little used by town residents other than pupils during school hours.

A number of regional recreational initiatives include routes in Conway. The Franklin County Bikeway totals approximately 240 miles in length and covers the entire county, with connections to bordering counties and states. Much of the Bikeway network consists of "on-road" or "shared roadway" sections that make use of predominantly low-traffic roads. There are several "off-road" bike paths as well that provide connections suitable for all riders. The central portion of the Franklin County Bikeway is marked with Franklin County Bikeway way-finding signs. Routes through Conway can be found on both the western and central bikeway maps and include the Whately-Conway Loop (21.5 miles), which follows Whately Road and Route 116 in Conway and provides a continuous loop through Whately and Deerfield. The West County-Greenfield Connector route (10.2 miles) links Conway Center to downtown Greenfield via Shelburne Falls Road and Bardswell Ferry Road in Conway, Taylor Road in Shelburne, and South Shelburne Road in Greenfield. Conway is also part of the Buckland-Ashfield loop (24.7 miles), which connects to Ashfield via route 116, and to Buckland and Shelburne Falls via Shelburne Falls Road. These routes offer bicycling and transportation opportunities for both novice and intermediate riders.

[7] Executive Office of Energy and Environmental Affairs. *State Comprehensive Outdoor Recreation Plan*, 2017, p.6.

Franklin County Bikeway maps are available at https://frcog.org/program-services/transportation-planning/.

The Franklin Regional Council of Governments (FRCOG) partnered with the YMCA in Greenfield, Baystate Franklin Medical Center, Greenfield Community College, and the Franklin County Chamber of Commerce to develop and launch *Walk Franklin County – for the Health of It!* This cooperative program works to promote walking for transportation, reduction of air pollution, and physical fitness and health. The *Walk Franklin County – for the Health of It!* project is a free program that allows participants to measure and record their walking progress and receive rewards for reaching their walking goals. The FRCOG has completed sets of walking maps for each town in Franklin County, including the Conway Center Route, a 2-mile walk that follows the South River, traverses the covered bridge, and passes historic homes and scenic farmland. These maps are available online.[8]

The Mahican-Mohawk Trail is a walking trail that follows the Deerfield River corridor that Native Americans, and later early European American settlers, used to travel between the Connecticut and Hudson River Valleys. Initially, Transportation Enhancements funding was used to reopen a 10-mile section of the trail along the Deerfield River that connects Deerfield to Conway and Shelburne, and to conduct preliminary planning to extend the trail 100 miles to the Hudson River. During 2009, a bridge was constructed over the South River in Conway, two miles from the eastern end of the trail. The Deerfield River Watershed Association (DRWA) worked to advocate for the design and construction of this important trail link. The bridge was installed with a large portion of the construction funding from TransCanada Hydro Northeast Power Company—the owner of the land. The Massachusetts Department of Conservation and Recreation (DCR) holds a conservation restriction on the property, which ensures that it will be permanently protected for public use. More recent efforts to create better linkages along the trail have been slowed by structural issues with the old trolley bed. More information about the Mahican-Mohawk Trail can be found online.[9]

A.3 Regional Planning Context

There are many critical natural and recreational resources that can only be conserved by permanently protecting networks of land that cross town and state boundaries to optimize natural resource and recreation planning at the watershed and regional scale. In addition to the established conservation and recreation opportunities in Conway, there are also a number of ongoing regional conservation partnerships and planning efforts that encompass Conway.

The Franklin Regional Council of Governments (FRCOG) provides regional planning and purchasing services for member towns, of which Conway is one. Regional priorities have been forest and farmland conservation, water quality protection, climate change resiliency, affordable housing, economic development, and sustainable land use. Recent regional projects that have

[8] http://www.walkfranklincounty.org/maps.php

[9] https://www.mass.gov/location-details/mahican-mohawk-trail

involved Conway, and have implications for open space and recreation planning, include the following:

- Franklin County 2035 Regional Plan for Sustainable Development

  In 2013, *Sustainable Franklin County: Franklin County's Regional Plan for Sustainable Development* (RPSD)[10] was completed by the Sustainable Communities Consortium, including Community Action, Franklin County Regional Housing and Redevelopment Authority (HRA), North Quabbin Community Coalition (NQCC), Franklin County Community Development Corporation (FCCDC), and the Towns of Greenfield, Deerfield, Montague, and Orange. The RPSD is a long-term guide for Franklin County municipal governments, regional organizations, businesses, non-profits, and individuals. The plan identifies issues and constraints, goals, and recommendations and strategies in seven subject areas: housing, transportation, economic development, energy, natural resources, cultural resources, and land use and infrastructure. The overall sustainable development goals that came out of the public participation process are as follows:

  - ❖ Increase and improve the housing stock, while focusing on affordability;
  - ❖ Provide additional options for alternative transportation;
  - ❖ Encourage economic development, by redeveloping vacant sites;
  - ❖ Promote energy conservation and efficiency;
  - ❖ Protect natural resources, including farmland and drinking supplies;
  - ❖ Foster the growth of arts and culture;
  - ❖ Concentrate new growth near town centers and focus on infill development; and
  - ❖ Improve infrastructure, particularly high-speed internet.

  The plan notes that the predominant development patterns in the county are converting farms and forests to residential lots and fragmenting the remaining farmland and forestland. The Approval Not Required (ANR) provision of the Subdivision Control Law allows for residential development along existing roads without Planning Board approval when frontage and lot size requirements are met. Combined with large lot zoning in many towns, which can require anywhere from one to four acres of land per home, the result is continual residential development spaced along town roadways, away from town centers. New subdivisions, while much less common than ANR development, are sometimes located outside of existing town centers, further fragmenting the land and converting green spaces to development.

- State Route 116 Scenic Byway Corridor Management Plan

  In 2008, the Massachusetts Legislature designated Route 116 in the Towns of Deerfield, Conway, Ashfield, Plainfield, Savoy, and Adams as a scenic byway. In Conway, the byway travels through Conway Center, characterized by historic architecture and its small town atmosphere, and past the Burkeville Covered Bridge, which is on the National Register of Historic Places and has recently been restored.

[10] https://frcog.org/program-services/land-use-planning-zoning/sustainable-franklin-county-2013-plan/

The *Route 116 Scenic Byway Corridor Management Plan*[11] inventoried the scenic, historical, natural, recreational, and cultural assets along the byway, and contains recommendations for maintaining and enhancing these resources.

- Projects in the South River and Deerfield River Watersheds

  In 2010, the Massachusetts Department of Environmental Protection awarded a 604b Water Quality Management Planning grant to the FRCOG to implement a fluvial geomorphic and habitat assessment of the South River watershed. In 2013 consultants conducted a fluvial geomorphic assessment of the mainstem of the South River to determine the causes of channel instability, map areas of river corridor vulnerable to fluvial erosion, and identify restoration options to better manage riverine issues. Conceptual designs and cost estimates were prepared for the #1 priority ranked project located downstream of the Rte.116 bridge in Conway. The FRCOG and the Town applied for and were awarded a 319 Nonpoint Source Pollution Implementation Grant in 2013 for the floodplain restoration and bank stabilization project, completed in 2016. In 2016, geomorphic assessment work was expanded to all of the South River's tributaries in *A Fluvial Geomorphic Assessment and River Corridor Planning for the South River Watershed, MA*. In 2017, FRCOG submitted sediment management best management practices for the South River in Conway through a grant from the Massachusetts Department of Environmental Protection Bureau of Water Resources.

  Concurrently, FRCOG published in 2017 *the Watershed-Based Plan to Maintain the Health and Improve the Resiliency of the Deerfield River Watershed*[12] that outlines the need for a comprehensive watershed plan to maintain the health of the Deerfield watershed for water supply, water quality, and flood resilience. The plan outlines goals related to watershed health, resilience, green infrastructure protection, technical assistance to communities, and regional collaboration. In 2018, the FRCOG published The Framework for Resilience in the Deerfield Watershed, which assesses climate resilience using the boundaries of the watershed to understand the interconnectedness of natural systems and the built environment across municipal boundaries. The Framework for Resilience uses the latest climate change projections to examine ways in which changing climate will impact communities in the watershed. Impacts such as flooding, heatwaves, and storms will test the resilience of watershed communities. Even the existing strengths of communities in the watershed—acres of intact forest, social safety nets for the elderly, and regional services for emergency response—will come under pressure under climate stressors. The framework outlines what building resilience to the impacts of climate change can look like and next steps for local officials, including actions that residents and communities can take now.

[11] https://frcog.org/publication/route-116-scenic-byway-corridor-management-plan/

[12] https://frcog.org/wp-content/uploads/2019/03/Framework-for-Resilience-in-the-Deerfield-River-Watershed.pdf

In 2019, the FRCOG developed the *River Corridor Management Toolkit for the Deerfield River Watershed*.[13] The toolkit presents five topics:

1. Mapping River Corridors
2. Climate Resilient Watersheds: River Restoration Projects and River Corridor Management Tools
   a. River restoration projects
   b. River corridor management tools
   c. Example river restoration projects
   d. Model river corridor protection overlay zoning district
   e. Model river corridor easement restriction
3. Integrating River Corridor Maps into Other Local and Watershed-Scale Planning Efforts
4. River Corridors and Climate Resilient Watersheds Field Trip materials
5. Other Outreach Materials Developed for the Project (easement brochure, presentations)

- Franklin County Farm and Food System Project

  The *Franklin County Farm and Food System Project*[14] identifies the ways Franklin County stakeholders could map farmland resources that are vital to increasing production, a need demonstrated by regional food insecurity assessment and called for in the Food Solutions New England's 50-by-60 Vision (in which New England produces 50% of its food by 2060). The project identifies opportunities to increase farmland on the edges of where existing farmland meets forest, and to connect farmland owners to aspiring farmers.

- Mohawk Trail Woodlands Partnership (MTWP)
  The Mohawk Trail Woodlands Partnership is an effort by 21 cities and towns in western Franklin and northern Berkshire counties and regional non-profit organizations to create a funding stream to help conserve forestland, enhance natural resource-based economic development opportunities, including recreational tourism and sustainable forestry, and enhance the fiscal stability of participating municipalities. [15] Funding will be used to:

  - Purchase conservation restrictions from willing landowners;
  - Help landowners create plans for caring for their land, including sustainable forestry, invasive plants and pests, climate change adaptation, estate planning, and carbon credits;
  - Promote the region and provide small grants and marketing assistance to recreation, tourism, and natural resource-based businesses;

[13] https://frcog.org/river-corridor-toolkit-released/

[14] https://frcog.org/wp-content/uploads/2015/10/FRCOG-FC-Farm-and-Food-System-Project-Final-Report-093015.pdf

[15] http://www.mohawktrailwoodlandspartnership.org/

- ❖ Offer funding to cities and towns to help offset the infrastructure and emergency service impacts of increased tourism.

The project goals and objectives were formed through an extensive public outreach process, including approximately 60 town and regional meetings. As a result, a broad coalition of municipalities in the region that have voted affirmatively to participate in the MTWP, federal and state agencies, and private sector organizations make up the MTWP Board. The Partnership is staffed by the New England Forestry Foundation.

- Mohawk Trail Woodlands Partnership (MTWP) Regional Adaptation & Resilience Project
  The Commonwealth's Municipal Vulnerability Preparedness (MVP) program awarded a $1.5M Action grant for a regional project that includes Franklin County towns Ashfield and Conway. The towns prioritized projects that address failing culverts, flooding and erosion, and repairs to the Ashfield Lake Dam in their joint MVP Resiliency Plan. FRCOG has worked with the towns to:
  - ❖ Prepare bids for up to five priority flood resiliency projects to protect critical infrastructure and improve habitat.
  - ❖ Provide outreach to the Planning Boards and interested landowners on the use of a River Corridor Protection Overlay Zoning District and a River Corridor Easement Restriction.
  - ❖ Prepare bid documents for 3 phases of repairs for the Ashfield Lake Dam.
  - ❖ Inventory drainage culverts in Conway. (FRCOG is also currently doing this for Ashfield with other funding.)
  - ❖ Develop a right-sizing protocol for drainage culverts that do not cross a perennial stream and identify climate resilient standardized culvert replacement sizes.
  - ❖ Provide 30% design plans for up to five culverts to meet MA Stream Crossing Standards.

Conway and its neighbors share regional recreational and natural resources. Conway can work cooperatively with nearby towns and regional planning partners to protect water quality, mitigate flood damage, protect farm and forestland, and support regional recreational projects for their numerous ecological, social, and health benefits. This plan will consider regional planning goals and efforts in its discussion of the community context (current section), natural resource inventory (Section 4), and in the action planning process.

B. HISTORY OF THE COMMUNITY

B.1 History of the Community

Prior to the 1600s, Native Americans inhabited Conway in small fishing and hunting camps in the South River valley and the southern sections of the Bear River and Schneck Brook. Some farming may have occurred in the broadest portion of the South River valley and near Schneck Brook. During the 1600s, Conway probably gained increased importance to the Pocumtucks as a resource and a settlement area due to colonial encroachment on their traditional lands in Deerfield.

Conway was settled by European Americans as a subsistence farming community. The first colonial settlement of Conway did not take place until after the close of the French and Indian wars circa 1763. During the Colonial Period (1675-1775), the land area that is now Conway was part of a grant in 1712 from the General Court enlarging the area of Deerfield. The east-west transportation route along the present-day Route 116 corridor between Deerfield and Pumpkin Hollow was improved in 1754. In 1762, the area was surveyed and divided into 141 lots averaging 150 acres. Lots were sold and settled rapidly, and in 1767 the land was separated from Deerfield and incorporated as the Town of Conway. Establishment of a meetinghouse in Pumpkin Hollow in 1769 created a radial highway system from the town center.

Between 1769 and 1776 Conway's population more than doubled, from 400 to 905. Settlers came from Deerfield and several Worcester County towns. Settlement clustered around Pumpkin Hollow, where the first meetinghouse (Congregational) and schoolhouse were built, while some scattered settlement took place outside of this center. During this time, agriculture was the primary economic pursuit, with an emphasis on livestock grazing due to the town's excellent grazing land and limited cropland. Due to the town's limited industrial base, the community was likely heavily dependent on river towns such as Deerfield and Hatfield for support.

During the Federal Period (1775-1830) Conway's population grew by 133% between 1776 and 1790, the second highest growth rate of any town in the county at the time. Population peaked at 2,092 in 1790, making Conway the largest town in Massachusetts' Connecticut River Valley except for West Springfield and Westfield. From 1790 to 1830, however, the town lost a quarter of its population, declining to 1,563. The principal reasons for this decline were the draw of cheap land with rich soils further west in New York State and the lure of wages being paid in the new mills and factories being developed in the greater region. The civic focus during this time remained in Pumpkin Hollow, while a secondary center formed around the Baptist Meetinghouse in Conway village in 1790. In addition, an economic focus was established on the South River at Burkeville with a textile mill in 1810, creating an extended settlement along the River Street (Route 116) axis.

Farms developed thickly and evenly throughout the hills, with forested land cleared for crops and pasture. By 1817, the extent of cleared land was as great as it ever would be. Much of this wood fueled the startup of sawmills along the South River valley. Small grist mills were also established along the South River. The largest industry in this period, as of 1832, was a factory that produced horn combs.

The Route 116 corridor from Deerfield to Ashfield through Conway remained the primary east-west axis in town during the Early Industrial Period (1830-1870). The local road system continued to be developed from Burkeville to Conway Center with School and Maple Street, with an improved crossing of the South River at Burkeville with the construction of a covered bridge (1869 now restored).

Burkeville developed as the primary economic center with the establishment of the Conway Manufacturing Company in 1838. Civic activities moved from Pumpkin Hollow to Conway Center around this time, with continuous settlement along River Street (Route 116) from Howland Bridge to Burkeville. While agriculture remained active in the upland parts of town, woolen and cotton mills were established in the village during this time. By the 1840's Conway was making more than three-quarters of all textiles in Franklin County.

The Late Industrial Period (1870-1915) brought a north/south electric trolley line through Conway, from Burkeville and Conway Center along the South River valley to Conway Station at the Deerfield River. The street railway was completed in 1895 to connect the center of town to the New Haven and Northampton Railroad that had been extended along the Deerfield River in 1881.

After the opening of the street railway, the town constructed several factory buildings to attract more industry to town. The DeWolf Shoe Company opened in one of these buildings in 1896; by 1916 it employed 120 people and was the town's most important industry. The two major textile businesses in town closed between 1890 and 1910. In 1897 the Conway Electric Street Railway developed a separate operation, the Conway Electric Light and Power Company (CEL&P), to supply the town and the electric railroad with power. The CEL&P constructed a hydro-electric plant and reservoir on the South River, which was likely one of the earliest such plants in the Deerfield River valley.

Civic focus remained at Conway Center, with commercial activities extending along River Street (Route 116) to Burkeville. Housing infill occurred on the uplands above the South River on Maple and School Streets to Pumpkin Hollow and Howland Bridge. Agriculture remained the primary activity outside of this area, with dairy farms on Roaring Brook, Bardwells Ferry, and Shirkshire Roads. The fluctuating population began a steady decline after 1900 as mills closed in town. By 1915, the population of Conway was 1,220, a net loss of 16% over this period.

Conway's population continued to decline during the Early Modern Period (1915-1940), with a population of 944 by 1940, a decline of 22%. The town's major industry, the DeWolf Shoe Co., closed in 1918. By 1930, the town's main industry was the tap and die firm Conant and Donelson, employing 25 people. Several small wood product industries survived, being bought by outside hardware firms around 1915.

In 1921, the street railway line to Conway Center was abandoned. Route 116 was improved as an auto highway with concrete bridges replacing steel-decked bridges in 1926. These new structures were built in the town center where Route 116 crosses the South River, and at the west end of River Street over the South River. Most recently, a steel supported, concrete abutted bridge was built in 1976, where the highway enters Burkeville at its east end.

Housing gradually expanded on the hills above the town center. Summer estates along the Route 116 corridor and on scenic uplands were also built. In the midst of the industrial boom of the nineteenth century, many farms were abandoned leaving pastures and fields to be reclaimed by forest.

Upon entering Conway Center, a recreational field is visible from the Byway on the left behind the Town Hall. Until the 1930s, this land was a privately owned meadow and pasture with a rolling topography. The Town took the property by eminent domain in order to create a recreation field. Conway residents were paid with Works Progress Administration (WPA) funds to level the small hills on the property.

Part of the legacy of Conway's industrial era is the extensive history of manipulation of the South River in and around Conway center. A map from 1871 shows the river dammed in four places between the Burkeville Bridge and the current Post office. In 1837, Tucker and Cook built a reservoir upstream from Burkeville, subsequently enlarged in 1846 and 1866. In 1869, the public's

collective fears about a potential breach of the Reservoir led to the "4-40 campaign", in which the river channel was straightened and widened to a width of 40 feet for a distance of 4 miles.

By the 20th century, public perception of the South River shifted from seeing it as a resource to believing it a hazard. Floods in 1878 (caused by a breach in Ashfield's Great Pond Dam), 1904, 1927, 1936, 1938, 1939, 1955, 1985, 1982, 1999 (caused by extreme weather events), and 2011 impacted industrial buildings and the town center. After the 1936 flood, the town dismantled the Tucker and Cook Reservoir. Sometime after 1939, also in response to flooding from the 1936 and 1938 hurricanes—the latter of which wiped out bridges—a system of dikes and berms was constructed to keep the river out of the lowlands and prevent flooding of buildings along Main Street. The South River was forced into a sharp turn just upstream of the Main Street bridge, and a new straight channel was dug for Pumpkin Hollow Brook. Hurricane Gloria in 1985, and to a greater extent Tropical Storm Irene in 2011, have caused massive flooding and erosion events that have forced the town to re-evaluate their relationship to the river and seek new strategies for restoration (see Sections *3.A.3 Regional Planning Context - Projects in the South River and Deerfield River Watersheds*, *4.E.6.1 Flood Hazard Areas*, and *4.E.6.2 Fluvial Geomorphic Assessment and River Corridor Mapping* for more details).

Conway's population began to grow again beginning in the 1960s. Conway's greatest population increases were in the 1970s, 1980s, and 1990s, with growth averaging around 22% each decade. Conway's easy access to the University of Massachusetts Amherst via Route 116 likely fueled some of this growth, as the university rapidly expanded facilities, enrollment, and employment during this time. The development of Interstate 91 just east of Conway in the 1960s also made the town more accessible to larger employment centers such as Greenfield to the north, and the Northampton and the Springfield metropolitan areas to the south. Conway today is largely a residential community, with some remaining working farms and a sizeable percentage of self-employed individuals.

B.2 Town Government

The Town of Conway is governed by a Select Board with input from residents at annual (representative) Town meeting. Much of the planning of the town's services and development is by committees of volunteers.

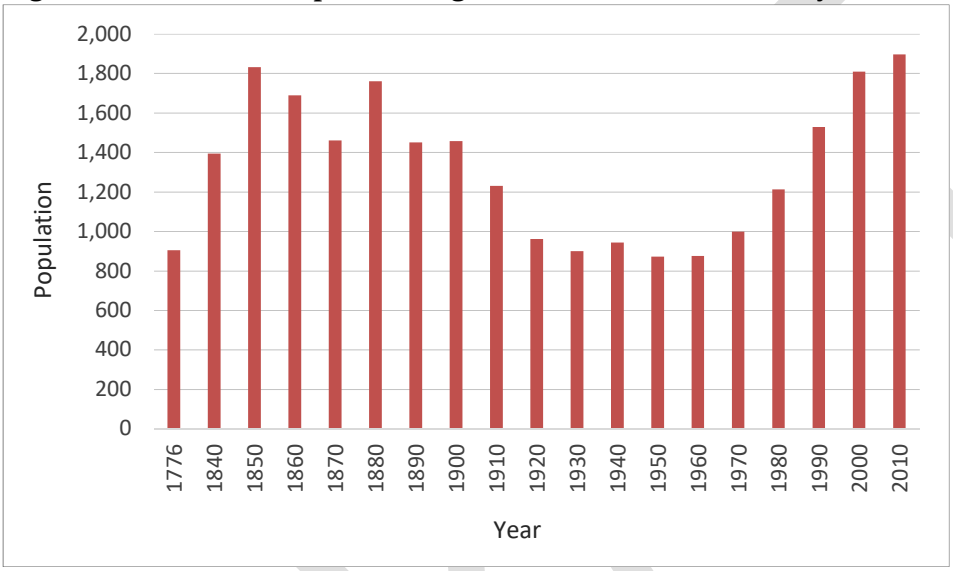
C. POPULATION CHARACTERISTICS

This section, Population Characteristics, assesses Conway's needs for open space and recreational resources based on an analysis of demographic, economic base, and labor force statistics. The demographic information includes changes in total population, age distribution, racial composition, and economic characteristics. The economic information describes employment available in Conway and characteristics of working Conway residents generally. Population characteristics thus inform decisions regarding the type, quantity, location, and level of future investments in open space and recreation areas and facilities.

C.1 Population Distribution

Conway's population in the 2014-2018 American Community Survey (ACS) 5-Year Estimates was 1,880, just below the population peak of 1,897 people in 2010. U.S. Census population counts from 1776 to 2010 (see Figure 3-1) show that population first peaked in 1850, at the height of the town's industrial period, then fell dramatically through the 1920s. The out-migration of residents in the late 19th century mirrors that of other Massachusetts hilltowns, as changes in technology and new opportunities fueled emigration west. However, after a relatively stable population period from 1920 to 1970, Conway nearly doubled in size.

Figure 3-1: Historical Population Figures for the Town of Conway, 1776 - 2010



Source: U.S. Census Bureau, Decennial Census

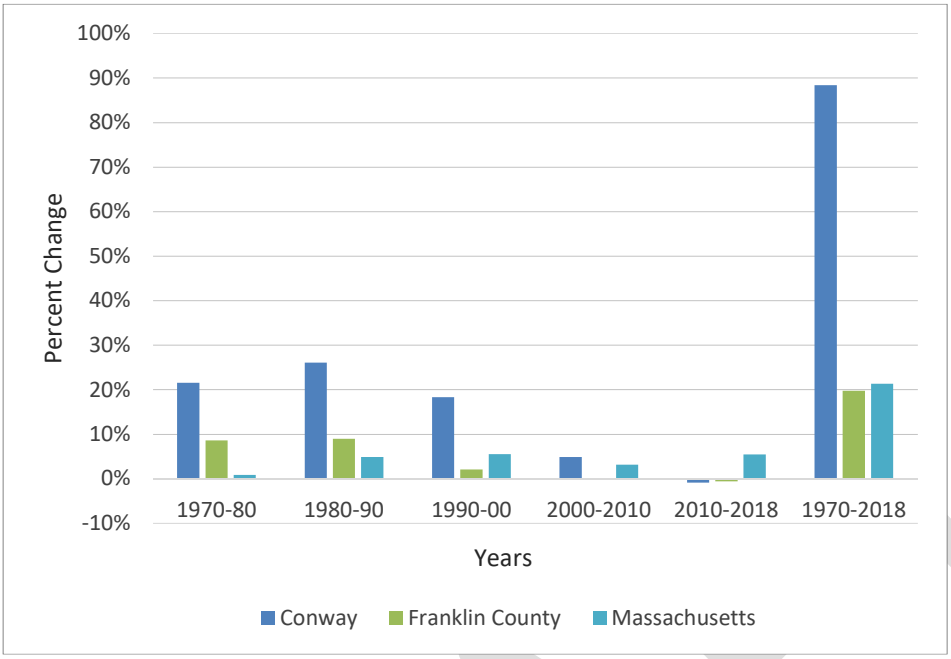
The population grew from 998 residents in 1970 to 1,880 in 2018—an increase of 88 percent (see Table 3-1). This was a much higher rate of growth than experienced at the county or state level. Between 2010 and 2018, the population decreased slightly, which mirrors Franklin County's negative growth rate of -0.6 percent over the same period (see Figure 3-2).

Table 3-1: U.S. Census Population Counts, 1970, 1980, 1990, 2000, 2010, and 2018

Geography	U.S. Census Population					
	1970	1980	1990	2000	2010	2018
Conway	998	1,213	1,529	1,809	1,897	1,880
Franklin County	59,223	64,317	70,092	71,535	71,372	70,935
Massachusetts	5,689,377	5,737,037	6,016,425	6,349,097	6,547,629	6,902,149

Source: U.S. Census Bureau, ACS 2018

Figure 3-2: Percent Change in Population by Decade, 1970 - 2018



Source: U.S. Census Bureau, ACS 2018

With a median age of 51.8 years old, Conway has an older population than the county (46.1 years old) and the state (39.4 years old). The cohort of people ages of 65 to 74 constitute the fastest growing age cohort over the last eight years, nearly doubling in size from 8.5% to 16.2% of the population (see Table 3-2). People over 75 years of age were the second fastest growing population, increasing 2.8 percentage points to 7.1% of the population. These increases may be partially driven by the aging of the baby boomer generation (born 1946 to 1964), however, the population of people age 45 to 64 in fact declined by 3.8 percentage points, to 35.8% of the population. The portion of people ages 25 to 44 also decreased significantly, down 4 percentage points to 15.7% of the population. The cohort of young people in Conway appears to have aged as well. The percentage of people ages 10 to 19 and 20 to 24 increased slightly to 7.4% and 13.0%, respectively. However, the population of children 9 years and under decreased by 3.5 percentage points to 7.4% of the population.

Table 3-2: Population by Age Group, 2010 and 2018

Geography	Total Population	9 Years & Under	10-19 Years	20-24 Years	25-44 Years	45-64 Years	65-74 Years	75 Years & Over
Conway								
2010	1,897	11.0%	12.7%	4.2%	19.7%	39.6%	8.5%	4.4%
2018	1,880	7.4%	13.0%	4.7%	15.7%	35.8%	16.2%	7.1%
Difference	-17	-3.5%	0.3%	0.6%	-4.0%	-3.8%	7.6%	2.8%
Franklin County								
2010	71,372	10.0%	11.9%	6.0%	23.1%	33.7%	7.9%	7.3%
2018	70,935	9.0%	10.7%	5.3%	23.8%	31.0%	12.6%	7.6%
Difference	-437	-1.0%	-1.2%	-0.7%	0.7%	-2.7%	4.7%	0.3%
Massachusetts								
2010	6,547,629	11.5%	13.3%	7.3%	26.5%	27.7%	7.0%	6.8%
2018	6,830,193	10.7%	12.5%	7.2%	26.3%	27.4%	9.0%	6.8%
Difference	282,564	-0.8%	-0.8%	-0.1%	-0.2%	-0.3%	2.0%	0.0%

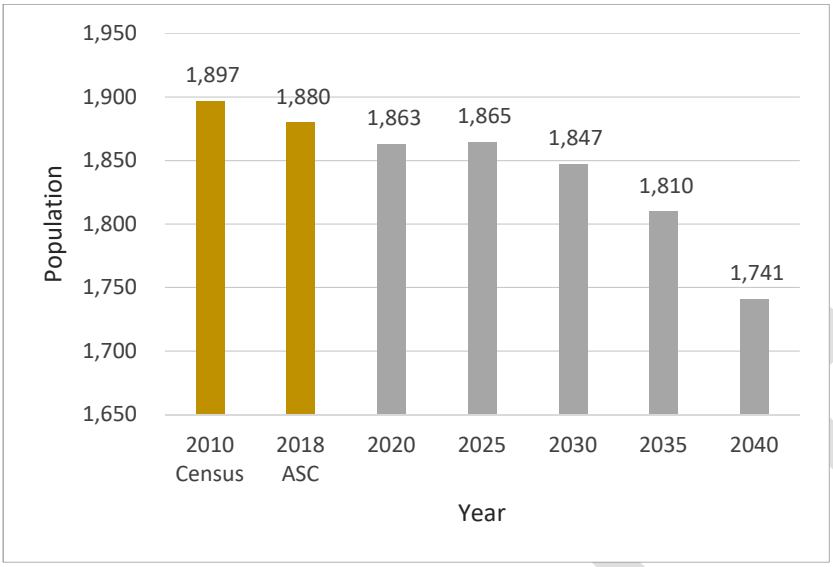
Source: U.S. Census Bureau 2010 and ACS 2018

Conway residents' age distribution and change is typical of Franklin County, but is older and aging faster than the state as a whole (see Table 3-2). Children and young adults (ages 0 to 24 years) represent 25% of the population in Conway and Franklin County, but 30% of the overall state. The percentage of working-age adults (ages 25 to 64) in Conway (51.5%) is only slight lower than the county (54.8%) and state (53.7%), but the percentage of adults 65 and older in Conway (23.3%) is greater than in Franklin County (20.2%) and over seven percentage points greater than the state population overall (15.8%).

In 2015, the UMass Donahue Institute began publishing population projections for all Massachusetts cities and towns, projected from 2020 to 2040 at five-year increments.[16] Figure 3-3 shows the projections for Conway's population, which is projected to decrease by 139 people (to 1,741) by 2040. The projected decrease suggests that Conway's population, which increased by around only 71 people over the last 20 years, is now at a multi-decade peak.

[16] www.pep.donahue-institute.org

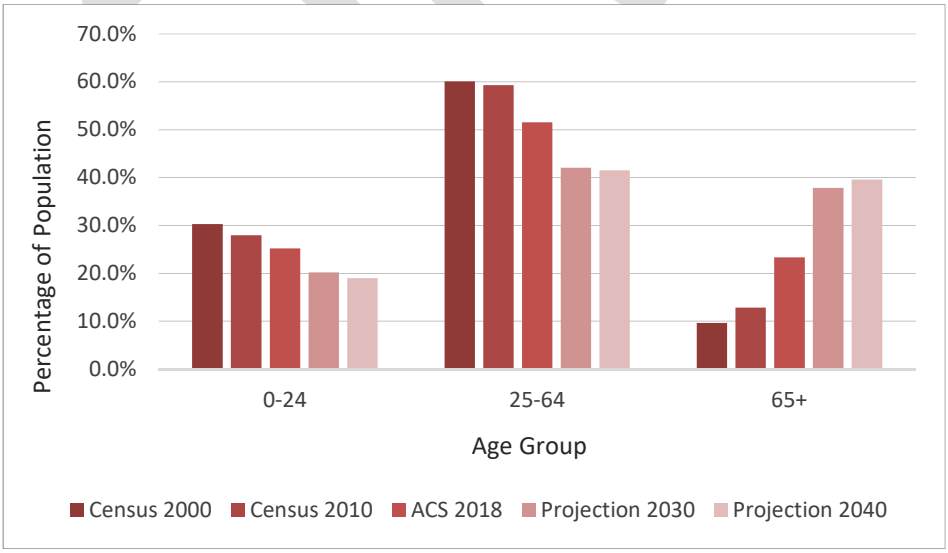
Figure 3-3: Population Projections for Conway, 2020 - 2040



Source: US Census, 2000 & 2010; ACS, 2018; UMass Donahue Institute Vintage 2018 population projections

While the overall population numbers are not expected to change dramatically, the age make-up of the population is projected to shift significantly in the next two decades. Figure 3-4 shows the projected population from 2020 to 2040, compared to the population in 2000 thru 2018. By 2040, it is projected that Conway will lose a quarter (25%) of the population ages 0 to 24 and a fifth (19%) of the 25- to 64-year old population relative to 2018 populations. The proportion of seniors age 65 and over, however, will increase by nearly three quarters (70% increase) to represent 40% of the population, compared to 23 % in 2018. Data and predictions do not account for potential population change driven by the Covid-19 pandemic, the regional housing market, the impact of climate change, or other emerging factors.

Figure 3-4: Population Projections for Conway by Age Group, 2020 - 2040



Source: US Census, 2000 & 2010; ACS, 2018; UMass Donahue Institute Vintage 2018 population projections

Based on population projections and assuming the current cohort of older (45-64) working-aged residents don't move away, Conway can expect its population to age over the next ten years. As identified in the draft 2019 Conway Housing Needs Assessment, a community's school system is often a major consideration for families when considering where to live. Conway has a strong elementary school and other community amenities for families with children, however recent enrollment at Conway Grammar School generally mirrors population age tends in town and Conway may have to provide incentives for younger homebuyers to purchase homes in Conway.[17] Residents of all ages need facilities and programs that provide safe spaces for recreating as well as access to open space. An aging population may require accessible recreational facilities, such as walking paths, fishing locations, and gardening opportunities, and programming geared towards continued learning and community engagement. In 2021, Conway became a designated Age-Friendly Community, creating the opportunity for more funding for age-friendly improvements.

At the same time, youth and other age groups will continue to need facilities and programs that can provide safe space for recreation. Though it is not reasonable to have recreation facilities close to every resident in Conway's low-density areas, good wayfinding and trail connections from more densely populated areas directly to open space and recreation facilities is important for providing access to all generations.

C.2 Population Density

With a population in 2018 of 1,880 people and an area of 37.8 square miles, Conway's population density is 50 people per square mile, or 11 acres per person. With the exception of a small light industrial district, Conway is zoned entirely residential/agricultural. The town is characterized by owner-occupied, single family homes widely distributed along main arteries or concentrated in the town's many historic villages. There are currently no condo developments or multi-unit dwellings in Conway. While many residents see value in increasing the density of Conway Center, especially offering more homes for older residents to age-in-place near the amenities offered in town, the opportunity for infill is limited by lack of sewer and water and other environmental constraints. Efforts to build affordable senior housing have been frustrated by limited availability of viable land and septic capacity. New development in Conway is pushed to the more rural, outlying parts of town as a consequence of not being able to increase population density in the center of town. For a discussion of population density in the context of environmental equity, see Section 4 *I.10 Environmental Equity.*

C.3 Economic Wealth of Residents and Community

Comparing the income levels of Conway's residents to the county and state helps assess the ability of the community to afford open space and recreation resources and upkeep. Table 3-3 shows income estimates for Conway, Franklin County, and Massachusetts as reported from the 2014-2018 American Community Survey 5-year estimates. Per capita income is determined by dividing the total amount of income earned in an area by the number of residents, including portions of the population that might not be generating income such as children and retired adults. According to ACS estimates, Conway's per capita income in 2018 was $51,625, an estimated jump of $18,236

[17] Draft 2019 Conway House Needs Assessment, p. 6

in the seven years since 2011. Conway's per capita income is moderately higher than the estimate for the state ($41,794) and significantly higher than the estimate for the county ($34,202).

Median household income is determined by calculating the income of each person ages 15 years and over in a household and then finding the midpoint of all household incomes (i.e. half of the household incomes are above this figure, and half are below this figure). This statistic includes all occupied households, including families and individuals living alone. Conway's estimated median household income in 2018 was $97,188, which was much higher than both the county ($59,522) and state ($77,378) estimates (see Table 3-3). Conway's median household income was also the highest and per capita income the second highest out of all 26 Franklin County towns in 2018, demonstrating that on average, Conway residents tend to be financially more well off than the county and state.

Another way to describe a community's income and economy is the poverty rate. In Conway, 2.2% of the town's 1,852 residents (for whom poverty status was determined) were estimated to be living below the poverty level in 2018 (see Table 3-3). This is a decrease from 6.0% in 2011, and significantly less than in the county (10.4%) and state (10.8%).

Table 3-3: Income and Poverty Estimates, 2018

Geography	Per Capita Income Estimate	Median Household Income Estimate	Percent of Individuals Below Poverty Level (for whom poverty status was determined)
Conway	$51,621	$97,188	2.2%
Franklin County	$34,202	$59,522	10.4%
Massachusetts	$41,794	$77,378	10.8%

Source: ACS 2018. Five-year estimate of income for the past 12 months and reported in 2018 dollars

Table 3-4 shows the relationship between the age of the householder (or head of household) and the median income in Conway, Franklin County, and the state in 2018. For younger householders between 25 and 44 years of age, Conway's median income ($93,438) is significantly higher than the county's ($64,678) and somewhat higher than the state's ($88,230). Middle-aged households in Conway earn an amount ($108,124) strikingly higher than their peers in Franklin County ($68,594) and the state ($96,031). These differences hold with households 65 years and over, in which Conway's median income ($67,379) is significantly higher than in either the county ($45,617) or the state ($47,486). Across the board, Conway households receive a higher income than the county and state as a whole.

Table 3-4: Household Income by Age, 2018

Age Categories	*Conway*	*Franklin County*	*Massachusetts*
For households, with a householder under 25 years	N/A	$35,357	$38,244
For households, with a householder 25-44 years	$93,438	$64,678	$88,230
For households, with a householder 45-64 years	$108,124	$68,594	$96,031
For households, with a householder 65 years and over	$67,379	$45,617	$47,486

Source: U.S. Census, American Community Survey 2014-2018 Five-Year Estimate. Data shows median household income in the past 12 months by age of householder

One reason for the relative economic wealth of Conway residents may be the high levels of educational attainment among the population. Table 3-5 shows the levels of educational attainment for Conway residents over the age of 25, compared to the county, state, and federal levels. Of particular note is the extremely high percentage (34%) of Conway residents over the age of 25 years who have attained a graduate or professional degree—double that of Franklin County residents with graduate degrees (17%) and nearly double the Massachusetts rate (19%).

Table 3-5: Educational Attainment, 2018

Educational Attainment Levels	*Conway*	%	*Franklin County*	%	*Massachusetts*	%
Population over 25 yrs	*1,406*	*100%*	*53,210*	*100%*	*4,748,795*	*100%*
No High School Diploma	18	1%	3,670	7%	454,360	10%
High School Diploma and Equivalency	213	15%	14,911	28%	1,150,846	24%
Some College, No Degree	193	14%	9,228	17%	740,784	16%
Associates Degree	122	9%	5,615	11%	365,103	8%
Bachelor's Degree	377	27%	10,480	20%	1,128,877	24%
Graduate or Professional Degree	483	34%	9,306	17%	908,825	19%

Source: American Community Survey 2014-2018 Five Year Estimates

Eighty-five percent of occupied housing units in Conway were owner-occupied in 2018.[18] This percentage is significantly larger than the 69% owner-occupied rate for Franklin County and 62% for the state as a whole, suggesting that a greater proportion of Conway residents are able to afford their own home and that Conway may be a sought-after place to purchase a home. The average household size for these units was 2.56 persons; for renter-occupied units the average household size was 1.6. Although homes in Conway are relatively expensive for the region—in 2018, the town had the third highest median housing value ($318,000)[19] in the county—the community's

[18] U.S. Census, American Community Survey 2014-2018 Five-Year Estimates

[19] U.S. Census, American Community Survey 2014-2018 Five-Year Estimates

high-ranking elementary school, proximity to regional employment centers, and other factors still encourage families to settle in Conway.

Fifty-four percent (487 out of 909) of the homes in Conway were built in the 50 years since 1970. Few (12%) homes were built from 1940 to 1969, but one third (34%) of Conway's housing stock was built in 1939 or earlier. As Conway's population aged, household size diminished, and older homes were left to elderly residents to care for, Conway in 2004 adopted zoning regulations allowing the conversion of single-family dwellings to two-family dwellings by right, and the addition of a third, attached unit by special permit. There are around two dozen two- or three-unit dwellings in Conway. Conway also adopted in 2017 its Age Restricted Housing Community district to make it easier to develop senior housing.

C.4 Employment Statistics

Employment statistics like labor force participation, unemployment rates, numbers of employees, and place of employment are often used to characterize the local economy. Labor force and employment figures reflect the town's and region's economy, which can help suggest what types of business might be encouraged in Conway or how vulnerable Conway businesses and residents are to economic trends. Unemployment rates show how well residents are faring in the larger economy.

C.4.1 Labor Force: Conway Residents Who Are Able to Work

This section features employment information released by the Massachusetts Division of Employment and Training (DET). Statistics are generally provided for the year 2019, though 2020 data is provided in one instance to reflect differences in data at the time of writing because of the economic crisis brought on by the Covid19 pandemic. DET data are derived from statistical sources such as federal annual surveys and the unemployment insurance program.

The labor force is defined as the pool of individuals who are 16 years of age and over, and are either employed or who are actively seeking employment. Persons not actively seeking employment, such as some enrolled students, retirees, or stay-at-home parents, are excluded from the labor force. While Conway's population has remained relatively the same, the number of residents employed has grown. The unemployment rate describes the percentage of people in the labor force who are presently not employed but are actively seeking employment in a given time period. This statistic is often used as a gauge of economic prosperity or distress. In 2019, the total labor force in Conway was 1,266 people according to the Massachusetts Executive Office of Labor and Workforce Development, the highest it has been since 2005.

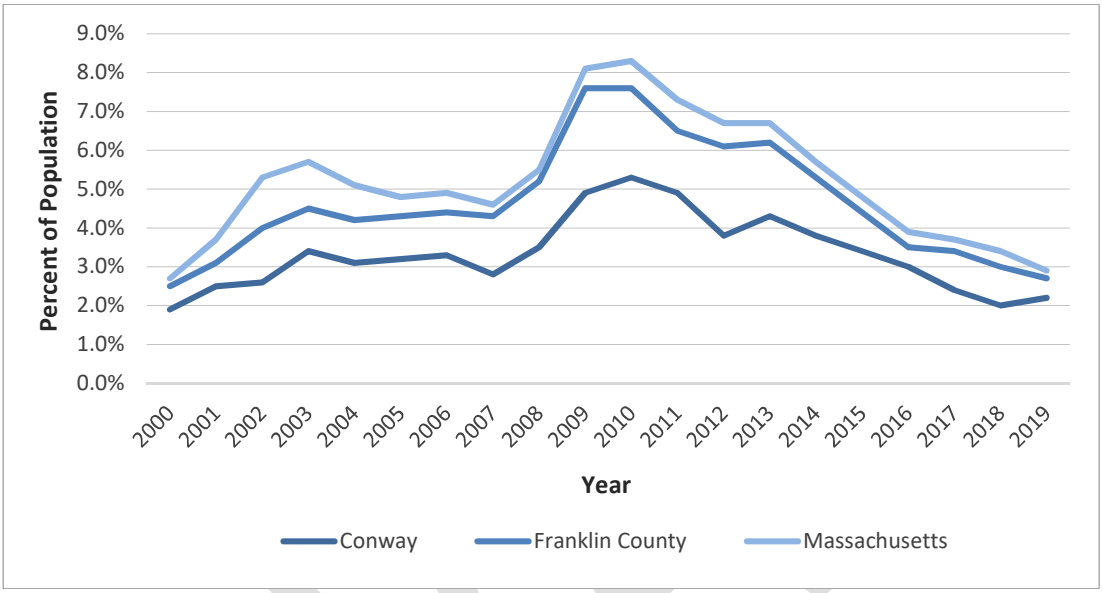
Table 3-6: Annual Labor Force and Unemployment, 2019

Geography	Labor Force	Employed Persons	Unemployed Persons	Unemployment Rate
Conway	1,266	1,238	28	2.2%
Franklin County	41,318	40,207	1,111	2.7%
Massachusetts	3,817,437	3,706,556	110,881	3.7%

Source: Massachusetts Executive Office of Labor and Workforce Development

Conway's unemployment rate in 2019 was 2.2%, representing a rebound from the post-recession high of 5% unemployment in 2010. The unemployment rate is determined by dividing the number of unemployed persons in an area who are actively seeking employment (and therefore part of the labor force), by the total labor force for that area. As Table 3-6 shows, the 2.2% unemployment rate is lower than the county and state, which in 2019 were 2.7% and 3.7%, respectively. Yet, however consistently Conway's unemployment rate remains below the county and state average, it is still influenced by patterns in the greater economy (see Figure 3-5).

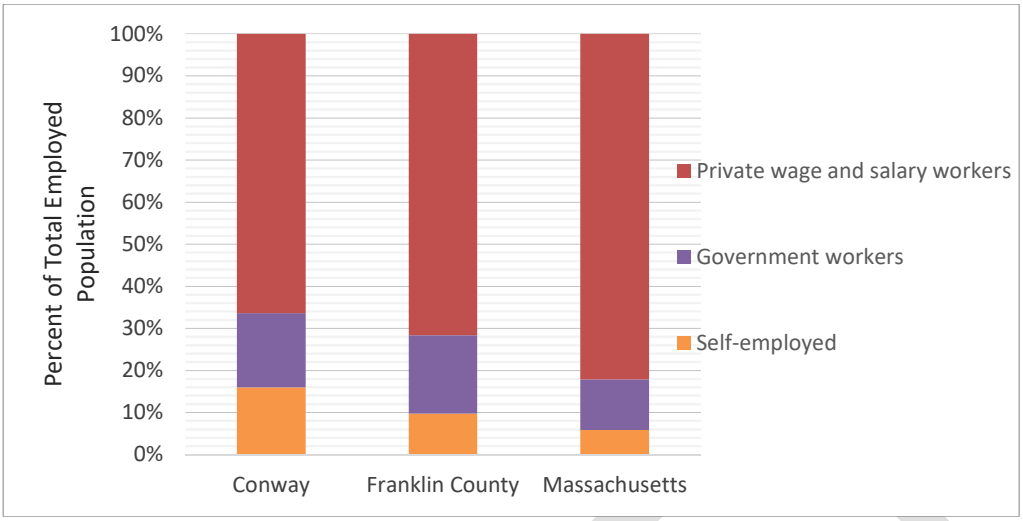
Figure 3-5: Annual Unemployment Rates, 2000 - 2019



Source: Massachusetts Executive Office of Labor and Workforce Development

Figure 3-6 shows the class of worker for the civilian employed population aged 16 years and over, and demonstrates that Conway has more self-employed workers at 16% of the working population, compared to Franklin County at 10% and Massachusetts as a whole at 6%. These self-employed residents may work in professional services, agriculture, construction, the arts, and cottage industries, and likely represent a large portion of the residents who work from home.

Figure 3-6: Conway Resident Employment by Class of Worker, 2018[20]



Source: 2014-2018 American Community Survey 5-Year Estimates

Table 3-7 presents estimates of the percentage of Conway workers who are employed in different industries, as compared to the county and state. Approximately 36% of Conway residents are employed in educational services, health care and social assistance, representing by far the largest share of employment type. Roughly 14% of Conway residents work in professional, scientific, and management, and administrative and waste management services, up almost 7 percentage points in the last seven years. Conway also has roughly 8% of its workforce employed in manufacturing, 8% in construction, 6% in retail trade, and 6% in arts, entertainment, and recreation, and accommodation and food services. The percent of Conway residents in each industry does not deviate significantly from the county or state rates.

[20] According to the U.S. Census Bureau, the classes of workers shown in Figure 3-6 are defined as follows:

- "Self-employed" includes people who worked for profit or fees in their own unincorporated business, profession, or trade, or who operated a farm.
- "Government workers" includes people who were employees of any local, state, or Federal governmental unit, regardless of the activity of the particular agency. The government categories include all government workers, though government workers may work in different industries. For example, people who work in a public elementary school or city-owned bus line are coded as local government class of workers.
- "Private wage and salary workers" includes people who worked for wages, salary, commission, tips, pay-in-kind, or piece rates for a private, for-profit employer or a private not-for-profit, tax-exempt or charitable organization. Self-employed people whose business was incorporated are included with private wage and salary workers because they are paid employees of their own companies.

Table 3-7: Industries in which Conway Workers are Employed, 2018

INDUSTRY	*Conway*	*Franklin County*	*Massachusetts*
Agriculture, forestry, fishing and hunting, and mining	2.0%	2.3%	0.4%
Construction	7.8%	6.2%	5.6%
Manufacturing	8.0%	9.7%	8.9%
Wholesale trade	1.8%	2.1%	2.2%
Retail trade	5.9%	10.5%	10.3%
Transportation and warehousing, and utilities	3.5%	3.8%	3.8%
Information	3.4%	2.1%	2.3%
Finance and insurance, and real estate and rental and leasing	4.4%	4.0%	7.4%
Professional, scientific, and management, and administrative and waste management services	13.5%	7.7%	13.8%
Educational services, and health care and social assistance	35.6%	34.9%	28.2%
Arts, entertainment, and recreation, and accommodation and food services	6.0%	7.7%	8.7%
Other services, except public administration	3.3%	4.4%	4.5%
Public administration	4.7%	4.6%	3.9%

Source: 2014-2018 American Community Survey 5-year estimates

Conway residents are more than twice as likely to work from home (14%) than Franklin County residents (7%) and Massachusetts residents (5%) on the whole.[21] Approximately 46% of residents leave Conway for work, with 9.5% of those workers destined for Northampton, 8.3% for Greenfield, 5.2% for Springfield, and 4.5% for Amherst. The mean travel time to work for employed Conway residents was 30 minutes, reflecting the large number of residents that commute to the better labor market in urban centers along I-91.[22]

As of 2018, roughly 340 people worked in Conway, predominantly in the public administration and educational services sectors, but also in wholesale trade and manufacturing.[23] The largest employers in town are the Town of Conway, the Conway Grammar School, Poplar Hill Machine, Inc., Orchard Equipment & Supply, Co. (OESCO), and South River Miso, each employing between 20 and 49 people.[24]

[21] U.S. Census, American Community Survey 2014-2018 Five-Year Estimates

[22] U.S. Census, American Community Survey 2014-2018 Five-Year Estimates

[23] U.S. Census Longitudinal Employer-Household Dynamics, 2017

[24] Massachusetts Executive Office of Labor and Workforce Development, Labor Market Information Program

Though the wealth of individual residents plays a role, the Town of Conway's ability to invest in open space and recreation is predominantly a function of the municipal budget (see *Section D. Growth and Development Patterns* for information on how different land uses impact the municipal budget), how the community prioritizes spending, and how takes uses advantage of other funding sources. Over the years, Conway residents and the Town have demonstrated a commitment to leveraging their resources to protect open space and enhance recreational opportunities through conservation restrictions, Agricultural Protection Restrictions, Chapter 61 enrollment, support for public land, and adoption of a 3% property tax levy for the Community Preservation Act (CPA). Like many rural Massachusetts towns with declining populations, Conway has to work to allocate scarce resources to many competing needs. This Open Space and Recreation Plan functions to organize and prioritize open space and recreation needs so the town can use its resources effectively.

D. GROWTH AND DEVELOPMENT PATTERNS

Conway's most valuable resources are its people and landscapes. The interdependent relationship between the two define both the town's character and financial wellbeing. This section examines historical and future landscape and growth patterns through the lens of infrastructure and the Town's current land use controls to help predict the future impact of development on the landscape. This section also explores the impact of different kinds of development on the cost of community services.

D.1 Patterns and Trends

Conway's was settled and developed similarly to other western Massachusetts hilltowns: farm houses with large acreages were built along roads and occasional clusters of homes sprung up around a store or public building or factory to make little villages. Today, few of the neighborhood districts besides those at the town center are noticeable. The industrial mills that once harnessed the South River are gone except for a brick building on Route 116 that is now home to OESCO. Conway's dams, mills, and electric railroad have disappeared, as have most of the large barns, though many farmhouses remain.

From 1971 to 1999, the most recent period of fast population growth, the major changes in land use in Conway were a loss of roughly 314 acres of forest, the conversion of 670 acres of agricultural land uses (some to residential use, some to forest), and an increase of 493 acres in residential uses.[25] The most recent land cover and land use data available through MassGIS maps land cover derived from 2016 statewide imagery and land use derived from standardized assessor parcel information. As Table 3-8 shows, approximately 86% of Conway is forested (41.9% deciduous and 44.1% evergreen), 5.7% is in agricultural use (5.3% pasture/hay and 0.4% cultivated), 2.4% is water or wetland (0.5% water and 1.9% wetland) and 1.4% is impervious—residential, industrial, and commercial development and roads. The largest areas of unforested open space (pasture, hayfield, meadow or cropland) are located in the north of Conway on

[25] 2013 Conway Open Space and Recreation Plan

Bardwells Ferry Road, and in the east on Roaring Brook Road. Other areas of unforested open space can be found around town and along the South River, Shelburne Falls Road, and North Poland Road.

Due to a change in methodology and technology used to collect this data, the 2016 acreages cannot be compared to earlier sets of data (2005, 1999, 1985 and 1971). Additionally, land use is categorized according to the most intensive land use present on the lot, so a parcel that is predominantly forest will show up as residential if there is a house on it. As such, the relationship between land use data and land cover data greatly informs the natural landscape of Conway.

Table 3-8: Summary of Conway Land Cover, 2016

Land Cover Category	Acres	Percentage of Total Town Acreage
Bare Land	64	0.3%
Cultivated	88	0.4%
Deciduous Forest	10,130	41.9%
Developed Open Space	393	1.6%
Evergreen Forest	10,675	44.1%
Grassland	592	2.4%
Impervious	344	1.4%
Aquatic Bed	13	0.1%
Emergent Wetland	180	0.7%
Forested Wetland	210	0.9%
Scrub/Scrub Wetland	50	0.2%
Pasture/Hay	1,280	5.3%
Scrub/Shrub	68	0.3%
Water	119	0.5%
Total	**24,206**	**100%**

Source: MassGIS

Table 3-9: Summary of Conway Land Use, 2016

Land Use Category	Acres	Percentage of Total Town Acreage
Agriculture	1,393	5.8%
Commercial	131	0.5%
Forest	1,526	6.3%
Industrial	193	0.8%
Mixed Use, Other	62	0.3%
Mixed Use, Primarily Residential	5,368	22.2%
Open Land	4,844	20.0%
Recreation	276	1.1%
Residential, Multi-family	896	3.7%
Residential, Single-family	5,249	21.7%
Right-of-way	416	1.7%
Tax Exempt	3,683	15.2%
Unknown	97	0.4%
Water	72	0.3%
Total	**24,206**	**100%**

Source: MassGIS

Table 3-9 shows designated land uses. Agricultural land use in Conway matches agricultural land cover, at 5.8%. However, forestland (86% of land cover) is split between a variety of land uses: forest, residential, open land, recreation, and tax exempt uses. Cross-analysis of the two datasets illustrates the degree to which forested land and wetlands are in privately owned residential parcels, as only 1.4% of the town's overall acreage is impervious development, while 47.6% of the land area is designated residential use. This demonstrates the degree to which small, family-owned forests constitute a large portion of forested lands in Conway, as is the case in

Massachusetts generally,[26] and family land owners are a primary agent in land use decisions and land protection.

Despite the slowdown in population growth since the 1990s, Conway was one of the few Franklin County communities that grew in population in the 2000s and held steady in the 2010s. Conway acquired over half of its current housing stock in the 50-year period from 1970 to 2020, intensifying residential development along existing road frontage and on prime farmland. According to the Franklin County Cooperative Inspection Program, a total of 18 new homes have been built in Conway since the beginning of 2010, as shown in Table 3-10.

Table 3-10: New Homes Permitted in Conway per Year, 2010-2020

Year	New Homes
2010	3
2011	0
2012	2
2013	0
2014	4
2015	1
2016	0
2017	3
2018	3
2019	2
As of Oct 2020	0
Total	**18**

Source: Franklin County Cooperative Inspection Program

Over time, Conway has lost agricultural and forestland to a variety of different kinds of development. Starting in the 1950s, more single-family residences were constructed along existing roads where development through the approval-not-required (ANR) lot-division process is permitted by right as long as a parcel meets the zoning bylaw's minimum road frontage requirements. Conway is one of two communities in the state with no subdivision regulations, so new roads cannot be built for development. Since the late 1980s there has been an increase in shared-drive (driveway/private road) and back-lot residential developments.

As is typical of many rural communities, much of Conway's land is in large, undivided parcels that are increasingly divided into smaller pieces for residential development. These larger parcels include most of the scenic farmland and rustic woodland that characterize the town. Much of this land is in private hands and therefore vulnerable to a change in use. By contrast, there is very little

[26] MassWoods. "Family Forests", 2007: https://masswoods.org/monthly-update-tags/ma-forest-ownership

land available in the center of town for much-needed amenities due to the scarcity of flat land and sewer and water capacity. The Town has had to put on hold plans to build a new town garage, a new safety complex, and a senior housing complex due to these constraints, which also are also hampering the town's ability to align with the goal laid out in the Franklin County 2035 Regional Plan for Sustainable Development of concentrating new growth near town centers and focusing on infill development.

D.2 Infrastructure

D.2.1 Transportation System

Roads

Conway has over 72 miles of public roads.[27] Most follow the contours of stream valleys, and all but a few are intertown connectors. The primary through road is state highway Route 116, which bisects the town from east to west and connects the village to Interstate 91 with a ten-minute drive. It is a curving, two-lane road with narrow gravel shoulders that carries a steady stream of both residential traffic and commercial trucks and weekend recreation traffic, including motorcycles. The speed limit varies from 25 to 40 mph through town. Commuter and recreational bicyclists and pedestrians (in town center) also frequently use Route 116. Wildlife can often be seen while traveling this route, especially at night. The Region I and II offices of Massachusetts DOT has in the past considered the road to be in need of widening and straightening as a regional truck route. However, in 2008 the Massachusetts legislature designated Route 116 as a State Scenic Byway. A Route 116 Scenic Byway Corridor Management Plan was published in 2013.

Of Conway's other inter-town roads, two are paved for their full length, three are partly paved and partly oil and stone surface, and remaining roads have varied surfaces, including dirt sections. 'Unimproved' dirt roads have been valued by many long-time residents but are sometimes prone to greater washouts in heavy rain events. Remnants of unused town and county roads also make up the transportation network. However, there is concern that "abandoned" sections that have not been legally discontinued can be revived for new roadside development. The development off Hoosac Road in the late 1980s is an example of this occurring. The town has no designated Scenic Roads (un-numbered inter- or intra-town roads) pursuant to Massachusetts General Laws Section 15C.[28] Designated Scenic Roads require Planning or Select Board approval of any tree cutting or stonewall alterations within the designated corridor.

Transit

While the Franklin Regional Transit Authority (FRTA) and the Pioneer Valley Transit Authority (PVTA) provide active service to towns to the north and east, there are no regular transit services available to Conway. The FRTA provides demand-response transportation services for the elderly and disabled residents and the Med-Ride service for persons over the age of 60 needing transportation outside of Franklin County for medical appointments. Due to Conway's small

[27] Mass DOT Road Inventory File

[28] MGL "Section 15C: Scenic road designations; improvements; fines" http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section15c

population and current necessity for residents to own vehicles, it is uncertain whether a transit system would consider a route through the town to be feasible.

Pedestrian and Bicycle

Since the 1991 passage of the federal Intermodal Surface Transportation Efficiency Act (ISTEA), bicycling and walking have been recognized as viable and efficient modes of transportation. Consequently, bicycle and pedestrian facilities are included as a regular part of transportation planning activities on the federal, state, regional, and local levels. Not only are bicycling and walking integral components of the transportation system in Conway and Franklin County, they are also crucial components that help make the region a livable place. In Conway, biking and walking mostly take place on the roads themselves, as there are few bike trails, bike lanes, or sidewalks (outside of town center), or even wide shoulders to accommodate these users. The Massachusetts Department of Transportation (DOT) and the Federal Highway Administration have recently focused their attention on the important role these modes of transportation play and the many benefits they provide a community, including reduction of greenhouse gases and other air pollutants, lowered energy costs, less use of land and pavement, increased health benefits, economic savings, increased social interactions, and community revitalization.

Recently the FRCOG partnered with the YMCA in Greenfield, Baystate Franklin Medical Center, Greenfield Community College, and the Franklin County Chamber of Commerce to develop and launch *Walk Franklin County – for the Health of It!* This cooperative program works to promote walking for transportation, reduction of air pollution, and physical fitness and health. The *Walk Franklin County – for the Health of It!* project is a free program that allows participants to measure and record their walking progress and receive rewards for reaching their walking goals. The FRCOG has completed sets of walking maps for each town in Franklin County, including one in Conway: a 2-mile loop from the center of town up Baptist Hill, over the Burkeville Bridge, and down Pleasant Street and Academy Hill. A map of the walk is available online at http://www.walkfranklincounty.org/maps.php.

The majority of pedestrian facilities are limited to Conway Center, where several municipal buildings, such as the town hall, town offices, senior center, and library are located within walking distance of one another. The Conway Streetscape Improvement Project completed in 2006 included the construction and/or improvement of sidewalks, installation of curbing, benches, trash receptacles, plantings, interpretive signs, and signs at the entrances to the downtown along Route 116 in Conway Center. The project area included Elm Street, River Street, and Ashfield Road, and incorporated elements intended to enhance the town center as a gathering space. In addition, the Burkeville Covered Bridge was reconstructed by MassDOT for use as a pedestrian bridge in 2006. The improved sidewalks and streetscape connect up to Burkeville to the reconstructed bridge.

The FRCOG's 2021 Regional Pedestrian Plan for Franklin County[29] found that there are opportunities for further improving pedestrian facilities in Conway Center, including:

- Refresh and enhance the visibility of crosswalks on Route 116 in the village center.
- Sidewalk connections from feeder roads/side streets that lead into the village center.

[29] https://frcog.org/wp-content/uploads/2021/11/Pedestrian-Plan-for-Franklin-County-2021.pdf

- Improved crosswalks and curb ramps at some locations for better ADA accessibility.
- Pedestrian level lighting in the town center.
- Snow clearing equipment.

As noted earlier in this section, several roads in Conway are designated bikeway routes as part of the Franklin County Bikeway. These are Route 116, Whately Road, Shelburne Falls Road, and Bardswell Ferry Road, and are considered appropriate for novice or intermediate bicyclists. Franklin County Bikeway maps are available on-line on the FRCOG website.[30]

Road Infrastructure

FRCOG completed a town-wide culvert inventory and assessment for Conway in fall of 2020 as one of the first phases of the Mohawk Trail Woodlands Partnership Regional Adaptation & Resilience Project (funded by a MVP action grant). The work included: 1) locating every culvert and marking each inlet and outlet with GPS; 2) evaluating the physical state of each inlet, outlet, and the interior of the culvert, if visible; and 3) providing an overall grade of the condition of each culvert's inlet and outlet. This project was intended to be a rapid assessment for a town's Highway Department and Select Board so that they can have an understanding of the location and condition of the town's culverts in order to prioritize maintenance and capital improvement planning. The FRCOG identified approximately 530 culvert and drainage structures on Conway's roadways. Of these, 70% were assessed as being in Good condition, while another 10% were identified as being in Critical condition needing immediate attention for either replacement or maintenance. Data can be found on FRCOG's website[31] and should be consulted for other road construction projects where culvert improvements would provide co-benefits. In addition, UMass Amherst's River and Stream Continuity Project identified three culverts as moderate or significant stream-continuity barriers to aquatic wildlife.[32]

D.2.2 Water Supply

Virtually all buildings with plumbing in Conway are served by individual wells (a few still use spring water). The public drinking water supplies in Conway regulated by the MassDEP are located at Bakers Country Store, the Conway Grammar School, and the Conway Inn. The building at 98 Main Street, the former Holly's Barn, and the residence that formerly housed the Conway School of Landscape Design are no longer considered public supplies. These sources are discussed in more detail in *Section 4.E.5 Groundwater*.

All wells for residential development must be located a particular distance from potential contamination sources. The regulations state that wells need to be up gradient from all potential sources of contamination, accessible for repair and maintenance, and not in topographically low areas where surface water could accumulate. Combined with Title 5 septic regulations, these minimum requirements could result in constraining the location and number of new house lots in Conway in the foreseeable future, though the constraints are less now that mounded leach fields are permitted.

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[30] http://frcog.org/program-services/transportation-planning/.

[31] https://arcg.is/1LCLmr

[32] https://sce.ecosheds.org

The 1989 "Groundwater Risk Assessment" study of potential threats to groundwater revealed that a number of wells in the center of town are shallow and face contamination from failing septic systems and road salt. However, although some older homes in town have experienced septic system failures in the last few decades, according to communications with the Board of Health in 2021, no wells have ever been contaminated.[33] The 1989 assessment also found that many citizens in older dwellings did not know the exact location of their wells, which the Board of Health confirmed is likely still true today.

D.2.3 Sewer Service

All sewage in town is treated by individual septic systems. In 1975, when Massachusetts required existing buildings to stop dumping waste directly into rivers, the Conway Board of Health opted to require septic fields instead of a public sewer system. This choice has served to limit new development to appropriate soils, but it has also meant that the septic systems serving some of the older town center buildings are perhaps poor filters and risk contaminating shallow wells. In addition, some of these septic fields are closer to waterways and wetlands than current standards allow, but there is not enough real estate on the property to allow for proper separation.

An informal study conducted by the Town around 2015 found that while some systems have been replaced three or four times since the early 1970s; others appear to still be functional. Because of the steep embankments in Conway Center, some of the newer septic system replacements have pumps to an elevated leach field. Others have expensive onsite secondary treatment. The Town has continued to comply with Title 5 requirements as they have become more sophisticated.

The Town has studied alternative wastewater options and funding opportunities in order to protect drinking water supplies from potential contamination from failing septic systems and to allow increased use of Conway Center to maintain the viability of the village as a business, civic, and residential center. In 2016 the Town completed a feasibility study with White Engineering that outlined possible community wastewater options for the village. Their final proposal was for a low-pressure septic tank effluent (grey water) collection system using existing or new septic tanks with pump chambers to move the effluent to a 10,000 gallon per day community leaching field located on Town property. However, the capital costs were to high given the number of homes (30+ served), so the Town has had to search for grant funding. The Town continues to look for funding, as they have been unsuccessful with MassWorks grants, but the recently passed American Rescue Plan Act may provide a potential source of funding.

D.2.4 Solid Waste Management

Conway is home to three inactive landfills. The Shelburne Landfill on Shelburne Falls Road and Conway Wood and Demo Landfill on Old Cricket Hill Road were closed and capped in 1979 and 1996, respectively. The Conway Landfill on Old Cricket Hill Road is closed, but not capped. The Town now operates a transfer and recycling station on adjacent land. The station accepts dual stream recycling (paper/cardboard vs. plastic, metal, and glass containers), trash, compost, and items for giveaway. There are also several sheds that contain "take-it-or-leave-it" articles,

[33] Email communication with Carl Nelke, April 12, 2021.

including children's items, electronics, clothes, and books. Two large containers are on-site for metal recycling and for bulky items and building materials. Use of the transfer station requires an annual permit ($10), plus payments for household waste placed in the trash compactor.

Hazardous waste collection is provided for limited types of household hazardous waste, such as automotive products (used motor oil, oil filters, transmission fluid, anti-freeze); mercury-containing devices (fluorescent lamps, button batteries, fever thermometers and thermostats); oil-based paints, thinners, lacquers, and other paint-related items; rechargeable nickel-cadmium batteries; and fluorescent lamp ballasts. Conway hazardous waste collection events are held about six times per year. Conway is a member of the Franklin County Solid Waste Management District, therefore all residents may also dispose of household hazardous wastes at spring and fall events through this program.

D.2.5 Internet

Conway is serviced by Comcast with high-speed cable broadband internet. In 2018, the network was expanded to reach 99% of Conway residents, with only a few properties remaining without coverage. There are no plans to upgrade the network to fiber optic, which is available in the neighboring hilltowns that never had an established a broadband network.

D.2.6 Power

In 2020 Conway implemented the Conway Community Choice Power Supply Program, which allows the Town to combine the purchasing power of its residents to achieve savings on electricity costs, price stability, and increased option to purchase renewable. Efforts to install community solar in Conway was postponed indefinitely due to changes in state solar energy policy.

D.3 Long-term Development Patterns

Conway has been generally forward thinking in its approach to accessing money to preserve things they love. Many residents have protected land either temporarily through the state's Chapter 61 tax abatement program or permanently through conservation restrictions and Agricultural Protection Restrictions. In general, the town has been amendable to public purchase of large land blocks with high ecological value. In 2004, Conway institutionalized a funding stream for open space and recreation by adopted the Community Preservation Act (CPA). The CPA allows communities to create a local Community Preservation Fund to raise money through a surcharge of up to 3% of the real estate tax levy on real property for open space protection, recreation, historic preservation, and the provision of affordable housing, which is then matched through a state CPA fund. Conway passed the CPA at a 1.5% surcharge on property taxes in 2004, and voted to increase the surcharge to 3% in 2014 with exemptions for low-income residents. But long-term development patterns in Conway will depend not only on the degree of investment in open space resources, but also on how development is managed on unprotected land. This will come down to whether public wastewater treatment can be expanded in town, how land use controls evolve, and how the community responds to dynamic factors such as climate change.

D.3.1 Land Use Controls

The Town of Conway employs its Protective Zoning Bylaws and Board of Health regulations as land use controls. With the exception of a 7-acre parcel in Burkeville zoned light industrial, most

of Conway is zoned rural residential/agricultural (RR/A). The zoning bylaws require a minimum lot size of 1 acre and a minimum of 200 feet of frontage on a public way that provides suitable access for fire, police, and emergency vehicles. One and two-family homes are permitted by-right, as are accessory apartments in a one-family home, and accessory apartments in a two-family home are allowed by special permit. Mobile homes are also permitted. Detached accessory dwellings are not allowed.

Conway's zoning bylaws include a number of overlay districts and other provisions that modify the basic land use code. They include:

- A Floodplain Overlay District, which regulates new development within the 100-year floodplain in town. Any underlying permitted uses are allowed so long as they comply with state building code regulations for construction in floodplains, and can demonstrate that the development will not result in any increase in flood levels during a 100-year flood event.
- A Wireless Communications Facilities bylaw regulates the construction of new wireless facilities to protect the scenic, historic, and natural resources of the town.
- A Large Scale Solar Facilities bylaw passed in 2011 and revised in 2021 that specifies that small scale solar (<25kW) is permitted by right, intermediate-scale solar (25 kW – 250 kW) by right with site plan review, and large-scale solar (>250 kw) requires site plan review and a special permit. The 2021 revisions removed a portion of the original Solar Overlay District. The bylaw also specifies wetland protection and areas of town where solar facilities are not permitted, including any area greater than 20 acres of previously undisturbed land and forest clearing of an area of greater than 10 acres of state-designated Prime Forest.
- An Age Restricted Housing Community Bylaw added in 2017 that allows for the construction of higher-density affordable housing for persons over the age of 55 that allows greater flexibility in site planning and the preservation of open space and historic resources within the development.
- An Adult Use Recreational Marijuana Establishments bylaw passed in 2018 that regulates the location, appearance, and water and energy use of marijuana cultivation, manufacturing, processing, and packaging facilities.

Special permits are required when any business has more than 15 employees or 50 customers. Conway's Large Scale Industrial & Commercial Facilities Zoning Bylaw (added in 2018) also requires impact evaluation of commercial and industrial uses and requires a special permit that requires traffic, noise, odor, pollution, and other environmental impacts that are incompatible with the character of a residential neighborhood. The limited amount of large, flat acreage, no public sewer or water, and the steep 7-mile trek from the closest interstate highway and railroad, suggests that, with the exception of the land of some of the larger farms, large-scale industrial or commercial development is not likely. Conway is, however, suitable for residential development, as has been evident in the last few decades. Title 5 now permits mounded septic systems, so slopes and soils are no longer the same deterrent to residential development that they once were. Towns without public sewer or water typically set larger minimum lot sizes (1.5 to 2 acres) than Conway. Conway's one-acre lot size allows for slightly more dense development than similar towns, but the challenge of siting both a septic system and a well on one acre when slope and soil are a factor means few new homes in Conway are constructed on lots that small.

Conway does not have any Subdivision Control regulations, as the town has not voted to accept the Massachusetts Subdivision Control law permitting subdivision regulation, so new public frontage cannot be created by road building.[34] However, the town permits by right 4-acre-minimum back-lot parcels that share the same 30-foot right-of-way and private driveway. Currently, there is no limit to the length of driveways or number of backlot sites that can be applied for under special permit. Driveways shared by more than two residences must meet certain construction standards and requirements for emergency vehicle access, but these do not cover all of the standards regulated through subdivision control regulations. In general, Conway's current zoning bylaws favor residential development along existing roadways and provides few limitations on back-lot development.

In the mid 2010s, the Town considered adopting a village center zoning district. However, the lack of public sewer and water has forced the Town to table the village center district until issues related to the lack of public sewer and water are resolved.

D.3.2 Cost of Community Services

The American Farmland Trust (AFT) and other organizations have conducted Cost of Community Services (COCS) analyses for many towns and counties across the country. A COCS analysis is a process by which the relationship of tax revenues to municipal costs is explored for a particular point in time. These studies show that open spaces, while not generating the same tax revenues as other land uses, require less public services and result in a net tax gain for a community. Residential uses require more in services than they provide in tax revenues compared to open space, commercial, and industrial land uses. Communities, at the time of the study, were balancing their budgets with the tax revenues generated by other land uses like open space and commercial and industrial property.

However, if a community has an excess in service capacity, new residential growth is not necessarily a strain on the budget. For example, adding more students to an under-enrolled school system would not increase the costs of educational services, it would spread the existing fixed costs over a larger number of taxpayers. When there is capacity to absorb more residents, the increase in the cost of services may be smaller than the increased income from taxes. Models such as the COCS analyses can be consulted and can provide support for open space and farmland preservation, and commercial and industrial development as a way to help small cities and towns balance their budgets.[35] The studies are not meant to encourage towns and cities to implement exclusionary zoning that seeks to make it difficult to develop housing, particularly for families with school-age children, who require more in services. Any such study would also have to take into consideration where development occurs relative to Town Center, as some outlying parts of Conway are closer to other town centers than they are to Conway Center, suggesting that development in certain areas would create a greater financial burden than others unless regionalized services are in place.

[34] At present, it is unclear whether not accepting the Massachusetts Subdivision Control Law can prevent new subdivisions from being developed in Conway.

[35] MassWoods. "Community Conservation": https://masswoods.org/communityconservation

Additionally, low vacancy rates in Franklin County suggests there is a pent-up housing demand in the county as a result of the 2008 recession and the hot housing market caused by the Covid 19 pandemic. Given that it is unclear whether population will increase or decrease in Conway over the next few decades, the challenge for its residents will be to find a sustainable development model that sustains and enhances the community's agricultural, rural, and historic character and promotes a stable and equitable property tax rate. If market forces respond to a natural or Covid-19 driven population increase in Conway, protecting land while directing housing growth to the village center will help maintain the open space that provides a net revenue gain to the town and at the same time help meet the future housing needs of the population. An increase in small business development alongside conservation of natural resources and the characteristics that give Conway its quiet, rural feel can help satisfy the desires of residents to maintain their community character while off-setting the tax burden. This approach must also be adaptable to recreation and open space needs that change over time as the composition of the community changes. By continuing to pursue growth management strategies that include active land conservation and zoning measures that balance development with the protection of natural resources, Conway will be better positioned to maintain a high quality of life for its residents.

Town of Conway Open Space & Recreation Plan 2022

Regional Context

BUCKLAND
SHELBURNE
GREENFIELD
ASHFIELD
DEERFIELD
GOSHEN
WILLIAMSBURG
WHATELY
HAMPSHIRE

Permanently Protected Open Space
Watershed Boundary
Local Road
Major Road
Transmission Line
County Boundary
River, Stream
Water Body

Town of Conway
Franklin County Ma.

Sources: Map produced by the Franklin Regional Council of Governments Planning Department.
GIS data sources include MassDOT, MassGIS and FRCOG.
Depicted boundaries are approximate and are intended for planning purposes only, not to be used for survey.

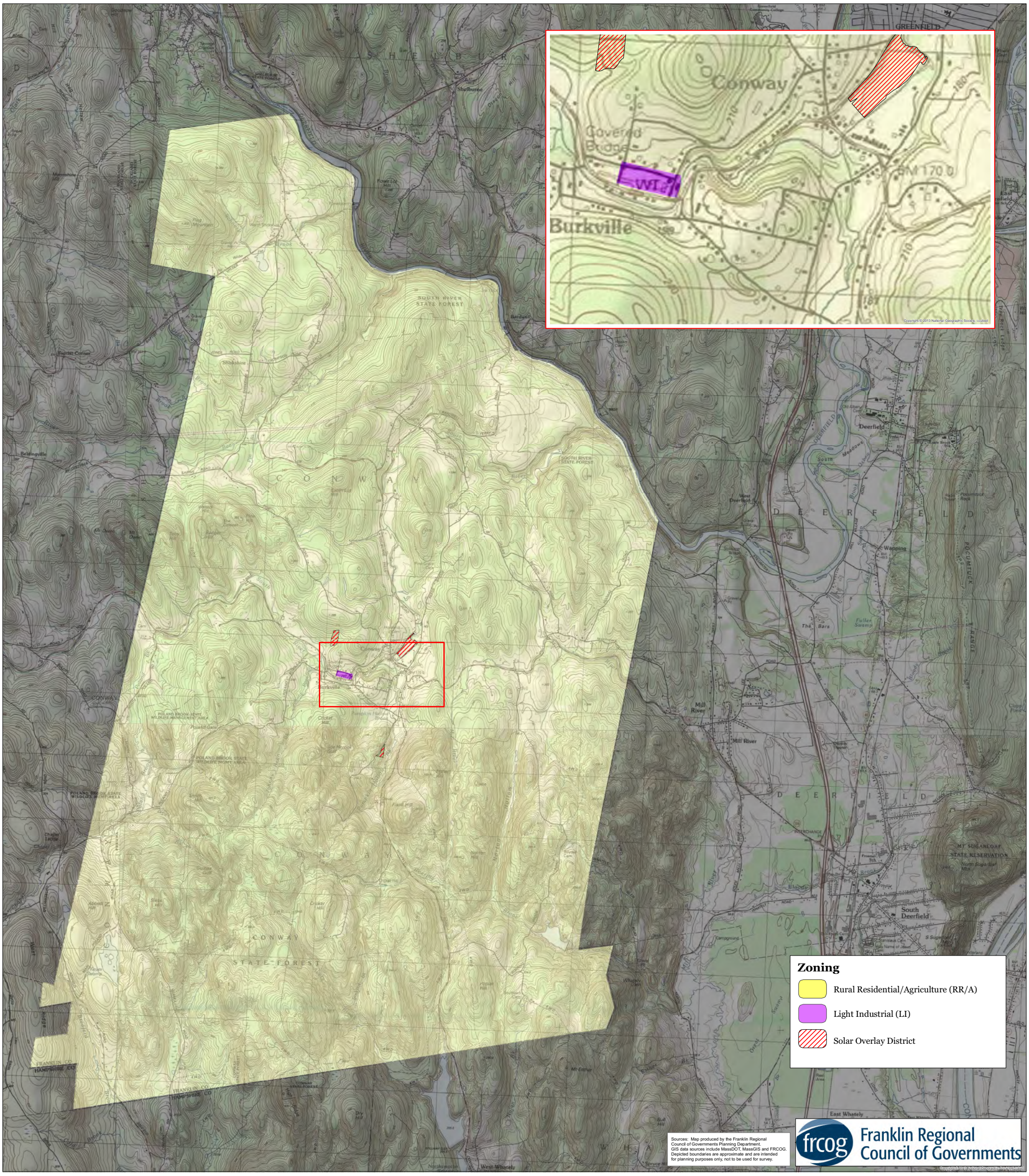
0 0.5 1 2 Miles

N

frcog Franklin Regional Council of Governments

Town of Conway
Official Zoning Map

February, 2021



SECTION 4: ENVIRONMENTAL INVENTORY AND ANALYSIS

This section of the Conway Open Space and Recreation Plan provides a comprehensive inventory of the natural resources and significant cultural assets within the town. The purpose of this section is to provide a factual basis upon which assessments can be made. The *Climate Change Impacts* subsection provides localized climate data and identified municipal vulnerabilities to climate change that may impact the town's cultural and natural assets. The *Documenting and Mapping Ecosystems* subsection provides a guide to tools available for prioritizing parcels of land based on biological and physical attributes that make land highly valuable for conservation. The *Soils, Geology, and Topography* subsection provides a general understanding of the ways different soil characteristics can impact land use values. *Landscape Character* provides an overall scenic context. *Water Resources* describes all of the water bodies in town, above and below ground, including their recreational value, public access, and any current or potential quality or quantity issues. In the *Vegetation* subsection, Conway's forest, farmland, and wetlands are documented and in *Fisheries and Wildlife*, wildlife habitat and rare, threatened, and endangered species are discussed. Conway's *Scenic Resources and Unique Environments* section identifies special natural and constructed places, trails, and views. Finally, *Environmental Problems* addresses current and potential problems that may influence open space or recreation planning.

Each of these resource areas is analyzed from two perspectives. First, the Town's natural resources provide Conway residents with basic ecosystem services and cultural amenities. Ecosystem services, generally, are benefits to humans provided by ecological systems, such as drinking water filtration, flood storage capacity, species diversity, carbon sequestration and climate change mitigation, and soil nutrient processes. Cultural amenities include the recreational use of open spaces; the quality of life benefits that are maximized by maintaining the area's rural character and scenic beauty; and the direct and indirect beneficial impacts that well-conserved natural resources, such as good drinking water and open spaces, have on the local economy. Second, it is important to determine whether the resources require conservation and management so that the quantity and quality required by the citizenry is sustained.

A. CLIMATE CHANGE IMPACTS

A changing climate is impacting natural resources, including wildlife and habitats in Massachusetts, and will continue to have an impact as temperatures rise and precipitation amounts change over the coming decades. According to the Massachusetts Wildlife Climate Action Tool,[1] warming is occurring in all seasons, with the greatest changes in winter, at higher latitudes, and potentially at higher elevations. Seasonal warming is extending the growing season, particularly with more frost-free days occurring earlier in spring. Precipitation amounts are increasing, especially in winter. Warmer winters are also resulting in more precipitation falling as rain instead of snow, leading to reduced snowpack—though stronger blizzards may lead to locally higher

[1] http://climateactiontool.org/content/learning-about-climate-change

snowpack in Massachusetts and New England. In the summer, heavier downpours combined with longer dry periods are expected, increasing the risk of both floods and drought. Sea level is also rising along the Massachusetts coastline, leading to coastal flooding, which is compounded by increasingly intense coastal storms and hurricanes that may lead to increased migration within Massachusetts.

Natural resources play an important role in mitigating future climate change, but are also vulnerable to its impacts. Local decisions about how natural resources are managed and conserved affect the ability of people, habitats, and wildlife species to cope with future climate changes. The following is an overview of the two major impacts of climate change for Massachusetts and Conway: changes in temperature and changes in precipitation. More information about specific climate change vulnerabilities due to these impacts as well as adaptation strategies are incorporated into relevant sections of the Environmental Inventory and Analysis, including *I. Environmental Challenges*.

A.1. Temperature Changes

The northeast United States has experienced an increase in annual temperatures of 1.6°F over the last century, with the greatest warming happening in the winter.[2] Depending on future global greenhouse gas (GHG) emissions scenarios, average annual temperatures in Massachusetts are expected to be 2.8°F to 6.2°F warmer by 2050 than in the past several decades (when the average annual temperature was observed to be 47.5°F). By 2090, the average annual temperature in the state is expected to increase by 3.8°F to 10.8°F, depending on varying emissions scenarios.[3]

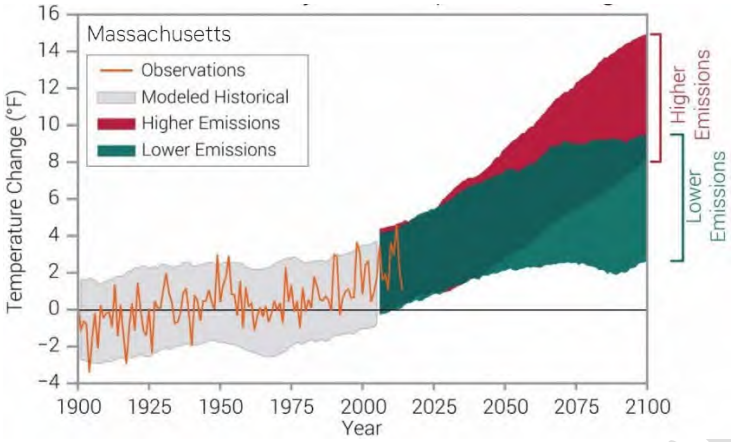
The Resilient MA Climate Change Data Clearinghouse provides climate projections at the watershed level.[4] Half of Conway falls in the Deerfield River Basin and the other half the Connecticut River Basin. Within the Deerfield River Basin, the overall observed average annual temperature between 1971 and 2005 was 44.4°F. Average annual temperatures in the watershed are expected to increase between 3.2°F and 6.7°F by 2050 depending on future GHG emissions levels (Figure 4-1); by 2090, average annual temperatures in the watershed could increase by 4.2°F to as much as 11.4°F, depending on global emissions. Within Connecticut River Basin, overall observed average annual temperature between 1971 and 2005 was 47.0°F. Average annual temperatures in the watershed are expected to increase between 2.2°F and 4.5°F by 2050 depending on future GHG emissions levels; by 2090, average annual temperatures in the watershed could increase by 4.0°F to as much as 10.9°F, depending on global emissions.

[2] http://climateactiontool.org/content/temperature-changes

[3] http://www.resilientma.org

[4] http://www.resilientma.org

Figure 4-1: Observed (1971-2005) and Projected Average for Massachusetts



Source: Resilient MA: Climate Change Clearinghouse for the Commonwealth[5]

In addition to overall warming temperatures, it is expected that an increase in extreme high temperatures will occur. For example, in Massachusetts there will be 7 to 26 more days over 90°F in 2050 compared to the past several decades. In the Deerfield River Watershed, it is expected that by 2050, there will be anywhere from 6 to 25 more days with temperatures over 90°F. From 1970 to the mid-2000s, the watershed averaged less than 3 days per year when temperatures reached over 90°F. Conversely, the watershed is expected to experience 8 to 12 fewer days when temperatures drop below freezing (32°F) by 2050.

A.2. Precipitation Changes

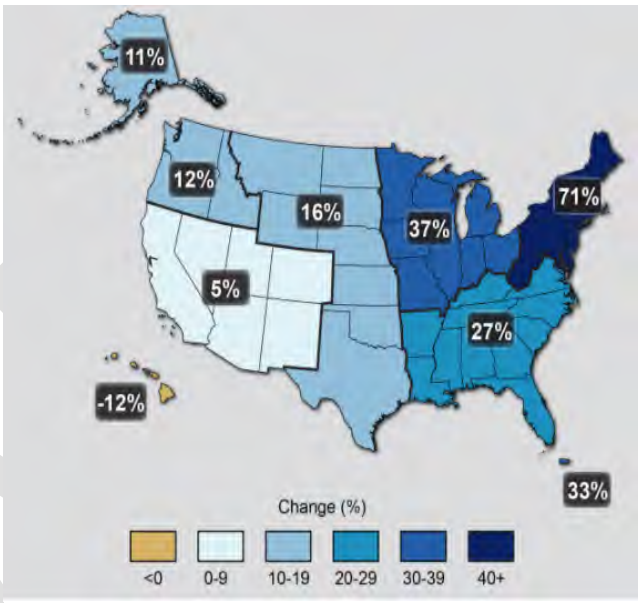
In Massachusetts, annual precipitation amounts have increased at a rate of over 1 inch per decade since the late 1800s and are projected to continue to increase largely due to more intense precipitation events.[6] The Northeast has experienced a greater increase in extreme precipitation events than the rest of the U.S. in the past several decades (Figure 4-2). Although overall precipitation is expected to increase, it will occur more in heavy, short intervals, with a greater potential for dry, hot, drought conditions in between.

[5] http://www.resilientma.org/

[6] http://climateactiontool.org/content/temperature-changes

Observed annual precipitation in Massachusetts for the last three decades was 47 inches.[7] Total annual precipitation in Massachusetts is expected to increase between 2% and 13% by 2050, or by roughly 1 to 6 inches.[8] In the Deerfield River Watershed, annual precipitation has averaged around 50 inches in recent decades. By 2050, the annual average could remain relatively the same (but occur in more heavy, short intervals) or increase by up to 7 inches a year.[9] In general, precipitation projections are more uncertain than temperature projections.

Figure 4-2: Observed Change in Very Heavy Precipitation, 1958-2012



The northeast has seen a greater increase in heavy precipitation events than the rest of the country. *Source: updated from Karl et al. 2009, Global Climate Change Impacts in the United States.*

A.3. Effects of Climate Change

Climate change is already altering natural habitats and impacting communities in various ways. Ecosystems that are expected to be particularly vulnerable to climate change include coldwater streams and fisheries, spruce-fir forests, hemlock forests, northern hardwood forests, vernal pools, and street trees in town centers. Warming temperatures and changes in precipitation will push plant and animal species northward or to higher elevations. Higher temperatures, along with changes in stream flow, will degrade water quality. Despite increased precipitation, higher temperatures will also lead to more frequent drought. Coldwater species will decline, while an increase in stronger storms leads to more flooding and erosion. A shift to winter rains instead of snow will potentially lead to more runoff, flooding, and greater storm damage along with less spring groundwater recharge.

An increase in extreme weather events, including heavy rains, ice storms, microbursts and hurricanes, will impact natural resources and human communities. Loss of roads, bridges, culverts, buildings, farmland, and crops are a few impacts that have already been experienced in the region from increased extreme weather.

[7] http://climateactiontool.org/content/temperature-changes

[8] http://climateactiontool.org/content/temperature-changes

[9] http://www.resilientma.org

A Community Resilience Building workshop (CRB)[10] was held in April 2018 in which Conway and Ashfield residents identified the current concerns and challenges presented by climate hazards. These concerns are fully highlighted in the Towns of Ashfield & Conway Municipal Vulnerability Preparedness (MVP) Resiliency Plan and include the following:

- Risk of dam failure of the Ashfield Lake dam
- Undersized and aging/failing culverts, unstable streambanks, and roads, buildings, and other infrastructure vulnerable to flooding
- Lack of emergency drinking water for people on private wells, risk of contamination of public wells from failing septic and flooding
- Invasives species impacts
- The impacts of climate change on forests and other open space resources

While climate change will continue to be a major challenge globally, local efforts and decisions have a real and lasting impacts on mitigating and adapting to future climate change. One of the most effective, and least costly, strategies is to preserve existing natural areas and manage them for increased resilience to climate change.

B. DOCUMENTING & MAPPING ECOSYSTEMS

Conway Town officials and residents can use the climate and environmental information in this chapter as a reference when making land use decisions, including planning open space protection. Ideally, the permanent conservation of select parcels helps protect the town's scenic value and natural resources in the face of changes in land use and climate change impacts, while recognizing that people need places to live, learn, work and play. Development, when sited in undeveloped areas rather than as infill in already developed areas, can require infrastructure such as roads, power, water, and wastewater systems. Such infrastructure needs both depend upon and impact critical natural systems.

One way to understand the impact of development on natural resources and the community's wellbeing is to document the value of the town's and region's ecosystems—the geographically specific complex relationship between organisms, their environment, and the processes that control their dynamics.[11] Ecosystems are critical natural systems that can help communities weather the impacts of climate change and other environmental issues.

Mapping ecosystems and habitats and documenting their contributions to biodiversity and climate change resilience can be a first step toward protecting and preserving these resources. Proactive conservation decisions based on scientific assessment can maximize the value of limited resources. All too often, conservation actions are reactive, responding to an imminent threat, and typically there is not enough time to take action. Sometimes actions are responding to a chance opportunity

[10] A community-driven planning process developed by The Nature Conservancy and used for municipal vulnerability planning: https://www.communityresiliencebuilding.com/

[11] http://ecosystems.noaa.gov/what_eco.htm

on land that may have comparatively low conservation value. While reactive conservation decision-making will continue to be a valid approach to land conservation, prioritizing parcels or areas of town based on their conservation value optimizes the benefits of protecting open space. Mapping ecosystems and prioritizing areas for land protection is a particularly smart strategy for municipalities who may have the opportunity to make decisions under the Right-of-First-Refusal provision for lands coming out of Chapter 61 status.

The University of Massachusetts's Center for Agriculture, Food, and the Environment manages a clearinghouse of land conservation information sources and tools developed by various organizations that are available to guide the decision making of Massachusetts land conservation practitioners. The "Land Conservation Tools" website provides links to commonly used tools such as BioMap2, Audubon's Mapping and Prioritizing Parcels for Resilience, and The Nature Conservancy's Resilient and Connected Landscapes, among others. These tools help decision-makers identify important criteria for prioritization and filter open space parcels through that criteria. The clearinghouse can be found at https://ag.umass.edu/resources/land-conservation-tools.

C. GEOLOGY, SOILS & TOPOGRAPHY

Decisions relating to open space and recreation planning should take into consideration the inherent suitability of sites for different uses. Changes to Title 5 regulations and innovations in home site construction have made certain soils and slopes, previously considered undevelopable, now available for development. These changes mean that the former potential limitations of a site can no longer be considered absolute constraints to development. Still, the bedrock and superficial geologic, soil, and topographic conditions are important for appropriately siting future development, for farming and forestry, and for new parks, hiking trails, and open space so that best use of the resource is maximized.

C.1 Geology

Conway is located in the eastern foothills of the Berkshire Plateau. Two defining geologic forces formed Conway: uplift and glaciation. Over 100 million years ago, the region that is now the Connecticut Valley was a broad, virtually flat lowland with sluggish streams known as a peneplain. During the Tertiary Period (66 to 2.6 million years ago), major uplifts in the earth's crust thrust the region up as the Berkshire Plateau. Streams began to flow swiftly to sea level, eroding soil and bedrock, and carving valleys out of the plateau. Conway's South River was one of these streams. The 600-foot drop from its headwaters to the confluence with the Deerfield River shaped the distinctive landscape by causing the water to scour and carve, providing an excellent source of hydropower for the area's settlement.

The bedrock contains several metamorphic (including schist and gneiss) and igneous intrusive rocks formations (pegmatite and granite) belonging to the Conway Formation, predominantly schist and marble and the Williamsburg Granodiorite. Several stages of folding resulted in a highly complex, corrugated structure in the Conway Formation.

Scraping by continental glaciers during the Pleistocene Epoch left thin, rocky soils in the town's upland areas while glacial meltwater streams deposited thin beds of more permeable soils in the narrow river valleys. Throughout Conway, the surficial material is predominantly a thin cover of glacial till with significant areas of exposed bedrock. Glacial till is a non-sorted, non-layered mixture of materials of all grain sizes: clay, silt, sand, pebbles, cobbles, and boulders. Till is deeper in areas around the South and Bear Rivers and has a depth of over 100 feet in Conway Center. The glacier left gravel and coarse sand deposits in the lowlands and finer-grained fluvial deposits and alluvial soil along streams.

C.2 Soils

Soil is the layer of minerals and organic material that covers bedrock and till. Soils in Conway owe their characteristics to the glacial deposits from which they are derived. All soils have characteristics that make them more or less appropriate for different land uses. Scientists classify soils by these characteristics, including topography (steepness of slope); physical properties (soil structure, particle size, stoniness, and depth of bedrock); drainage or permeability to water, depth to the water table and susceptibility to flooding; behavior or engineering properties; and biological characteristics (presence of organic matter and fertility). Soils are classified and grouped into associations that are commonly found together.

In 2010 the USDA published an update to Franklin County's 1967 soils data. This information is useful as a general indicator of town-wide soils. Especially under forest cover, however, mapped soil type over large areas can have inclusions of other types too small to differentiate. Therefore, mapped soils data are limited in their ability to indicate potential development limitations.

According to the current 2010 survey, three soil types constitute 66% of Conway's land surface. The Paxton fine sandy loam series (13%) consists of very deep, stony, well-drained soils on glacial till uplands. Millsite-Westminster complex soils (21%) are rocky soils that occur on uplands and bedrock-controlled areas, with shallow to moderate depth to bedrock and somewhat excessive drainage. Chatfield-Hollis complex (32%) soils are well-drained, rocky soils formed on loamy melt-out till, with moderately deep to shallow depth to bedrock.

C.2.1 Soils Affecting Development and Groundwater

Shallow soils on steep terrain severely limit the installation of on-site sewage disposal systems and construction of house foundations. Depth of hardpan on steep slopes can also influence buildability.

Much of the fast percolating sandy soil is within the river valleys, where there is also flat land easy to build on. However, sand and gravel are generally a poor filter for wastewater because of their fast percolation rate. Title 5 regulations only monitor for slow percolation rates (minimum rate is 30 minutes per inch). Generally, a percolation rate between six and thirteen minutes per inch would classify a soil type as a poor filter of effluent before it reaches groundwater, thereby causing contamination. Many sand and gravel soils also coincide with aquifer recharge areas because fast percolation rates make these soils excellent recharge soils, so groundwater in these areas is particularly susceptible to surface and sub-surface contamination from a variety of sources, including agricultural activity, road salt, and underground storage tanks.

C.2.2. Soils for Agriculture

Designated prime farmland soils have been identified by NRCS (formerly the Soil Conservation Service) as contributing to the agricultural productivity of the country and should be protected from conversion to non-agricultural uses. Prime Farmland designation is given to soils that have the best combination of physical and chemical characteristics for economically producing sustained high yields of food, feed, forage, fiber, and oilseed crops, when treated and managed according to acceptable farming methods.[12] In general, prime farmland has an adequate and dependable water supply, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Prime farmland is not excessively eroded or saturated with water for long periods, and it either does not flood frequently during the growing season or is protected from flooding. Farmland of Statewide Importance is defined as farmland other than prime or unique farmland that are nearly prime farmland and that economically produce high yields of crops when well managed.

Natural Roots Farm *(Michele Turre)*

According to the MassGIS Prime Farmland data, nearly 8% (1,925 acres) of Conway is prime agricultural land and 11% (2,698 acres) is soil of statewide agricultural importance. These soils are located predominately on valley floors or other level land, which is also the location of many roads and shallow aquifers. Pockets of prime agricultural soil vary widely in size and shape ranging from several acres to upwards of 80 acres. Soils in aquifer recharge areas and of agricultural quality are also those likely to have the most moderate slope, "best" percolation rate for septic systems, and greatest accessibility by roads, rendering them easy to develop inexpensively.

[12] United States Department of Agriculture, Natural Resources Conservation Service

C.3 Topography

Conway's undulating elevation ranges from 250' to 1,500' above sea level. The higher-end elevation causes some parts of town to be one whole plant-hardiness zone colder than the Connecticut River Valley (almost a month shorter growing season). The 1,000-foot elevation difference between Conway's uplands and the Connecticut River Valley produced streams and rivers with gradients around 40'/mile that flow through steep-sided valleys.

The highest points (1,250' to 1,500') are in the southwest quadrant of town. A ridgeline extends northeast from these high points to Graves Road in the northeast quadrant, draining two-thirds of the town north and east into the Deerfield River (see Context Map at the end of the section). The remaining one-third of town drains to the south and east, into the Connecticut River. Conway Center is located at about 620' in the flat floodplain terrace and on adjacent hillsides in the geographic center of town where the South River turns to flow north after making a steep descent from Ashfield.

Steeply sloping brook valleys and rolling hills dominate the town's landscape, with the largest concentration of steep slopes in the southwest quadrant. Most of the steepest slopes are not penetrated by roads and are held in private ownership. The rolling landform accommodates trail recreation such as cross-country skiing, bicycling, hiking, snowmobiling, horseback riding, and running well. It is not well suited to recreational uses or buildings requiring large, level areas such as multiple ball fields or residential facilities.

D. LANDSCAPE CHARACTER

Conway's landscape is largely composed of forested hills that slope down to river valleys, with development distributed throughout town in both the flatter river valleys and rolling hills. Though the town's population has doubled since 1970 (from 998 to 1,880 residents), Conway has remained distinctly rural. Beyond its low-density settlement, the town's active farms, views of farm fields, stone walls and other historic sites and buildings, diversity of landform and vegetation, and plentiful streams and rivers give the town its rural feel. The unimproved condition of most of Conway's roads also contributes a great deal to the rural character of the town. The roads wind alternately through woodland patches, farm fields bordered with stone walls or ancient sugar maples, and deep wooded ravines.

Because of the topography and vegetation, most views are relatively short range. Occasionally a motorist will encounter an opening that reveals a ridgeline or several meadows or a long valley, or the rooftops of the town center. On a clear day, a few vantage points reveal a long-distance glimpse of Mount Monadnock in New Hampshire.

The overall landscape character of Conway could be affected by a number of potential changes. The impacts of climate change may increase pressure on residential development in Conway, as residents of eastern Massachusetts or residents of other parts of the country seek refuge from heat, fires, coastal or inland flooding, or public health crises (such as the COVID-19 pandemic) in upland towns. Diminishing supplies of fossil fuels—and their potential rising costs—continue to cause people to turn to alternate sources of locally produced energy sources such as wood, solar,

and wind, which could impact Conway's forested and unforested open spaces. A rise in the cost of fossil fuels could increase the cost of shipping foods long distances and increase the demand for locally grown and processed food, potentially placing a greater demand on farmland in Conway. Flooding from an increase in the intensity of storms and rainfall may impact farm operations close to the Deerfield, Mill, and South Rivers, and further limit the availability of land for new development. While challenging, with thoughtful planning, these potential changes in development could be integrated into Conway's existing character and could lead to greater energy independence, food security, and support for a continued healthy and productive community.

E. WATER RESOURCES

Conway is home to numerous significant rivers and streams, two public water supply reservoirs, numerous wetlands, and a community "swimming pool" pond. The Water Resources map (found at the end of the section) shows the location of watershed boundaries, major watercourses, water bodies, wetlands, aquifers, wells, and public water protection zones. In addition to rivers and their watersheds, this subsection discusses other protected and unprotected surface waters, wetlands, vernal pools, groundwater, and flood hazard areas that contribute to the overall water resources and vulnerabilities in Conway.

E.1 Surface Water: Watersheds & Rivers

Conway is within the Connecticut River Watershed and the Deerfield River Watershed. The Connecticut River Watershed drains the southern and eastern one-third of the town and contains the subwatersheds of the Mill River whose mouth is located in Hatfield and the Mill River whose mouth is located in Northampton. The Deerfield River Watershed drains the northern and western two-thirds (60%) of town and contains the South River and Deerfield River Mainstem subwatersheds (see Water Resources map at the end of this section).

Local watershed associations include the Connecticut River Conservancy (CRC)[13], the Deerfield River Watershed Association (DRWA)[14], and the Friends of the South River. The CRC advocates for the entire, four-state Connecticut River watershed, working to protect water—the river, its tributaries, and lakes—and the land, plants, and creatures connected to that water. Similarly, the DRWA works to preserve, protect, and enhance the natural resources of the Deerfield River watershed in southeastern Vermont and northwestern Massachusetts. The Friends of the South River is a citizen group that works to "promote the restoration, protection, and ecological integrity of the South River and its adjacent farm and forest lands, unique habitats, and special landscapes."[15]

Conway receives an average of 48 inches of rainfall annually. Of this precipitation, 30 inches becomes surface run-off flowing directly into streams and rivers. Conway's characteristically thin

[13] Formerly the Connecticut River Watershed Council; http://www.ctriver.org/

[14] http://www.deerfieldriver.org

[15] http://www.friendsofthesouthriver.org/home

soil and steep slopes result in great fluctuations in both run-off and water retention between wet and dry periods and account for natural erosion along banks, especially on the South River. Stream purity is also affected by neighboring towns at higher elevations, particularly Ashfield. Likewise, Conway has responsibility for protecting water quality and the proper physical functioning of rivers for towns downstream. The Rivers Protection Act provides additional protection from land uses that may have a negative impact on the long-term viability of flora and fauna along the perennial streams and rivers by requiring a 200-foot Riverfront Area protective area, but is the only law regulating development and other activity along rivers.

E.1.1. Connecticut River Watershed

The Connecticut River Watershed is the largest river ecosystem in New England and spans four states, including Vermont, New Hampshire, Massachusetts, and Connecticut. From its beginnings on the Canadian border to its end in Long Island Sound, the Connecticut River drops 2,400 feet and drains a landscape that is 11,000 square miles in size. . To coordinate and administer the various fisheries and wildlife programs taking place within the watershed, the Silvio O. Conte National Fish and Wildlife Refuge ("Conte Refuge") was formed by an act of Congress in 1991. In 1999, President Clinton declared the 410-mile long Connecticut River one of fourteen American Heritage Rivers in the United States. Under this program, communities within the watershed enjoy special access to Federal programs that help conserve, protect, and enhance the resources of the watershed

The Connecticut River does not flow through Conway, but all of Conway's rivers, streams, and brooks eventually flow into the Connecticut. Following the Massachusetts Surface Water Quality Standards, the Connecticut River has a Class B designation from the New Hampshire-Vermont Border to Holyoke and is classified as a warm water fishery. Class B waters should provide suitable habitat for fish and other wildlife and should support recreational purposes such as fishing and swimming. The water should also be suitable for irrigation and other agricultural uses. Maintaining Conway's rivers and streams as healthy, functioning rivers has positive downstream impacts on the Connecticut River.

E.1.1.1. Mill River-Hatfield Subwatershed

The Mill River is a tributary to the Connecticut River originating in Conway that passes through the more populous towns of Deerfield, Whately, and Hatfield. Streams and brooks all along Conway's southern and eastern boundary flow to the Mill River, principally via the main stem of the Mill River along Route 116 in east Conway, Roaring Brook via Conway Reservoir in southeast Conway, and Avery Brook via the City of Northampton Ryan and West Whately Reservoir and West Brook, also in southeast Conway.

The 2016 List of Integrated Waters water quality assessment conducted by the Massachusetts Department of Environmental Protection (MassDEP) assessed the Conway section of the Mill River as a Category 2 waterway, meaning that it supports aesthetic, wildlife, and recreation uses due to acceptable bacteria counts and the general lack of objectionable conditions. The Connecticut River Basin 2003 Water Quality Assessment Report recommends monitoring temperature patterns in the Mill River to study possible impairment to aquatic life due to thermal

issues. [16] According to the Mill River Watershed Plan developed in the late 1990s, the greatest threat to the Mill River in Conway is over salting of the roads resulting in elevated salt levels in the waterway.[17]

E.1.1.2 Mill River-Northampton Subwatershed

The extreme southwest corner of Conway drains to the south via a more southerly Mill River that cuts through Williamsburg and Northampton. The East Branch of the Mill River originates in the Conway State Forest and along East Guinea Road and is joined by the Bradford Brook, which runs along Ashfield Road. This Mill River also holds Category 2 status in the DEP's 2016 Integrated List of Waters, having multiple uses attained and not requiring pollution monitoring.

E.1.2 Deerfield River Watershed

The Deerfield River is a major tributary to the Connecticut River. From its headwaters at Stratton Mountain in Vermont, the Deerfield River flows southward for 70 miles through the steep terrain, including along Conway's northern border, to its confluence with the Connecticut River in Greenfield. Throughout its length, ten hydroelectric facilities take advantage of extreme drops in elevation (2,000 feet) to supply thousands with power. The Deerfield River Watershed covers all or part of twenty municipalities.

According to the 2017 Deerfield River Watershed Watershed-based Plan prepared by the Franklin Regional Council of Governments, between 1985 and 1999 the Deerfield River Watershed lost 10% of its cropland, 22% of its pastureland, and 1% of forest. At the same time, the watershed experienced a 58% increase in large-lot residential development, which occurred primarily through the construction of single-family homes on lots along existing roadways. Between 2000 and 2010, the watershed lost 2% of its population but nonetheless the number of housing units in the watershed grew by 4%.

[16] Massachusetts Department of Environmental Protection. *Connecticut River Basin 2003 Water Quality Assessment Report*, 2008

[17] Town of Conway, *2013 Conway Open Space and Recreation Plan*

Kayaking on the Deerfield (*Ben Barnart*)

Fortunately, the Deerfield River in Conway supports recreational uses and has tremendous recreation potential, including fishing, swimming, and tubing. Although the river's flow has been heavily regulated to serve the needs of power generation, the Deerfield is widely regarded as one of the coldest and cleanest rivers in Massachusetts and thereby some of the best freshwater fishing in the state.[18] The Deerfield River provides spawning habitat for anadromous fish such as blueback herring, American shad, and sea lamprey, as well as year-round habitat for native trout. While the U.S. Fish and Wildlife Service no longer operates a Connecticut River salmon restoration program, salmon nests have been found to the south in Connecticut's Farmington River watershed, so the Deerfield may one day be nursery habitat for juvenile Atlantic salmon. Residents can access the Deerfield River via Conway Station Road and Bardwells Ferry Road, but the access can be difficult for most people and for those wishing to put in a canoe or kayak. These access points have also been increasingly used by river-tubing tour companies as the activity becomes more popular and at times when other access points upstream in towns like Charlemont have closed temporarily during the Covid19 pandemic. Both of Conway's access points could benefit from significant planning and improvements.

[18] Franklin Regional Council of Governments, *A Watershed-Based Plan to Maintain the Health and Improve the Resiliency of the Deerfield River Watershed*, 2017: https://frcog.org/wp-content/uploads/2018/01/Deerfield-Watershed-Based-Plan-part-1.pdf

According to MassDEP, the Deerfield River from the Vermont-Massachusetts state line to its confluence with the Connecticut River has a Category 5 water quality designation. The river should be suitable for supporting aquatic life, recreational use (such as swimming and boating) and fish consumption. However, the Deerfield River from its confluence with the North River in Charlemont to its convergence with the Connecticut River requires a Total Daily Maximum Load (TDML) amount and monitoring due to the presence of E.coli.

The 2017 Watershed-Based Plan to Maintain the Health and Improve the Resiliency of the Deerfield River Watershed states that overall, the health of the Deerfield River Watershed is quite good when measured following the EPA's model of a Watershed Health Index. Generally, Deerfield River subwatersheds in the west are healthier than subwatersheds in the east. More detailed descriptions of watershed health are included in subwatershed descriptions below. A prioritized list of watershed-scale and South River-specific actions is listed in *Appendix G*.

The Deerfield River Watershed serves as a powerful tool for planning for climate change resilience, as it provides a framework for understanding the interconnectedness of natural systems and the built environment. *A Framework for Resilience: Responding to Climate Change in the Deerfield River Watershed*, prepared by the Franklin Regional Council of Governments (FRCOG), assesses the strengths, vulnerabilities, and recommendations so that towns in the watershed may better collaborate on climate resilience action.[19]

E.1.2.1 Deerfield Mainstem Subwatershed

Two waterways in Conway feed directly into the Deerfield Mainstem (North River to mouth). A significant portion of northwest Conway, north of Bardwell's Ferry Road, enters the Deerfield via Bear River. Smaller tributaries to Bear Brook include Pea Brook, Sids Brook, and Drakes Brook, the latter two of which are considered valuable has habitat for fish, other aquatic life, and wildlife. Bear Brook is listed as requiring a TDML due to water quality issues related to temperature. A very small section of the northeast corner of Conway also flows directly into the Deerfield Mainstem, but the drainage is small and not well documented.

The Deerfield Mainstem watershed shows a high vulnerability (7.68 out of 10) to water quality issues and a somewhat high vulnerability to flood (6.39). The watershed also scored low on the EPA-based health index at 4.08 out of 10. These low scores are attributable to activity in the watershed closer to urban areas (such as Shelburne Falls, Deerfield, and Greenfield) and agricultural zones (in Deerfield) and do not necessarily reflect well the condition of the watershed in Conway, which on its own would likely score closer to the South River subwatershed (see below). However, because the subwatershed faces challenges as a whole, it is all the more important to maintain the health of Conway's portion of the subwatershed.

E.1.2.2. South River Subwatershed

The South River begins at the outlet of Ashfield Lake in Ashfield and flows east then north through Conway to its confluence with the Deerfield River approximately four miles downstream of the Station No. 2 Dam. Agriculture and residential properties dominate the floodplains in the lower

[19] Franklin Regional Council of Governments. *A Framework for Resilience: Responding to Climate Change in the Deerfield River Watershed*, 2019

seven miles of river where the valley widens. Poland, Johnny Bean, Nye, and Pumpkin Hollow Brooks all drain into the South River, primarily in the eastern portion where the topography around the river is steeper.

In 2003, the 26.3 square miles subwatershed consisted of 77% forest, 13% agriculture, 6% residential, and 2% open land.[20] The South River subwatershed shows a high vulnerability (6.91 out of 10) to water quality issues and also a very high vulnerability to flood (7.51). By contrast, the watershed scored relatively high on the EPA-based health index at 7.10 out of 10, showing exemplary hydrological conditions due to low dam density and water quality due to low impervious surface area. However, the South River does not perform particularly well in landscape conditions portion of the EPA's index (based on percent natural land cover, percent natural stream corridor, and percent of habitat hubs and landscape corridors), so restoration of landscape condition and habitat protection along the South River may be important actions for improving the river's health.

According to MassDEP's 2016 Integrated List Waters water quality list, aquatic life and first and secondary contact recreation uses are supported in the South River. However, Category 5 (requiring TDML) alert status was placed on the upper portion of the river (above Johnny Bean Brook) for E. coli and fecal coliform and on the lower portion for E. coli, fecal coliform, and physical substrate habitat alternations (fluvial erosion). Potential sources of the pathogens include farm animals with access to the river and failing septic systems in Conway Center. In 1997, a wastewater treatment plant was constructed in Ashfield on the South River.

Almost two centuries of manipulation and alteration of the South River have caused the river to be prone to fluvial erosion and destructive flooding, especially near Conway Center. The Town and the FRCOG have worked together for the last decade on assessment and restoration work to try to mitigate these issues (see Sections *3.A.3 Regional Planning Context - Projects in the South River and Deerfield River Watersheds*, *4.E.6.1 Flood Hazard Areas*, and *4.E.6.2 Fluvial Geomorphic Assessment and River Corridor Mapping* for more details on these projects). In concert with these stream engineering resilience projects, in 2012 the Friends of the South volunteers planted about 545 native saplings and shrubs along riverbanks lacking in critical vegetation. Plants were donated through a Root for Your Radio – Make a Pledge, Plant a Tree fundraising partnership between New England Public Radio and the Connecticut River Conservancy. In 2011, they also helped secure funds at a Special Town Meeting to permanently protect 206 acres of river farmland.

E.2 Surface Water: Lakes & Ponds

Conway has no lakes within its boundaries and most ponds have been created by in-stream dams or spring-fed excavations. The largest pond is the Conway Community Swimming Pool, created from an earthen dam in a natural depression along Pumpkin Hollow Brook. The Conway Community Swimming Pool Inc., who manages the swimming area, is a non-profit organization established in 1950. Their singular purpose is to provide a clean, safe, and free of charge swimming

[20] MassDEP. *Deerfield River Watershed Water Quality Assessment Report*, 2000: https://www.mass.gov/doc/deerfield-river-watershed-water-quality-assessment-report-2000/download

pool for the citizens of Conway (non-residents are prohibited). The pool is occasionally used for ice skating and ice fishing in winter. This 6.1-acre parcel is permanently protected with a conservation restriction and is located less than one mile south of the town center near Pumpkin Hollow.

Conway Pool (*Ben Barnart*)

E.3 Protected Surface Water: Public Drinking Water Reservoirs & Wetlands

E.3.1 Public Drinking Water Reservoirs

The South Deerfield Water Supply District's Roaring Brook (a.k.a Conway) Reservoir is a public drinking water supply along Conway's eastern boundary with Whately. The District's second reservoir, the Whately Glen Reservoir, is just over the Whately border and functions as the system's intake point. The Roaring Brook Reservoir holds 164 million gallons of water and the whole system has a safe yield of 1.42 million gallons of water per day. The South Deerfield Water Supply District owns approximately 718 acres of their reservoir and watershed land in Conway. The City of Northampton's Ryan and West Whately Reservoirs (also known as the Upper Northampton Reservoir) sit just south of the Conway border in West Whately. The City of Northampton owns about 539 acres of watershed land in Conway.

These public drinking supply watersheds are regulated by the Massachusetts Drinking Water Regulations (310 CMR 22.00). Drinking water regulations designate three surface water protection areas—Zones A, B, and C—in which certain activities are prohibited. Zone A encompasses land between the surface water source and the upper boundary of the bank, land within 400 feet of the bank of a Class A (public drinking water supply) surface water source, and land within 200 feet of the bank of a tributary or surface water body that lies upstream of a Class A surface water source. Zone B is land within 0.5 miles of the bank of a surface water source or the edge of the watershed, whichever is less, but always includes land within 400 feet of the bank of a Class A surface water source. Zone Cs are all land between the Zone B boundaries and the watershed boundaries in Conway and are mapped in the Water Resources map found at the end of the section.

Though the majority of the land in these reservoir watersheds is protected, (either permanently protected by the state, in limited protection being owned by the municipality, or temporarily protected through Chapter 61), a handful of small residential lots and large backlots along Whately Road are not protected. There is also some agricultural activity (manure spreading on a hayfield) in the Roaring Brook Reservoir watershed that could pose a contamination threat of activity is increased, though it is not considered to be problematic at this time. Some of the watershed properties that are posted have also experienced unsanctioned hiking and wildlife observation in the past.

Water supply owners are required to monitor lands regulated by the Massachusetts Drinking Water Regulations for compliance. The 2002 MassDEP Source Water Assessment and Protection Report recommends that the suppliers work with the Town of Conway to mitigate any runoff and erosion issues when they arise. It also recommends that Conway adopt protective bylaws that comply with 310 CMR 22.20B and C (Surface Water Supply Protection and Surface Water Supply Protection for New and Expanded Class A Surface Water Sources). While this land provides buffers to protect water resources, a change of use could result if the water sources are no longer being used as drinking water supplies.

E.3.2 Wetlands

Conway's wetlands are relatively small and are scattered throughout town (see Water Resources map at the end of this section). There is a small congregation of wetlands in the upland area in northwest Conway, including a vegetated wetland at the confluence of Sids and Drakes Brook and an open wetland in Wilder Flat where Wilder Hill and South Shirkshire Roads converge. Other larger wetlands include Keyes Swamp, south of Abbot Hill (west of Guinea Road), and vegetated wetlands at the headwaters of Avery Brook and the East Branch of the Mill River. A wetland along Poland Road and the Wilder Flat wetland are recognized by BioMap2 as aquatic core habitat. Most remaining wetlands occur along forested brooks and streams. Beavers can create significant marshes in flat land along streams, so the physical state of wetlands often changes in line with beaver activity.

Historically, wetlands have been viewed as unproductive wastelands to be drained, filled and "improved" for more productive uses. Over the past several decades, scientists have demonstrated that wetlands perform a variety of extremely important ecological functions: they absorb runoff and prevent flooding; wetland vegetation stabilizes stream banks, preventing erosion and trapping sediments that could be transported by runoff; wetland plants absorb nutrients, such as nitrogen

and phosphorus, as well as heavy metals and other pollution, which would be harmful if they entered lakes, ponds, rivers and streams; and wetlands are extremely productive, providing food and habitat for fish and wildlife—many of the rare species found in Conway require wetlands habitat. Maintaining the ecosystem services provided by wetlands has significant economic benefit; for example, it is far more cost effective to maintain wetlands than build treatment facilities to manage stormwater and purify drinking water and they are essential to supporting outdoor recreation industries such as hunting, fishing, and birdwatching. Their protection and function becomes increasingly important as climate change predictions forecast increases in the number of heavy rain events that will need to be absorbed by wetlands.

The Wetlands Protection Act (310 CMR 10.00) protects wetlands and the public interests they serve by requiring a careful review of proposed work that may alter wetlands. The law also protects other resource areas, such as land subject to flooding (100-year floodplains), the riverfront area (added by the Rivers Protection Act), and land under water bodies, waterways, salt ponds, fish runs, and the ocean. However, since wetlands are often in low lying areas of the landscape, their normal water flows and the quality of the water can be greatly influenced by the use of nearby lands. Winter salt and sand use on Conway's roadways can over time kill trees and vegetation that depend on the maintenance of specific growing conditions, which can be affected by salts and oils originating from road surfaces. Local Conservation Commissions are responsible for administering the Wetlands Protection Act; some towns also have their own additional local wetlands regulations.

E.4 Vernal Pools

Vernal pools are temporary bodies of freshwater that provide critical habitat for many vertebrate and invertebrate wildlife species. Vernal pools are found across the landscape; anywhere that small woodland depressions, swales, or kettle holes collect spring runoff or intercept seasonally high groundwater tables. They can be shallow or deep, and range in size from fewer than 100 square feet to several acres. Many species of amphibians and vertebrates are completely dependent on vernal pools to reproduce; vernal pools are relatively safe from predation because the absence of inlets and outlets prevents thereby from being a population of fish. Loss of vernal pools can endanger entire populations of these dependent species.

Certified Vernal Pools—those that meet the criteria established by the Natural Heritage and Endangered Species Program—are protected to some extent by the Massachusetts Wetlands Protection Act and also are protected by additional state and federal regulations. Landowners are not required to report the existence of vernal pools on their property and landowner permission must be obtained prior to any person attempting to certify a vernal pool on private property. According to MassGIS data provided by NHESP, there are 13 certified vernal pools in Conway and roughly 50 potential vernal pools (see Water Resources map).[21]

[21] MassGIS, updated continually

E.5 Groundwater

E.5.1 Aquifers

Conway's water supply is currently restricted to groundwater, deep and shallow aquifers are therefore a very important resource in town. Most of Conway is serviced by private wells, with only a few public water supply wells. Groundwater aquifers are composed of water-bearing soil and minerals, which may be either unconsolidated (soil-like) deposits or consolidated rock. Consolidated rock, also known as bedrock, consists of rock and mineral particles that have been welded together by heat and pressure or chemical reaction: water flows through fractures, pores, and other openings in consolidated rock. Unconsolidated deposits consist of materials like gravel and sand; water flows through openings between the particles of unconsolidated deposits. As water travels through the cracks and openings in rock and soil it passes through a region called the "unsaturated zone," which is characterized by the presence of both air and water in the spaces between soil particles. Water in this zone cannot be pumped. Below this layer, water alone fills all spaces in the "saturated zone." The upper surface of the groundwater is called the "water table."[22] Precipitation recharges the groundwater by soaking into the ground and percolating down to the water table. The route groundwater takes and the rate at which it moves through an aquifer is determined by the properties of the aquifer materials and the aquifer's width and depth. This information helps determine how best to extract the water for use, as well as determining how contaminants, which originate on the surface, will flow in the aquifer.

Conway has two primary types of aquifers: bedrock and shallow or surficial. With bedrock aquifer all groundwater is found in bedrock fractures. The flow rate for bedrock aquifers is about 10 feet per year, depending on the permeability of the local material and the slope of the land. Approximately 95% of Conway is limited to yields of less than 10 gallons per minute (GPM) from bedrock aquifers.[23] Larger yields may be obtained where the aquifer is near streams or under cover of water-saturated unconsolidated materials. According to the Massachusetts well-drilling database, the average depth of a private well in Conway is 290 feet.[24]

Surficial aquifers are shallow aquifers (typically less than 50-feet thick) usually consisting of unconsolidated sand enclosed by impervious rock layers. Where the deposits are thickest, coarse-grained, and lie near large streams, shallow aquifers will give the highest yields of groundwater. Surficial aquifers in Conway are irregularly shaped and range in size from 2 to 600 acres and are often adjacent to and overlapping porous and agricultural soils, notably in the Shirkshire, Harding, and Broomshire districts. Of Conway's 37.8 square miles, approximately 5% or 1,268 acres yields a potential water supply of 25 to 30 GPM from surficial aquifers. By virtue of the proximity of the water supply to the ground surface, the shallow wells are more susceptible to contamination from bacterial and chemical sources than bedrock wells.

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[22] Masters, Gilbert. *Introduction to Environmental Engineering and Science, Second Edition,* 1998

[23] Town of Conway. *2013 Conway Open Space and Recreation Plan*

[24] Energy & Environmental Affairs Data Portal, Search for Well Drilling: https://eeaonline.eea.state.ma.us/portal#!/search/welldrilling

Most of the aquifer recharge areas are low-yield aquifers found along the valley floor in the coarse sand and gravel soils of old streambeds and run adjacent to present-day rivers and brooks (see the Water Resources map at the end of this section). The fast rate of percolation through these soils can pose a threat to ground water purity. In some areas, the water percolates through this material so fast that liquid cannot be filtered of waste products before it reaches the water table. The valley floor is also the area where most building and agricultural development have occurred, causing Conway's aquifers to be vulnerable to pollution from sewage, industrial waste, and road runoff (salt, oil, and gas). In the 1989 "Groundwater Risk Assessment" survey of Conway residents, nearly half of the responses indicated inadequate knowledge of well location and depth.[25]

The Town owns a parcel off Ives Road that is known as the Town Spring. The site contains numerous springs. The parcel was zoned as solar overlay district in 2011, but the dense woods and slopes does not make solar practical.

E.5.2 Potential Sources of Drinking Water Supply Contamination and Wellhead Protection

MassDEP has mapped protection areas around five of Conway's three active public wells: Baker's Country Store, the Conway Inn, and the Conway Grammar School (see Water Resources Map). These public water supplies are regulated by MassDEP as public water systems because they serve water for human consumption to an average of at least 25 individuals daily, for at least 60 days of the year. Each of these wells are surrounded by a 100- to 200-foot Zone I radius in which only land uses and activities directly related to the water supply are allowed. Water supplies must own and control Zone I areas; if ownership is not possible, they must control the water supply through a DEP-approved Zone I conservation restriction.[26] Most public well owners in Conway own their Zone I areas.

In addition, DEP has delineated Interim Wellhead Protection Areas (IWPA) with a 400- to 500-foot radius (including Zone I) to protect the well recharge area. IWPAs function as an interim protection area until official Zone II is determined through hydro-geological modeling and approved. At minimum, IWPAs should be protected from the use and storage of hazardous materials, faulty septic systems, and chemical application activity.[27]

MassDEP has had a strong water supply protection program since 1980 through which water suppliers and municipal officials receive hydrogeological and planning assistance for improved protection of local drinking water sources. In 2002, MassDEP conducted Source Water Assessment and Protection Report (SWAP) that delineated protection areas for four of Conway's public wells (Baker's, Holly Barn [no longer active], Conway Grammar, and the former Conway School of Landscape Design building [no longer active]), inventoried their land uses, and

[25] Town of Conway. *2013 Conway Open Space and Recreation Plan*

[26] MassDEP Drinking Water Program, "Developing a Local Wellhead Protection Plan," 2001: https://www.mass.gov/files/documents/2016/08/xl/whplan.pdf

[27] MassDEP, "Wellhead protection Tips for Small Public Water Systems": https://www.mass.gov/service-details/wellhead-protection-tips-for-small-public-water-systems

determined the susceptibility of water supplies to contamination from these sources. [28] The susceptibility to contamination for these wells is identified as either "moderate" or "high." Common sources of potential contamination include septic system components within the wells' Zone I recharge areas and runoff coming off local roads and parking areas. The report highlighted a number of vulnerabilities at Conway Grammar School, including the well's vulnerability to contamination due to the shallow bedrock and absence of hydrological barriers that prevent contamination migration from the ground surface. The Conway's Highway Department's salt storage facility was upgraded with a concrete pad and sidewalls and likely no longer poses a risk. The Assessments are available to the public and can be accessed via the Massachusetts Department of Environmental Protection's website.[29]

E.6 Flood Hazard

E.6.1 Flood Hazard Areas

Narrow bands of floodplain line the South and Deerfield Rivers and Poland Brook (see Water Resources map). The most recent Federal Emergency Management Agency (FEMA) maps from 1980 determine the 100-year flood zones. Floodplains generally have richer soils deposited by periodic flooding; most of Conway's farms are located on ancient or present river floodplains. All floodplains are important to the community because they distribute and hold floodwaters, preventing higher flood levels elsewhere. The land downstream of the Conway Pool along Pumpkin Hollow Brook is a significant flood hazard area. In its rush to the South River during the flood of April 1987, the brook overtopped the dam at the pool, inundated fields and roads, and caused damage to several buildings in the center of town, where residents were under orders of evacuation (for details on chronic flooding see *I.8: Inundation Flooding*).

Rivers and streams are dynamic systems in a constant state of change. Fluvial erosion is a natural process of wearing away of soil, vegetation, sediment, and rock through the movement of water in rivers and streams. While erosion is a natural process, the rate of erosion is affected by human alterations of river channels or land as well as a changing climate. Sometimes buildings and roads are located too close to riverbanks and areas of active river processes, placing them at risk of erosive forces while at the same time increasing the rate of erosion within the river corridor due to loss of flood storage in the floodplain. Valuable farmland and infrastructure can also be threatened by eroding riverbanks. In March 2010, a gabion retaining wall that had been installed along the South River near the confluence with the Pumpkin Hollow Brook and the Route 116 bridge collapsed following heavy rains and high flows in the river. The repaired wall collapsed again in the aftermath of Tropical Storm Irene in August 2011.

E.6.2 Fluvial Geomorphic Assessment and River Corridor Mapping

In 2010, the FRCOG was awarded a 604b Water Quality Management Planning grant from MassDEP to implement a fluvial geomorphic and habitat assessment to determine the causes of

[28] Massachusetts Department of Environmental Protection, Western Region Source Water Assessment and Protection Report, 2002: https://www.mass.gov/doc/western-region-source-water-assessment-protection-swap-program-reports/download

[29] https://www.mass.gov/lists/source-water-assessment-and-protection-swap-program-documents

erosion, channel instability, and habitat degradation in the South River subwatershed. A fluvial geomorphic and habitat assessment looks at a watershed in a holistic manner to find solutions to problems that will not exacerbate the issues in the long run or downstream. In 2013 consultants conducted a fluvial geomorphic assessment of the main stem of the South River, mapped areas of river corridor vulnerable to fluvial erosion, and identified restoration options to better manage riverine issues.

With the causes defined, long-term cost-effective solutions can be identified that will minimize further costly repairs while improving aquatic habitat. Conceptual designs and cost estimates were prepared for the top-ranked priority project: 1,400 feet of eroding riverbank located downstream of the Rte.116 bridge in Conway. The FRCOG and the Town applied for and were awarded an 319 Nonpoint Source Pollution Implementation Grant in 2013 for the floodplain restoration and bank stabilization project. The project combined bank stabilization measures to address the erosion and a floodplain lowering component to provide the river access to its floodplain to increase sediment storage and reduce flood flow velocities. Ideally, the project will reduce the potential for future infrastructure damage at this location, as well as improve the aquatic habitat. In 2017, FRCOG created sediment management best management practices for the South River in Conway through a grant from the Massachusetts Department of Environmental Protection Bureau of Water Resources.

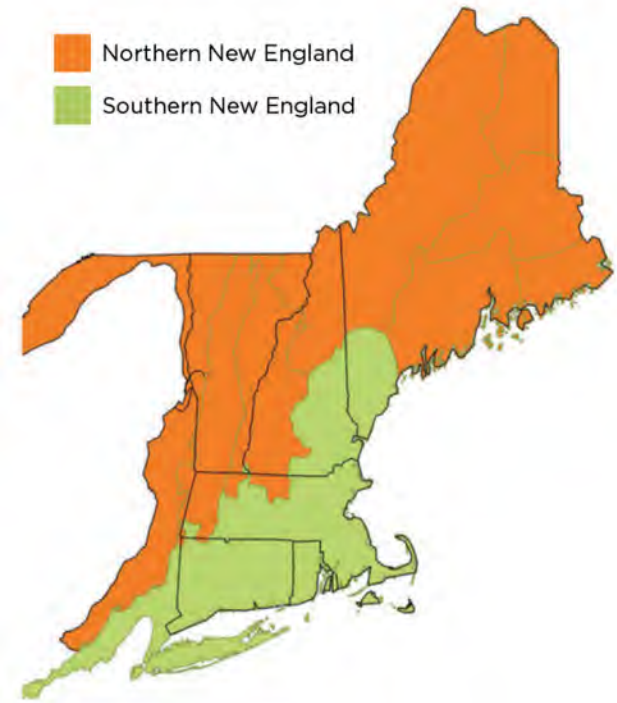
In 2016, geomorphic assessment work was expanded to all of the South River's tributaries in *A Fluvial Geomorphic Assessment and River Corridor Planning for the South River Watershed, MA.* River corridor mapping delineates the areas vulnerable to fluvial erosion, including the river, its banks, and the land close to the river that carries floodwaters and accommodates the meander pattern or movement of the river (see Water Resources Map at the end of this section). River corridors can be wider or narrower than the 100-year floodplain boundary, as they describe potential meander range of the river rather than elevation. The FRCOG also developed a toolkit for managing river corridors that includes a draft model bylaw that can be used in conjunction with river corridor mapping in a community.[30] The objective of a River Corridor Protection Overlay zoning bylaw is to guide and encourage measures and improvements within the active river area that provide increased property and infrastructure protection, while maintaining and restoring the health of river systems. The benefits of a healthy river system include flood mitigation, public water supplies, wildlife habitat, and improved conditions for recreation. Communities that have completed river corridor maps can assess their risk to fluvial erosion hazards and consider adopting a River Corridor Protection Overlay Bylaw using the model as a guide. A prioritization exercise of all of the projects identified in the South River Watershed completed in 2021 called the *Mohawk Woodlands Trail Partnership Project Prioritization Summary Report* is included in *Appendix G: South River Action Items.*

[30] FRCOG, "River Corridor Management Toolkit", 2019: https://frcog.org/river-corridor-toolkit-released/

F. VEGETATION

In brief, Conway is predominantly forested but ongoing agricultural production helps maintain a high proportion of unforested open space compared to many neighboring hilltowns. A number of large, forested landscape blocks have remained unfragmented thanks to public and private conservation efforts, including a high degree of participation by Conway residents in the Chapter 61 program. Conway also has a handful of sizeable wetlands and meadows, important for their ecological value as well as for their scenic and recreational value given their rarity.

Figure 4-4: Northern and Southern New England Ecoregions



Conway is located in the Northern New England ecoregion, on the border of the Southern New England ecoregion. (Source: Catanzaro, Paul, Anthony D'Amato, and Emily Silver Huff, *Increasing Forest Resiliency for an Uncertain Future*, (2016): https://masswoods.org/sites/masswoods.net/files/Forest-Resiliency.pdf.)

F.1 Forest

F.1.1 Condition of Forests in Conway

Aerial photos reveal almost uninterrupted forest canopy in Conway as forest covers 86 percent of town, or about 20,800 acres.[31] Conway lies in the transition zone between southern and northern New England forest types, where transition hardwoods, white pine, and hemlock dominate (see Figure 4-4). Most of Conway's forests are second growth forest, as the town was nearly denuded of trees to clear land for agriculture before 1850. Regrowth stands of white pine were clear-cut again in the 1930s. Further changes to the forest structure occurred when the chestnut blight struck North American forests early in the twentieth century, virtually wiping out the American chestnut, historically the dominant hardwood tree in northern forests. As a result of these changes, although most of Conway is dominated by forest today, virtually none of this forest is representative of the original conditions that existed prior to European settlement.

The oldest of the regrowth forest (90 to 170 years) consists mainly of oak/hardwoods or beech/birch/maple on the upper elevations and hemlock/hardwood on the lower slopes or bottomland. With the exception of individual trees growing along roads or in yards, these oldest trees exist where access for cutting was and continues to be difficult or where landowners and their foresters have placed value on them remaining. These woods tend to contain the richest

[31] 2016 MassGIS Land Cover data

diversity of herbaceous plants on the forest floor. Woods with 75- to 90-years-old trees are considered mature and consist of oak/hardwood, white pine/hardwood, or scattered plantations of spruce or red and white pine. Many of these are on the mid-slopes. These woods have been cut more than once and are the richest habitat for wildlife because of the mature mast crop of acorns and nuts, combined with a younger understory that is suitable for browse and cover. The remaining forest has been regenerating on abandoned farm fields. This is the forest type that is likely to have reasonable access, moderate slopes, somewhat deeper soil, and be easier to clear—it is therefore the most likely to be used for residential development.

The sub-canopy, shrub, and herbaceous layers in the vegetation are typical of this transitional forest. Older forests and those that experience high-wind events have natural occurrences of tree-fall that create gaps in the canopy. In these gaps, where light can reach the forest floor, understory plants increase in vigor, flower, and fruit until the canopy closes once again. Wildlife are drawn to these gaps because they are rich habitats for food and cover. Canopy gaps, along with forest edges, are also more susceptible to the introduction of invasive plant species.

Conway's forests suffer to an extent from invasive non-native plants—plants that can outcompete the native vegetation and interrupt natural succession if they escape into natural areas to reproduce. Forests pests and pathogens are also an ongoing threat to select species in the forest. (More details on these threats to ecological health are found in *I.6: Invasive Species*).

F.1.2 Use of Forests

Forests have been important to the Conway's economy since settlement. Many residents own working forests that they manage for multiple purposes, including wildlife habitat, timber, and personal-use firewood. Many farms and residents supplement their income or subsistence with maple syrup production. Local businesses generate some income from tourists attracted to the fall foliage season, and other events such as Conway's Festival of the Hills. Forests provide recreational opportunities as well. Trails and old roads allow for running, walking, nature observation, cross-country skiing, mountain biking, snowmobiling, and horseback riding.

Some forest landowners choose to harvest trees at a commercial scale. The Forest Cutting Practices Act (M.G.L. 132) requires that before a landowner harvests 25 thousand board feet, or 50 cords, they must file a Forest Cutting Plan with the appropriate Department of Conservation and Recreation office for review. The Forest Cutting Practices Act ensures best management practices for harvests near and across wetlands and streams and ensures that natural regeneration will occur within five years of the harvest.

The Department of Conservation and Recreation's (DCR) Forest Stewardship Program pairs private forest owners with a licensed consulting forester to develop 10-year management plans. Foresters work with landowners to identify a variety of goals and every plan documents options and best management practices that will lead to a productive and healthy forest for the next generation. More information is available at Mass.gov.[32]

[32] https://www.mass.gov/service-details/forest-stewardship-program

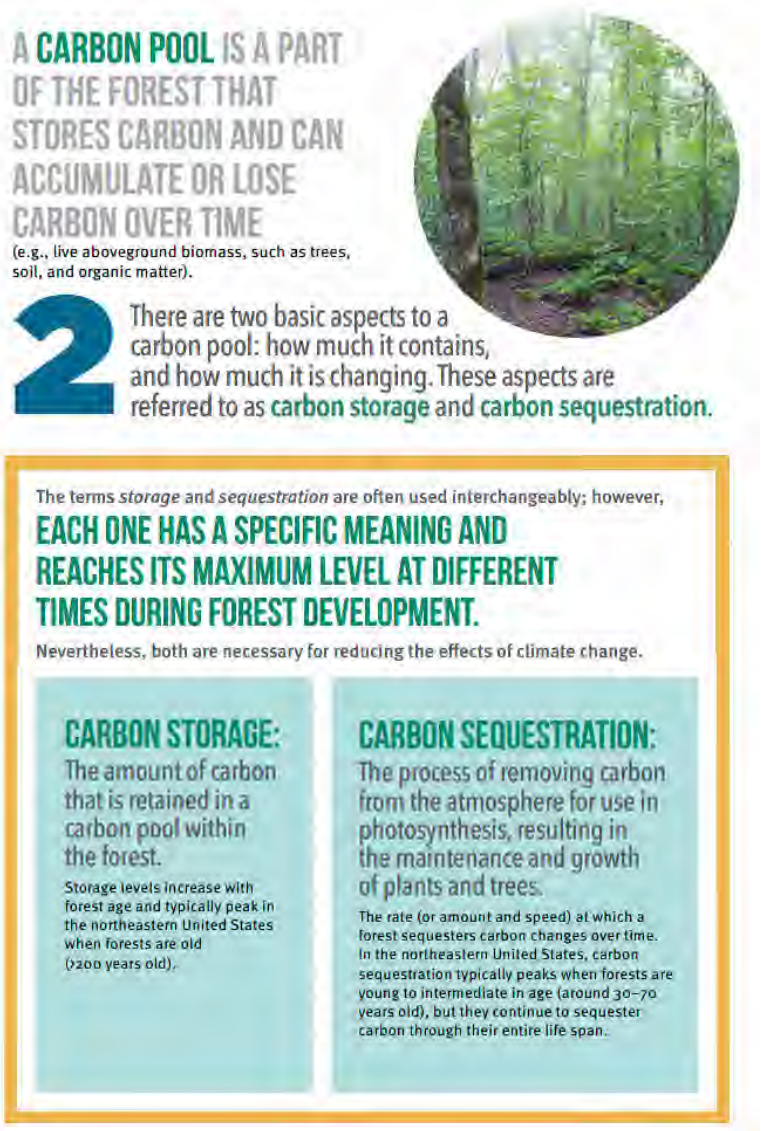
F.1.3 Carbon Storage, Sequestration, and Markets

As forests grow, they remove (sequester) carbon dioxide from the atmosphere and store it within forest biomass and soils. Thus, forest growth plays an important role in combatting climate change. Currently, carbon sequestration in Massachusetts forests offsets about 14% of annual emissions in Massachusetts.[33]

As Figure 4-5 shows, forest carbon includes both the carbon stored in the forest – in trees, plants, leaves, roots, soils, and dead trees – as well as carbon sequestration, the rate at which a forest removes carbon from the atmosphere. The amount of carbon stored or sequestered in any given forests depends on the forest age, tree species, soils, past land use, and any natural or human disturbances. Generally speaking, younger forests (30 – 70 years old) maximize carbon sequestration, as trees are growing fast during this stage and have access to light and space. As forests age, growth and sequestration rates slow, but the total amount of carbon stored in the forest increases more with age. Carbon stored in old growth forests, for instance, ranges form 100 – 120 metric tons per acre, while most forests in our region at around 100 years old store between 60 – 80 metric tons of carbon per acre.

Multi-aged forests, where small disturbances over time have opened the canopy in some areas while other areas have continued to age, contain a mix of both characteristics, balancing carbon

Figure 4-5: Carbon Storage and Sequestration



Source: *Forest Carbon: An Essential Natural Solution for Climate Change*. UMass Amherst and University of Vermont. https://masswoods.org/caring-your-land/forest-carbon

[33] MassAudubon, 2021: https://www.massaudubon.org/our-conservation-work/ecological-management/habitat-management/forest-management/

storage and sequestration. This type of multi-age structure can be accomplished within a forest under one ownership, or on a larger scale throughout a region, by landowners choosing passive and active approaches to managing forestland. Local wood products like lumber, furniture, and flooring provide a carbon benefit as well, if harvested from forests that are sustainably managed. Local wood products store carbon for the life of the product, and are an environmentally friendly alternative to other building materials that have higher embodied carbon.

As of 2021, Town of Conway was studying the feasibility of aggregating forested parcels within Conway to participate in the voluntary carbon market. The program would allow owners of forestland, through participation in the carbon market, to be paid for having and implementing a Forest Stewardship Plan that maximized carbon sequestration. Town-owned land would participate in this program, and the Town is currently encouraging landowners with over 40 acres to consider participating as well.

In addition to the Town-led initiative, there are a number of (non-government) private Forest Carbon Offset Programs that are operating in Massachusetts. In 2022, the Climate Forestry Program will be available to private and municipal forest landowners through DCR's Stewardship Program.

F.1.4 Interior Forest Blocks and Forest Cores[34]

BioMap2 identifies a Forest Core area in south Conway between East Guinea Road, Main Poland Road, Old Cricket Hill Road, Cricket Hill Road, and Whately road that extends into Whately and Williamsburg. Forest Cores are areas of at least 15,000 acres (when located in the Berkshire Plateau) and are considered to be of high ecological value. Their high ecological values comes from being the best examples within Massachusetts of large, intact forests that are least impacted by roads and development (i.e., traffic, pollution, agriculture, etc.) and that provide critical habitat for numerous woodland species, such as certain neotropical migrating bird species, that are dependent upon relatively pristine forest interior habitats for survival. MassWildlife has also recognized this forest core and other patches of contiguous forest as being part of the top 10 percent largest, intact interior forest blocks in the Commonwealth.

Intact, interior forests in Massachusetts may allow forest ecosystems to recover from changes and disturbances and allow species richness to be maintained. A number of government agencies and conservation groups are also recognizing the need to protect “interior forest cores” in order to promote the development of late successional structural elements, such as large living and dead trees, cavity trees and downed woody debris that are important for sustaining native forest biodiversity and maintaining ecosystem services like carbon sequestration. Since most forest stands in the Northeast are less than 100 years old, it is estimated that it will take at least another 50 to 100 years for any of these forests to reach late successional stages. In such old growth forests, some species occur in greater numbers or productivity, and there is greater habitat diversity provided by the downed and dead vegetation and the increased variation in the forest canopies.

[34] Content on forest blocks and forest interior adapted from the Shutesbury Open Space and Recreation Plan 2015 update.

Clearly, there is a recognition by federal agencies, state agencies, and conservation groups that forests provide a number of important services and that large, intact forest blocks are tremendously important to large mammals, a number of migratory birds, and some species of conservation interest. Because of the importance of forests, the threat of development of forested land across the Commonwealth, Conway should prioritize for protection both the BioMap2 Forest Cores and NHESP's top 10 percent largest interior forest blocks. The BioMap2 Forest Core is largely already protected by the state (the Conway State Forest and the Poland Brook WMA) and the City of Northampton, but large portions along the east side of East Guinea Road, between Cricket Hill Road and Whately Road, and between Avery, Roaring, and Johnny Bean Brooks remain unprotected or under temporary protection status through Chapter 61 enrollment. Of the interior forest identified by MassWildlife, areas between Route 116 and Sabin's Road/Pine Hill Road, a block north of the MassAudubon Conway Hills Sanctuary, and land between Hoosac Road and the South River remain either unprotected or under temporary protection. If possible, within some of these areas, unmanaged "wildland" areas could be set aside, under the direction of a state forester, to develop into areas of old growth, late successional forest.

F.1.5 Forest Resilience

Forests provide immeasurable ecosystems services in addition to economic, aesthetic, and recreational value. Forests also play a critical role in both mitigating and adapting to future climate change. By sequestering and storing carbon in their roots, stems, branches, leaves, and forest soils. The capacity of forests to function in these ways in the future depends on their resilience to a range of climate and non–climate stressors. Keeping forest resilient through good management and protection gives forests their best chance at recovering from disturbance and continuing to serve as one of Conway's most important natural resources.

The *Franklin County 2035 Regional Plan for Sustainable Development (RPSD)* names forest protection one of the most important natural resource goals. Forests important to protect include unfragmented forests, old-growth forests, and forests that support rare and endangered plant and animal species. Forests along rivers and streams are also a priority to protect for their important habitat, water recharge, and bank stabilization functions. Forests located on soils good for timber production should also be protected. According to the plan, sustainable forestry practices, such as planting, silvicultural practices, and suggested climate forestry practices, can increase the ability of forests to sequester carbon. Sustainably managed forests provide a renewable and high-quality source of wood products, increase habitat and wildlife diversity, increase carbon storage, and offer more space for recreation, while also providing employment, supporting rural communities, and encouraging landowners to retain their woodlots rather than sell them.

Climate change is impacting forests in many ways. A longer growing season and increasing temperatures are shifting habitat conditions for trees northward and to higher elevations. Over time, the birch-beech-maple forests typical of New England will decline while oak-hickory forests more typical of southern New England will thrive. An expected increase in periods of drought between intense precipitation events may weaken trees, leaving them more susceptible to insects and diseases. Warmer temperatures may favor invasive plants over native species and is already resulting in more widespread damage from pests and diseases that in the past were kept in check by colder temperatures (see *I.5: Forest Health*).

The 2016 publication *Increasing Forest Resiliency for an Uncertain Future* focuses on addressing the impacts of various stressors on New England's forests and offers recommendations for foresters, conservation groups, landowners, and municipal officials on how to increase forest resiliency in an uncertain future. [35] The main stressors highlighted in the report include forest conversion, invasive plants, invasive insects and disease, over-browsing from deer, and climate change. These stressors interact with one another to increase their negative impacts, making it all the more important to address them as part of a larger whole.

Maintaining healthy forests well into the future will necessitate addressing these stressors in an effort to increase forest resiliency. Forest resiliency is the capacity of a forest to respond to a disturbance by resisting damage or stress and recovering quickly. The authors break down forest resiliency into four goals: keep forest forested and connected, reduce stressors, reduce vulnerability, and provide refuge. Depending on the forest type, location, history, and surrounding landscape, forests will have varying degrees of vulnerability and resiliency.

Keep Forest Forested and Connected

Converting forests to other uses may impact the benefits the forest provides. Much of the forest in Conway and New England was cleared in the 1800s for farming and timber. Over the past 100 - 150 years, forests in the region have regrown. More recently, however, the amount of forestland in New England has begun to decline again due to development. As most of the land in New England is family forest, owned by families and individuals, the decisions these family forest owners make about their land moving forward will likely be the most important drivers of forest change. The average age of family forest owners is over sixty, meaning the coming years will see a very large intergenerational transfer of land ownership. It is important for these landowners to make formal plans for the future of their land. Landowners can work with a local land trust or conservation organization to investigate options for conserving their land.

Conserving resilient forests and the linkages between them will help plant and animal species move to more suitable habitats as the climate changes. Large, intact forested areas will also be more likely to recover from extreme events such as droughts, windstorms, ice storms, and flooding. Although individual parcel sizes may be small, conserving critical connections between larger core habitat areas can make a big difference in species migration. In addition to land protection, communities can implement land use regulations that encourage natural resource conservation and minimize forest fragmentation and land clearing for development.

Reduce Stressors

There are many steps forest landowners can take to limit the number of stressors that forests face to increase overall vigor and health. Invasive plants can out-compete native plants and decrease overall plant diversity by dominating forests and reducing regeneration of native trees and plants. Invasive insects, like the hemlock woolly adelgid, emerald ash borer, or the Asian long-horned beetle, have no natural predators and are affecting species composition as trees susceptible to these insects are selectively killed. Landowners can work with a Massachusetts licensed forester to

[35] *Increasing Forest Resiliency for an Uncertain Future*. Catanzaro, Paul, Anthony D'Amato, and Emily Silver Huff. 2016. https://masswoods.org/sites/masswoods.net/files/Forest-Resiliency.pdf

prevent the introduction of invasive species, remove small populations of existing ones, and learn to manage extensive areas of infestation. Deer browsing can be so intense in some areas that regeneration of certain species can be inhibited. Limiting the impacts of deer browsing can be accomplished through allowing deer hunting to control deer populations, leaving tree tops whole that have fallen to the ground in order to provide enough light for seedlings to grow while also sheltering them from browsing, and protecting seedlings using temporary fencing or deer repellants.

Forest landowners can also take steps to maintain or restore soil and water health by ensuring forestry best management practices are used when conducting a timber harvest to reduce soil compaction and erosion and to promote soil fertility. Recreation on forest land can be directed away from easily erodible soils or other environmentally sensitive sites. Maintaining or restoring forested riparian buffers around water resources will help filter out sediment and contaminants and keep water temperatures cooler.

Reduce Vulnerability

A forest's vulnerability is its susceptibility to undesired change from stressors. Forests with high complexity are more likely to withstand stressors and recover from disturbances. Complex forests have a diversity of tree species, including trees that are likely to do well in future climate conditions (see Figure 4-5 and 4-6), a variety of tree sizes, ages, and tree arrangements, and enough standing deadwood and logs on the ground. Forests with existing high complexity can be monitored over time for signs of vulnerability. Forests that are lacking in high forest complexity in one or more areas can become more resilient through forest stewardship activities such as creating openings of different sizes to promote regeneration of well-adapted species, thinning of forests to promote growth, and selectively felling trees to increase the amount of deadwood on the ground.

Provide Refuge

Conserving areas of diverse topography, geology, and local connectivity to provide options for threatened and endangered species can provide refuge for these species as the climate changes. Forested areas that contain endangered and threatened species and the conditions that sustain them should be prioritized for conservation and may be most appropriate to designate as forest reserves where a passive management approach is taken. Natural communities in Conway that support rare, endangered, and threatened species are identified in BioMap2 and discussed more in Section G. Fisheries and Wildlife.

F.1.6 Conserved Forests in Conway

Conway State Forest

Conway is home to the 2,223-acre Conway State Forest (some of this total acreage is over the border in Williamsburg). This protected forest is dedicated for conservation and recreation purposes and has around 7 miles of public trails. The forest is connected to City of Northampton-owned water supply land and other protected land all the way to the center of Williamsburg, constituting a great ecological (see *F.1.4: Interior Forest Blocks and Forest Cores*) and recreational resource.

Although timber harvests are regularly conducted in the Conway State Forest under its Management Forestry program,[36] it still provides the public with opportunities for hiking, cross-country skiing, horseback riding, mountain biking, snowmobiling, and access to historical settlements on its old roadways. Use by four-wheelers and dirt bikes is increasing. It is well used by Conway residents and regional people who know of its trail system. A limited-use trail map was prepared by DCR in 1972. An interpretive brochure and map of historical sites found in the area, developed by Hilltown Land Trust, is available on the Town of Conway website.[37] Trail infrastructure is primitive, trailheads are not marked, and limited parking is provided.

In 2012, DCR adopted landscape designations for the State and urban parks system. The landscape designations are based on the Forest Future Visioning Process, a statewide public outreach process completed in 2009 and 2010 that resulted in forest stewardship and management recommendations for DCR lands. The three landscape designations–reserves, woodlands, and parkland–have different management goals and guidelines:

> Reserve – The least fragmented forested areas where ecological processes will predominate and inform management, and where commercial timber harvesting is not allowed.
>
> Woodland – Forested areas actively managed for forest health, resource protection, sustainable production of timber, and recreation.
>
> Parkland – Areas providing public recreation opportunities, connections to nature, and protection and appreciation of natural and cultural resources.[38]

Conway State Forest is designated as a woodland. The Town receives PILOT (payment in lieu of taxes) payments from the state annually, although the program is undermined by lack of funding and unclear tax rulings. [39]

South River State Forest

The 559 acres of South River State Forest are two distinct areas located along the town's northern boundary. Western section features steep lowland and upland forest (including rich mesic forest) along the Deerfield River. This section is designated woodland. A second section to the east lines both sides of the last 1.25 miles of the South River before its confluence with the Deerfield. This section is designated parkland; the only public picnic area in town is located here, although very few people know of it. It is also the site of the former trolley and railroad stations and former hydroelectric dam.

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[36] "Forestry on State Public Lands": https://www.mass.gov/service-details/forestry-on-state-public-lands

[37] Trails of Conway, Massachusetts – An Historic Perspective": https://townofconway.com/wp-content/uploads/2009/10/Conway_Historic_Trails.pdf

[38] Massachusetts Department of Conservation and Recreation. *Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines,* 2012: https://www.mass.gov/files/documents/2016/08/qq/management-guidelines.pdf

[39] Office of the State Auditor. "Pilot Programs Undermined by Lack of Funding and Tax Rulings, Report Finds", 2020: https://www.mass.gov/news/pilot-programs-undermined-by-lack-of-funding-and-tax-rulings-report-finds

Individuals use these properties for hiking, cross-country skiing, horseback riding, swimming, and snowmobiling, and as access for river tubing. The South River area provides the greatest amount of public access to water for Conway residents. A limited use facilities and trail map was prepared by the state in 1972 and interpretive brochure and map of historical sites found within the state park, developed by Hilltown Land Trust, is available on the Town of Conway website.[40]

Poland Brook Wildlife Management Area

Owned and managed by the Massachusetts Division of Fisheries and Wildlife, the Poland Wildlife Management Area (WMA) is about 736 acres in Conway and extends into Ashfield for a total of 618 acres. Located centrally along the western boundary of town, it is close to both the UCC-Boy Scout land to the east and Conway State Forest to the southeast. Poland Brook, which flows through the conservation area, is a major perennial stream draining almost 10 percent of the town's surface water and including about 20 percent of the town's 100-year floodplain. The management area provides a variety of wildlife habitats including open fields, abandoned brushy fields, and forested tracts of mixed hardwoods and softwoods. Wildlife includes woodcock, ruffed grouse, cottontail rabbit, whitetail deer, gray squirrel, snowshoe hare and raccoon, trout, and stocked pheasant. Hunting and fishing are permitted on this land, as are other trail activities.

Flagg Mountain Wildlife Management Area

The 223-acre Flagg Mountain WMA is a steep, mountainous parcel of predominantly upland transitional hardwood forests accessible through a gated road. The road, laid for a proposed subdivision, winds its way to the top of Flagg Mountain and offers further hiking opportunities and views. The WMA is also adjacent to the Flagg Mountain Wildlife Conservation Easement (privately owned by the New England Forestry Foundation but publicly accessible) and Buckland State Forest. Hunting is permitted, though the WMA is not stocked. There are no parking facilities for Flagg Mountain. The property can be accessed from North Warger Road in Ashfield.

Mt. Esther Wildlife Management Area

Mount Esther WMA consists of 329 acres that straddle the Conway-Whately border (68 acres in Conway). The WMA is found in the rolling hills that surround Mount Esther and is composed of mature upland forest. The property provides access for hunting and for fishing in Jimmy Nolan Brook. The WMA is not stocked for pheasant. The property can be accessed from abutting conservation land off of Poplar Hill Road in West Whately; there is no parking area.

Town-owned Forests

The Town of Conway owns two forest parcels, totaling 154.3 acres. The 47.3-acre Fournier Lot is the wooded backlot of the Conway Grammar School, located off Route 116 in the west of town. The Grammar School community uses the property for educational programs and the community for recreational purposes. The woodland also acts as a buffer zone for the well that serves the Grammar School. The 108-acre Town Farm Forest is located off Cricket Hill adjacent to the matrix of State-owned properties to the west and south. The forest was originally cleared and settled for hay production and livestock pasturing and was purchased by the town in 1889 for the creation of an alms farm. The property and surround area are now uninhabited and the forest includes a beautiful beaver meadow complex.

[40] https://townofconway.com/wp-content/uploads/2009/10/Conway_Historic_Trails.pdf

Both properties had Forest Stewardship Plans completed in 2020 that detail sustainable forestry practices to increase the vigor and health of the forest and mitigate anticipated climate changes. Each of these plans values promoting biological diversity, enhancing habitat for birds, small animals, and large animals, improving access for walking, skiing, and recreation, preserving scenic beauty, protecting water quality, and protecting unique and cultural areas as management goals. Income, timber quality, and fishing or hunting improvements were low priority. The full plans can be found on the Town's website.[41]

Public Water Supply Forests

There are approximately 1,200 acres owned by the City of Northampton and Town of Deerfield for the purpose of drinking water protection (see *E.3.1: Public Drinking Water Reservoirs*). The South Deerfield Water Supply District owns 718 acres surrounding the Whately Glen Reservoir. The City of Northampton owns 539 acres in the southern section of town, which buffers the Ryan and West Whately Reservoirs located in Whately. These mostly forested parcels in the south of Conway are among several within the Northampton Reservoir watershed. Though there is no public access to these protected watershed lands, the Northampton-owned lands abut the Conway State Forest and the Deerfield-owned lands abut the Mt. Esther WMA, thereby helping create minimally interrupted wildlife corridors.

F.2 Public Shade Trees

Public shade trees are defined by the state as "all trees within a public way or on the boundaries thereof."[42] Public shade trees are located along roads throughout Conway, and although they are not legally public shade trees, trees on Town-owned land such as cemeteries and parks are a public asset. Public shade trees lend important character to Conway Center, and though they blend in with the forest along some rural roads, they contribute to rural character along others.

Conway's Tree Warden is responsible for the town's public shade trees. A public hearing must be held (except in certain circumstances), pursuant to state law, before any cutting, trimming, or removal of public shade trees may take place. A town can protect public shade trees in a number of ways, including: adopting a Scenic Roads Bylaw; limiting the amount of salt used on roads during the winter; requiring payment to tree mitigation funds from developers; and developing a plan and dedicating funding to the care and replacement of trees in public spaces. Many communities have found that a tree committee can work effectively with their tree wardens to improve the management, maintenance, and public support for public shade trees.

Unfortunately, heavy snows and ice storms often significantly impact public shade trees, and the vulnerability of trees to storm events are exacerbated by other stressors such as pest damage, climate stress, and damage to tree roots. The impact of public shade trees on roads and telephone lines can be mitigated in part by tree trimming by utility companies or undergrounding utilities.

[41] https://townofconway.com/forest-stewardship-plan/

[42] M.G.L. Chapter 87: https://malegislature.gov/laws/generallaws/parti/titlexiv/chapter87

F.3 Agricultural Land

Prime farmland soils in Conway comprises nearly 8% (1,925 acres) of the Town's total land area, but only 6% (1,393) acres of land area in Conway is in agricultural use.[43] Most of this land is used for hay or pasture (1,289 acres) and the remaining for crops (88 acres). In a town as forested as Conway, farmed open fields are a rare and valued aspect of the landscape. Today there are nearly fifty agricultural operations, most of them very small scale, ranging in products or activity, including beef, dairy, honey, maples syrup, sheep (meat and fiber), hay, vegetables, flowers, small livestock, horses, beef/buffalo crosses, cordwood, herbs, fruit, equestrian boarding. Agricultural activity is heaviest in the north of Conway on Bardwells Ferry Road and in the east on Roaring Brook Road. Other active farming occurs along Shelburne Falls Road, Fields Hill Road, Boyden Road, Route 116, Main and North Poland Road, South Shirkshire Road, and Saban's Road/Pine Hill Road. Agricultural land in Conway is valued for its contrast to the predominance of forestland, providing scenic landscapes and open vistas. Recreational opportunities on these lands include cross-country skiing, snowshoeing, snowmobiling, and sledding.

A total of 1,150 acres of this farmland is permanently protected through the Agricultural Preservation Restriction (APR) program and an additional 2,907 acres in temporary protection under Chapter 61A. Climate change makes farmland protection even more vital. Locally grown and harvested products allow communities to be more self-sufficient and to contribute to the reduction of pollution and use of fossil fuels associated with industrial agriculture. Purchasing locally grown food and farm products also supports the continued viability of farming in the region, and therefore helps protect farmland from conversion to other uses. Many farmers in Franklin County sell their produce locally, either directly on the farm, through farmers markets and community supported agriculture (CSAs), or through stores that are committed to purchasing from local farms.

F.4 Wetland & Meadow Vegetation

Wetlands in Conway are mostly forested (0.9%) or emerging (0.7%). Forested swamps are predominantly mixed deciduous swamps that include red maple, Eastern hemlock, and white pine. The importance of wetlands are elaborated in *E.3 Protected Surface Water*.

Grassland and scrub/shrub habitat together constitute 2.7% of Conway. This once-common habitat type is increasingly rare as hayfield and abandoned farmland areas reforest. Uncultivated open land provides breeding and feeding habitat for uncommon birds, butterflies, and other insects, and forage and hunting ground for numerous animal and insect species. Meadows require occasional mowing or grazing to keep from turning into forest; mowing with regard for grassland bird breeding schedules helps protect the species for which meadows are valued.

[43] 2016 MassGIS Land Use data

Beebalm in meadow bordering the South River (*Michele Turre*)

F.5 Rare Plants and BioMap 2 Habitats

The Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife (MassWildlife) has designated several "Priority Habitat" areas in the Town of Conway. A Priority Habitat is an area where plant and animal populations protected by the Massachusetts Endangered Species Act Regulations (321 CMR 10.00) may occur.

In 2010, the Massachusetts Department of Fish and Game (DFG), The Nature Conservancy, and the Natural Heritage and Endangered Species Program (NHESP) launched BioMap2: Conserving the Biodiversity of Massachusetts in a Changing World. This project, which replaces the former BioMap and Living Waters data, is a comprehensive biodiversity conservation plan for Massachusetts that endeavors to protect the state's biodiversity in the context of the projected effects of climate change. To offset climate-change-induced effects, the BioMap2 prioritizes the protection of larger habitats, natural communities, and ecosystems (such as wetlands, forests, and river systems) because they support larger populations of native species and greater numbers of species and are, thereby, better able to help plants and animals survive extreme conditions. Reports

are available for each town and city in Massachusetts detailing the BioMap2 Core Habitat and Critical Natural Landscapes in each community.[44]

Conway contains fifteen BioMap2 Core Habitats and eight Critical Natural Landscape (CNL) areas (see Vegetation and Wildlife map at the end of this section). Core Habitat consists of areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Core Habitat includes:

- Aquatic Cores;
- NHESP Priority Natural Communities;
- Forest Cores;
- Exemplary coldwater and cool-water stream habitats;
- Habitats identified in DFG's Comprehensive Wildlife Conservation Strategy, and habitats for species identified under Massachusetts Endangered Species Act (MESA);
- Habitats for rare, vulnerable, or uncommon mammal, bird, reptile, amphibian, fish, invertebrate, and plant species;
- High-quality wetland, vernal pool, aquatic, and coastal habitats; and
- Intact forest ecosystems.

The majority of Core Habitats in Conway tend to contain either aquatic cores, rich mesic forest community, or species of conservation concern. These areas mostly follow rivers and brooks in Conway, including Roaring Brook, the Mill River, the Deerfield River, the South River, Poland Brook, and the Bear River, as well as several disparate forested areas. The Core Habitat that encompasses the Conway State Forest contains a number of additional unique community types, including high-energy riverbank, major-river floodplain forest, riverside rock outcrop community, high-terrace floodplain forest, small-river floodplain forest, and black gum-pin oak-swamp white oak "perched" swamp.

BioMap2's Critical Natural Landscapes (CNL) consists of large natural Landscape Blocks that provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience. The areas include buffering uplands around coastal, wetland and aquatic Core Habitats to help ensure their long-term integrity. CNL can overlap with Core Habitat.

The CNL areas are found south of Route 116 and along important riverways north of Route 116. Additional state-listed species have been confirmed to be present in portions of these cores and may be present in Conway. Neither BioMap Core Habitats nor Critical Natural Landscapes are afforded special protection under Massachusetts laws or regulations but are considered to be areas worthy of protection and should be taken into consideration when making land-protection decisions. Information about Conway's BioMap2 habitat and landscapes is discussed in more detail in the Environmental Inventory and Analysis sections.

[44] https://www.mass.gov/service-details/biomap2-town-reports.

Statewide, NHESP has identified 259 native plant species as endangered, threatened, or of special concern, some of which NHESP has produced fact sheets for.[45] The fact sheets include the species status, description, aids for identifying, habitat, and images. Plants (and animals) listed as *endangered* are at risk of extinction (total disappearance) or extirpation (disappearance of a distinct interbreeding population in a particular area). *Threatened* species are likely to become endangered in the foreseeable future. Species of *Special Concern* have been documented to have suffered a decline that could result in it becoming threatened, occur in very small numbers, and/or have very specialized habitat, the loss of which could result in their becoming threatened.

Natural Heritage Endangered Species Program maintains a list of all Massachusetts Endangered Species Act (MESA)-listed species observed and documented in each Massachusetts town. Seventeen rare plant species have been documented in the Town of Conway (see Table 4-1).[46] Since the previous (2013) version of this plan, the autumn coral-root has been added as a species of special concern, mountain alder has been moved from the threatened to special concern list, and muskflower has been moved from the endangered to threatened list. These plants occur in some of the Priority Habitats identified above.

Table 4-1: NHESP Endangered, Threatened, or Special Concern Plant Species in Conway

Scientific Name	Common Name	MESA Status*	Most Recent Observation
Alnus viridis ssp. crispa	Mountain Alder	Special Concern	2011
Amelanchier sanguinea	Roundleaf Shadbush	Special Concern	1988
Aplectrum hyemale	Putty-root	Endangered	Historic
Carex hitchcockiana	Hitchcock's Sedge	Special Concern	2018
Carex lenticularis	Shore Sedge	Threatened	1988
Celastrus scandens	American Bittersweet	Threatened	2018
Corallorhiza odontorhiza	Autumn Coral-root	Special Concern	2019
Equisetum scirpoides	Dwarf Scouring-rush	Special Concern	2019
Hypericum ascyron	Giant St. John's-wort	Endangered	2016
Malaxis monophyllos var. brachypoda	White Adder's-mouth	Endangered	1928
Mimulus moschatus	Muskflower	Threatened	2017
Ophioglossum pusillum	Adder's-tongue Fern	Threatened	2007
Penstemon hirsutus	Hairy Beard-tongue	Endangered	1948
Sanicula canadensis	Canadian Sanicle	Threatened	1909
Symphyotrichum tradescantii	Tradescant's Aster	Threatened	1983

[45] https://www.mass.gov/info-details/list-of-endangered-threatened-and-special-concern-species

[46] These data were extracted from the database of the Natural Heritage and Endangered Species Program in December 2020: http://www.mass.gov/info-details/rare-species-viewer

Scientific Name	Common Name	MESA Status*	Most Recent Observation
Triphora trianthophora	Nodding Pogonia	Endangered	2018
Trisetum spicatum	Narrow False Oats	Endangered	2016

Massachusetts Endangered Species Act. Source: MassWildlife Natural Heritage and Endangered Species Program, 2020

G. FISHERIES & WILDLIFE

Conway is rich in wildlife. The town's abundance of farm fields, waterways, and mixed woodlands provide vital habitat for an array of wildlife including black bear, whitetail deer, wild turkey, red-tailed hawk, raccoon, fox, gray squirrel, and some rare species, among others. Conway's relatively low density of human habitation, land cover diversity, undeveloped riparian corridors, and large blocks of contiguous forest allows many of these species to flourish. According to many residents, the diversity and presence of wildlife is one of the great pleasures of living in Conway.

G.1 Habitat in Conway

The wildlife present in Conway depend on a variety of habitats—a diversity of forests, mixed or open areas, waterways with riparian corridors, and wetland areas—as well as the transition between them. The *BioMap2* project identified 7,304 acres of Core Habitat and 11,011 acres of Critical Natural Landscapes in Conway that currently support a broad range of wildlife and plant species.

Wildlife populations use habitat areas for supplies of food and water, and for shelter, mating, and raising young. Many species rely on a variety of habitats during different periods within their life cycles and species diversity is often greatest in ecotone areas—areas where several different habitat types meet—such as fields located next to forests, or forests located next to wetlands. There tends to be more wildlife in large undeveloped areas, around undeveloped waterways and wetlands, in areas with a large amount of ecotone, and places where food is abundant (including farms, forest with abundant hard mast, shrubland with soft mast, and where prey is abundant).

Each species also has a distinct range size. None of Conway's mammal species are migratory and their home ranges are correlated with mobility, denning characteristics, food requirements, and the need for connectivity between diverse habitat types. Small mammals tend to only use small home ranges, but large mammals can have home ranges of several thousand to tens of thousands of acres. Large areas of non-fragmented forest such as those found in South Conway can serve as wildlife corridors for large animals having large home ranges that need to move between habitat types or climate zones. Because of the large blocks of continuous forest in and around Conway, several mammals such as black bear, fisher, and bobcat that require 500 to 20,000+ acre habitats are often seen in town.

Some amphibians require vernal pools (i.e., temporary pools present during the spring breeding season that are devoid of fish), others use permanent water bodies to breed and spend the rest of their time in the woods, and others spend most of their adult and juvenile lives in wetlands.

Wildlife are strongly affected by non-contiguous habitat or wildlife barriers such as roads, dams, and development. Many of the town's waterways are adjacent to roads, creating potential conflict for wildlife. Mammals moving north/south must cross Route 116 or pass through culverts. UMass Amherst's River and Stream Continuity Project identified at least three culverts as moderate or significant stream-continuity barriers to aquatic wildlife.[47]

When evaluating land protection needs in Conway, it is important to note that some of the larger mammals have home ranges spanning several thousand or tens of thousands of acres of forest or mixed habitats, which may include areas in adjacent towns, in addition to Conway. Therefore, land-protection efforts should focus on protecting contiguous larger acreages of land containing several habitat types or important wildlife corridors rather on protecting small, isolated parcels of land, unless the latter contain important rare species habitat.

Conway is teeming with streams that function as coldwater fisheries. The Deerfield River and its tributaries provide some of the best spring and summer dry-fly fishing for wild trout in the Northeast. Many reaches of the Deerfield and its tributaries are also stocked with trout every.

G.2 Rare Animal Species and BioMap2 Habitats

There are a total of 173 species of animals in Massachusetts that are protected under MESA, updated yearly. MESA-listed species in Conway are shown in Table 4-2.

Table 4-2: NHESP Endangered, Threatened, or Special Concern Animal Species in Conway

Scientific Name	Common Name	Taxonomic Group	MESA Status*	Most Recent Observation
Ambystoma jeffersonianum	Jefferson Salamander complex	Amphibian	Special concern	2012
Ambystoma opacum	Marbled Salamander	Amphibian	Threatened	2012
Botaurus lentiginosus	American Bittern	Bird	Endangered	2007
Setophaga americana	Northern Parula	Bird	Threatened	2009
Boyeria grafiana	Ocellated Darner	Dragonfly/Damselfly	Special Concern	2017
Ophiogomphus carolus	Riffle Snaketail	Dragonfly/Damselfly	Threatened	2018
Catostomus catostomus	Longnose Sucker	Fish	Special Concern	2015
Glyptemys insculpta	Wood Turtle	Reptile	Special Concern	2019

Source: MassWildlife Natural Heritage and Endangered Species Program, 2020

As previously described in *F.5 Rare Plants and BioMap2 Core Habitats*, Conway contains fifteen distinct BioMap2 Core Habitats and eight CNLs (Vegetation and Wildlife Map at the end of this section). Additional state-listed species have been confirmed to be present in portions of these cores and may be present in Conway. As previously stated, neither BioMap Core Habitats nor

[47] https://sce.ecosheds.org

Critical Natural Landscapes are afforded special protection under Massachusetts laws or regulations, but are considered to be areas worthy of protection and should be taken into consideration when making land-protection decisions.

G.3 Wildlife Protection and Study in Conway

G.3.1 Massachusetts Bird of Prey Rehabilitation Center

Conway resident Thomas Ricardi, a retired environmental enforcement officer with the Massachusetts Department of Fisheries and Wildlife, founded the Massachusetts Bird of Prey Rehabilitation Center (Center) in Conway 1987. Mr. Ricardi's personal interest is raptor rehabilitation, and he runs (and funds) the Center at his home on North Poland Road. He is in demand for his slide lectures, on-site tours, and school programs.

Mr. Ricardi has as many as 100 birds at a time on site in outdoor cages, nursing them, if possible, to a condition that permits release back into the wild. Since 1987, Mr. Ricardi has conducted a captive breeding program for bald eagles and other birds of prey, releasing eaglets and other young birds into the wild about once a year. Some of these birds have been sighted and are breeding successfully. A prerequisite for success in eagle breeding is an environment that is free from visual distraction and noise—an environment that only undeveloped land can provide.

G.3.2 Black Bears

Since 1970, MassWildlife has been studying the life cycles of black bears. Each year staff conducts a breeding success survey that includes a visit to a den in Conway. [48] The data gathered during the surveys help MassWildlife learn more about the bears' life cycles and how humans may affect it. More bears are living in or visiting urban areas, according to MassWildlife, primarily due to the presence of bird feeders. There are now 4,500 black bears living in Massachusetts—Massachusetts was home to only 100 individuals in 1970 when studies began—and the population is actively expanding eastward..[49] Almost all bear habitat in Massachusetts is west of the Connecticut River, and the heart of the range is in and around Conway. As a result, encounters between humans and black bears are on the rise. So far there have not been any injuries to bears or humans as a result of the encounters here. However, people must learn not to intervene with bears, or any wildlife, in any way (e.g., feeding, handling, harassing, and pursuing). As residential development increases and encroaches on wildlife corridors, informing residents about bears (such as the need to take down bird feeders between April 1st and November 1st) and other wildlife as well as the significance of particular habitats will become increasing important.

H. SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

Conway is composed of rolling forested hillsides, open farmland, rushing rivers and streams, winding roads, and New England houses and barns. Many landscape and cultural features have

[48] http://www.wggb.com/2010/03/05/black-bear-survey-in-conway-reveals-two-new-cubs/

[49] https://www.mass.gov/service-details/learn-about-black-bears

been identified as important to the character of Conway. Table 4-3 is a robust inventory of individual scenic resources developed by the Open Space Plan Committee. The Scenic Resource and Unique Environments Map at the end of this section shows the historic, scenic, and recreational resources identified by participants of the public forum and Committee members as being unique and special places in Conway. Historic properties and cultural resources can be important economic assets, often increasing property values and attracting businesses and tourists to a community. While preservation of historic and cultural assets can require funding, it can also stimulate economic development and revitalization.

Table 4-3: Scenic Resources and Unique Environments in Conway

Map #	Resource	Value
Water Resources	*Stream Corridors*	
Labeled	Avery Brook	
	Bear River	Priority habitats of rare species
	Bradford Brook	
	Chapel Brook	Priority habitats of rare species; hiking
	Deerfield River	Priority habitats of rare species; tubing, fishing
	Drakes Brook	Priority habitats of rare species
	Johnny Bean Brook	Priority habitats of rare species
	Mill River	
	Nye Brook	Priority habitats of rare species
	Pea Brook	
	Poland Brook	Priority habitats of rare species; old mill sites; hunting, fishing, hiking, birding, skiing
	Pumpkin Hollow Brook	
	Roaring Brook	
	Schneck Brook	Priority habitats of rare species
	Town Spring	Area of natural springs
	South River	Priority habitats of rare species; fishing, swimming birding, botanizing, wildlife study; 18th & 19th century mill sites
Water Resources	*Wetlands*	
Unlabeled	Conway Hills Wildlife Sanctuary beaver pond	Waterfowl habitat and observation
	Cricket Hill beaver pond	behind cemetery, Waterfowl habitat and observation
	Keyes Swamp	Waterfowl habitat and observation, amphibian habitat
	Whately Road beaver pond	Amphibian habitat and bird rookery
	Wilder Flat beaver pond	Waterfowl habitat and observation

Scenic and Unique Resources	*Publicly Accessible Cemeteries*	
17	Boyden Cemetery	
19	Cricket Hill Cemetery	
8	Howland Cemetery	Privately owned by Conway Cemetery Association
21	Maynard Cemetery	
1	North Shirkshire Cemetery	
7	Pine Grove Cemetery	Privately owned by Conway Cemetery Association
15	Pumpkin Hollow Cemetery	
18	Southpart Cemetery	
Scenic and Unique Resources	*Historic Areas, Buildings & Sites*	
4	Bardwells Ferry Bridge	National Register Historic Site
16	Boyden Schoolhouse	Moved to the grounds of the Conway Grammar School and restored
3	Broomshire Pound	Historic stone enclosure to constrain stray livestock
10	Burkeville Covered Bridge	National Register Historic Site
Labeled	Burkeville Historic District	
23	Burnett Family Cemetery	Private
Labeled	Conway Center Historic District	National Register Historic Site
5	Conway Electric Railway dam and former reservoir	
14	Conway National Bank Bldg.	Now Town Offices
6	Conway Station	Site of station at the end of trolley line
20	Cricket Hill School site	
13	Field Memorial Library	Turn of the (20th) century construction,
12	Masonic Hall	Former post office, Masonic Hall, trolley station
2	North Shirkshire Schoolhouse	
22	Old Cricket Hill Pound	Stone enclosure to constrain stray livestock
11	Orchard Equipment and Supply	Formerly 19th c. woolen mill, then early 20th tap and die factory
26	Poland Cemetery	Private

24	Poland Gate	Historic road to Poland area, still in use, runs between huge erratic boulders
25	Poland School Cemetery	Private
9	Tucker & Cook former reservoir	Dam ruins visible of reservoir drained in 1940s; priority habitats of rare species
Labeled	Route 116 Scenic Byway	State-designated scenic state highway bisecting town
Scenic and Unique Resources	*Notable Geologic Features*	
Unlabeled	Sikes Hill	Highest point in Conway (1,505ft); hiking, wildlife observation
	South River gorge below Delabarre Ave.	Rapids & pools in bedrock, coldwater fish habitat; fishing
	South River gorges by South River State Forest	Rapids & pools in bedrock, coldwater fish habitat; fishing
	The Colonels (Toby Hill, Walter's Hill, The Colonel, Pine Hill)	
Scenic and Unique Resources	*Recreation Facilities*	
Unlabeled	Conway Grammar School	
	Conway Pool	Private, accessible to Conway residents only
	Town Ball Field	
Scenic and Unique Resources	*Recreation Sites and Trails and Areas not Owned by Public or Conservation Organizations*	
Unlabeled	Conway Snowmobile Club Trail System	Throughout town
	Conway Sportsman's Club	
	Mahican-Mohawk Trail	Along Deerfield River
	Henhawk Trail	In Conway State Forest
Scenic and Unique Resources	*Scenic Views and Roadsides*	
Marked, unnumbered	Boyden & Antes Farms from Roaring Brook Rd	
	Boyden Road view to N and S	
	Burnett Farm from Route 116	
	Conway Hills Conservation Area	
	Cricket Hill view to E and S	
	Dill Hill view to N	

	Farmland in Shirkshire neighborhood	
	Fields Hill view to N	
	Flagg Mountain view to S	
	Intersection of Graves and Reeds Bridge Roads	
	Keyes Swamp	
	Main Poland Road view to NE	
	North Poland Road looking at Poland WMA	
	Pine Hill Road view to N	
	Pumpkin Hollow	
	Roaring Brook view to NE	
	South River valley along Shelburne Falls Road between Conway Center and Bardwells Ferry Rd	
	South Shirkshire Road view to E	
	Totman Farm, Bardwells Ferry Rd	
	Truce Road view to NE	
	Williamsburg Road view to S/SW	

H.1 Stream Corridors & Wetlands

Stream corridors include the combination of the water body, streambed, banks and surrounding vegetation, which is significantly different from the surrounding uplands. Stream corridors provide wildlife habitat, scenic views, and recreational opportunities for the residents of Conway. Conway has many small rivers, streams, and brooks that can be seen from the roads that follow them. A number of these watercourses also hold areas of priority habitat for rare species, including the Bear and South Rivers, and Chapel, Drakes, Johnny Bean, Nye, Poland, Schneck, and Sids Brooks. The Deerfield River, which runs the length of Conway's northern boundary, is highly scenic and has immense recreational and ecological significance. The Bardwells Ferry Bridge is the only place one can view the Deerfield River in Conway by car, though it is possible to hike to a number of locations along the river, most notably via the Mahican-Mohawk Trail.

Conway residents consider all of the town's wetlands as particularly scenic, but the Conway Hills Wildlife Sanctuary beaver pond, the Cricket Hill wetland behind the cemetery, Keyes Swamp, and the beaver ponds on Whately Road and on Wilder Hill Road are scenic wetlands that can be seen from the road. Wetlands are valued not just for their ecological roles in Conway, but for the plant and animal species they attract. The ephemeral nature of beaver ponds, whose making and abandonment naturally transform the landscape, have their own unique value.

The Wetlands Protection Act protects wetlands and the public interests they serve by requiring a careful review of proposed work that may alter wetlands. Streams and rivers are also protected via laws covering land subject to flooding (100-year floodplains), the riverfront area (added by the Rivers Protection Act), and land under water bodies, waterways, salt ponds, fish runs, and the ocean. The Rivers Protection Act provides additional protection from land uses that may have a negative impact on the long-term viability of flora and fauna along the perennial streams and rivers. However, since wetlands and watercourses are often in low-lying areas of the landscape, their normal water flows and the quality of the water can be greatly influenced by the use of nearby lands.

H.2 Historical Areas, Cemeteries, Buildings & Sites

Field Memorial Library, postcard from Methuen Historic Collection *(Creative Commons)*

The Massachusetts Cultural Resource Information System (MACRIS)[50] lists a total of 95 areas, buildings, burial grounds, objects, and structures of cultural and/or historic significance in Conway. Some of these are included in the Burkeville Historic District west of Conway Center and in the Conway Center National Historic District: the densely clustered group of buildings on Main Street, Elm Street, and Academy Hill Road occupying level bottomland historically called "the Flat." Mostly developed during the 1840s and 50s, the district includes municipal buildings, financial institutions, the public library, former stores, and many of the village's single family houses dating from antebellum years.[51] The Bardwells Ferry Bridge and the Burkeville Covered Bridge are nationally recognized historic sites. There are two buildings of particular historic interest in Conway Center. The Conway National Bank Building, also known as "the Brick Bank", was built in 1878 and is now home to town offices. The Field Memorial Library, completed in 1901, was a gift to the town from native son Marshall Field. Orchard Equipment and Supply Company is housed in the remains of the Conant and Donelson Tap and Die manufacturing building, built in 1909, serving as a last reminder of Conway's manufacturing legacy.

[50] Information from National Register Nomination Form obtained from the Mass Historical Commission web site http://mhc-macris.net/Results.aspx

[51] http://mhc-macris.net/Results.aspx

Bardwells Ferry Bridge (*David Chichester*)

Designation on the MACRIS list does not provide any protective measures for the historic resources but designated sites may qualify for federal and state funding if damaged during a natural or manmade hazard. MACRIS data are compiled from a variety of records and files maintained by the Massachusetts Historical Commission (MHC), including but not limited to, the Inventory of Historic Assets of the Commonwealth, National Register of Historic Places nominations, State Register of Historic Places listings, and local historic district study reports.

In addition, historic cemeteries, schoolhouses, historic dams, and stone pounds remain in the landscape that are testaments to old settlement patterns and ways of living. Many cemeteries, such as Cricket Hill Cemetery and Maynard Cemetery, are old family cemeteries containing only a few dozen headstones. The Boyden, Cricket Hill, and North Shirkshire Schoolhouses are now residences. Remnants of the Tucker and Cook Reservoir just west of Burkeville and the Conway Electric Railway Dam which is now encompassed by the South River State Forest memorialize Conway's industrial legacy. The Broomshire and Old Cricket Hill pounds also remain intact, relics of Conway's agricultural period.

H.3 Notable Geological Features

A town of hills, a number of peaks stand out in Conway. Sikes Hill, the highest point in town, is accessible for hiking and valued for wildlife observation. A small east-west range dubbed The

Colonels runs just north of Route 116 on the western side of Conway. Pine Hill Road is a decommissioned road that traverses this range.

Two gorges along the South River, below Delabarre Avenue and off Conway Station Road are not only beautiful, but are also good coldwater fisheries. Though a geological accident, two large glacial erratics line the entrance to the historic Poland Road. Many of these historic and special geologic landscape features sit on protected land, but others are still subject to alteration and development. It is the job of concerned community members to continue to identify and advocated for the protection of unprotected historic and unique landscape features.

H.4 Scenic Areas and Vistas

The views from roads are an essential element of Conway's scenic character. Dirt roads have high recreation value as trails for hiking, biking, and horseback riding. Many old roads are lined with mammoth sugar maple trees that are tapped for sap in spring, supplying several maple sugaring operations in the area.

Roaring Brook Road (*Dave Chichester*)

Much of the area along Shelburne Falls Road, Bardwells Ferry Road, and the Deerfield River in Conway is classified as a Distinctive Scenic Landscape by the Massachusetts Scenic Landscape

Inventory report, published by the Department of Environmental Management in 1982.[52] Distinctive Scenic Landscapes are areas of the highest visual quality, typically consisting of openness, low population density, high relative relief, historical structures and land uses, agriculture, surface water, significant vegetation, important geological features, and lack of contemporary development.

An additional portion of town extending south and east to Route 116 and down Roaring Brook Road is also recognized as Noteworthy Scenic Landscape. These are areas of lesser, but nevertheless important, visual quality. Noteworthy landscapes typically contain the same factors as 'Distinctive' landscapes but in lesser amounts or in lower quality.

More specifically, Conway residents value farmscapes, such as the Boyden and Antes Farms on Roaring Brook Road, the rows of crops at Natural Roots Farm on Shelburne Falls Road, the glimpse of the Burnett Farm on Route 116, and the open fields at the top of the hill at Totman Farm on Bardwells Ferry Road. Other beloved views from hilltops and roads of wetlands, valleys, and distant hills are captured in Table 4-3: Scenic Resources and Unique Environments in Conway.

Large scenic views are sometimes more difficult to protect than other physical resources because they can span multiple parcels. Fortunately, much of the farmland in Conway valued for its scenic qualities is at least partially protected through conservation restrictions and Chapter 61 status. State and local land trusts recently demonstrated their interest in protecting natural resources with scenic value in Conway when they reacted swiftly to the opportunity to preserve Flagg Mountain after a 25-lot housing development was planned. While Conway has seen many land protection success stories, identifying and planning for the protection of scenic resources can better guarantee their enduring presence than efforts undertaken in reaction to a threat.

H.5 Recreational Trails and Areas Not Owned by the Public or Conservation Organizations

A number of unique and valuable trail systems and recreation areas, such as the Conway State Forest, in Conway are protected through public ownership. A number of other recreational resources on private land are valued by Conway residents, including the Conway Snowmobile Club trail system, the Conway Sportsman's Club, and the Mahican-Mohawk Trail. The Conway Snowmobile Club is a member organization that works with landowner permission to maintain a network of snowmobiling trails on public and private land throughout Conway and into neighboring towns. The Conway Sportsman's Club is a member-only recreational facility for hunting and fishing activities. The Mahican-Mohawk Trail is an inter-town trail along the Deerfield River that follows a historic Native American trail between the Connecticut and Hudson Rivers. Sections of the trail between the Bardswell Ferry Bridge and the Village of Shelburne Falls are currently closed. Some additional Conway landowners have worked with local land trusts to open their trails to the public.

[52] The DEM is now the Department of Conservation and Recreation (DCR). The report is available from the Historic Landscape Preservation Initiative program and the mapping is now available from MassGIS. http://www.mass.gov/dcr/ Contact Wendy Pearl wendy.pearl@state.ma.us

Protection of these existing trail networks would be a complex undertaking involving numerous landowners. Identifying and long-term planning for the protection of these resources could help the Town and partnering agencies be able to take action if the resource does come under threat. For the time being, residents can also support the organizations that currently provide and maintain the resource.

I. ENVIRONMENTAL CHALLENGES

A number of environmental challenges continue to impact natural resources, the economy, and the social fabric of Conway, including the potential for new development, water supply, climate and other stressors' impact on forest health, flooding, fluvial erosion and sedimentation, and environmental equity. All of these problems are interrelated and all are impacted by land use and development. In the coming years, the Town must contemplate what actions to take in order to resolve these pressing problems and plan for a future that preserves Conway's rich agricultural, cultural, and natural heritage.

I.1 New Development

Conway has experienced only a small amount of new development in recent years. As landowners age, however, large forested and unforested parcels can be subdivided into smaller parcels, making conservation efforts and forest management more difficult and development more likely. Outreach to landowners about options and the resources available for planning for the future of their land helps reduce parcelization of important large blocks of open space. Conversely, infill development and improvements in the village center have been stymied by lack of municipal septic systems.

Conway has been subject to a large ground-mounted solar development in the last decade. In response to community concern following the installation of a 23-acre ground-mounted solar facility, the original 2011 bylaw was amended in 2021 to require a higher degree of review by the planning board for intermediate and large installations. The bylaw also increases protection of wetlands and state-designated Prime Forest. The current bylaw does not take into consideration a number of other ecological factors that may be impacted by large-scale ground-mounted solar installations, such as landscape connectivity and historical significance.

I.2 Water Quality

Conway has only a few impaired surface water bodies. A sparse development pattern and heavily forested landscape character helps protect surface water bodies from potential contaminants. However, the South River and ground water in town are still vulnerable to contamination from a number of potential sources. Agriculture, failing septic systems, and inadequate stormwater management along roads and residences, and historic manipulation of the stream bed contribute to the excessive E. coli, fecal coliform, and physical substrate habitat alterations occurring on the South River. Risk of contamination of groundwater and aquifers comes from septic system effluent, road salt and oil, pesticides and other chemicals. At present, the most significant public water supply concern appears to be at the Conway Grammar School, where the absence of a

hydrogeological barrier could allow contamination migration from nearby sources of pollution. Some of these potential pollution sources are highlighted, below.

I.2.1 Septic Systems

Because the town has no municipal public water supply or wastewater treatment facility, residents rely on private wells and septic systems. In areas of town that overlay the high-yielding shallow aquifers, (notably the town center), most homes draw their water supply from shallow wells or springs. Certain older homes throughout town have experienced one or more failures of septic systems first installed in the early 1970s. These failures have not yet caused contamination of shallow wells.

I.2.2 Underground Storage Tanks

Federal and state laws regulate gas storage tanks larger than 1,100 gallons, but smaller tanks and those for heating oil fall outside this purview. The DEP Underground Storage Tank Query Tool lists one active underground storage at Baker's Country Store.[53] Underground fuel storage tanks, especially those near rivers or wells, that are not covered by state or Federal regulations, should be a priority for investigation by the town.

I.2.3 Road Salt

The use and storage of road salt can be a source of soil and water contamination. Conway recognized this problem and in 1998, built a salt shed for the purpose of storing road salt on a site away from the South River. Although the Town has made it a policy to use salt sparingly, the Massachusetts Department of Transportation is responsible for salting on Route 116. In areas where the highway parallels the South or Mill Rivers or where wells are close to the road, there is the possibility of water contamination.

I.2.4 Stormwater Runoff

Stormwater runoff over pervious and impervious surfaces can transport chemicals, excessive nutrients, and sediments in to streams and rivers and create erosion of streambanks and stream channels. Unchecked stormwater runoff also reduces the amount of water that is infiltrated as groundwater. Low Impact Development (LID) is a group of land use development techniques that capture water and rainfall on site, filter it through vegetation and let it soak into the ground before entering the water table. In rural areas, LID strategies use careful site design and decentralized stormwater management to reduce the environmental footprint of new growth. New homes are sited where they will create the least impact on natural hydrology and other ecological, scenic, or historic resources. Stormwater is managed in small decentralized structures such as grass swales and rain gardens that may be more consistent with the rural character than traditional "pipe and pond" systems. The width of roads and the amount of impervious surfaces are kept to a minimum to reduce stormwater runoff.

[53] https://www.mass.gov/guides/massdep-underground-storage-tank-ust-program

I.3 Water Supply

Although climate change is resulting in an increase in precipitation overall, it is occurring in heavier, shorter periods, with more intense dry spells in between. More intense rainfall leads to greater amounts of water running off the land into rivers and streams instead of infiltrating into the ground. In addition, more rain is expected in the winter, reducing the amount of snowpack and spring melting that helps recharge aquifers. Higher risk of drought may stress underground water resources. According to the Board of Health, some very old wells in Conway Center needed to be redrilled as a result of dry periods in 2016 and 2017, but so far there has not been any alarm raised regarding supply in the Town's aquifers.

Conserving natural areas in aquifer recharge areas is critical to helping ensure groundwater recharge. Forested areas capture and slow precipitation, allowing more water to infiltrate the ground. In addition to land conservation, zoning and subdivision regulations can regulate impervious surface area and the amount of natural vegetation clearing allowed with new development. Regulations can also encourage LID stormwater techniques, as discussed in *I.2.4: Stormwater Runoff*, that infiltrate water runoff on site. [54]

I.4 Hazardous Materials, Hazardous Waste and Landfills

Conway has no hazardous sites with Activity and Use Limitation (AUL) status. However, MassDEP has records of 22 hazardous materials spills/releases in Conway that occurred between 1987 and 2019.[55] Most incidents were assessed and granted Permanent Solution with No Conditions status for their clean-up. Three incidents required Phase II assessments, in which underground materials were tested for contamination. A residential release occurred on Reeds Bridge Road in 2019 that holds Tier I status because it was not closed out within a year.

Continuous education of landowners about proper hazardous waste disposal is essential to protecting the water supply. Some of Conway's businesses handle hazardous materials or generate hazardous wastes, and all presumably are operating within the law (such as pesticide, solvent and waste oil disposal, etc.). Homeowners, and possibly some of the cottage businesses, are not as likely to be aware of their responsibility to protect groundwater. The Board of Health has approved the Conway transfer station on designated days to be one of the county's hazardous waste collection sites.

There are no active landfills in town.[56] There are three inactive landfills, two of which have been capped and no environmental monitoring is required. The Conway Landfill on Old Cricket Hill Road is an unlined landfill whose closure is incomplete and the status is unknown, according to

[54] MassAudubon. "Shaping Climate Resilient Communities — Low Impact Development": https://www.massaudubon.org/our-conservation-work/advocacy/shaping-the-future-of-your-community/saving-land-water-money-with-lid/

[55] Energy & Environmental Affairs Data Portal. "Waste Site & Reportable Releases Results for Conway": https://eeaonline.eea.state.ma.us/portal#!/search/wastesite/results?TownName=CONWAY

[56] Massachusetts Landfills, Transfer Stations, Compost Sites & Recycling Facilities Database: https://www.mass.gov/lists/massachusetts-landfills-transfer-stations-compost-sites-recycling-facilities

DEP's Inactive/Closed Landfills & Dumping Grounds List, last updated in January 2017. There are no known environmental problems associated with these three landfills.

CONWAY			WE 172435	MSW		CSU-LF		
CONWAY LANDFILL								
OLD CRICKET HILL RD						tpd unknwn	Municipal	TOWN OF CONWAY
CONWAY, MA 01341							TOWN HALL, PO BOX 240, CONWAY, MA 01341	
Inactive	1900	1977	0	Incomplete		Not Lined		(413)369-4235
CONWAY			WE 282103	MSW		CLF		
CONWAY WOOD & DEMO LANDFILL						1.00		
OLD CRICKET HILL RD						tpd unknwn	Municipal	TOWN OF CONWAY
CONWAY, MA 01341							TOWN HALL, PO BOX 240, CONWAY, MA 01341	
Closed	1977	1991	1996	Capped		Not Lined		(413)369-4235
CONWAY			WE 396185	MSW		CLFNMN		
SHELBURNE LANDFILL						3.00		
SHELBURNE FALLS RD						tpd unknwn	Municipal	TOWN OF SHELBURNE
CONWAY, MA 01341				(413)625-0300			51 BRIDGE ST, SHELBURNE, MA 01370	
Closed	1970	1979	1979	Capped		Not Lined	BOARD OF HEATLH	(413)625-0300

I.5 Forest Health

Climate change and related impacts from increasing temperatures poses a major threat to the health of Conway's forests (see *F.1.5: Forest Resilience* for further description and management strategy). Impacts include change in forest structure, droughts, invasive plants and insects, and diseases. The hemlock wooly adelgid has been present in Conway for more than a decade without much impact, though the full impact of the pest has to be seen under warming conditions; a more sever outbreak would have significant consequences for Conway's forested ravines and wetlands. The elongate hemlock scale is another invasive insect that infests hemlock. High populations of elongate hemlock scale can cause increased mortality. Emerald ash borer, an insect that can kill ash trees in 3 to 10 years, was officially confirmed in neighboring towns and anecdotally confirmed in Conway in 2020. Beech bark disease, a disease-insect complex, has infected the majority of Conway's beech trees, though some beech trees are demonstrating resistance. Other potential threats to Conway's forests include the Asian longhorn beetle, an invasive wood-boring insect that attacks hardwood trees that at the moment is contained in eastern Massachusetts, and sudden oak death disease, which is present in parts of southern New England.

I.6 Invasive Species

Over the past decade, the abundance and variety of invasive plan species in Conway has steadily increased, especially along roadways, streams and rivers, and forest edges. Climate change is affecting the growing conditions for native species and extending the range of non-native species. Non-native problem species were introduced as ornamental species, medicinal species, or are escapees from shipped material arriving from abroad. Non-native invasive species become a problem when they out-compete native plants or animals and disrupt our ecosystems. Some non-natives, such as dandelions, have become naturalized and although scattered on our landscape, do not represent a threat to the natural ecosystems.

Although some invasives have beneficial qualities, including aesthetic value, their impact on the biodiversity, habitat value, and agricultural output is considered detrimental overall. Table 4-4 lists

the non-native invasive plant species within town, all of which are listed as "prohibited" by the Massachusetts Department of Agriculture. Since 2014 the Open Space Committee has been working to control Japanese stiltgrass along Conway's roadsides, and a variety of invasives in sensitive areas, particularly along the South River, including Japanese knotweed, Asian bittersweet, non-native honeysuckles, and multiflora rose. Conway has also partnered with the DCR and Land Stewardship, Inc. to author and implement the recommendations of the 2019 Invasive Plant Control plan for DCR's properties management plan. Control work has been funded in part by the Community Preservation Act as well as a by a partnership with the DCR. In 2020, an infestation of a new species, black swallowwort, was observed in town.

Table 4-4: Non-native Plant Species Found in Conway and Neighboring Towns

Latin Name	Common Name	Observed in Conway	Observed in Neighboring Town
Acer platanoides	Norway maple	Y	Y
Aegopodium podagraria	Bishop's goutweed	Y	Y
Ailanthus altissima	Tree of heaven	N	Y
Alliaria petiolata	Garlic mustard	Y	Y
Berberis thunbergii	Japanese barberry	Y	Y
Cabomba caroliniana	Carolina fanwort	N	Y
Celastrus orbiculatus	Oriental / Asian bittersweet	Y	Y
Cynanchum louiseae	Black swallow-wort	Y	Y
Elaeagnus umbellata var. parvifolia	Autumn olive	Y	Y
Euonymus alatus	Burning bush	Y	Y
Fallopia japonica var. japonica	Japanese knotweed	Y	Y
Ficaria verna ssp. bulbilifer	Lesser celendine / Fig buttercup	N	Y
Frangula alnus	European / Glossy buckthorn	Y	Y
Hesperis matronalis	Dame's rocket	Y	Y
Iris pseudacorus	Yellow iris	Y	Y
Ligustrum obtusifolium	Border privet	Y	Y
Lonicera ×bella	Bell's honeysuckle	N	Y
Lonicera japonica	Japanese honeysuckle	N	Y
Lonicera morrowii	Morrow's honeysuckle	Y	Y
Lysimachia nummularia	Creeping jenny / moneywort	Y	Y
Lythrum salicaria	Purple loosestrife	Y	Y
Microstegium vimineum	Japanese Stiltgrass	Y	Y

Myriophyllum heterophyllum	Variable water-milfoil / Two-leaved water-milfoil	N	Y
Myriophyllum spicatum	European water-milfoil / spike water-milfoil	N	Y
Myosotis scorpioides	Forget-me-not	Y	Y
Persicaria perfoliata	Mile-a-minute vine or weed / Asiatic tearthumb	N	Y
Phalaris arundinacea	Reed canary-grass	Y	Y
Phragmites australis ssp. australis	Common reed	Y	Y
Potamogeton crispus	Crisped pondweed	N	Y
Rhamnus cathartica	Common buckthorn	Y	Y
Robinia pseudoacacia	Black locust	Y	Y
Rosa multiflora	Multiflora rose	Y	Y
Trapa natans	Water-chestnut	N	Y
Tussilago farfara	Coltsfoot	Y	Y

Source: Conway Open Space Committee 2021.

I.7 Pollinator Decline and Pesticide Use

Natural plant communities rely on pollinators such as bees, wasps, moths, butterflies, and birds to produce genetic diversity in the plants they pollinate and are therefore critical to the biodiversity and resilience of whole ecosystems. In the 2017 *Massachusetts Pollinator Protection Plan*, MDAR identified the need to evaluate, sustain, and enhance pollinator populations in the state. Both managed agricultural pollinators (honeybees) and wild native pollinators have declined in numbers in recent decades and are experiencing significant challenges to their survival.[57] A major research project out led by Robert Gegear, Ph.D., out of UMass Boston is collecting and sharing important information about the role of native bees in pollination and the plants and trees that support them.[58]

The most common and prolific pollinators are bees, of which there are over three hundred species native to New England. Many species of native bee are much more effective than honeybees at pollinating flowers on a bee-per-bee basis, so agricultural growing practices that support native bees also tend to be good for crop pollination, increasing yields, and farm profit.[59] Parasitic wasps

[57] http://www.mass.gov/files/documents/2017/06/zw/pollinator-plan.pdf

[58] Beecology.wpi.edu

[59] The Xerces Society, "Farming For Bees: Guidelines for Providing Native Bee Habitat on Farms," 2015: https://www.xerces.org/publications/guidelines/farming-for-bees

and native bees, especially bumblebees, are important for insect-pollinated crops such as tomatoes, particularly in organic greenhouse settings.

The widespread use of insecticides is one of the most significant risks to pollinators. Hundreds of acres of farmland in crop production are sprayed with pesticides. Pesticides are used at some residences. The impact of pesticide use in Conway on insects is unknown and pesticide use is regulated at the state, not town, level. However, the safest course of action is to avoid pesticides entirely.

Another major risk to pollinators is loss of habitat and connectivity between the resources needed to complete their lifecycle. A variety of strategies can be employed to bolster and expand pollinator habitat and develop "pollinator pathways" that can have a measurable impact. The 2021 *Franklin County Regional Pollinator Action Plan* and *Conway Pollinator Action Plan* contains land use analysis, land management strategies, recommended zoning changes, a conceptual design for Conway's Bigelow Property, planting design typologies by land use type, planting lists, and other resources for improving pollinator habitat.[60] A number of the recommendations from those plans are incorporated into section 9: Seven-Year Action plan.

I.8 Inundation Flooding

The 2020 Town of Conway Multi-Hazard Mitigation Plan[61] identifies a number of streams in Conway with the potential to cause localized inundation flooding, including:

- Poland Brook – characterized as fast moving and flashy. During Tropical Storm Irene, Poland Brook overtopped its banks and destroyed part of an adjacent road
- Pumpkin Hollow Brook – flooded the center of town during Tropical Storm Irene
- South River flooding caused crop damage to farm fields during Tropical Storm Irene, with considerable bank erosion and silt transportation into the Deerfield and Connecticut Rivers
- Mill River – has flooded in the past

Other than the occasional problems caused by beaver, there were no other areas of chronic flooding identified by the Committee.

The 2018 Ashfield-Conway MVP Resiliency Plan identified the flood risk posed by the potential failure of the Ashfield Lake Dam as a top vulnerability in town. In 2021, the Town of Ashfield received grant money and began work to repair the dam. They also identified that the highway garage and other roads and infrastructure in the South River's 100-year flood-plain as a significant concern. Conway Town buildings and specifically the Conway Town Hall's generator, which is below grade, have also been identified as key infrastructure vulnerable to flooding.

[60] https://frcog.org/franklin-county-regional-pollinator-plan/

[61] Town of Conway. "Town of Conway Multi-Hazard Mitigation Plan", 2020: https://townofconway.com/wp-content/uploads/2016/08/FINAL-Conway-Hazard-Mitigation-Plan-4-1-20.pdf

I.9 Erosion and Sedimentation

Conway's water systems are both strong and fragile. Rivers and brooks add considerably to the beauty of the landscape, but tend to cause fluvial erosion during high-precipitation events (see *E.6.2: Fluvial Geomorphic Assessment and River Corridor Mapping*). Rivers and streams alter their course by erosion of their banks and the deposition of sediments. This natural process can be accelerated and exacerbated by human activities that increase stormwater runoff, alter riverbanks and vegetation, and impact aquatic and riparian habitat. Roads, property, and infrastructure can be threatened by eroding riverbanks.

In addition to property and infrastructure damage, sediment from eroding banks can compromise habitat for fish and aquatic life. Several lifelong fishing enthusiasts remarked that there seemed to be less fish in the South River than in previous decades. This decrease could be due to overfishing, poor water quality, or siltation from road sand and roadside swales filling up fishing holes.

As pointed out in the MVP plan, there are riverbanks that need stabilization and habitats that need restoration along the South River; over 20 flood mitigation projects have been identified in the 2013 *Fluvial Geomorphic and Habitat Assessment*, the 2016 *River Corridor Management Plan*, and the 2017 *Watershed-Based Plan to Maintain the Health and Improve the Resiliency of the Deerfield River Watershed*.[62] Voters approved matching funds in 2020 for state funds awarded to the Mohawk Trail Woodland Partnership Regional Adaptation & Resilience Project of Ashfield and Conway, allowing the working committee to select five of the identified flood mitigation and culvert improvement projects for further development. The Town of Conway and the FRCOG are seeking funding for the 2022 fiscal year to implement a floodplain restoration project (the "Oxbow Reconnect Project") on the South River downstream of Emerson Hollow Road.

[62] https://frcog.org/wp-content/uploads/2017/06/South-River-Report_compiled_reduced.pdf

Damaged gabion retaining wall below the Route 116 Bridge along the South River, after Tropical Storm Irene in 2011

As more residential construction has occurred on hillsides, there has been more drainage from private property into the public right-of-way, presenting a hazard to drivers, and into waterways. Building standards and zoning are supposed to prevent this from occurring, but more can be done. LID strategies such as nature-based solutions to stormwater management can reduce the negative impact of development (see *I.2.4 Stormwater Runoff* for discussion of LID strategies).

Road infrastructure such as culverts are also in place to manage the flow of water. However, some of this infrastructure is aging or undersized, making it incapable of handling the heavier flows our region is experiencing due to climate change and causing severe erosion and infrastructure damage during high flow events. Many of these culverts are also poorly designed for the passage of terrestrial and aquatic life, so upgrading culverts can have the co-benefit of restoring aquatic connectivity. Refer to section *3.D.2 Road Infrastructure* for a summary of the Town of Conway's 2020 culvert assessment and needed improvements.

I.10 Environmental Equity

Environmental Justice (EJ) is based on the principle that all people have a right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment. The policy defines environmental justice as "the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits" and states that "no group of people, because of race, ethnicity, class, gender, or handicap bears an unfair share of

environmental pollution from industrial, commercial, state and municipal operations or have limited access to natural resources, including greenspace (open space) and water resources." EJ populations are "those segments of the population that Executive Office of Energy and Environment Affairs (EOEEA) has determined to be most at risk of being unaware of or unable to participate in environmental decision-making or to gain access to state environmental resources." EJ communities are defined as being low income, having a high minority population, and/or to have a high rate of English language isolation (non-English speakers). Based on the 2014-2018 ACS 5-Year Estimates, Conway's population is predominantly white, with a little over 1 percent minority representation. With a very small minority population, no concentrations of low income residents, and very few residents speaking English "less than very well," there are no EOEEA-designated environmental justice communities in Conway.

Almost no businesses in town provide necessities such as food or clothing, so most residents have access to a vehicle for travel outside of Conway. This high rate of vehicle ownership facilitates ready access to nearby public open space or recreation facilities that are not within walking distance. Generally speaking, residents theoretically have equal access to the resources in town because of nearly universal access to vehicles, but older and younger populations who are less likely to drive may experience more limited access to open space and recreation resources that are difficult to access on foot, such as the Conway Grammar School and, to a lesser extent, the Conway Pool. Additionally, people who don't know about recreational resources de facto do not have equal access because there is no clear public source of information about public-access trails.

	Farmland in Shirkshire neighborhood	
	Fields Hill view to N	
	Flagg Mountain view to S	
	Intersection of Graves and Reeds Bridge Roads	
	Keyes Swamp	
	Main Poland Road view to NE	
	North Poland Road looking at Poland WMA	
	Pine Hill Road view to N	
	Pumpkin Hollow	
	Roaring Brook view to NE	
	South River valley along Shelburne Falls Road between Conway Center and Bardwells Ferry Rd	
	South Shirkshire Road view to E	
	Totman Farm, Bardwells Ferry Rd	
	Truce Road view to NE	
	Williamsburg Road view to S/SW	

BUCKLAND
GREENFIELD
SHELBURNE
ASHFIELD
DEERFIELD
GOSHEN
WILLIAMSBURG
WHATELY

Schrock Brook
Deerfield River
Green River
Pine Brook
South River
Roaring Brook
Poland Brook
Mill River
Avery Brook
Williamsburg Brook
Bastford Brook
WR Brook

WILDER HILL ROAD
SHELBURNE FALLS ROAD
HART ROAD
JONES CORNER ROAD
THOMPSON ROAD
SOUTH SHIRKSHIRE ROAD
SABANS ROAD
ELMER ROAD
NEWHALL ROAD
BARDWELLS FERRY ROAD
TRUCE ROAD
CONWAY STATION ROAD
PINE HILL ROAD
REEDS BRIDGE ROAD
GRAVES ROAD
BOYDEN ROAD
HAMILTON DRIVE
ASHFIELD ROAD
RILEY ROAD
EMERSON HOLLOW ROAD
IVES ROAD
RIVER STREET
ELM STREET
ORCHARD STREET
PLEASANT STREET
MAPLE STREET
ACADEMY HILL ROAD
SOUTH DEERFIELD ROAD
MATHEWS ROAD
HOOSAC ROAD
NORTH POLAND ROAD
MAIN POLAND ROAD
OLD CRICKET HILL ROAD
CRICKET HILL ROAD
WHATELY ROAD
FIELDS HILL ROAD
ROARING BROOK ROAD
NORTON HOLLOW ROAD
SOUTH ASHFIELD ROAD
EAST GUINEA ROAD
WILLIAMSBURG ROAD
SOUTH PART ROAD

FLAG MOUNTAIN
TOBY HILL
BADGER HILL
FIRE HILL
WALTERS HILL
CATLIN LOT HILL
POLAND GATE
CRICKET HILL
SMITH HILL
FISHER HILL
FIELD HILL
NORTON HILL
SIKES HILL
ABBOTT HILL
DRY HILL
POPLAR HILL
KEYES SWAMP

Town of Conway
Franklin County Ma.

Complex*
Fine Sandy, Very Fine Sandy or Loamy Sand Loam
Silt Loam
Windsor & Merrimac Soils
Gravel Pit
Outcrop
Peat/Muck
Riverwash
Urban Land
Water
30ft Contour

* Chatfield-Hollis, Colrain-Millsite, Millsite- Westminster

Town of Conway Open Space & Recreation Plan 2022

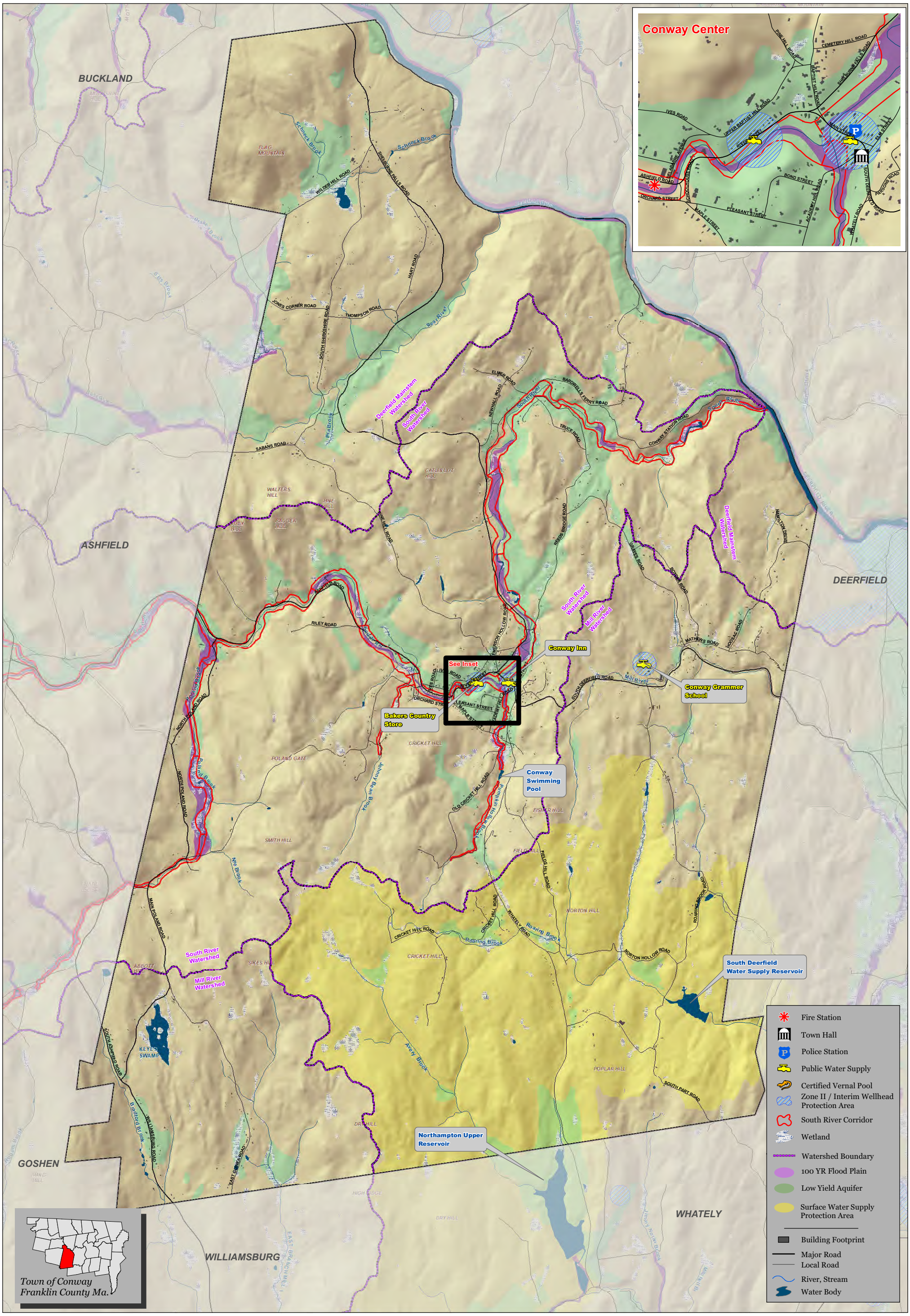
USDA - NRCS Soil Composition

0 0.5 1 Miles

N

Sources: Map produced by the Franklin Regional Council of Governments Planning Department. GIS data sources include MassDOT, MassGIS and FRCOG. Soils- US Department of Agriculture, Natural Resources Conservation Service 2012.Depicted boundaries are approximate and are intended for planning purposes only, not to be used for survey.

frcog Franklin Regional Council of Governments



Town of Conway Open Space & Recreation Plan 2022

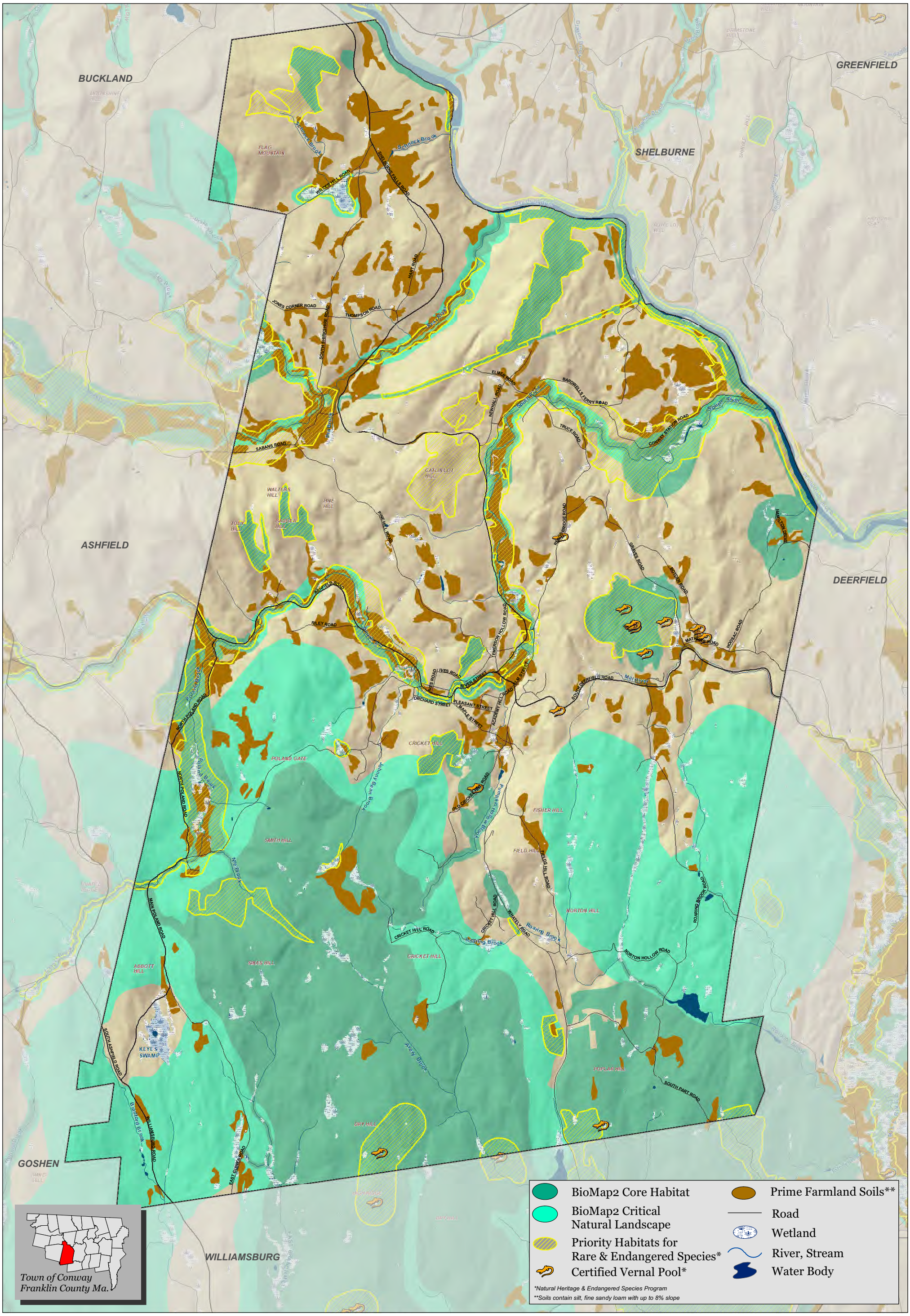
Water Resources

0 0.5 1 Miles

N

Sources: Map produced by the Franklin Regional Council of Governments Planning Department. GIS data sources include MassDOT, MassGIS and FRCOG. Depicted boundaries are approximate and are intended for planning purposes only, not to be used for survey.

Franklin Regional Council of Governments



Town of Conway Open Space & Recreation Plan 2022

Plant & Wildlife Habitat

0 0.5 1 Miles

N

Sources: Map produced by the Franklin Regional Council of Governments Planning Department. GIS data sources include MassDOT, MassGIS and FRCOG. Soils- US Department of Agriculture, Natural Resources Conservation Service 2012.Depicted boundaries are approximate and are intended for planning purposes only, not to be used for survey.

frcog Franklin Regional Council of Governments

Legend

- ● Historic Resources
- ↦ Scenic Road or View
- *Neighborhood Name*

Symbol #	Historic & Unique Resource	Symbol #	Historic & Unique Resource	Symbol #	Historic & Unique Resource
1	North Shirkshire Cemetery	10	Burkville Covered Bridge	19	Cricket Hill Cemetery
2	North Shirkshire Schoolhouse	11	Orchard Equipment and Supply	20	Cricket Hill School site
3	Broomshire Pound	12	Masonic Hall	21	Maynard Cemetery
4	Bardwells Ferry Bridge	13	Field Memorial Library	22	Old Cricket Hill Pound
5	Conway Electric Railway reservoir dam	14	Conway National Bank Bldg.	23	Burnett Cemetery (private)
6	Conway Station	15	Pumpkin Hollow Cemetery	24	Poland Gate
7	Pine Grove Cemetery	16	Boyden Schoolhouse	25	Poland School Cemetery
8	Howland Cemetery	17	Boyden Cemetery	26	Poland Cemetery
9	Tucker & Cook former reservoir	18	Southpart Cemetery		

Town of Conway Open Space & Recreation Plan 2022

Scenic Resources & Unique Environments

0 0.5 1 Miles

SECTION 5:
INVENTORY OF LANDS OF CONSERVATION & RECREATION INTEREST

A. INTRODUCTON

Sections 4 and 5 identify features and areas within Conway that are significant for their ecological, cultural, or scenic values. This information is helpful for understanding the character of Conway and for outlining issues that may be of particular interest in open space and recreation planning decisions. Lands of conservation interest are those parcels of land that are considered important because they are already protected from development, because they could be a priority for protection, or because they have significant value to the community. This next section provides an inventory of lands of conservation interest containing these significant values, so they can be prioritized for protection, maintenance, or improved access.

Open space is generally defined as undeveloped land. In Conway, open space includes large tracts of forest, ridgeline, waterways, waterbodies, wetlands, agricultural fields and barns, meadows, and shrub/scrub. Conway residents value open land because of what it provides: actively managed farm and forestland, wildlife habitat, important plant communities, protection and recharge of groundwater, flood control, public access to recreational lands and trail systems, structures and landscapes that represent the community's heritage, and scenic views. The appearance of Conway, its "sense of place", and the condition of the town's natural resources will not remain untouched by development without active stewardship and thoughtful planning. Planning for the protection of Conway's green infrastructure will enable the town to proactively manage growth, protect wildlife habitat, ensure the integrity of drinking water supplies, continue to provide residents and visitors with a variety of outdoor recreation opportunities, and, at least in part, provide for residents' livelihoods. The community's long-term open space and climate resilience goals call for ongoing permanent protection of the town's most valued resources.

In addition to valuing open space, Conway residents also value recreational facilities, which can range from lightly developed community parks or picnic areas to heavily constructed areas like tennis courts. Recreation facilities provide places to gather, play, exercise, and celebrate. Open space and recreation facilities can be either publicly or privately owned, and can be publicly accessible or not publicly accessible. Conway's long-term recreation goals also necessitate that the Town continue to work for improved access to open space via a trail network and access to outdoor recreation for a variety of users, which may require further land protection as well as improvements to existing public-access parcels.

This section describes public and private open space or recreation parcels and the degree of protection. Details of each parcel, including parcel number and acreage, are located in *Appendix A.* A total of 66.5 percent (16,098 acres) of the town's total 24,211 acres are open space with some level of protection from development (see Table 5-1 in *Appendix A*: *Inventory of Lands of Conservation and Recreation Interest Parcel Tables*). Land protected in perpetuity represents 34.3 percent (8,314 acres) of the town's total acreage. Although two thirds of the town's land area is

held under some level of protection, work must be done to further evaluate what resources and areas need further attention and permanent protection.

A.1 Permanent Protection

Land is considered permanently protected when it is under fee ownership by a conservation organization or is subject to a legal restriction in perpetuity prohibiting certain acts and uses for the purpose of protecting conservation values present on the land. Permanently protected land enjoys the highest degree of protection from development. In Massachusetts, there are a number of ways in which land can be considered permanently protected from development:

- a conservation restriction is attached to the deed;
- land owned by a state conservation agency, a non-profit conservation organization, or a conservation land trust;
- water supply land owned by a municipality or water district containing language in the deed that references water supply protection or Article 97;
- state or Town-owned land designated and used as a public park; and
- Town-owned land managed and controlled by its Conservation Commission.

Permanent protection is conveyed by Article 97 of the Amendments to the Massachusetts State Constitution. The only way that land falling under Article 97 can be developed is if two-thirds of the state legislature were to vote to change the use of the land. Though this rarely occurs, the state legislature can vote to release this protection at the request of local communities so that conservation land can be used for schools, roads, economic development, or other public projects not related to resource protection.

Farmland can become permanently protected from development when the landowner sells the development rights for a parcel to a land trust or state agency. The Massachusetts Department of Agricultural Resources (MDAR) purchases the development rights of farmland in Franklin County regularly through its Agricultural Preservation Restriction (APR) Program. The program offers to pay farmland owners the difference between the "fair market value" and the "agricultural value" of their farms in exchange for a permanent deed restriction that precludes any use of the property that will have a negative impact on its agricultural viability. MDAR normally requires land to be actively farmed and to contain prime farmland soils. Since the intention of the APR program is to attain a fair distribution of lands throughout Massachusetts, priority is given to areas suffering from intense development pressure

The APR program requires a local match that can come from any combination of three sources: the municipality, a non-governmental organization such as a land trust, or bargain sale allowed by the landowner. The local match requirement in Conway is around 10 percent (instead of standard 20%), as the Town meets two of the three criteria for a reduced match requirement. Since 2011, the Town has used CPA funds to meet the local match requirement.

A.2 Temporary Protection

Parcels enrolled in Massachusetts Chapter 61 Current Use Tax Programs—61 (forestry), 61A (agriculture), and 61B (open space/recreation)—are considered to be "temporarily protected" from development. These programs offer landowners reduced local property taxes in return for maintaining land in productive forestry, agricultural or recreational use, or in a wild condition for a period of time. These "chapter lands" provide many public benefits, from maintaining wildlife habitat and recreational open space to sustaining rural character and local forest and farm-based economic activity.

A benefit of the Chapter 61 programs is that they offer Town governments the opportunity to protect land. When a parcel that is currently enrolled in one of the Chapter 61 programs is proposed for conversion to a use that would make it ineligible for the program, the Town is guaranteed a 120-day waiting period during which it can exercise its Right-of-First-Refusal to purchase the property. After signing a Purchase and Sale Agreement, the municipality has ninety days to complete the purchase if it elects to buy the property (or assign the right).

Exercising the Right-of-First-Refusal is difficult, however, unless there is an active program in place to acquire land. Towns looking to act on their Right-of-First-Refusal benefit from having criteria by which they identify priority protection lands ahead of time. Important characteristics that could motivate the Town to consider acting on its right include the presence of prime farmland soils, wetlands, aquifer, rare or endangered species habitat, historic, cultural, or scenic value, or the parcel's potential as a link between two other segments of protected land or a trail network.

A Town is also likely to be more successful in taking advantage of the Right-of-First-Refusal opportunity when partnering with a land trust or state agency. These organizations can often fundraise much more quickly than a Town and don't have to bring the decision to purchase the land to a Special Town Meeting. The Town can work on these relationships ahead of time so that it is able to assign its Right-of-First-Refusal to the land trust as soon as the Select Board receives the notice to withdraw from a Chapter 61 program.

Currently, about 31 percent of land in Conway, or roughly 7,574 acres, is enrolled in one of the Chapter 61 programs and is considered to have temporary protection from development. Following are details on each program.[1]

A.2.1 Chapter 61 - Forestry

The forestry program is intended for landowners interested in long-term, active forest management. Enrollment of forestland under Ch. 61 is based on the landowner's commitment to improving the quality or quantity of timber on the land. Wildlife, aesthetics, and recreation can also be incorporated into property management goals with DCR's Forest Stewardship Program. Program requirements include 10 or more contiguous acres, a state-approved forest management plan developed by a licensed forester or landowner, and periodic forest management as

[1] More information on the Current Use Tax Program can be found on the UMass Extension's MassWoods website: https://masswoods.org/landowner-programs/chapter-61-current-use-tax-programs

recommended by the forest management plan. Landowners must renew their Ch. 61 enrollment every ten years with the local assessor's office.

A.2.2 Chapter 61A - Agriculture

The agricultural program is intended for landowners engaged in agricultural or horticultural use. There is a five-acre minimum to enroll land in Ch. 61A. Forestland may enroll in this program. Landowners must renew their Ch. 61A enrollment annually with the local assessor's office.

A.2.3 Chapter 61B – Open Space and Recreation

The open space and recreation program is intended for landowners interested in maintaining the land for public and private recreation purposes, or as open space in a substantially natural, wild, or open condition. Landowners must include at least five contiguous acres of land. Forest management under Ch. 61B is not mandated. However, landowners do have the option of managing their forests if they develop a state approved forest management plan. Landowners must renew their Ch. 61B enrollment annually with the local assessor's office.

Lands in Chapter 61A and 61 (forestry) are not required to provide public access. Chapter 61B lands in the "natural, wild, or open" category can post their land to exclude public access; however, "recreation" lands must be open to the public unless the landowner is an organization with paying members.

A.3 Limited Protection

Land considered to have limited protection includes any Town-owned open space not under the authority of the Conservation Commission that could be developed through a decision by the Select Board or by Town Meeting vote. Roughly one percent of land in Conway, or 209 acres, is considered to be under limited protection.

A.4 Summary and Open Space Map

Summary Table 5-1 lists the acres of land under permanent, temporary, or limited protection in Conway. The general inventory that follows in Sections B thru E, which lists parcels by ownership type (private, non-profit, or public), and then by level of protection, is supplemented by a full inventory of parcels in *Appendix A*: *Inventory of Lands of Conservation and Recreation Interest Parcel Tables*. These types of open space are also identified on the *Open Space Map* found at the end of this section.

The *Open Space Map* shows that there are potential linkages between existing permanently protected lands that could be made for ecological or recreational purposes. These potential linkages are likely to be owned by private citizens. Landowners interested in protecting land can work with the Town, state conservation agencies, land trusts such as Franklin Land Trust and Hilltown Land Trust, and other conservation organizations invested in protecting farmland and forest in the area. Franklin Land Trust currently holds a handful of conservation restrictions in Conway and has assisted a number of farms who have enrolled in the APR program.

Table 5-1: Summary of Protected Open Space in Conway

Level of Protection	Acres	percent of Land in Conway (24,211 acres)
Permanently Protected Land		
Publicly Owned		
Commonwealth of Massachusetts	3,811	15.7%
Town of Conway Conservation Commission	2	0.01%
Public Water Supply Districts	1,257	5.2%
Public Cemeteries	2	0.01%
Total Publicly Owned	*5,072*	*21.0%*
Privately Owned		
Conservation Restrictions (CR)	1,579	6.5%
Agricultural Preservation Restrictions (APR)	1,150	4.8%
Total Privately Owned	*2,730*	*11.3%*
Non-Profit Owned		
Conservation Organizations	500	2.1%
Non-Profit Controlled Cemeteries	12	0.1%
Total Non-Profit Owned	*512*	*2.1%*
TOTAL PERMANENTLY PROTECTED LAND	**8,314**	**34.3%**
		\
Land Under Limited Protection		
Publicly Owned		
Town of Conway	209	0.9%
Total Publicly Owned	*209*	*0.9%*
TOTAL LAND WITH LIMITED PROTECTION	**209**	**0.9%**
Temporarily Protected Land		
Privately Owned		
Chapter 61	3,415	14.1%
Chapter 61A	2,907	12.0%
Chapter 61B	1,252	5.2%
Total Privately Owned	*7,574*	*31.3%*
TOTAL TEMPORARILY PROTECTED LAND	**7,574**	**31.3%**
TOTAL OPEN SPACE WITH SOME LEVEL OF PROTECTION	**16,098**	**66.5%**

Source: Town of Conway Assessors Department, 2021

B. PRIVATE PARCELS

Approximately 43 percent of the land in Conway with some degree of protection is privately owned. Of these private parcels, about one quarter is permanently protected because a private landowner voluntarily placed a development restriction on their land (conservation restriction or agricultural preservation restriction). The other three quarters of private, protected land are temporarily protected from development through the Massachusetts Ch. 61 programs. Many landowners have taken advantage of the Chapter 61 programs, as evidenced by the fact that there are 7,500 acres of open space in the 61, 61A and 61B Programs combined.

Public access to private land is not guaranteed and is subject to change. State conservation agencies often require some level of public access before placing a conservation restriction on private land. Public access is not a requirement for enrollment in any of the Ch. 61 programs except with some participants in the Chapter 61B program.[2] A new program managed by the Franklin Land Trust, called the Voluntary Public Access and Habitat Improvement Program, allows land trusts to purchase temporary or permanent public access easements for hunting, fishing, wildlife viewing, and hiking from willing landowners so that landowners can supplement their income from their forest in exchange for providing a community recreation asset.[3] The Franklin Land Trust has worked with two sets of property owners to provide public trails and multiple access points along Reeds Bridge Road (the Reed's Bridge Road Public Access Area). The trails are open for hiking, skiing, and snowshoeing, and lead to an active beaver pond. The public trail easements at this location currently run on a 10-year renewal schedule (to expire May 2028).

In the following inventory tables in *Appendix A*, privately owned protected parcels are categorized first as agricultural land and forest, then by level of protection from development. The ownership of the land, assessors' map and lot number, and acreage are provided.

B.1 Privately Owned Farmland

B.1.1 Privately Owned Permanently Protected Farmland

According to the Town Assessor's records, 1,150 acres of agricultural land are permanently protected in Conway (see Table 5-2 in *Appendix A*). This represents 4.8 percent of the town's total acreage. Most agricultural land that is protected from development in the region becomes so only after being prioritized by the Massachusetts Department of Agricultural Resources (MDAR) APR program, which is the main source for farmland preservation funds statewide. To ensure that Conway's agricultural heritage is preserved, the Town must continue to look for opportunities to protect farmland if and when development pressures mount.

[2] Land enrolled in Ch. 61B as "recreational" must be open to the public or to members of a non-profit organization. "Open space" enrolled in Ch. 61B does not require public access.

[3] http://www.franklinlandtrust.org/vpa

All of the parcels in Table 5-2 in *Appendix A* are permanently protected from development and are currently used as agricultural land. The Antes Farm and the Totman Farm have the largest amounts of permanently protected farmland in Conway, with 580 and 185 acres, respectively. The zoning of all parcels is Rural Residential/Agricultural.

B.1.2 Privately Owned Temporarily Protected Agricultural Land

There are approximately 2,907 acres of farmland in the Ch. 61A Program in Conway, an increase of approximately 524 acres since the 2013 Open Space and Recreation Plan. This number represents both an increase in protected land, albeit temporarily, and an indicator of how much farmland and woodland is not permanently protected.

Chapter 61A parcels must be at least five contiguous acres, must be "actively devoted" to agricultural or horticultural uses, and must earn at least $500 in annual gross sales. These lands are integral to Conway's economy and to the livelihoods of Conway residents, and are valuable as a source of food, as scenery, and for how they create a sense of place for the community. Some of the parcels may be especially important because they contain unique values such as stream corridors, prime farmland soils, wetlands, and areas that have been identified as containing key wildlife habitats and plant communities.

All parcels in Table 5-3 (*Appendix A*) are in the Ch. 61A Program. The owner does receive an annual tax break. The zoning of the parcels is Rural Residential/Agricultural.

B.2 Privately Owned Forestland

Forest landowners can impact the forest beyond their property lines through development and management choices. Large blocks of contiguous forest form the basis for sustaining biological diversity in forested regions. Contiguous forestland in Conway both creates and helps to buffer interior forest habitat that spans the towns of Conway, Whately, Williamsburg and important large forested blocks in Goshen and Ashfield.

The following inventory includes privately owned forestland at different levels of protection from development. Forestland that is permanently protected through ownership in-fee or conservation restrictions preserves the valuable attributes of forestland in perpetuity. Forestland parcels enrolled in the Ch. 61 and 61B Programs are under temporary protection.

B.2.1 Privately Owned Permanently Protected Forestland

Permanently protected forestland exists when landowners have donated or sold their development rights to a state conservation organization or a land trust in the form of a conservation restriction. The landowners retain the other rights of ownership and continue to pay property taxes, though the taxes are less due to the reduced value of their land.

There are approximately 1,579 forested acres in Conway (see Table 5-4) that are privately owned and permanently protected from development, which constitutes 6.5 percent of the total land area of Conway. The owner may have received payment for the restriction from public funds or private fundraising. The zoning of the parcels is Rural Residential/Agricultural.

B.2.2 Privately Owned Temporarily Protected Forestland

Parcels in Conway enrolled in the Chapter 61 Forestry and Open Space and Recreation Programs are primarily forested lands temporarily protected from development. These parcels can be taken out of Chapter and developed at any time, following a 120-day period in which the Town may exercise its Right-of-First-Refusal.

Chapter 61 applies to forested parcels of ten or more contiguous acres that are managed under a 10-year forest management plan. Table 5-5 in *Appendix A* lists parcels in the Ch. 61 forestland program, which totals approximately 3,415 acres and comprise 14.1 percent of the total land area of Conway. The owner does receive a property tax break over a ten-year period. The zoning of the parcels is Rural Residential/Agricultural.

Chapter 61B lands are a minimum of five acres and are devoted to open space or recreational uses. All of the parcels in Table 5-6 in *Appendix A* are in the Ch. 61B Recreational Open Space Lands Classification and Taxation Program, totaling 1,252 acres, or 5.2 percent of the total land area of Conway. The zoning for these parcels is Rural Residential/Agricultural.

C. PUBLIC PARCELS

State conservation agencies, water districts, and the Town of Conway own a significant portion of Conway's land area. Much of this land is permanently protected from development, but some, especially water district land, is considered to have only limited protection from development. In total, there are 5,281 acres of publicly owned land, 21.9 percent of the total land area of Conway. Of this publicly owned land, 96 percent is considered protected in perpetuity because it is owned by the state, by water districts for the purpose of water supply protection, or is a cemetery.

C.1 State-Owned Land

Two agencies manage the majority of lands in Conway owned by the Commonwealth: the Department of Conservation and Recreation (DCR) and the Department of Fish and Game Division of Fisheries and Wildlife (MassWildlife). DCR manages the Conway State Forest and the South River State Forest. MassWildlife manages the Flagg Mountain Wildlife Management Area (WMA), Poland Brook WMA, and Mount Esther WMA. MassWildlife lands are managed for multiple uses, but hunting and fishing enthusiasts are more likely to utilize these sites because they do not have established trails and they are sometime stocked.

Table 5-7 in *Appendix A* lists permanently protected public parcels of land owned by the Commonwealth of Massachusetts. DCR and MassWildlife manage a total of almost 3,811 acres, or 15.7 percent of the total land area of Conway. The zoning of the parcels is Rural Residential/Agricultural.

C.2 Land Owned by the Town of Conway

The Town owns a total of 213 acres that can be considered open space, recreation, or historic resources. Many of these Town-owned parcels have buildings on them.

C.2.1 Permanently Protected Town-owned Land Managed by the Conservation Commission

Land held by the Conservation Commission is considered permanently protected by law because it would take a two-thirds vote of the Massachusetts State Legislature to convert the parcel to another non-conservation use. The only Town-owned open space managed by the Conservation Commission is the Bigelow Parcel, which makes up only 0.01 percent of Conway's total land area, as listed in Table 5-9 in *Appendix A*.

The Bigelow Parcel (aka Howard Bigelow Conservation Land) was bequeathed to the town by Margaret Bigelow, a botanist. It is an open 2.28-acre parcel surrounded by residences and the Howland Cemetery. From it one can see across the treetops into the center of town, including the dome of the Field Memorial Library, Parsons Hill, and the United Church spire. The intent of the donor to keep this parcel free from development and minimally used are reflected in the deed restriction. The restriction stipulates that the property be mowed once yearly to maintain its undeveloped scenic quality. Presently, there are no facilities or paths. People do use the site for short walks and blanket picnics, as well as limited neighborhood sledding in winter. Because of the cross-slope, any development requiring flat areas wider than a narrow path would result in considerable earthmoving.

The Open Space Committee recognizes the need for better management and utilization of this resource. The committee assembled neighbors and discussed possibilities in keeping with the deed. It was determined that a buffer near the bottom of the hill is probably needed to protect the privacy of one residence. Annual mowing has created more invasive bittersweet vines, which need to be addressed. Poison ivy is also a problem. A conceptual pollinator habitat design was recently created for the site as part of the Conway Pollinator Action Plan.[4]

C.2.2. Permanently Protected Town-owned Cemeteries

Cemeteries are considered to be in permanent protection, even if land is designated as future cemetery. Conway has six Town-owned cemetery parcels are scattered throughout town, totaling 2.05 acres (Table 5-10 in *Appendix A*). Town-owned cemeteries are of considerable historic interest.

C.2.3 Town-owned Land with Limited Protection

All parcels under the authority of the Select Board or any other jurisdiction other than the Conservation Commission are subject to land conversion based on a Town Meeting vote and therefore are considered to have limited protection. While these properties do not comprise a significant portion of Conway's total acreage—209 acres or less than one percent of the town's total land area—they do play an important role in satisfying wildlife and community needs. Town-owned land with limited protection are detailed in Table 5-11 in *Appendix A*. The history and current condition of the most-used Town-owned parcels are detailed below.

Town Ball Field: This parcel of 4.1 acres has a baseball field (with fences and team benches), basketball and tennis courts (with chain link fence), swings, and recreational open space. It is

[4] Franklin Regional Council of Governments. "Conway Pollinator Action Plan", 2021: https://frcog.org/franklin-county-regional-pollinator-plan/

located near the center of town, adjacent to the Town Hall but with car access off Route 116. Parking is limited to a filled plateau with a rather steep drop to the ball field, but it is possible to drive to the level of the field. A portion of this land is within the 100-year floodplain and 100-foot buffer zone of Pumpkin Hollow Brook. The parcel is used for youth sports, adult softball, and community activities such as the Festival of the Hills. Improvements were made to the facility in the past several years, including improved drainage, new basketball and tennis courts, and a parking lot on Academy Hill Road. Volunteers created baseball dugouts. To date, none of the improvements at the Town Ball Field have been funded by state grant monies—the Town has used its own funds and volunteer time to make the improvements. The Select Board oversees funds from a private bequest, the Germain Fund, to pay for expenditures on this field. A small amount of funding was given from a private trust specific to the rehabilitation of handicap children to help purchase the handicap accessible playscape structure, pictured below.

Town Ball Field Playground (*www.townofconway.com*)

Conway Grammar School and Fournier Lot: The elementary school is located on about 12 acres of the 55-acre Fournier Lot. The school site includes a small playground and baseball/soccer fields, which are within the Mill River floodplain and the buffer zone of a small pond. As of 2021, voters at Town meeting had allocated funds to make needed ADA and safety improvements to the play structure.

A dammed brook was used in the past as an ice pond and for skating. Numerous intermittent streams flow within the property, along with magnificent rock ledge outcrops and hardwood/hemlock woodland. A few logging roads cross through the parcel. Since the overall site is quite large and wooded and there is parking nearby, there is potential for the Town to develop additional recreational facilities and trails for community and school use. A stewardship plan was recently completed for this Town forest (see *Section 4 F.1.6 Town-owned Forests*).

Town Spring: The former "town spring" is protected by a 7.9-acre forested parcel and is west of the center of town. The trees on the parcel are known to be marketable for timber and cordwood (although there are no plans to harvest). A snowmobile trail is located in the southwestern corner.

Burkeville Covered Bridge: The covered bridge is on 6 acres of Town-owned land on the west end of the village. It is a significant historic structure for Conway and for the state: as one of four covered bridges remaining in Massachusetts, it was placed on the National Historic Register in 1988. The Conway Historical Commission worked to raise funds to restore the bridge, and a small Federal grant, administered by the Massachusetts Highway Department, was awarded in 1994.A restoration effort to refurbish the bridge was completed in 2005.

Burkeville Covered Bridge (*David Chichester*)

Town Offices: A former two-story bank building now houses the Town offices on Main Street. The building sits on a 0.25 acre lot, most of which is either building or parking lot.

Town Hall: This two-story brick building on .27 acres contains offices of the Board of Assessors, Conservation Commission, and Board of Health, a general purpose meeting room with kitchen, a gym, and a bathroom on each floor. The first floor is accessible, although the bathroom is not remodeled for wheelchairs and some activities are only held on the second floor, which is not accessible. Located in the center of town, it faces two small town commons, with street parking only. The Town Hall continues to be well used for voting, meetings, court games, exercise classes, and many community events. The building abuts the ballfield parcel, with pathway access between the two.

Transfer Station: The Town transfer station is just south of Conway Center on a wooded 2.34 acre parcel. The land was purchased by the Town in 1991 and a clean wood dump area on the property was subsequently capped and fitted with test wells. The entire facility is well screened from the street. The site is also thick with invasive plants in places.

Former Dump: The former dump is on 2.4 acres of land across the road from the transfer station, on a hillside overlooking the Conway Swimming Pool. It is nearly entirely re-vegetated with early successional trees, as it has been closed since October of 1977.

Town Farm: The former site of the town farm is on 107 acres abutting the Conway State Forest in the south-central section of town. It was the last farm set up in town for indigent residents to live and be cared for in return for farm chores. Unoccupied since the first half of the twentieth century, the land is now completely reforested. A ten-year comprehensive Forest Stewardship Plan was prepared in 2020 that emphasizes biological diversity, enhanced habitat, recreational access, and scenic, cultural, and water quality protection as stewardship goals for the property.

South River Meadow: This site consists of 11 acres along the South River, near the center of town at the south end of Shelburne Falls Road. A one-acre floodplain restoration project on the site was completed in 2016. The land is dominated by an agricultural field at its center. Vegetation, including areas of emergent wetland, floodplain forest, and rich forest line the parcel's edges. The Open Space Committee actively manages a variety of invasives. The Town continues to evolve its plans for the South River Meadow.[5]

All municipal park and conservation areas and programs in Conway are evaluated for accessibility for people with disabilities as part of this plan. The results of this evaluation are included in *Appendix B*: *ADA Accessibility Self Evaluation Report.*

C.3 Land Owned by Water Districts with Limited Protection

Table 5-12 in *Appendix A* shows that 1,257 acres, or nearly 5.2% of the town, is under permanent protection as water supply protection land owned by water districts. The City of Northampton Department of Public Works and the South Deerfield Water Supply District own much of the land in Conway that surrounds their water sources in Whately. By law, a parcel of public water supply land is permanently protected under Article 97 if it was conveyed to a Town for the purpose of public water supply or if it references Article 97. It was not within the scope of this plan to research

[5] Laurie Sanders. "South River Meadow", 2016: https://friendsofthesouthriver.org/wp-content/uploads/2017/01/South-River-Meadow-Presentation-12_13_16.pdf

the deeds of each of the watershed parcels in Conway to determine their exact legal status; this plan assumes that the parcels are permanent. For Conway residents to know for certain whether City of Northampton or South Deerfield Water Supply District watershed parcels could ever come out of protection, further deed research is required.

Each of the water districts are responsible for monitoring the use of water supply lands for compliance with water supply protection law. In the case of Northampton-owned watershed land, almost all watershed land is posted for no trespassing (including the snowmobile trails). The Northampton DPW does issue an access license to the Snowmobile Association of Massachusetts (SAM) for use of the trails when there is at least 6" of snowpack on the trails. The snowmobile trails have existed for decades and according to the City of Northampton, re-routing them would take a larger coordination effort Part of this agreement stipulates that SAM carry liability insurance to cover any damages or contamination caused by its members. Seasonal snowmobile trail access is a privilege that can be revoked at any time if the terms of the agreement are not fulfilled. Because many of these properties are adjacent to other large state- or conservation organization-owned lands, and by law not accessible to the public, they are valuable connected wildlife habitat.

D. NON-PROFIT PARCELS

Several properties in Conway are owned by private nonprofit organizations and utility corporations. All these lands have open space value and recreation potential, since they are generally wooded acreage with waterways or have historic interest. All of these lands are also protected from development by virtue of their current use.

D.1 Non-profit-Owned Permanently Protected Parcels

Non-profit conservation land trusts and conservation organizations that hold conservation restrictions often also own land. These lands are considered permanently protected. Non-profit conservation organizations hold 500 acres in Conway, or 2.1 percent of Conway's land area, as seen in Table 5-13 in *Appendix A.*

D.2 Non-profit-Owned Cemeteries with Permanent Protection

In addition to cemeteries owned by the Town of Conway, there are two cemeteries under the ownership of the non-profit Conway Cemetery Association considered to be under permanent protection (Table 5-14 in *Appendix A*).

E. UNPROTECTED LANDS OF CONSERVATION INTEREST

There are a number of nonprofit, institutional, and utility land holdings that are used for recreation or conservation purpose in town but are considered to have no protection from development. These lands *are not* included in the total acreage count of lands under some form of protection. The

hundreds of acres of lands of conservation interest listed below is not an exhaustive list of properties in Conway with recreation and open space/wildlife that have no protection at present.

Boy Scout Camp: The Boy Scout camp is owned by the Congregational Church. Its 76 acres abut the Poland Brook Wildlife Management Area and Main Poland Road. There is a cabin on the site but no regular use of this forested property.

Conway Community Pool: Conway Community Swimming Pool, Inc., is a non-profit all-volunteer organization that owns and manages the Conway Community Swimming Pool. In 2013, Town Meeting approved $123,000 to purchase and protect the land. Along with major local fundraising, this enabled an essential rebuilding of the pool. Conservation restrictions funded through a Municipal Vulnerability Preparedness (MVP) grant were later placed on the majority of the parcels. Two small acres totaling .92 acres purchased by the organization after the restriction was put in place are not under permanent protection.

The pool group offers swimming lessons in the summer if enough people sign up to cover expenses and a certified swim instructor can be found. There is no regular lifeguard on duty. The Conway Sportsmen Club sponsors an annual fishing derby for children. Occasionally, individuals who like ice skating will keep a patch cleared of snow in winter. The facility has grills, benches, picnic tables, and a swing set. The volunteer managers of this property work hard to keep the Pool up and running.

Conway Sportsmen's Club: The club holds over 100 acres of mostly forested land near the South River State Forest and along the Bear River, a renowned trout stream. The Sportsmen's Club hosts tri-state archery meets three times a year (including trail events), and smaller meets and practices more frequently. This land is available for members for hunting, sporting clay shoots, and target practice, and the two large buildings on the site are used for social events and meetings. The club has begun a program of active forest management for timber, wildlife, and recreational use.

New England Power Company (NEPCo): These 179.91 acres include a hydropower station on the Deerfield River, connected to a power line easement that crosses Conway and continues beyond Ashfield. The Boston and Maine Railroad and Commonwealth of Massachusetts lands cut through NEPCo land along the river in places. There is unsanctioned use of this land for hiking, hunting, (winter trail sports) and off-road vehicles. A legal right-of-way /lease held by DCR also provides for the use of about 144 acres for recreational purposes and to access and connect separate parcels of the South River State Forest.

Roaring Brook Camp: The 130-acre wooded parcel is owned by the General Assembly Church of God and operates as a camp during the summer. It is in the southeast section of Conway, near watershed lands.

TransCanada Hydro NortheastTransCanada Railroad: 144 acres TransCanada Railroad partly abut the Deerfield River along the northeast boundary of Conway almost to the Bardwells Ferry Bridge. These parcels include beautiful stretches near the South River State Forest, the river, and views across a power line easement. An easement to the Mahican-Mohawk Trail Association has allowed the development of a public trail on the abandoned rail bed.

F. RECREATIONAL RESOURCES AND OPEN SPACE EQUITY

One dimension of environmental equity is the distribution of open space. This is somewhat difficult to evaluate in a town like Conway, where most residences are spread out along the town's many miles of rural roads. Conway's public recreation areas are predominantly located in Conway Center and at the Grammar School in the east of town. Outside of these locations, large tracts of publicly accessible land scattered throughout town allow a diversity of active and passive recreational activities. The vast majority of residents own cars with which to reach those open space and recreation resources. A number of town residents live within walking distance of those resources via roadways, however very few pedestrian accommodations exist on Conway roads. While there is an abundance of public land, many Conway residents reported on the Open Space and Recreation Survey that they do not know about their options. Improving open space equity in Conway will require the Town provide info about what lands are available for public use in obvious places and ensure that a variety of users can access those lands.

G. CRITERIA FOR OPEN SPACE PROTECTION

As part of a blueprint for conserving open space and recreation land in Conway, developing criteria to identify and prioritize land for conservation (as well as for development) could help focus Conway's efforts and could assist in applying for funding to acquire open space and recreation lands, especially when under consideration in the Right-of-First-Refusal process for lands coming out of Chapter 61. A systematic approach, including applying criteria, enables Conway to be strategic in its allocation of program funds by giving the Town a tool to both proactively identify parcels and resources that meet the goals of the open space plan, and to analyze the merits of individual parcels of land and projects as they present themselves.

Criteria for rating open space are unique to a community. The following process, derived from work developed and generously shared by the Town of Warwick, is presented as a stepping off point for Conway's Open Space Committee to use and modify to suit the town's unique resources.

G.1 Developing Criteria

The criteria developed for calculating the conservation value of a parcel in Conway should have strong consideration toward its ecological function. Parcels with ecological value, such as important hydrology, unfragmented forest, significant species or habitats, or potential to act as a critical linkage, can be identified and prioritized using the ecological identification and prioritization mapping tools described in *Section 4.B: Documenting and Mapping Ecosystems*. However, statewide ecological mapping tools do not capture the recreational, scenic, and historical/cultural significance of a place to the people who live there. Consideration of additional, non-ecological values provide a holistic assessment of which parcels have the most value on the whole to the community.

Ecological Assessment

See *Section 4.B: Documenting and Mapping Ecosystems*.

Recreation Resources

a) Trail Corridors – Land that would contribute to the creation of a comprehensive trail network including parcels that form linkages with an existing or planned trail system.
b) Scenic Views – Land that preserves the viewshed of outstanding long-range views.
c) Water Resources – Land that would provide access to the Deerfield River or other waters for swimming, canoe and kayak put-ins and fishing.

Scenic Resources

a) Views Across Fields – Roadside views across fields are an important scenic amenity in Conway; their scenic value reinforces the importance of protecting agricultural fields adjacent to Town roadsides.
b) Views of Ridgelines – Conway has some undeveloped ridgelines that are an important part of the Town's rural scenery. Maintaining undeveloped ridgelines benefits both the scenic value of the Town and the quality of the wildlife habitat. Maintaining undeveloped ridgelines could potentially become more challenging as the market for new homes rebounds.

Historic and Cultural Resources

a) Historic Landscapes – Historic landscapes and certain areas of town that wish to remain undiluted by incongruously modern construction to preserve the town's historic heritage.
b) Historic Farmsteads – Conway contains many historic farmsteads where some or all of the original farmhouse, barns and outbuildings, stonewalls, and fields remain intact. Each of these is an historic artifact worthy of inventory and preservation.

G.2 Simultaneous Highest Priorities and Open Space Protection Opportunities

The open space criteria categories listed below are not necessarily listed in any particular order, given that Conway may have high priorities in different open space categories simultaneously. The highest priorities would represent projects of such high value that the Town may want to raise funds in order to accomplish them; whereas with lower priority projects, the Town might not be willing to expend funds but would consider accepting the gift of a conservation restriction or trail easement if it were donated by the landowner.

Conway might include parcels of land that are high priority for open space protection in several different categories simultaneously. In this scenario, it is the availability of opportunities that will control which projects are undertaken. Open space protection can move forward only when a landowner is interested in conserving their land or when funding is available to pay full market value when critical parcels come on the open market.

G.3 Preferred Type of Open Space Protection to Retain Private Ownership

Given concerns about keeping land on the tax rolls, the ideal form of open space protection for the future is the purchase of conservation restrictions and trail easements (in which private landowners agree to allow the public use of a trail that passes through their land). In this way, the land itself remains in private ownership and stays on the tax rolls. An open space and recreation budget stretches further when it is possible to purchase just a restriction or trail easement, rather than having to pay for the entire parcel.

G.4 Implementing Open Space Criteria

Once a set of criteria have been defined and adopted, the Open Space Committee could move forward with related objectives and action items in *Section 9: Seven-Year Action Plan*.

Protected Open Space

Permanent Protection
- State Owned
- Conservation Restriction
- Agricultural Preservation Restriction

Limited Protection
- Town Owned

Temporary Protection
- Chapter 61A (Agriculture)
- Chapter 61B (Recreation)
- Chapter 61 (Forestry)

Other Protected Land
- Water Supply

- Major Road
- Local Road
- River, Stream
- Water Body

BUCKLAND
GREENFIELD
SHELBURNE
ASHFIELD
DEERFIELD
GOSHEN
WILLIAMSBURG

Schnack Brook
WILDER HILL ROAD
SHELBURNE FALLS ROAD
JONES CORNER ROAD
SMITH SHIRKSHIRE ROAD
ELMER ROAD
BARDWELLS FERRY ROAD
SABANS ROAD
Pea Brook
TRUCE ROAD
CONWAY ELEMENTARY
CATLIN LOT HILL
WALTERS HILL
PINE HILL ROAD
REEDS BRIDGE ROAD
GRAVES ROAD
BODEN ROAD
HOOSAC ROAD
RILEY ROAD
MATHEWS ROAD
IVES ROAD
RIVER STREET
BOND STREET
MAPLE STREET
SOUTH DEERFIELD ROAD
Mill River
Pound Brook
NORTH POND ROAD
POLAND CAVE
MARKET HILL
FISHER HILL
FIELDS HILL ROAD
FIELD HILL
ROARING BROOK ROAD
WHATELY ROAD
Roaring Brook
NORTON HOLLOW ROAD
ABBOTT HILL
SIKES HILL
KEYES SWAMP
SOUTH ASHFIELD ROAD
Bidgewood
WILLIAMSBURG ROAD
EAST GUINEA ROAD
Avery Brook
DRY HILL
POPLAR HILL
SOUTH ST ROAD
HIGH RIDGE

Town of Conway
Franklin County Ma.

Sources: Map produced by the Franklin Regional Council of Governments Planning Department. GIS data sources include MassDOT, MassGIS and FRCOG. Depicted boundaries are approximate and are intended for planning purposes only, not to be used for survey.

Town of Conway Open Space & Recreation Plan 2022

Open Space

0 0.5 1 Miles

N

frcog Franklin Regional Council of Governments

SECTION 6: COMMUNITY GOALS

A. DESCRIPTION OF PROCESS

In October 2020, the Open Space Committee began to work with the Franklin Regional Council of Governments (FRCOG) to update the 2013 Open Space and Recreation Plan (OSRP). Between October 2020 and December 2021, the Committee and the FRCOG worked to develop this Open Space and Recreation Plan using several methods for involving public participation, including:

- The Open Space Plan Committee held 12 virtual meetings open to the public to discuss the plan and plan maps.
- On May 26, 2021, FRCOG staff and the Open Space Committee launched the 2021 Open Space and Recreation Survey. The survey was open until July 12, 2021 (48 days). Electronic and printed copies were distributed and advertised by the following means:
    - An electronic version of the survey was posted online via SurveyMonkey.
    - Paper copies of the survey were made available at the Town Hall and Field Memorial Library.
    - Paper copies of the survey were available at Annual Town Meeting, held June 5th.
    - Quarter-sized sheets advertising the survey's URL were distributed at Town Meeting, the Town Hall, and the library.
    - The Town published a notice about the survey in the June and July issues of the *Conway Currents* newsletter (mailed to approximately 700 households in Conway).
    - The Town published a notice to their website about the plan update and how to take the survey.
- On October 19, 2021, FRCOG staff facilitated a virtual public forum. Participants were invited to review and discuss the inventory of conservation lands, community and environmental analysis, community goals, objectives, draft maps, and the Seven Year Action Plan priorities. Notices for the forum were published in the following locations:
    - *Conway Currents*
    - The Town's website
    - The Greenfield Recorder
- The plan's public review period from October 14th to 29th invited submission of public comment via email to FRCOG or Town of Conway staff. The plan and maps were made available on the Town's website and at the Field Memorial Library.

Ninety-two residents completed the survey and FRCOG staff prepared a summary of the results, which are included in *Appendix C*. Thirty three residents and Town staff attended the public forum. The attendees included representatives from the Select Board, Planning Board, Forests and Trails Committee, Conservation Commission, Parks & Recreation Committee, Field Memorial Library, and Grammar School Committee. During the public review period bracketing the public forum, three comments were submitted. All public comments were recorded in *Section 10: Public Comment*, were reviewed by the Open Space Plan Committee and, if appropriate, were incorporated into the plan as the basis for the development of Sections 6 through 9.

Agendas, sign-in records, and publicity for the Open Space Plan Committee meetings can be found in *Appendix D*.

B. STATEMENT OF OPEN SPACE AND RECREATION GOALS

People live in Conway because they like the unique character created by its forests, waterways, wildlife habitat, working farms, scenic views, historic and cultural landmarks, and villages, and the community that resides amidst these features. Conway's large blocks of forested land and farmland will continue to be protected as a result of cooperative efforts between the Town, private landowners, local and state agencies, and private non-profit organizations. These lands will remain largely under private ownership and control, continuing to provide income to the Town via property taxes. Important wildlife habitat will continue to be identified and protected and existing pollinator habitat will be expanded to protect the insects essential to natural biodiversity and agriculture; invasive species will also be monitored and responded to where possible to protect Conway's habitat and biodiversity. Conway's waterways and riparian zones will continue to be protected and improved in ways that reduce the risk of damaging flooding and fluvial erosion and increase the river's overall health and resilience.

Some protected lands and public trail easements on private land will also be places where people can access a network of well-marked, connected, and maintained trails for a variety of recreational uses, especially for hiking and walking, cross-country skiing, nature observation, and biking. Recreation on Town-owned properties, such as organized sports, playground visitation, swimming, and walking will continue to be possible thanks to high-quality accessible facilities that accommodate a range of ages. Access to Conway's many rivers will be designed around the safety and enjoyment of all ages. The Town will seek to attract state and federal support for the improvement these recreational resources.

Conway Center will be revitalized and its rich history highlighted. The Town will continue to seek funding to maintain and restore historic buildings throughout town. A small sewer system for Conway Center properties will continue to be considered as a pathway to protecting surface and groundwater quality and for being able to redevelop the village with needed housing and small commercial enterprises. Across Conway, the Town will actively assist landowners and developers in designing projects that sustain and enhance the community's shared assets and character, fostering sustainable economic development that protects natural, historic, and cultural resources, strengthens the tax base, provides services, and provides a diverse mix of housing for residents.

The community will continue to support local agricultural and forestry operations and the value they offer farms, which in turn will provide residents with fresh, local agricultural products.

The Town will increase its education and outreach efforts to better inform residents of sustainable land use practices and recreational opportunities. Residents will learn about open space resources through improved access to information and sponsored hikes. They will also organize and lead community activities such as walks/rides, talks, town-wide celebrations, or friendly competitions that utilize and/or celebrate open space resources. Conway residents will come from all corners of the town to gather through the seasons at the Festival of the Hills, Memorial Park, the Town Ball Field, and the Conway Pool, where they will mingle and share their enjoyment of these resources.

Conway will strive to use available climate change data and climate resiliency best practices when implementing this OSRP, including priorities from the 2020 Conway Hazard Mitigation Plan and 2018 Towns of Ashfield & Conway Municipal Vulnerability Preparedness Program Resiliency Plan. Together, these achievements will improve the health of the rivers, enhance biodiversity, support the farming community, protect drinking water, create more resilient land use and development, and improve both public and private open spaces for the enjoyment of the community as a whole.

SECTION 7: ANALYSIS OF NEEDS

The Conway Open Space and Recreation Plan (OSRP) incorporates the inventory of land-based natural, recreational, scenic and cultural resources in town (Section 4), identifies parcels under some level of protection that contain these or other recreational resources (Section 5), and articulates the community's general goals (Section 6). Drawing on the feedback generated by the Open Space and Recreation Survey and the Public Forum, the ADA Self-Evaluation and Transition Plan, findings from Sections 3, 4, and 5, and the results of the Town's recent hazard mitigation and municipal vulnerability preparedness planning, this chapter makes connections between the needs of the community, the resources available, and opportunities for improvement. Finally, this section addresses obstacles to the effective resolution of these needs, including organizational barriers and the most significant land use conflicts concerning open space and natural resource use.

In 2017, the Commonwealth completed the Statewide Comprehensive Outdoor Recreation Plan (SCORP), *Massachusetts Outdoors 2017*, an update of the SCORP 2012 five-year plan. SCORP plans are developed by individual states to be eligible for Federal Land and Water Conservation Fund (LWCF) grants and serve as a tool for states to use in planning for future needs and uses of outdoor resources. Informed by their survey of Massachusetts residents, as well as priorities identified in municipal open space and recreation plans, the SCORP identified the top four outdoor recreation goals for the state as

1) Access for underserved populations,
2) Support of the statewide trails initiative,
3) Increased availability of water-based recreation, and
4) Support of the creation and renovation of neighborhood parks.

Though Conway has developed its own distinct set of priorities, some of its needs intersect with the themes of the statewide goals. These connections are highlighted in this section.

As the climate crisis continue to unfold, the present and potential impacts of climate change on the environment, people, and the local economy are coming into focus in small communities like Conway. A recent update to the Town's Hazard Mitigation Plan (HMP)[1] and the preparation of the Municipal Vulnerability Preparedness (MVP)[2] plan helped raise awareness and bring the community together to talk about climate change and its effects on Conway. Although the Open Space and Recreation survey did not explicitly ask about climate change, it was the fourth most-mentioned "threat" to Conway identified by residents (Q5). As was detailed in *Section 4. Environmental Inventory and Analysis*, natural systems can play an important role in mitigating future climate change, but most ecosystems and species are also vulnerable to its impacts. Local decisions about how land is used and ecosystems are managed will profoundly affect how Conway

[1] Town of Conway. "Town of Conway Multi-Hazard Mitigation Plan", 2020: https://townofconway.com/wp-content/uploads/2016/08/FINAL-Conway-Hazard-Mitigation-Plan-4-1-20.pdf

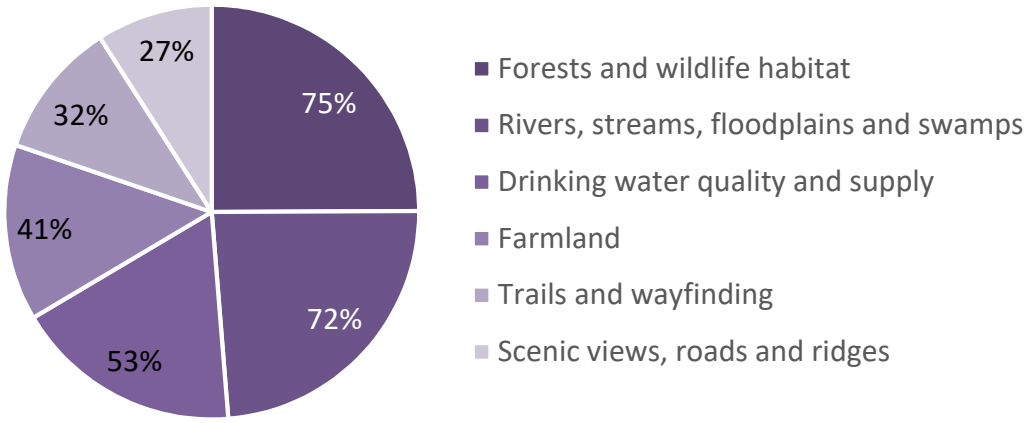
[2] Towns of Ashfield and Conway. "2018 Ashfield and Conway Municipal Vulnerability Plan": https://www.mass.gov/doc/2017-2018-mvp-planning-grant-report-ashfield-and-conway/download

adapts to the challenges of climate change. Opportunities to promote and improve mitigation and resilience are described throughout this section, where relevant.

A. SUMMARY OF NATURAL RESOURCE PROTECTION NEEDS

Ninety-two residents completed the OSRP survey, the results of which are summarized in *Appendix C*. The preferences of Conway residents in 2021 were similar to those documented in past surveys (2000, 2006, and 2013), where survey takers showed consistently strong agreement for protecting and preserving open space for water quality and conservation needs. When asked in the survey how they would prioritize their top three open space categories, either via protection, access, or improvement (Q.1), survey takers prioritized open space resources in the following order:

Figure 1: Open Space Priorities Survey Responses



Source: Conway Open Space and Recreation Survey

Some of these priorities are complimentary with each other, while others may, to some degree, be in conflict. The challenge for Conway is to find the right balance among the various land use values and the most appropriate areas of town to promote those uses.

The following section outlines key natural resource protection needs listed in the order they were prioritized by survey respondents (Figure 1). Trails and wayfinding will be addressed in *7.B: Summary of Community Needs*. Specific objectives and strategies for addressing natural resource needs are described in *Section 8: Goals and Objectives* and *Section 9: Seven-Year Action Plan*.

A.1 Forests and Wildlife Habitat

A.1.1 Forests

Land Protection

Residents highly value the ecological, aesthetic, recreational, and economic values of the forestland in Conway. All told, over half of the town of Conway is forest and wildlife habitat under

some level of protection (agricultural land not included). While this represents significant achievements on the part of residents, the Town, and the larger conservation community, the 20 percent of forest and wildlife habitat (4,837 acres) under temporary Chapter 61 and Chapter 61 B protection is vulnerable to future development. Temporary development restrictions enabled by Chapter 61 enrollment do slow the pace of development and allow communities to plan for more sustainable development. However, Conway, which experienced a growth rate of 1.8 new houses per year from 2010 to 2020,[3] must continue to protect forest resources and wildlife habitat and direct development to where it is most appropriate. The Town has developed a protocol for exercising its Right-of-First-Refusal[4] for parcels coming out of Chapter 61, but does not have criteria by which to evaluate whether the parcel is a priority to protect. Criteria for evaluating Right-of-First-Refusal options can help make this process more efficient and greatly benefit the community's overall conservation strategy.

Conway also lacks explicit conservation development and Low-Impact Design elements in the majority of its bylaws (i.e., provisions that encourage resource protection and sustainable stormwater management). The existing bylaws permitted a 25-parcel development on Flagg Mountain approval in the early 2010s; the project was never actualized due to financial issues.

Natural Resources-Focused Development

Alongside land protection, Smart Growth-oriented[5] land use policies that promote walkable communities and efficient use of space for new building can help curb inappropriate development of open space. Given the increasing impacts of climate change and environmental degradation, Conway has a need to plan for climate-resilient development that protects community character. There are many land use planning and regulatory tools that the Planning Board can propose that would help facilitate this kind of sustainable growth, such as open space residential design zoning[6] or a river corridor overlay.

Development and Infill of Conway Center

[3] Franklin County Cooperative Inspection Program, see *3.D.1: Patterns and Trends*

[4] The Right-of-First-Refusal granted by the MGL. Chapter 61, 61A, or 61B allows for a select board, within 120 days of receiving notice to withdraw from the Chapter 61, 61A, or 61B current use tax programs, to:

1. Act to exercise its option to purchase the property by meeting a bona fide purchase offer or at full and fair market value;
2. Assign its right to a non-profit conservation organization or the Commonwealth or any of its political subdivisions; or
3. Notify the property owner that it does not intend to exercise its Right-of-First-Refusal.

Failure to act within 120 days of the notice constitutes a de facto decision to not exercise the Right-of-First-Refusal.

[5] To learn more about Smart Growth, see the Massachusetts Executive Office of Energy and Environmental Affairs' Smart Growth/Smart Energy Toolkit at http://www.mass.gov/envir/smart_growth_toolkit/.

[6] Open space residential design (OSRD) is a type of zoning bylaw that requires that important areas to preserve are identified first on a site, then house sites are determined, followed by roads and trails, and finally house lots are drawn in. Normally, a large percentage of the site is permanently protected from development through a conservation restriction (CR) or agricultural preservation restriction (APR), and individual house lots may be smaller than what is allowed under conventional zoning.

Smart Growth principals have been difficult to apply in Conway in part because a lack of septic capacity and absence of municipal sewer in Conway Center village has severely limited infill and redevelopment of the village, pushing new development to areas of open space. The Town has studied options for creating a small-scale sewer system in the village, has a 25% design and has applied for state grants to complete the final design and bid specs, but lack of adequate funding has prevented this project from getting off the ground. The recently passed American Rescue Plan Act may provide a potential source of funding. Continuing to pursue funding for a sewage treatment project and communicating to Conway residents the potential benefits of municipal sewer could lead to the protection of vulnerable open space from development and fragmentation, facilitate the revitalization of downtown Conway as a business district, and enable much needed public development such as senior housing to occur. A shovel-ready design could make a small-scale project in Conway more likely to be funded if federal infrastructure funds becomes available for this type of project.

Ground-mounted Solar Development

Large-scale ground-mounted solar development has also contributed to forest conversion in the past decade. In the last five years, 30 acres of forest in the Poland district was converted to a large-scale solar installation. A 2021 update to the original 2011 solar bylaw places stronger protections on wetlands and state-designated Prime Forest, and now requires site plan review for medium and large-scale solar development. However, given the current solar market, it is likely solar developers will continue to be interested in Conway's farm and forestland in the future. Communities can help steer solar development to more appropriate sites within town boundaries by actively planning for solar siting. The forthcoming Community Solar Siting and Financing planning toolkit from the UMass Clean Energy Extension could be a helpful tool.[7]

Where they are installed, large-scale ground-mounted solar installations should be looked at as opportunities for large-scale pollinator habitat development. With ample space and limited need for mowing, vegetation can be managed for staggered bloom times and bloom diversity around cropland and solar arrays. One recommendation of the *Conway Pollinator Action Plan* is to add a requirement to maintain pollinator habitat to Conway's solar bylaws or community host agreement template.

Sustainable Forest Stewardship

Healthy forests improve air and water quality, provide safe natural habitat, and provide forest products (e.g. maple sap, timber). Many Conway residents have hired consulting foresters to create Forest Stewardship Plans that identify their goals for and guide management of their woods as healthy, productive forests. The stewardship plans for the two Town forests contain numerous recommendations that will protect and enhance their ecosystems; there is a need for focused attention on these tasks to realize the community's goals for these forests. The Town can continue to promote good forest stewardship and silvicultural practices through information posted to its

[7] https://ag.umass.edu/clean-energy/research-new-initiatives/solarplanning

website, by using Town-owned forests as sustainable forestry demonstration forests, and through the anticipated forest carbon voluntary market program.[8]

Invasive Species

As in most Massachusetts towns, invasives plant species are pervasive in Conway (see *4.I.6: Invasive Species)*. Roadsides and waterways are particularly impacted and as one public forum participant put it, "the town is not winning the battle against invasives." Conway residents are relatively proactive with monitoring and management of invasive plant species compared to neighboring communities and continue to implement management projects. There is a need for a planned, targeted approach to invasives management, for more formal education and funding to both residents and Town staff, including the Highway Department, and for more volunteers to carry out needed management. There are resources available for identifying which areas are most in need of protection from invasives and developing strategic management plans.[9] More dedicated funding could help make these needs a reality.

A.1.2 Wildlife Habitat

Wildlife Habitat Protection

When asked to prioritize their top three specific open space projects, the "protection of forests for wildlife, biodiversity, and climate mitigation/adaptation" was top priority (Q.3), with 66 percent support. This was followed by farmland protection, at 48 percent, and the protection of "swamps and environmentally sensitive habitats" at 47 percent. "Loss of wildlife and biodiversity, including pollinators" was the second most commonly identified threat to what people love most about Conway (Q.5).

Throughout Conway there are significant tracts of uninterrupted forestland, which are essential for wildlife that are sensitive to edge predators and brood parasites (cowbirds), range widely and occur at low densities (bears, bobcats, fishers), or require large tracts of interior forest for nesting (some neotropical migrant birds). Swamps, marshes, vernal pools, rivers, and streams are very important wildlife habitats to the majority of wildlife species. Farmland and other open areas, especially grasslands and shrublands, also serve as valuable habitat. Overall, continuing to prioritize important wildlife habitat areas and linkages for protection is the most effective action to protect wildlife and facilitate their adaptation to climate change.

Pollinator Habitat

Pollinator habitat has emerged as an important focus area as recent research has documented steep declines in local pollinator insect populations. "Development of pollinator habitat/corridors" ranked as the fifth priority for specific open space projects (Q.3). Conway is already home to many effective farm and neighborhood pollinator networks, but more work can be done to create continuous corridors and to educate Conway residents and farmers on techniques for protecting, expanding, and maintaining pollinator habitat. The *Conway Pollinator Action Plan* provides many

[8] As of summer 2021, the Town was studying the feasibility of creating a program where forest owners could get paid for participation in the carbon market by having and implementing a Forest Stewardship Plan.

[9] University of New Hampshire. *Picking Our Battles: A Guide to Planning Successful Invasive Plant Management Projects*: https://www.wildlife.state.nh.us/invasives/documents/picking-battles.pdf

suggestions for actions the Town, business owners, and residents can take to support pollinators.[10] In the OSRP planning process, the community built on the ideas in the pollinator plan by suggesting that the Town mandate that municipal plantings include a minimum percentage of native pollinator plants, as has been done elsewhere.[11]

A.2 Waterways and Swamps

The South, Deerfield, and Mill Rivers and their tributaries strongly define the Conway landscape. There are no natural lakes in Conway, but small ponds and small- to mid-sized wetlands are scattered across town. Conway residents selected the protection of "swamps and other environmentally sensitive habitats" as their third highest priority specific open space project (Q.3).

South River

Survey results showed that the Conway Station portion of the South River State Forest (which the South River passes through) and the South River are generally the two most important places that the community should improve, protect access to, or limit development from (Q.4). Survey takers identified addressing "hazardous flooding and erosion throughout town" as the fourth most important specific open space projects (Q.3). These survey results indicate that the Town's decade-long collaboration with the FRCOG to improve the health of the river is well directed.

The South River is an important scenic and recreational asset, but is in many ways unhealthy. Flooding and erosion hazards caused by historic land use and manipulation pose significant threats to the built environment and other important resources in Conway. The Massachusetts Department of Environmental Protection (DEP) lists the river as impaired by nonpoint source pollution, primarily fecal coliform/e. coli, and physical substrate habitat alterations (erosion and sedimentation), making the river poor habitat and sometimes hazardous to recreate in. These findings bear out in the 2018 *Watershed-Based Plan to Maintain the Health and Improve the Resiliency of the Deerfield River Watershed*, which identified the South River subwatershed as having a high vulnerability to both water quality issues and flood (6.9 and 7.5 out of 10, respectively). At the same time, the watershed scored high (7.1 out of 10) on an EPA-based health index, indicating that the river has a high potential for recovery via implementation projects that address the impairments identified.

In 2020, a team of stakeholders from Conway and Ashfield prioritized the long list of South River restoration projects identified under the Mohawk Trail Woodlands Partnership (MTWP) Regional Adaption & Resilience Project for the South River watershed. With the FRCOG's assistance, the Town of Conway regularly applies for grants to fund top priority projects. The Town of Conway should continue to pursue river restoration, water quality impairment, and hazard mitigation projects via multiple funding pathways, in line with the projects identified in the Hazard Mitigation and Municipal Vulnerability Preparedness Plans and the MTWP project prioritization. Relevant actions are included in *Section 9: Seven Year Action Plan*. It is important that the community continue to engage in education and outreach efforts that encourage landowners, farmers, and

[10] Franklin Regional Council of Governments. "Conway Pollinator Action Plan", 2021: https://frcog.org/franklin-county-regional-pollinator-plan/

[11] Somerville, MA passed a native plant ordinance in 2021: https://www.somervillema.gov/news/somerville-passes-first-its-kind-native-planting-ordinance

others to follow best practices for river health, including the focus on managing the river corridor as a resource area to reduce flooding and erosion and on adopting a River Corridor Bylaw.

Other Waterways and Wetlands

In addition to the South River, the Bear and Mill Rivers also run through developed areas of Conway. The Bear River is listed as impaired for water temperature, likely a result of a lack of land cover upstream in Ashfield. For the most part, Conway's wetlands are located within areas of protected forests, but those located along roads are vulnerable to contamination and encroachment. While prioritizing restoration projects within the South River watershed may benefit the largest proportion of Conway residents, the Town should not lose focus on opportunities to improve the health of the Bear and Mill Rivers and scattered wetlands. Working with Conway residents and staff, the Town can strive to identify valuable land protection projects, increase riparian buffers, and implement best management practices to reduce nonpoint sources of pollution such as road salt, stormwater runoff, and agricultural runoff. The Town can also continue to pursue the culvert replacement and upgrade recommendations provided by the 2020 culvert assessment conducted by the FRCOG.[12]

A.3 Drinking Water Quality and Supply

Drinking Water Quality

Conway has no municipal water supply—residents rely exclusively on private and small community wells and springs that draw from deep and shallow aquifers. Many residents have shallow wells that can be more vulnerable to potential sources of contamination, such as septic systems or underground tanks. In addition, many homes in the town center use a common spring water system, also vulnerable to contamination. According to a 1989 survey, many of these residents do not know the exact location of their water source.

The 2002 Source Water Assessment and Protection Report found the public well at Baker's Country Store to have high susceptibility to microbial and non-microbial contaminants, and the Conway Grammar School public well to have a medium susceptibility to contamination due to shallow bedrock and absence of the hydrological barriers that prevent contamination migration from the ground surface. Like private systems, these wells are also threatened by septic systems and stormwater runoff. Despite the potential risks, according to the Conway Board of Health,[13] there have not yet been any identifiable water quality issues in public or private Conway wells, but ongoing vigilance of wellhead areas is important.

Drinking Water Supply

The drinking water supply in Conway appears to be in good condition. A number of the old-style "dug" wells in Conway Center did go dry in 2016 and 2017. Otherwise, the Board of Health reports that they have not seen much well replacement activity and the town population in general is confident that their wells will continue to function properly.[14] That said, climate change projections that predict more frequent and severe droughts may be cause enough to study the location and

[12] https://arcg.is/1LCLmr

[13] Email Communication with Carle Nelke, April 2021

[14] Email Communication with Carle Nelke, April 2021

characteristics of the bedrock aquifers in the near future. Zoning regulations can also encourage LID stormwater techniques, as discussed in *3.I.2.4: Stormwater Runoff*, that infiltrate water runoff on site to help increase groundwater recharge.[15]

A.4 Farmland

Farmland Protection

When asked about what specific places in Conway the community should improve (Q.4), protect access to, or limit development from, the third most important place after Conway Station and the South River was highly visible farmland. Conway residents value farms for their source of livelihood, for their contributions to the local economy and food system, and for their scenic and cultural qualities. According to 2021 Conway assessor data, over 3,000 acres of farmland is either unprotected or under temporary protection, and therefore vulnerable to development. Conway's Community Preservation Act (CPA) funds can serve as a match for land protected under the state's Agricultural Preservation Restriction (APR) program. Currently, Conway likely meets two of the three criteria (an active Agriculture Commission and a Right-to-Farm bylaw) for a reduced local match for the APR program. Conway does not have an APR tracking system.

Farm-Based Economy

The preservation of high quality farmland in Conway is tied to the financial viability of farming, which can be challenged by economic shifts and natural hazards. Local farm owners could benefit from increased promotion of locally grown products and from farm income diversification, which can provide more security to farm business owners. Protecting farmland and keeping it affordable are two key strategies identified in the Franklin County Sustainability Plan to help ensure the region's sustainability. At the time of writing this plan, Conway's Agricultural Commission was not meeting regularly.

A.6 Scenic Views, Roads, and Ridges

Scenic areas in Conway provide opportunities to observe wildlife and habitat, be immersed in a rural landscape, explore the town's geologic and cultural history, and simply appreciate scenic vistas. Conway's major open space recreation areas and the South River ranked as survey takers' favorite places (Q.2), getting the highest number of mentions in the open-ended question about their favorite place:

- Conway State Forest (32)
- South River State Forest at Conway Station (29)
- Conway Pool (18)
- South River (16)

Prominent roadside meadows are also highly valued outdoor places:

- South River Meadow (11)
- Pumpkin Hollow (10)

[15] https://www.massaudubon.org/our-conservation-work/advocacy/shaping-the-future-of-your-community/saving-land-water-money-with-lid/

Farmland vistas, hills, and rural roads were also often mentioned as important places to permanently protect or protect access to:

- Farmland on Roaring Brook Road, on Shelburne Falls Road, and at the Totman Farm (11); and
- Pine Hill/Road (9), Fields Hill/Road (5), and Cricket Hill/Road (3).

B. SUMMARY OF COMMUNITY NEEDS

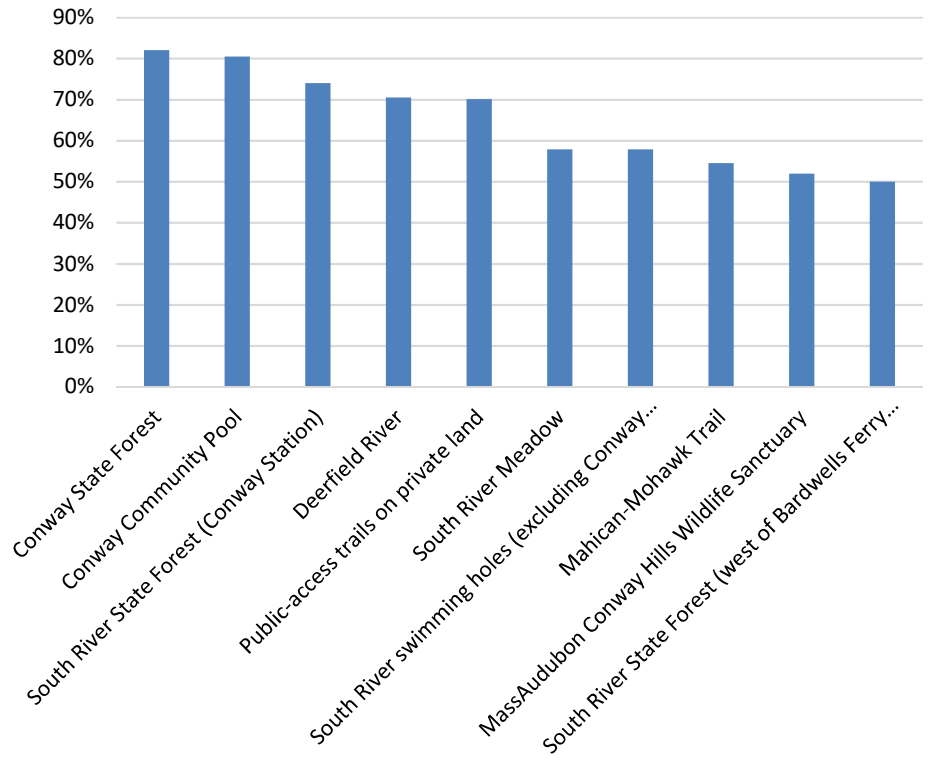
Planning for a community's open space and recreation needs can address the present population's desires for new facilities, spaces, and services while also interpreting and acting on available data to prepare for the future needs of Conway residents. Although the Conway OSRP will be updated in seven years, the types of actions that are identified in *Section 9: Seven-Year Action Plan* take into account the needs of the next generation as well.

The following section presents results of the OSRP survey related to the outdoor recreation interests and needs of Conway residents; the subsequent sections spell out what actions may be taken to meet those needs.

B.1 Community Needs Survey Results

Survey takers' favorite outdoor open space and recreation resources (Q.2) align closely with the places survey respondents used at least once a year (Q.9):

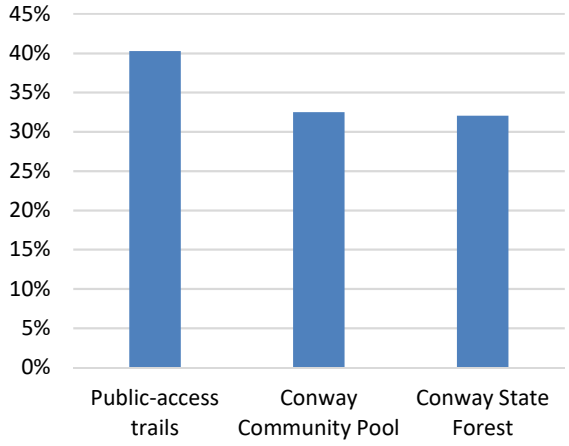
Figure 3: Popular Open Space and Recreation Areas in Conway
(Visited once a year or more by 50 percent or more of survey respondents)



Source: Conway Open Space and Recreation Survey

When looking exclusively at which outdoor resources respondents use ten times a year or more, public-access trails was the most popular resource:

Figure 4: Popular Open Space and Recreation Areas in Conway
(Visited ten times a year or more by 25 percent or more of survey respondents)

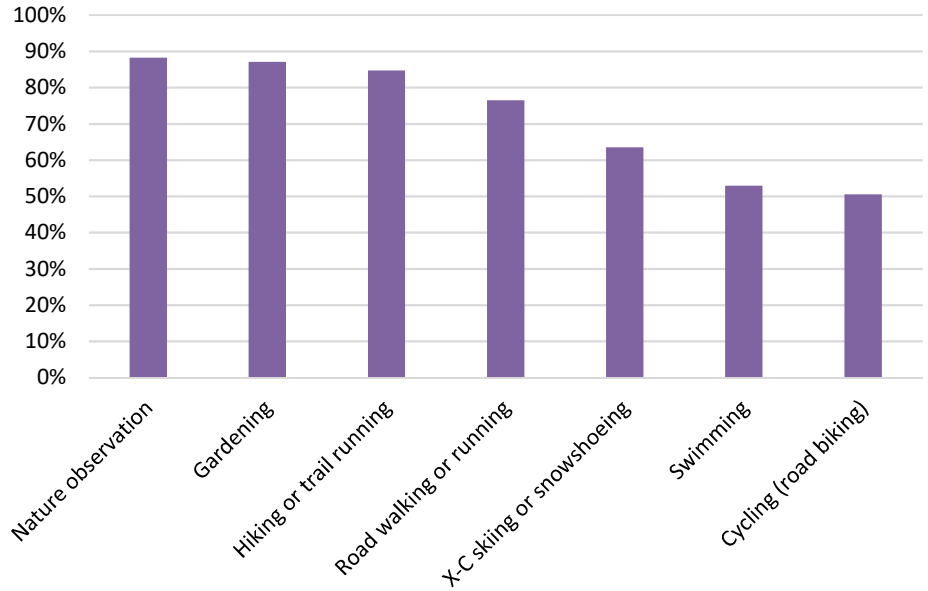


Source: Conway Open Space and Recreation Survey

Over fifty percent of respondents stated that they know about but never use the facilities at the Grammar School or the Town Ball Field. Over fifty percent of respondents stated that they did not know about the Flagg Mountain or Mount Esther Wildlife Management Areas, and nearly fifty percent of respondents had never heard of the Bigelow Property. Over a third of respondents had never heard of the Town-owned Town Farm and Fournier Forests, which contain public trails.

Based on the OSRP survey results, Conway residents primarily engage in passive recreation within Conway. Over half of survey respondents said they participate in the following activities (Q.6):

Figure 2: Popular Recreation Activities in Conway
(Activities done by 50 percent or more of survey respondents)



Source: Conway Open Space and Recreation Survey

When asked what they would like to be able to do more of in Conway (Q.7, open ended), survey respondents overwhelmingly cited more hiking. Activities that received four or more mentions included

- Hiking (25)
- Cross-country skiing (9)
- Nature observation (6)
- Mountain/dirt biking (6)
- Ice skating (5)
- Swimming (5)
- Hunting (4)

Of these activities, hiking, cross-country skiing, nature observation, and biking can take place on many of the existing trails, but an evaluation of trail type and capacity is needed to fully understand what types of trail use are well accommodated in Conway. Ice skating has a long tradition in Conway—on the Conway Community Swimming Pool and on a volunteer-made rink at the Town

Ball Field. However, community members have not constructed the ball field skating rink the past few winters because the effort required of volunteers is too great without financial support and more buy-in from neighbors is needed. Ice skating at the Pool is available to those who wish to shovel for parking and to clear the ice. In the case of swimming, the Conway Pool (open to Conway residents and their guests) and the public access swimming holes along the South River provide options and different swimming experiences. Hunting is available throughout Conway on public and private land.

These survey results demonstrate that Conway residents appreciate the open space and recreational resources already available to them and are not overwhelmingly in need of resources not currently available. However, many of these resources can be improved to provide better access to more of the community and to enhance the experience of users.

In addition to recreation needs, an open-ended question about outdoor programming revealed a high demand for passive recreational activities accessible to a range of ages, especially natural history and history-oriented hikes or walks (Q.8):

- Guided hikes on a variety of topics, including:
  - Natural history (21)
  - Wildlife tracking (3)
  - Birding (3)
  - Geology (1)
  - Invasive plant education (1)
  - Climate change (1)
  - Fish habitat (1)
  - Mushroom foraging (1)
  - Family friendly (1)
- Historic places/homes tours/talks (19)
- Guided hikes (general) (12)
- Nature/ecology/conservation/gardening talks (7)
- Outdoor stewardship projects/day of service (e.g. trail maintenance, clean-up) (7)
- Arts programming/concerts/theater (5)

Interestingly, when asked about specific places in town (including historic structures) that the community should improve, protect access to, or limit development from, many residents mentioned improving the downtown, supporting the Field Memorial Library, and preserving the privately owned Masonic Hall. While historic preservation is generally outside the purview of open space planning and funding, the Open Space Committee sees an opportunity to support historic literacy and preservation through the development of interpretive tours of Conway Center's rich history, including along the South River, in Burkeville, Pumpkin Hollow, and Conway Center proper.

B.2 Trails and Wayfinding

A high proportion of Conway residents' favorite activities rely on trails and are best supported by the availability and maintenance of a variety of kinds of trails. The use, expansion, and maintenance of trails is a complex issue, as a majority of the trails in Conway are on private land. Conway has not had an active trails committee or group for many years, so trail maintenance on

public land has been minimal, and the level of involvement the newly formed Forests and Trails Committee will have with maintenance is unknown at the time of writing. Additionally, while many area communities seek to attract non-residents via recreational tourism so that visitors spend money at local businesses, at this time there are very few businesses and no public restrooms for non-residents to visit in Conway, so the cost of heavy traffic from recreational tourism likely outweighs the benefits. In the age of widespread information sharing via the internet, there is little the community can do to control the amount of publicity trails in Conway get that are discovered and well-loved by out of towners.

Public Trail Access

The Town-owned forests and the South River Meadow each have established trails. Unfortunately, the Town has no jurisdiction over public access trails in the state forests or Wildlife Management Areas, nor the Mahican-Mohawk trail. With the exception of the trails on the Lochhead property, which are open to the public thanks to a public-access trail easement,[16] trails on private property are used with the individual permission of the landowner. The Conway Snowmobile Club trail network primarily uses private land for their trail network (during winter months) in exchange for their maintenance. The snowmobile trail network is not designated for public use by other types of users, but many residents use the trails for cross-country skiing, walking, and other activities. There is a concern, therefore, that if these trails were more widely publicized or used, landowners would become increasingly hesitant to allow public use.

Given the strong interest of residents to increase their trail use (Q.7), the Town could consider increasing the amount of permanently publicly accessible trail miles in desired locations. Between the establishment of the Forests and Trails Committee and the emergence of conservation tools and funding for establishing public trail access, there may be increased capacity and opportunity for the creation and maintenance of trails throughout town for a variety of users.

It is very likely that the population of Conway will continue to age for the next decade or more, so attention could focus on identifying opportunities to provide easy and/or fully accessible hikes. Although pedestrian safety was not a major concern, four respondents requested dedicated biking or walking paths, including on Shelburne Falls Road. Recommendations for improving pedestrian safety from the *2021 Franklin County Regional Pedestrian Plan*[17] are detailed in *Section 9: Seven-Year Action Plan*.

Many survey respondents felt there was inadequate access to information about open space and recreation. Section C.2 further explores the need for information about open space resources.

Quality of Public Trails

Survey respondents cited needed improvements to trails on many of the major public properties. At the Conway Station portion of the South River State Forest, one of the most popular recreation areas in Conway, survey respondents cited the need to fix steps, remove obstacles from paths, limit littering and graffiti, and provide parking for winter access. Although the Town does not have jurisdiction over this area, this portion of the South River State Forest is designated as Parkland

[16] Facilitated by the Franklin Land Trust's Voluntary Public Access and Habitat Improvement Program

[17] Franklin Regional Council of Governments. "Regional Pedestrian Plan for Franklin County", 2021: https://frcog.org/wp-content/uploads/2021/11/Pedestrian-Plan-for-Franklin-County-2021.pdf

for public recreation opportunities, suggesting that the state should have some willingness to perform needed upgrades. Respondents also requested improved drainage at the Conway State Forest and the designation of trails for passive recreation only (no snowmobiles). Erosion resulting from ATVs in the Town Forest was also a concern.

Townwide Trail Network

One third (36 percent) of survey respondents rank a town-wide trail network as a top-three priority open space project for the Town to work on for the next several years (Q.3). Another quarter (25 percent) favored an inter-town trail network as a top three priority. This desire aligns with the SCORP goal to foster trail networks. When asked in an open-ended question whether there were any particular routes or destination points that survey takers would like to see connected by a public access trail, the following connections received more than one mention:

- Conway Center to Conway Grammar School (4)
- Bullitt Reservation to Poland Brook Willdlife Area to Conway State Forest/Town Farm Forest to Conway Center (4)
- South River/ South River Meadow to Natural Roots (3)
- Conway Station to Hoosac (2)

At the public forum, a question about the possibility of connecting the Field Library to the Grammar School via a trail was answered with details about the Forests and Trails Committee's ongoing discussions with private landowners and the snowmobile club; differing preferences for how private land along such a trail is used suggests that such a connecting trail would require a lot of management to accommodate property owners and may not be feasible in the short term. Trails connecting Conway Center and other important areas of town that allow residents to travel between important community destinations creates options for people without cars to more safely access different parts of town, thereby improving open space equity.

B.3 Planning around River Access

Conway residents highly value the South River and favor increased access to the river in general. However, survey respondents had mixed feelings about increasing swimming access to the river, with some in favor of more clear access options and others in favor of limiting access for safety and ecological impact reasons. The use of two major river access points along the Deerfield River at Bardwells Ferry Road and at the end of Conway Station Road, primarily for river tubing, has also been cited as a concern among residents. Increasing access to the Deerfield River did not rank as a high priority for survey takers. Given both the interest and the concerns around improving access to the South and Deerfield Rivers, the Town of Conway will likely need to conduct a more focused study of river use before taking any action. If the Town were to decide that more defined public swimming access areas were needed, long-term planning for land protection along swimmable rivers would be beneficial.

B.4 Community Open Space Areas

Conway residents have a strong appreciation for public open space areas, which often translates to a demand for better access to these areas. It must also be noted that three private nonprofits provide some of the most valued outdoor recreation space and programming in Conway—the Conway Swimming Pool, the Conway Sportsman's Club, and the Conway Snowmobile Club.

The Town is grateful for and seeks to support the contribution of these groups as it seeks to improve its own offerings.

South River Meadow

A few small parcels in Conway Center provide public open space. Three respondents requested improved access to the South River Meadow, with the suggestion that the Town mow more often. The South River Meadow has also been recognized by the Open Space Committee has having potential for the development of an accessible trail.

Bigelow Property

The Bigelow Property on Cemetery Hill Road is a relatively unvisited 2-acre meadow near the center of town that was recognized in the *Conway Pollinator Action Plan* as a potential site for fostering pollinator habitat. Survey respondents commented that reducing non-natives and poison ivy, planting trees, establishing a trail, and implementing the pollinator concept are needed improvements.

Burkeville Covered Bridge

The Town-owned property next to the Burkeville covered bridge also emerged as a potential park or picnic area in the survey, and is a top five priority river restoration site according to the MTWP Regional Adaption & Resilience Project report. Invasive species management is an immense challenge at all of these sites and would require more stewardship.

South River New Parcel Purchase

In 2021, the Town of Conway received MVP Action Grant money to purchase a parcel in Conway Center along the South River. The parcel will remain undeveloped to bolster the village's flood resilience. Participants in the public forum suggested the community explore ideas about how to use that property, noting that it is large enough to accommodate visitors and would provide a view upstream if some vegetation was cut away.

Fournier Forest

While the South River Meadow and Bigelow Property offer short and scenic walks close to downtown, and the deep-woods trails of the state forests and wildlife management areas offer rugged and long-distance hikes, there may be a need for more accessible and medium-length trail loops. Families especially may be looking for areas with a couple miles of easy trails with easy access to their vehicle. The Open Space Committee recognizes that the municipal Fournier Forest, adjacent to the Grammar School, has potential as a family-oriented community forest with a number of trail options, picnic and play areas, views, educational interpretive signage, and trail entrance amenities. The Forests and Trails Committee has money from the Massachusetts Cultural Council to develop and install interpretive signage at the Fournier lot, with QR codes that provide information about various natural features. The Committee also intends to add a loop to the existing trail and to recruit Conway Grammar students to help manage the property.

As the population of Conway continues to age, there may be an increasing need to provide open space and recreational activities for older citizens. Any future development of land or facilities for open space and recreation should include careful consideration of access for older citizens, as well as for the disabled. In 2021, Conway became a designated Age-Friendly Community, making it eligible to apply for specific grants available through the Age-Friendly Communities Network and have access to best practices information and planning guidelines.

Parking was only occasionally identified as an issue in accessing open space resources. Most Conway residents seem to be content with the rustic accommodations at open space and recreation access points.

B.5 Community Recreation Facilities

Conway residents who participated in the survey generally found the recreation facilities at the Conway Grammar School, Town Ball Field, and Conway Pool to be of good quality.

Publicly Owned Facilities

The Town Ball Field has undergone a number of upgrades over the past decade and the only suggested improvement from the survey was to make drinking water available. None of the respondents mentioned a need to improve the Grammar School ballfields or playground, but the Town should continue to pursue its planned accessibility upgrades to the playground.

Conway Pool

The Conway Pool is privately owned by Conway Community Swimming Pool, Inc., whose sole purpose is to provide a clean, safe, and free of charge swimming pool for the citizens of Conway. The pool is maintained by volunteers who provide an incredible service to the community. Four survey respondents suggest improvements to the facility. The organization does not use public funds for improvements to the swimming area.

ADA Compliance

The Town of Conway ADA Transition Plan conducted by the Institute for Human Centered Design in 2017 covered the Conway Grammar School, finding that the playground lacked an accessible route to at least one play component and to at least one of the picnic tables. A 2021 ADA assessment of the other municipal recreation facilities found that the surface under the play structure at the Town Field does not allow easy mobility and that there is a drop from the path into the playground area that needs a small ramp. The assessment also pointed out that the South River Meadow trail is rough and uneven and could benefit from a more smooth and stable surface in the long term. See *Appendix B* for the full 2017 and 2021 ADA Self-Evaluations and Transition Reports.

Conway Pool *(Ben Barnhart)*

B.6 Recreational Programming

Activities for Youth

The Parks and Recreation Committee and Conway Youth Sports run a co-ed baseball league each spring for grades Pre-K through 4, as well as soccer and basketball for youth through 6th grade for a scaled fee. Grades 5 and 6 can participate in youth baseball with participants from other towns through the Frontier School District.

The private Conway Sportsman's club offers additional recreational programming, including a fishing derby, archery lessons, clay shoots, hunter education, and more.

A total of 20 teenagers live in the homes of those who responded to the survey, and very little mention was made of the needs of teenagers in Conway. Conway teens have access to facilities and programming through the Frontier Regional School District and through other private schools they attend. Across the region, teenagers are often not provided adequate after school activities, recreation facilities, and gathering spaces. However, given the relatively small population of teenagers in Conway and the age group's heavy participation in school-related activities, there may not be a critical mass to justify infrastructure specifically for teen use, so there are no recommendations regarding the needs of teenagers at this time.

Activities for Seniors

Older Conway residents can take advantage of programming provided by the Field Memorial Library and the Council on Aging, a walking group, and even an exercise class hosted by community members via Zoom. When specifically asked at the forum, attendees provided very little feedback about the needs of older residents. The Council on Aging did not respond to invitations to provide comment on the needs of seniors. As the community strives to make more accommodating outdoor areas, it could also develop programs to help aging residents take advantage of these resources.

Outdoor Events

The survey demonstrated that there is strong interest in public outdoor events. These interests range from guided hikes and tours on natural history and history topics, to community events such as work parties, arts and entertainment programming, picnics, and seasonal events, to classes such as swimming lessons and hunter safety/fire arms courses. The Open Space Committee and Friends of the South River have hosted a variety of ecology and land use history-related walks (see *Appendix F*) and would like to continue to collaborate with other Town entities to provide guided hikes, informational walks, and historical tours in Conway. Given the need for more volunteers to conduct invasive plant removal and trail maintenance, the Open Space Committee could consider including stewardship work as a part of other kinds of events that have a draw. Programming such as arts and seasonal events fall under the purview of the cultural council.

B.7 Village Revitalization and Historic Preservation as it Relates to Open Space

Conway is blessed with an abundance of cultural and historic buildings and landscapes. Although survey respondents cited the need to preserve cultural and historical sites all across town, Conway's historic center was an area of particular concern. A number of survey respondents had concerns about the preservation of privately owned historic buildings and increasing flood protection for all historic buildings. Respondents also suggested enhancing the streetscape with more flowers, shade trees, and expanding areas of open space, and installing interpretive signage of historic sites. All of these improvements could enhance the experience of being in Conway Center, making it an appealing place to stop and walk through. Pedestrian improvements suggested in the *2021 Regional Pedestrian Plan for Franklin* are also important measures to improve the experience of the village center.

Conway residents are interested in the town's historical architecture, industrial and agricultural history, and its intricate relationship with the South River. Self-guided or guided walking tours could create an enhanced community experience, increased interest in investing in historic structures, and potentially a tourism draw. The town has a good collection of narratives and images about town history, but would need to pull together and curate those materials for the public.

C. SUMMARY OF MANAGEMENT NEEDS

C.1 Coordination

Conway is fortunate to have a number of organizations interested in the natural and human-made environment in and around the community. Implementing the 2022 Open Space and Recreation Seven-Year Action Plan will require the support of the community and the oversight of an active Open Space Committee, Forests and Trails Committee, and Parks and Recreation Committee, with commitment from the Agricultural Commission, Planning Board, Select Board, Community Preservation Committee, Cultural Council, Historical Society, Board of Health, and the Friends of the South River to contribute. The Agricultural Commission established in 2007 has not been active in recent years. The Parks and Recreation Committee's work has slowed down since the completion of work at the Town Ball Field in part due to the lack of volunteer capacity. The Town can explore ways to support each of these committees, especially those who have lacked the volunteer power to remain active, so that they can be fully engaged in the implementation of the Seven-Year Action Plan.

Because the Commonwealth owns so much of Conway's public outdoor recreation areas and trails, the Town is in the position of having to advocate with the state to bring needed improvements to some of the open space resources most beloved by the community. The Town has been successful in advocating for the Department of Conservation and Recreation (DCR) to better manage invasives in the South River State Forest, demonstrating that active communication and advocacy with DCR and other state agencies can be effective in forcing the state to address local needs.

C.2 Communication

When asked whether residents choose not to use any recreation resources because of poor quality (Q.10), the first reason was lack of information about open space resources and the third a lack of knowledge about the rules and regulations for using open space resources. Given the frequency of survey respondents who did not know about a number of existing recreational resources in Conway and who expressed a desire for more information about Conway's open space resources, there is a clear need to make information about public-access open space and trails more accessible. Trail signage and expectations for their use are also important to post at trailheads to welcome those new to the trails. At the public forum, a librarian from the Field Memorial Library noted that new residents often come into the library asking for information on activities and recreation resources for young families.

The Open Space Committee can consider publishing a guide to public open space areas and trails in Conway Currents and on the Town's website, which were two of the three ways survey takers most commonly learned about town matters (Q.13). Similar communication tools can be used to build awareness in the community about important environmental and conservation information. When asked what topics the Open Space Committee could provide more information on, over fifty percent of respondents cited the following:

- Public Trails (79.5%)
- Invasive plant species management (65%)
- Supporting pollinators (64%)

- Managing land for wildlife habitat (63%)
- Threats to and best practices for groundwater quality protection (55%)
- Climate change vulnerability and resilience (52%)
- Wetlands protection (50%)

C.3 Stewardship

There is a great need for increased stewardship of the Town's buildings, forested and unforested properties, and trails. The recently formed Forest Committee is responsible for stewarding the Town forests, each of which have a substantial and labor-intensive list of recommended actions. Williamsburg and Ashfield are nearby communities with active trail committees that could be models for Conway. The MassTrails program provides resources and funding to communities to support trail development and maintenance across the state. It funds a range of activities including project development, design, engineering, permitting, construction, and maintenance of recreational trails, shared use pathways, and the amenities that support trails.

There is a need also for more volunteers to carry out planned, targeted invasive plant management. Town-owned properties valued by the public for their habitat and recreational may be important areas to focus on (i.e. the town forests, South River Meadow, and Bigelow Parcel). There is also a need to educate homeowners about managing invasives on their properties so management happens across the community. The Open Space Committee and Forests and Trails Committee can think about how to advertise the need for volunteers widely enough to catch the attention of those who expressed interest in the survey.

C.4 Conservation Process

The Town of Conway has a clear protocol for considering land coming out of Chapter 61. To achieve its conservation goals, the Town would benefit from creating criteria and a map of priority conservation parcels that can be distributed to the Selectboard, Conservation Commission, Open Space Committee, and local land trusts so that they may act on their Chapter 61 Right-of-First-Refusal expediently. Prioritization could probably be developed by a committee represented by all of these parties, and the process led by the Open Space Committee or Conservation Commission.

SECTION 8: GOALS AND OBJECTIVES

The following goals and objectives were formulated from the results of the Conway Open Space and Recreation Plan Survey and reviewed and modified through the public meetings of the Open Space Committee, the public forum process, and associated public comment. These goals and objectives reflect Conway's open space and recreation priorities and the commitment to strengthening Conway's resiliency to climate change.

GOAL A: Ensure that Conway maintains or improves the quality of its air and water, and the diversity and integrity of its various ecosystems through conservation of locally important natural, open space.

1. Use Conway's land use regulations to increase protection of valued natural and cultural resources and support climate change mitigation and adaptation strategies.

2. Protect areas of Conway that are most important to preserve for ecosystem health, recreation, and climate resiliency.

3. Manage forests for their many benefits, including forest health, biodiversity, habitat, stormwater management, and carbon sequestration.

4. Promote watershed-wide planning to improve water quality, river health, flood resilience, and riparian habitat.

5. Protect pollinator species and pollinator habitat on private and public lands town wide.

GOAL B: Ensure that Conway retains its rural, safe, and quiet small town character and sense of community, and its agricultural, cultural, and historic resources.

1. Protect agricultural land and the viability of farm businesses.

2. Increase pedestrian safety.

3. Encourage economic activity and infrastructure improvements that are compatible with the rural character of the town and that ensure the financial stability and economic health of the community.

GOAL C: Ensure that Conway maintains or improves the current quality, quantity, and accessibility of its open space and recreational resources.

1. Create safe and sustainable public access to the Town's rivers.

2. Improve trail systems throughout Conway, ensuring useful trail connections, improving public access, and establishing universal accessibility where possible.

3. Improve Town recreation facilities and open space resources for better access and availability for all types of users.

4. Provide Conway residents with structured programming that supports use and enjoyment of Conway's natural environment, open space resources, and history.

GOAL D: Ensure that the Conway community has good access to environmental, open space, and recreation information and opportunities.

1. Ensure access to information about open space, recreation, and multi-use trail opportunities from a variety of print and digital sources.

2. Ensure access to information about natural resources, environmental protection, and climate change resilience from a variety of print and digital sources.

SECTION 9: SEVEN-YEAR ACTION PLAN

The Seven-Year Action Plan fulfills the Open Space and Recreation Plan (OSRP) objectives. The objectives are listed in the far left column of Table 9-1 and are followed by recommended actions, responsible board or group, start date, and potential funding sources. By implementing the recommended actions, each objective will be closer to realization.

Implementing the OSRP will not only require the participation of the Open Space Committee, but it will also necessarily involve many other town groups, including the Select Board, Planning Board, Conservation Commission, Agricultural Commission, Highway Department, Board of Health, Parks and Recreation Committee, Community Preservation Committee, and Forests and Trails Committee. In addition, Franklin Land Trust, the Historical Society, and the Department of Conservation and Recreation are listed as potential partners in this Action Plan.

Many of these actions may be constrained by a lack of volunteer time, in addition to funding limitations. Where money is required, such as with open space protection, it does not have to be provided by the Town alone. State and federal agencies, private non-profit conservation organizations, individual donors, and private foundations are potential sources of funding. Many are more likely to invest in projects that have a broad base of community support.

Two recent planning efforts undertaken by the Town provide important points of leverage and overlap with the OSRP. In 2018, Conway engaged in the planning process to become designated a Municipal Vulnerability Preparedness (MVP) community, producing a joint summary report with the Town of Ashfield. Conway also updated its five-year Hazard Mitigation Plan, which was approved by FEMA on April 1, 2020. Both the Hazard Mitigation Plan and the MVP Plan include a discussion of climate change and the natural hazards that are increasingly impacting Conway's natural environment and the important ecosystem services that floodplains, rivers, wetlands and forests provide. These plans include strategies and action items to address and mitigate the impacts from climate change and natural hazards and protect and restore the Town's natural resources.

A number of actions identified in the MVP and Hazard Mitigation Plans align with the OSRP's goals, illustrating the interconnectedness of the environmental challenges we face today. Efforts to improve the health of natural resources have numerous co-benefits with climate resilience, flood resilience, climate adaptation, and the ability to enjoy these resources. Projects to restore the health of Conway's South River are wonderful examples of these co-benefits: bank stabilization reduces hazards to roads, infrastructure, and reduces pollution entering the waterway; riparian corridors create habitat, filter stormwater runoff, increase bank stability, and help keep water cool for fish habitat; right-sized bridge and culvert replacements reduce the risk of flooding and infrastructure failure, and increase wildlife passage.

Relevant action items from the MVP and Hazard Mitigation Plans are included in the OSRP Seven-Year Action Plan. Thinking creatively and designing a project to achieve multiple objectives and provide multiple benefits can expand the opportunities for funding. Some OSRP projects could be funded by the MVP Action Grant program, the FEMA hazard mitigation grant program, or a grant program administered by the Division of Conservation Services if open space preservation and/or recreation amenities are included in the project design.

For an Open Space and Recreation Plan to succeed, it is important to establish priorities for the first seven years. Prioritized action steps are represented on the Seven-Year Action Plan Map and are outlined in detail in Table 9-1. The most important action steps for Conway in the next seven years include:

- *Use the Criteria for Open Space Protection (Section 5.G), available land conservation tools,[1] GIS data and analysis, and OSRP Survey results and other available conservation tools to develop criteria that the Open Space Committee can use to identify priority areas of conservation interest for the Town to promote for protection. This will position the Town to be responsive when land is offered as a donation or for sale, when land trusts are working in town and/or when the Town chooses to exercise its Right-of-First Refusal for land coming out of Chapter 61.*

- *Implement recommended actions from the Conway Pollinator Action Plan.*

- *Support the current Regional Water and Sewer Study and continue to seek funding to construct a flood resilient small-scale sewer system, if appropriate. Conduct public education on the benefits of a community sewer system in Conway Center that would allow redevelopment and infill development, improving business opportunities, tourism, river health, senior housing, and a thriving village center. Support the current Regional Water and Sewer Study underway in 2021and continue to seek grant funding to complete designs and, if feasible, construct a flood resilient small-scale sewer system.*

- *Collaborate with other Town committees and organizations to sponsor outdoor programs following the preferences expressed in the OSRP survey, particularly nature hikes, historical walks, and guided hikes. Use guided hikes to familiarize residents with trails, meet landowners whose property trails may cross, and learn proper trail etiquette and maintenance techniques. Begin by generating a list of people to lead walks.*

- *Contribute regular articles to Conway Currents on a range of environmental and conservation topics informed by the OSRP survey.*

A. ACCOMPLISHMENTS

Despite being a small town reliant on a small number of paid staff and dedicated volunteers, Conway has accomplished a number of action items that support the goals and objectives of the Town's previous OSRP. The following list summarizes Conway's accomplishments since the publication of the 2013 Open Space and Recreation Plan:

- Over the past decade, the Open Space Committee has sponsored numerous walks, hikes, and events, especially related to the South River.
- The Town obtained an "off-road" wheelchair that can be borrowed by Conway residents and visitors.
- In 2014, the Open Space Committee obtained funding to manage invasive Japanese stiltgrass along roadsides.

[1] Land Conservation Tools available through UMass Center for Agriculture, Food, and the Environment: https://ag.umass.edu/resources/land-conservation-tools

- In 2014, the Town contributed funds to the repair of tennis courts at Frontier Regional High School.
- In 2013-14, the Town installed drainage at the town ballfield, upgraded various sports and play facilities, and installed a parking lot.
- South River watershed
    - In 2013, the FRCOG and the Town applied for and were awarded a 319 Nonpoint Source Pollution Implementation Grant for the floodplain restoration and bank stabilization project at the site now known as the South River Meadow, completed in 2016.
    - In 2016, with the Town's assistance, the FRCOG and consultants completed *A Fluvial Geomorphic Assessment and River Corridor Planning for the South River Watershed, MA*—a geomorphic assessment and management plan for the South River and its major tributaries.
    - In 2020, the Towns of Conway and Ashfield collaborated with consultants to prioritize implementation projects identified in the 2013 assessment that will addres erosion and instabilities. This work was part of the Mohawk Trail Woodlands Partnership Regional Adaption & Resilience Project.
    - In 2021, the FEMA-funded reconstruction of the Delabarre Avenue road drainage system commenced. The project will restore slope stability to the riverbank along approximately 450 linear feet of Delabarre Avenue above the South River.
- South River Meadow
    - From 2017 thru 2020, the Friends of the South River Meadow conducted an invasive species control program.
    - In 2020, the Friends of the South River installed trail signs.
- Conway Swimming Pool recreation area.
    - In 2012-13, purchased a conservation restriction on Conway Swimming Pool land.
    - In 2012-13 added parcels to the Conway Swimming Pool area.
    - In 2012-13, installed ADA-compliant accessible access to the Pool.
- In 2015, the Select Board adopted a Chapter 61 Right of First Refusal Policy for land coming out of Chapter 61.
- In 2016, the Conway Wastewater Committee completed a Downtown Wastewater feasibility study for sewage treatment technologies for Conway Center.
- In 2017, residents of Conway adopted a Right-to-Farm bylaw.
- In 2017, residents of Conway adopted an Age Restricted Housing Community Bylaw added that allows for the construction of higher-density affordable housing for persons over the age of 55, greater flexibility in site planning, and the preservation of open space and historic resources within the development.
- In 2018, residents of Conway adopted an Adult Use Recreational Marijuana Establishments bylaw that regulates the location, appearance, and water and energy use of marijuana cultivation, manufacturing, processing, and packaging facilities.
- In 2020, the Town conducted public outreach to develop Forest Stewardship Plans for Town-owned forests.
- In 2020, the Town, with the assistance of the FRCOG, completed a culvert assessment.
- In 2020, CPA funds were allocated to improve the safety and accessibility of the Grammar School playground.
- In 2021, the Town assisted the FRCOG in the creation of a *Conway Pollinator Action Plan*.

- In 2021, the Select Board designated a new Forests and Trails Committee to hold the responsibilities of forest stewardship of Town-owned forests and public trail creation and maintenance.
- In 2021, residents of Conway adopted a updated solar bylaw that increased protections on natural resources and increased permit review of medium- and large-scale solar installations.

In addition, private non-profit entities have contributed to Conway's open space and recreation goals:

- The Snowmobile Club has maintained trails throughout Conway and installed seasonal signage for snowmobile use.
- The Commonwealth of Massachusetts, through the Department of Fish and Game - Fisheries and Wildlife Division (MassWildlife) and Department of Conservation and Recreation (DCR) continue to protect land for their wildlife management areas and parks.
- Between 2012 and 2019, the Franklin Land Trust, MassWildlife, and New England Forestry Foundation have collectively worked to permanently protect over 600 acres on Flagg Mountain
- Private landowners in Conway worked with Franklin Land Trust to allow public trail access on their land through the Voluntary Public Access Program
- In 2020, Mass Audubon installed a half acre three-season food source habitat for bees and other pollinators at Conway Hills Sanctuary

B. ACTION PLAN

HOW TO READ THIS TABLE:

- **Goals** are general concepts that articulate the vision of the community for itself. Goals are included as headers under which objectives are listed; the plan's goals and objectives are of equal importance and not listed in any kind of priority order.
- **Objectives** are milestones for achieving a goal. Objectives are listed in the far-left column of Table 9-1.
- **Actions** are concrete steps to be taken to fulfill objectives within a time frame.
- **Responsible Board/Group** suggests the Town group that would take the lead in shepherding the project and coordinating with other involved groups.
- **Start Date** is the suggested start date, knowing that start dates can be adapted as needed. Actions are ordered by start date.
- **Potential Funding** Sources are suggested starting places for funding; more details and URLs for each grant program can be found in *Appendix E* and should be applied for through the Community One Stop for Growth grant application portal.[2]
- Actions from the HMP or MVP plan are in light highlight.
- Priority actions are in dark highlight.

An approved Open Space and Recreation Plan qualifies a Town for Division of Conservation Services (DCS) grant programs, which include the Land and Water Conservation Fund (LWCF) Grant, Drinking Water Supply Protection (DWSP) grant, Local Acquisitions for Natural Diversity (LAND) Grant, and Parkland Acquisitions and Renovations for Communities (PARC) grant, among others.

Acronyms:

3C	MassDOT funding to FRCOG for continuing, cooperative, and comprehensive (3C) planning process
ADA	Americans with Disabilities Act
APR	Agricultural Preservation Restriction
BMP	Best Management Practices
CPA	Community Preservation Act
DCR	Department of Conservation and Recreation
DCS	Department of Conservation Services
DEP	Department of Environmental Protection
DFG	Department of Fish and Game
DLTA	District Local Technical Assistance program
EEA	Executive Office of Energy and Environmental Affairs
EQIP	Environmental Quality Incentives Program
FEMA	Federal Emergency Management Agency
FRCOG	Franklin Regional Council of Governments
LWCF	Land and Water Conservation Fund
MassDOT	Massachusetts Department of Transportation
MassTrails	DCR funding for trail systems and trail experiences
MVP	Municipal Vulnerability Preparedness program Action Grant
MTWP	Mohawk Trail Woodlands Partnership
NRCS	Natural Resources Conservation Service
OSRP	Open Space and Recreation Plan
PARC	Parkland Acquisitions and Renovations for Communities Grant Program
s.319	Grants funded through section 319 of the federal Clean Water Act, administered by MassDEP

[2] Massachusetts Community One Stop for Growth online grant portal: https://www.mass.gov/guides/community-one-stop-for-growth

Table 9-1: Recommended Actions of the 2022 Conway Open Space and Recreation Plan

OBJECTIVE	ACTION	RESPONSIBLE BOARD/ GROUP	START DATE	POTENTIAL FUNDING SOURCES
GOAL A: Ensure that Conway maintains or improves the quality of its air and water, and the diversity and integrity of its various ecosystems through conservation of locally important natural, open space.				
A.1 Use Conway's land use regulations to increase protection of valued natural and cultural resources and support climate change mitigation and adaptation strategies.	Support the ongoing work of the Planning Board to periodically review and update Conway's Protective Zoning Bylaw and General bylaws to ensure Conway protects the town's natural resources and increases resilience to climate change. Support revisions that include best practices for open space protection, stormwater management (using BMPs), habitat, water resource protection, drought tolerance, climate-resilient landscaping and road construction, and other open space priorities.	Planning Board; FRCOG	Year 2	DLTA; s.319
	Support the ongoing work of the Planning Board to review solar siting best practices and update the Town's Ground-Mounted Solar Bylaw, including recommended zoning language from the *Conway Pollinator Action Plan*. Use the "Community Planning for Solar" Toolkit to understand community priorities for solar siting and bylaw/zoning needs.	Planning Board	Year 2	Community Planning Grant
A.2 Protect areas of Conway that are most important to preserve for ecosystem health, recreation, and climate resiliency.	Use the Criteria for Open Space Protection (*Section 5.G*), available land conservation tools,[3] GIS data and analysis, and OSRP Survey results and other available conservation tools to develop criteria that the Open Space Committee can use to identify priority areas of conservation interest for the Town to promote for protection. This will position the Town to be responsive when land is offered as a donation or for sale, when land trusts are working in town and/or when the Town chooses to exercise its Right-of-First Refusal for land coming out of Chapter 61.	Open Space Committee;	Year 1	MVP; EEA Planning Assistance grants; DLTA
A.3 Manage forests for their many benefits, including forest health, biodiversity, habitat, stormwater management, and carbon sequestration.	Support the work of the Forests and Trails Committee to implement Forest Stewardship plans for the Fournier and Town Farm Forests. Assist with securing funding to implement trail improvements, interpretive signage, and other plan recommendations.	Forests and Trails Committee; Select Board; Open Space Committee	Year 1	MassTrails; CPA; MTWP
	Conduct outreach and education about the Town-owned forests' sustainable and climate resilient forestry plans and publicly demonstrate management practices.	Forests and Trails Committee;	Ongoing	Volunteer time
	Dedicate a staff person or a group of volunteers to prioritize areas (of important habitat and recreation) to target for invasive species management,[4] identify and apply for grants, provide education on best practices to Town staff and residents, and coordinate volunteer activities. Plant trees and pollinator habitat to replace invasive species on municipal properties.	Open Space Committee; DCR and DFG	Ongoing	Volunteer time; EQIP
	Promote active involvement of landowners to steward their property to control invasives through multiple avenues, including outreach and education in the Grammar School, articles in *Conway Currents*, and the development of neighborhood monitors.	Open Space Committee; Conway Grammar School	Ongoing	Volunteer time
	Support the feasibility study for Conway's participation in the Voluntary Carbon Market Program. If the project goes forward, support public outreach and education for enrollment and general community support.	Select Board; Open Space Committee	Ongoing	Volunteer time
A.4 Promote watershed-wide planning to improve water quality, river health, flood resilience, and riparian habitat.	Support the NRCS agriculture-focused nonpoint source pollution assessment (to be conducted by FRCOG 2021 – 2023). Implement agricultural water quality protection BMPs identified in assessment.	Agricultural Commission	Year 2 – Year 7	s.319
	Implement flood resilience and river restoration projects prioritized in the Mohawk Woodlands Trail Partnership Project Prioritization Summary Report (*Appendix G*) starting with: • Reactivate abandoned oxbow meander along South River (Sites 16/17/18)	Select Board; Conservation Commission	Ongoing	S.319; MVP; FEMA Building Resilient Infrastructure and Communities Grant

[3] Land Conservation Tools available through UMass Center for Agriculture, Food, and the Environment: https://ag.umass.edu/resources/land-conservation-tools
[4] Picking Our Battles: A Guide to Planning Successful Invasive Plant Management Projects: https://www.wildlife.state.nh.us/invasives/documents/picking-battles.pdf

OBJECTIVE	ACTION	RESPONSIBLE BOARD/ GROUP	START DATE	POTENTIAL FUNDING SOURCES
	• Culvert replacement at Main Poland Road over Johnny Bean Brook, paired with chop and drop wood addition along Johnny Bean Brook (Site 39) Incorporate trees along river's edge to stabilize banks, filter stormwater runoff, and shade the river at every opportunity.			
	Review and amend the Article 7 Floodplain District of the Town's zoning bylaw using the new state Model Floodplain District Bylaw to reduce the risk of flooding and damage to infrastructure and natural resources. Special consideration should be given to further restricting or limiting new development within the 100-year floodplain. Consider adding elements of a River Corridor Protection Zoning Overlay District to reduce the risk of flooding and fluvial erosion hazards and damage to infrastructure, agricultural land, habitat, and water quality from high flow and flooding events in the South River. Alternatively, adopt a standalone overlay district.	Planning Board; Select Board; FRCOG	In process	DLTA; MVP, Volunteer time
	Conduct outreach to residents about the flood mitigation and natural resource protection benefits of managing and protecting lands in the river corridor.	Planning Board; Select Board; Open Space Committee	Ongoing	Volunteer time; MVP
	Conduct membership drive to grow the size and impact of the Friends of South River Committee.	Friends of the South River	Year 1	Volunteer time
A.5 Protect pollinator species and pollinator habitat on private and public lands town wide.	Implement recommended actions from the *Conway Pollinator Action Plan* and other recommendations from the public in the OSRP planning process, including • Convene a dedicated group to coordinate with the Town and private landowners to implement recommendations in the plan • Create pollinator habitat on the Bigelow Property following the concept design provided in the plan • Plant and manage riparian buffers as pollinator habitat in projects along the South River • Disseminate pollinator habitat information town wide • Coordinate neighborhood groups to organize bulk purchases of native pollinator plants. • Install educational signage about native pollinator habitat in public spaces • Use local knowledge and neighborhood networks to provide site assessments of public and private parcels and identify opportunities for pollinator habitat • Identify opportunities to use pollinator friendly mowing practices in public gathering areas, including the Conway Swimming Pool and Grammar School Support the Highway Department in adopting pollinator-friendly mowing on roadside edges and public properties • Work with private landowners and the Town to identify opportunities for expanding the riparian buffer on Pumpkin Hollow Brook with native plants • Work with the School Committee, teachers and parents to engage children in pollinator education and outreach opportunities at the Conway Grammar School • Support the Planning Board in adopting recommended changes to the Conway Protective Zoning Bylaws to protect and create pollinator habitat • Leverage other town maintenance, redevelopment and climate resiliency projects and private development projects to plant more pollinator habitat by including pollinator species in planned plantings or reseeding • Consider developing a Town policy that requires a minimum portion of native plant species in municipal plantings, emphasizing locally sourced, grown-from-seed plants.	Open Space Committee; Conservation Commission	Year 1 – Year 5	MVP, CPA

GOAL B: Ensure that Conway retains its rural, safe, and quiet small town character and sense of community, and its agricultural, cultural, and historic resources.				
B.1 Protect agricultural land and the viability of farm businesses.	Complete requirements to qualify for the 5% "Local Match" in the APR program.	Agricultural Commission; Select Board	Year 1	Volunteer time
B.2 Increase pedestrian safety.	Make pedestrian-friendly improvements for Conway suggested in the draft 2021 Regional Pedestrian Plan[5]: • Refresh and enhance the visibility of crosswalks on Route 116 in the village center. • Sidewalk connections from feeder roads/side streets that lead into the village center. • Improved crosswalks and curb ramps at some locations for better ADA accessibility. • Pedestrian level lighting in the town center. • Snow clearing equipment. • Incorporate shade trees into all roadwork projects.	Select Board; Highway Department	Year 1 - 4	Massachusetts Healthy Aging Collaborative grants; 3C grant
B.3 Encourage economic activity and infrastructure improvements that are compatible with the rural character of the town and that ensure the financial stability and economic health of the community.	Support the current Regional Water and Sewer Study underway in 2021and continue to seek grant funding to complete designs and, if feasible, construct a flood resilient small-scale sewer system. Conduct public education on the benefits of a community sewer system in Conway Center that would allow redevelopment and infill development, improving business opportunities, tourism, river health, senior housing, and a thriving village center.	Downtown Wastewater Feasibility Committee; Select Board; Planning Board	Ongoing	MVP; DLTA
	If progress is made with creating a downtown sewer/septic system, continue to explore the possibility of adopting a village center overlay district that would increase densities in the town center as a way to diversify and strengthen the Town's tax base.	Planning Board; FRCOG	Year 3	Volunteer time; DLTA
GOAL C: Ensure that Conway maintains or improves the current quality, quantity, and accessibility of its open space and recreational resources.				
C.1 Create safe and sustainable public access to the Town's rivers.	Consult with Town and regional officials on status of public access to the Town's rivers. Study and conduct planning work on public access to the South and Deerfield Rivers for recreational activities, including swimming and scenic enjoyment, and for ecological improvements.	Select Board; DCR; Open Space Committee; Planning Board	Year 2	Community Planning Grant; MassWildlife Habitat Management Grant Program
C.2 Improve trail systems throughout Conway, ensuring useful trail connections, improving public access, and establishing universal accessibility where possible.	Assess existing public access trails and plan for maintenance and for opportunities for trail connections. Emphasize trail connections within Conway Center and top-ranking desired trail connections identified in the OSRP survey.	Forests and Trails Committee; Open Space Committee;	Year 1 - 3	MassTrails
	Work with landowners to establish public access to trails on private land where they enhance the existing trail network. For lands with 10-year public trail easements, develop a process by which the Town considers permanently protecting trail corridors for public use after the restriction expires.	Open Space Committee; Forests and Trails Committee; Franklin Land Trust	Ongoing	Volunteer time; CPA
	Evaluate Town-owned or private properties for the potential for a wheelchair accessible trail with scenic vistas. Create wheelchair accessible trail.	Forests and Trails Committee; Open Space Committee; Franklin Land Trust	Year 2	Volunteer time; MassTrails grant; MA ADA Improvement Grant Program
C.3 Improve Town recreation facilities and open space resources for better access and availability for all types of users.	Ensure that the Parks and Recreation Committee has sufficient members to stay active.	Select Board	Year 1	Volunteer time
	Coordinate with the Select Board and Town Meeting to prioritize and implement the recommendations in the ADA Self-Evaluations from 2017 and 2021 (see *Appendix B*).	Select Board; Parks and Recreation Committee; School Committee; Open Space Committee	Year 1	MA ADA Improvement Grant Program
	Consider designing and developing the Fournier Forest, located at the Grammar School, into a family-oriented community forest with trail options, picnic and play areas, views, educational interpretive signage, and adequate trail entrance amenities.	Forests and Trails Committee; Open Space Committee; Select Board	Year 2	Community Forest and Open Space Conservation Program; LWCF

[5] Franklin Regional Council of Governments. "Regional Pedestrian Plan for Franklin County", 2021: https://frcog.org/wp-content/uploads/2021/11/Pedestrian-Plan-for-Franklin-County-2021.pdf

	Reevaluate the Bigelow property (Town-owned land next to Howland Cemetery) for how it could be better used and conduct improvements, such as: • Remove and manage invasive species • Consider implementing concept design from the Conway Pollinator Action Plan • Create mown access (regularly mown paths) • Plant trees • Install seating area	Open Space Committee; Friends of the South River	Year 2	LWCF
	Consider the Town-owned properties along the South River for pocket parks. Conduct public engagement to discuss picnic areas on the municipal parcel next to the Burkeville Bridge and the new acquisition in Conway Center. Development of the property next to the Burkeville Bridge could occur simultaneous with implementation of the South River flood mitigation project identified for the same site.	Select Board; Open Space Committee; Friends of the South River	Year 5	LWCF; MVP
C.4 Provide Conway residents with structured programming that supports use and enjoyment of Conway's natural environment, open space resources, and history.	Collaborate with other Town committees and organizations to sponsor outdoor programs following the preferences expressed in the OSRP survey, particularly nature hikes, historical walks, and guided hikes. Use guided hikes to familiarize residents with trails, meet landowners whose property trails may cross, and learn proper trail etiquette and maintenance techniques. Begin by generating a list of people to lead walks. Gear a portion of these programs specifically toward aging residents by accommodating those with limited mobility.	Forests and Trails Committee; Open Space Committee; Cultural Council	Ongoing	Volunteer time
	Develop a guided historical tour with interpretive signage of architecture and natural places in Conway, focusing on the land use history of the South River by publicizing existing materials, creating location markers, and managing permissions and visual access.	Open Space Committee; Friends of the South River; Historical Society; Field Memorial Library	Year 2	MassHumanities Grant; Mass Cultural Council
GOAL D: Ensure that the Conway community has good access to environmental, open space, and recreation information and opportunities.				
D.1 Ensure access to information about open space, recreation, and multi-use trail opportunities from a variety of print and digital sources.	Post information about public-access trails, open space parcels, and recreation facilities and expectations for use in an easy to find place on the Town website and through links on patron computers at the public library.	Town Administrator; Open Space Committee; Trails and Forests Committee	Year 1	Volunteer Time
	Create a welcome brochure describing outdoor areas, activities, and programs for people new to Town, especially new families.	Open Space Committee	Year 2	Volunteer Time
D.2 Ensure access to information about natural resources, environmental protection, and climate change resilience from a variety of print and digital sources.	Contribute regular articles to *Conway Currents* on a range of environmental and conservation topics informed by the OSRP survey, to include • Wildlife habitat and biodiversity, • Flood resilience, • Climate resilience, • Forest stewardship, including specific objectives and opportunities for forest stewardship plans (e.g. DCR Forest Stewardship Program, Forests for the Birds, Forests for the Fish), • Land protection assistance, • Land protection news, and • Drinking water protection.	Open Space Committee; volunteers	Year 1	Volunteer time

Develop criteria that the Open Space Committee can use to identify priority areas of conservation interest for the Town to promote for protection, including for when the Town chooses to exercise its Right-of-First Refusal for land coming out of Chapter 61.

Implement recommended actions from the Conway Pollinator Action Plan.

Collaborate with other Town committees and organizations to sponsor outdoor programs following the preferences expressed in the 2021 OSRP survey, particularly nature hikes, historical walks, and guided hikes.

Support the Regional Water and Sewer Study and continue to seek funding to construct a flood resilient small-scale sewer system, if appropriate. Conduct public education on the benefits of a community sewer system in Conway Center.

Contribute regular articles to Conway Currents on a range of environmental and conservation topics informed by the 2021 OSRP survey.

GREENFIELD
ASHFIELD
DEERFIELD
GOSHEN
WHATELY
HATFIELD
FRANKLIN
HAMPSHIRE

Permanently Protected Open Space
Local Road
Major Road
County Boundary
River, Stream
Water Body

Town of Conway Franklin County Ma.

Sources: Map produced by the Franklin Regional Council of Governments Planning Department.
GIS data sources include MassDOT, MassGIS and FRCOG.
Depicted boundaries are approximate and are intended for planning purposes only, not to be used for survey.

Town of Conway Open Space & Recreation Plan 2022

Action Plan

0 0.5 1 2 Miles

Franklin Regional Council of Governments

SECTION 10: PUBLIC COMMENT

Public feedback was sought throughout the entire open space and recreation planning process. The text and maps included in the plan reflect these enhancements. A more direct request for feedback on the maps and 5-Year Action Plan was made at the virtual Public Forum held on October 19th, 2021 via Zoom. Thirty-four Conway residents attended the forum. A one-hour discussion followed a 25-minute presentation introducing the plan. Comments from the forum participants were recorded by staff from the Franklin Regional Council of Governments.

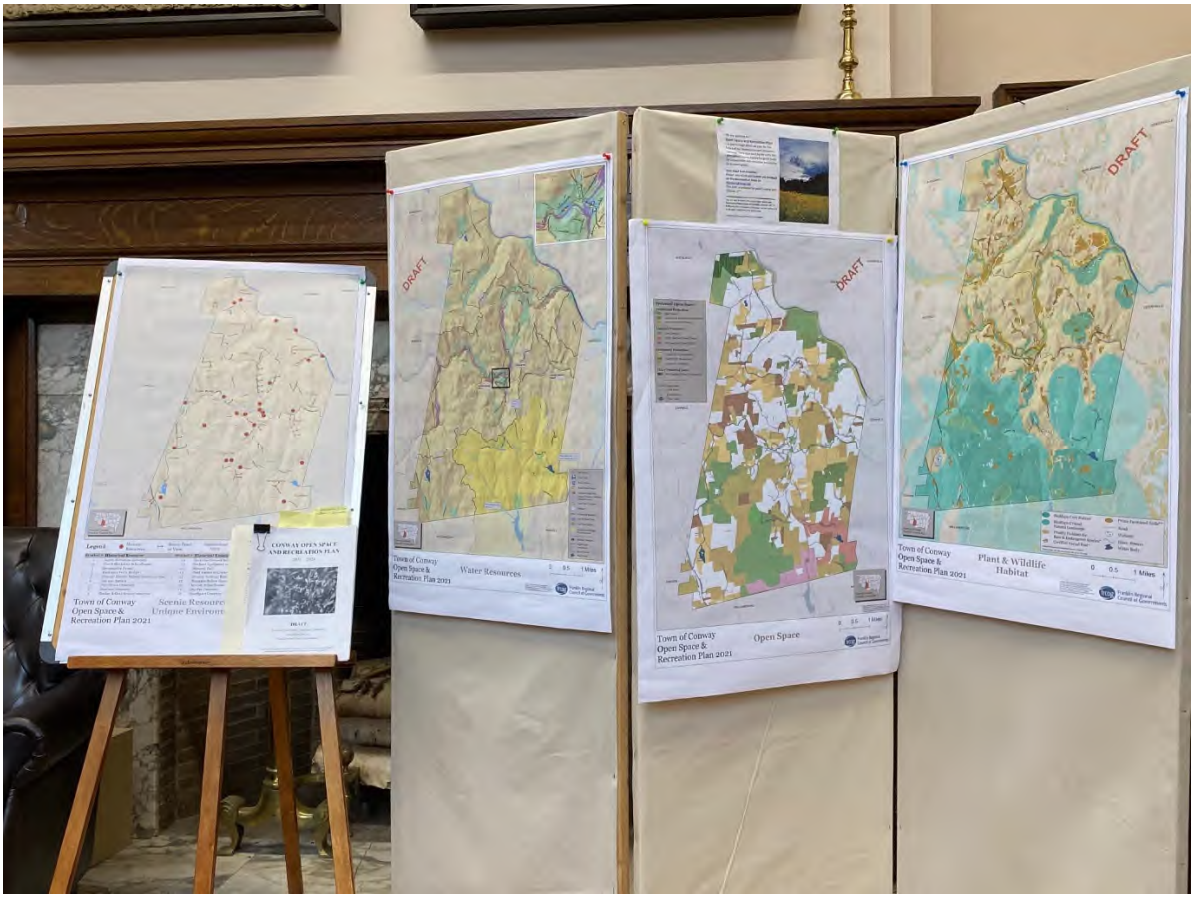
One week previous and one week following the forum (two weeks total), draft copies of the maps and all sections were made available for review on the Town of Conway website. Comments received during the forum and the review period after the forum have been incorporated into the plan and are summarized below.

Copies of the final version of the Conway Open Space and Recreation Plan were sent to the following boards and organizations for review and comment:

- Massachusetts Division of Conservation Services (DCS)
- Franklin Regional Council of Governments
- Conway Selectboard
- Conway Planning Board
- Conway Forests and Trails Committee

Letters of comment are included at the end of this section. The letters reflect a broad base of support for the research, analysis, outreach, and recommendations developed by the Conway Open Space Committee.

Comments received after the forum were addressed or incorporated unless otherwise noted.



Draft OSRP Maps on Display in Library During Public Comment Period (*David Whittier*)

Forum Discussion

Forum Discussion Topic 1: How do we best address the recreational needs of everyone in Conway?

Comments:

- Sidewalks are really important for being able to walk around town.
- An ice rink for ice skating is desired, but the amount of volunteer hours, the need for a snow blower, and the impact of noise on neighbors has prohibited volunteers from creating a skating rink in recent years. An active Recreation Committee, equipment, staff, money and buy-in from neighbors are needed.
- The Town plans to purchase a parcel along the South River in Conway Center that could accommodate visitors and a view. How should Conway use that property?
- Is it possible to connect the Field Library to the Grammar School via a trail? The Forests and Trails Committee is talking to the snowmobiling club and is running into different preferences amongst the private landowners whose land the trail would cross.

- Families with small children, especially families new to town, need to know what activities are available.

Forum Discussion Topic 2: How do we maintain the town's character & open spaces we all love?

Comments:

- The town is not winning the battle with invasives and more formal education and funding is needed.
- Climate change and the internet are rapidly changing public access to information about Conway's rivers, causing an influx of river users from out of town. Living in a climate refuge (Conway) requires that residents be both welcoming but also plan for impacts.
- Concern about attracting overuse of natural areas by people from out-of-town if trail and other outdoor recreation information is widely publicized.
- Public plantings should be native and for pollinators following the Conway Pollinator Action Plan plant list.

Forum Discussion Topic 3: How do we coordinate as a town to complete open space and recreation objectives?

Comments:

- The Forest and Trail Committee has money from the Mass Cultural Council to develop interpretive signs for the Fournier Lot. The Committee also wants to add a loop to the existing trail and recruit Conway Grammar students to help manage the property.
- The Field Memorial Library interested in hosting information about trails and other town affairs via links to websites on patron computers.
- Be more explicit about how the Conway Pollinator Plan integrates into the OSRP.

Written Comments

Comment 1: *Control of invasive plants in Conway:*

a) The Town of Conway should consider creating a staff position with the primary responsibility of handling management of invasive plants (and possibly pests). This person would prioritize areas to target for management, identify and apply for grants, provide education on best practices to town staff and residents, and coordinate volunteer activities. The problem of invasive plants and pests is already very large, and climate change favors their growth and expansion. Relying solely on volunteer activity is not enough to keep up with or get ahead of the problem.

b) The Conway Highway Department should become educated on recognition of invasive plants/pests and best practices regarding roadside maintenance to ideally help control invasives and, at a minimum, to prevent spreading them. (Note: When I approached the head of the highway department to inquire about his plans to deal with Japanese knotweed growing

along the roadside where his crew has been digging drainage ditches, he said it was not his responsibility but rather the landowner's responsibility.)

Comment 2: *Prioritize using native plants on all Conway town-owned properties, ideally by incorporating it into town bylaws:*

a) To support our local ecosystems and the health of our planet, all plantings on town properties should be native to our region, ideally to Franklin County. For all Conway residents who love the character of our town and region, it is important to recognize that our native plants play a large role in defining that character. They help differentiate us from other regions. (For instance, while Echinacea purpurea, purple coneflower, is a popular "pollinator plant," it is not native to our region and is found more commonly in the midwest.) Taking it one step further, these plants should be seed-grown to allow for genetic diversity, and ideally from seed that has been collected sustainably and responsibly from our region. As a result, those plants will be best adapted to our growing conditions. In light of climate change, this is an important consideration.

b) Use plantings on town properties (such as town offices, town hall, grammar school, potential new purchase near South River) as demonstration pollinator native plant gardens. These would serve as educational opportunities for youth and home/landowners. This would tie into the Conway Pollinator Action Plan.

Comment 3:

I've just read the exhaustive presentation of the Open Space and Recreation Plan. What an incredible and valuable document. It is an important and extraordinary piece of work and I simply wanted to recognize and congratulate the people involved for their hard work and commitment in putting it together. It is an amazing historical record, a stunning portrait of a unique community and an impressive description of what has made Conway so special over the years. The vision for the future is admirable. Well done.

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