

SECTION

7

ANALYSIS OF NEEDS

The 2022 Shutesbury 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 feedback generated by the 2021 Open Space and Recreation Survey and the Public Forum, the American with Disabilities Act (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. Additionally, this section addresses potential obstacles to the effective resolution of these needs, including organizational barriers and the most significant land use challenges related to recreation, open space, and natural resources.

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 grants from the Federal Land and Water Conservation Fund (LWCF) and serve as a tool 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:

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

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

As the climate crisis continues 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 Shutesbury. A recent update to the Town's Hazard Mitigation Plan (HMP)¹ and the

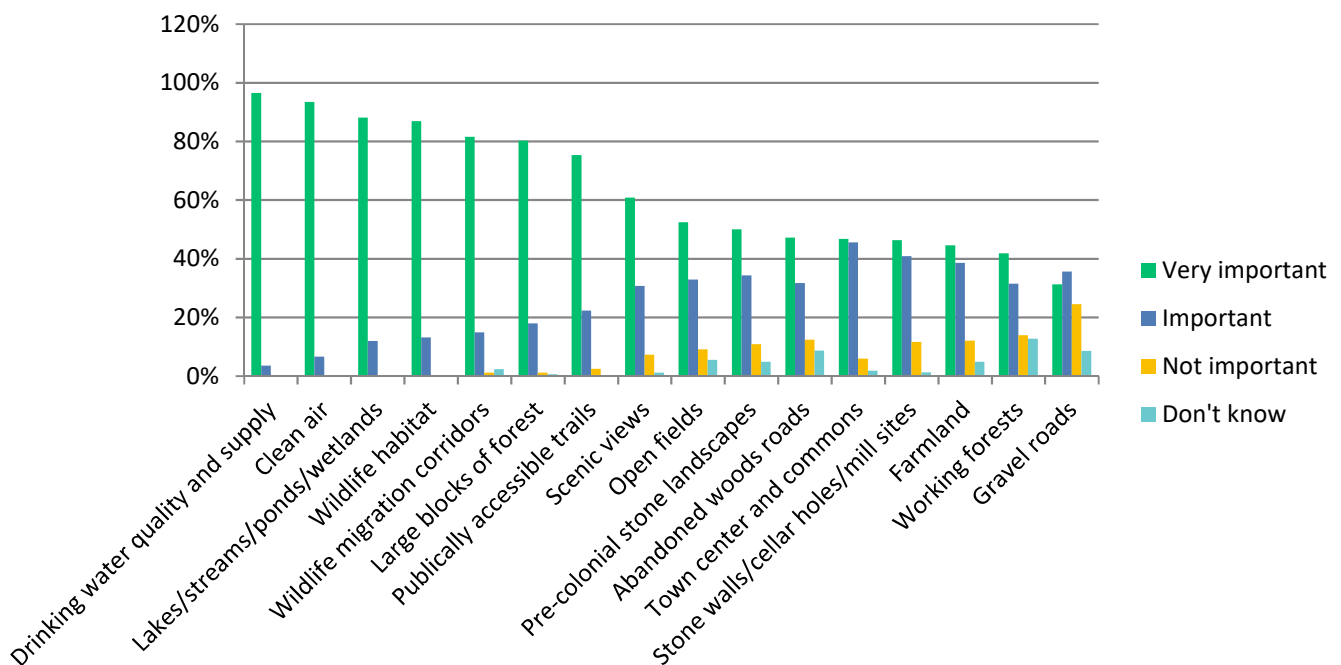
¹ Town of Shutesbury. *Town of Shutesbury Multi-Hazard Mitigation Plan*, 2021: [url](#)

preparation of the Municipal Vulnerability Preparedness Plan (MVP)² helped raise awareness and bring the community together to talk about climate change and its effects in Shutesbury. As detailed in *Section 4. Environmental Inventory and Analysis*, natural systems play an important role in mitigating and adapting to future climate change, but they are also highly vulnerable to its impacts. Local decisions about how land is used and how ecosystems are managed will profoundly affect how Shutesbury 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

One hundred eighty-six residents completed the 2021 OSRP survey, the results of which are summarized in *Appendix D*. When asked in the 2021 survey how they would prioritize their top three open space categories, either via protection, access, or improvement (Q14), survey takers prioritized open space resources in the following order:

Figure 1: Open Space Priorities Survey Responses (168 responses)



The results show that residents value the protection of Shutesbury's most basic natural elements – water, air, water bodies, wildlife habitat, as well as large blocks of forestland and intact waterways that facilitate species migration. Shutesbury residents also highly value the trails and woods roads that allow them to enjoy the outdoors, as well as open fields and other scenic views.

² Fuss & O'Neill. Town of Shutesbury *Community Resilience Building Workshop: Summary of Findings*, 2020: <https://www.mass.gov/doc/shutesbury-report/download>

The following section outlines key natural resource protection needs in Shutesbury. 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

One of the greatest ecological strengths of Shutesbury's landscape is the prevalence of large, contiguous forest blocks. The interior forest, intact wetlands in undeveloped areas, and forested streams containing fish habitat constitute some of the more valuable habitat in Shutesbury. Furthermore, connected forest both increases forest resiliency and provides important wildlife corridors. Most of these large forested areas are working forests managed for timber or water supply. However, many forest parcels are still family-owned and managed. The Department of Conservation and Recreation's Forest Stewardship Program is an important resource property owners for long-term, sustainable forest management and stewardship.³

Close to 60 percent of the Town's land area is permanently protected open space. A good portion of what the state identifies as Core Habitat is permanently protected by state agencies and watershed districts. However, large areas in southwest and northwest Shutesbury remain only temporarily protected. Much of the forestland is owned and actively managed by a local forestry company, WD Cows. As the value of Shutesbury's forested habitat is in interior forest within large connected blocks, land protection efforts aimed at filling in gaps in these protected habitat areas will preserve and build on what already exists. Many Shutesbury residents are concerned about how development of forest resources, including solar development, might impact the ecological integrity of surrounding forests.

Pressure for housing development in Shutesbury has been low since the 2000s. The Town's zero population growth and modest tax revenues have become a strain on municipal services. Stable population, limited capacity for water and sewer, and zoning bylaws that protect interior forest suggest that residential and commercial development will not increase, at least dramatically, in the future. Yet the availability of high-speed internet, possible in-migration driven by climate change, and the Covid-19 pandemic may shift development trends in the medium- or long-term. To limit future development in unprotected sensitive ecological or valued open space and recreation areas, the Town of Shutesbury could evaluate its process for exercising its Right-of-First-Refusal for land coming out of Chapter 61. Although Shutesbury's zoning bylaws are some of the most progressive in the state in guiding new development away from forested areas and toward roadsides and the village center, there is a need for continual review of zoning and subdivision regulations to assess how well they protect the function of natural systems and encourage development that adequately anticipates the challenges of climate change.

An immediate habitat need in Shutesbury that can be implemented at the small scale is the protection and expansion of pollinator habitat. Even though forest covers most of Shutesbury, roadsides and threads of neighboring residential gardens can act as habitat corridors between

³ <https://www.mass.gov/service-details/forest-stewardship-program>

important pollinator resource areas, such as meadows and waterbodies. There is a need to educate residents and municipal staff to increase awareness of the rapid decline of native pollinators and corresponding need for habitat protection. Working with the Highway Department for effective management of pollinator resource areas (including the timing of mowing and spraying) and incorporating pollinator habitat into public parcels in Shutesbury Center, such as at the new library and community garden projects, could support pollinator populations in Shutesbury.

Shutesbury faces the growing burden of invasive species in its natural areas. Increasing awareness and education among Shutesbury residents about prioritizing and tackling invasive plant problem areas could help preserve important intact ecosystems and valued outdoor areas. The Town Highway Department can play a role in establishing how roadsides are managed for invasives, especially when doing roadwork. There are also resources available for identifying which areas are most in need of protection from invasives and developing strategic management plans.⁴

A.2 Water Resources

Shutesbury's waterways are generally small, upland streams. There is a need to give priority to upgrading culverts and other road infrastructure in order to prevent erosion and sedimentation caused by undersized culverts and to improve under-road passage of both aquatic and terrestrial animals. Implementing additional rural road stormwater best management practices and low-impact development techniques in developed areas will help protect waterways and infrastructure as heavy precipitation events increase with climate change.

With the exception of Lake Wyola, Shutesbury's several lakes, ponds, drinking water reservoirs, and wetlands are minimally impacted by development and are in good condition. Lake Wyola is impaired by excess phosphorus and nutrients caused by surrounding land use and stormwater runoff issues. Improving the water quality in Lake Wyola will likely require cooperation between the Lake Association, Lake Wyola Advisory Committee, and the Town to minimize the impacts of septic systems and stormwater runoff, especially in residential neighborhoods on the west and northern sides of the lake. Given that the residential area around Lake Wyola is the most densely populated part of town, it is important that the community continue to make an effort to balance management of the lake as a well-functioning recreation resource with its protection as an ecological system.

Clean drinking water continues to be a concern in Shutesbury as road salt, PFAS chemicals,⁵ and sedimentation after high rain events impact public and private wells. Due to the uncertainty of the relationship between groundwater in the overburden and bedrock, the most prudent

⁴ 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>

⁵ Per- and polyfluoroalkyl substances (PFAS) are man-made chemicals (including PFOA, PFOS, GenX, and others), also known as “forever chemicals”, that persist in the environment and human body and are hazardous to human health. PFAS are found in a wide range of ordinary consumer products and in drinking water.

approach to protecting water quality is to make sure that septic systems are designed properly (in accordance with the Title 5 Regulations) and that extra care is taken to prevent or minimize improper disposal (flushing or pouring into a sink) of household hazardous waste and pharmaceuticals. Keeping water clean everywhere in Shutesbury is very important to residents, but Shutesbury residents are also stewards of a vast area of public water supply and are thereby responsible for the public health of Massachusetts residents beyond their Town borders. The permanent protection of forests from development will do much towards ensuring that brooks and streams will continue to be home to a diverse array of plants and animals and that the associated wetlands will continue to exist to help slow floodwater energy.

Status of the water supply is an emerging concern among residents, given the increased frequency of droughts and the limited options for surface water sources for firefighting. Because the bedrock aquifers have not been thoroughly mapped and assessed, it is not possible to produce any long-term projections of water supply. Although the Town may wish to focus some of its future land acquisition efforts on areas containing stratified drift deposits for potential future community water supplies, detailed evaluations of the saturated thickness of the deposits and sizes of the recharge areas at potential well locations need to be made first to determine if these areas would be adequate.

A.3 Scenic and Cultural Resources

Residents have identified many important natural and historic resources in Shutesbury that include both pre-colonial landscape artifacts and post-colonial sites. When asked about valued historic/archeological areas that they thought should be acquired or protected, 25 respondents favored protection, 8 indicated they didn't think the Town should protect sites in any way, and 21 didn't know about local historic sites (Q15, open-ended, total 85 responses). Between the important natural sites identified in the 2012 Shutesbury Open Space and Recreation Plan and those in the 2021 survey (Q15), residents highly value the Dean Brook cascades, the high point off Carver Road, Footit's floating sphagnum bog, the bogs on Montague and Pelham Hill Roads, the "High Bridge" waterfall, Monks/Beehive Caves on Montague Road, Adam's Tomb, the Town Farm, the Town Pound, old foundations, stone walls, and cellar holes, pre-colonial ceremonial sites, and Meetinghouse Hill — the highest point in town. Many of these natural features are protected, but others may need further study and/or protection. The Town may also consider increasing the visibility of select historic and cultural sites; this could be done through the *Places of Interest* page on the Town website.

The protection of scenic views did not rank as a high priority among survey takers (Q15). Though there are few vistas, many of Shutesbury's roads are lined with stone walls that afford short-range views and contribute to the town's rural character.

Although agriculture is an important resource wherever it is found, there is only a small percentage of agricultural land in Shutesbury. Generally, Shutesbury soils don't lend themselves to agricultural use (over 80 percent is Prime I, II, or III Forestland Soils), so Shutesbury parcels in agriculture are therefore not as high a priority for protection as the farmland soils in the Connecticut River Valley. Public shade trees, another cultural resource in Shutesbury, have been impacted over the last few decades by storm damage or removal for storm damage mitigation.

and improvements for driving visibility. The Shutesbury MVP Plan identified as a moderate priority the development of a tree and forest management plan that would address public shade trees.



Shutesbury Center (Jamie Malcolm-Brown)

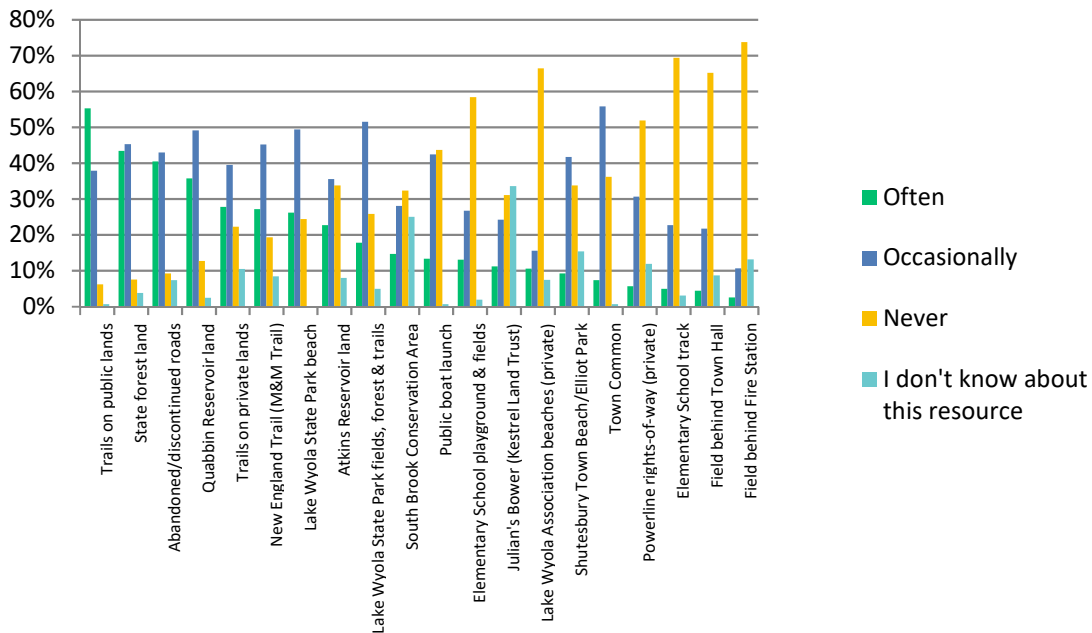
B. SUMMARY OF COMMUNITY NEEDS

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 residents. Although the Shutesbury 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 2021 OSRP survey related to the outdoor recreation interests and needs of Shutesbury residents, as well as what actions may be taken to meet those needs.

Given the extremely limited recreation facilities, it is not surprising that Shutesbury's survey respondents predominantly use passive recreation areas (areas where recreational activities do not require facilities like sports fields or docks) over active recreation areas (areas where facilities are required) (Q9 - see Figure 2). Trails and publicly owned forestland (and the discontinued roads within them) are the most often used recreation areas, followed by the various facilities around Lake Wyola, including the State Park Beach and public boat launch.

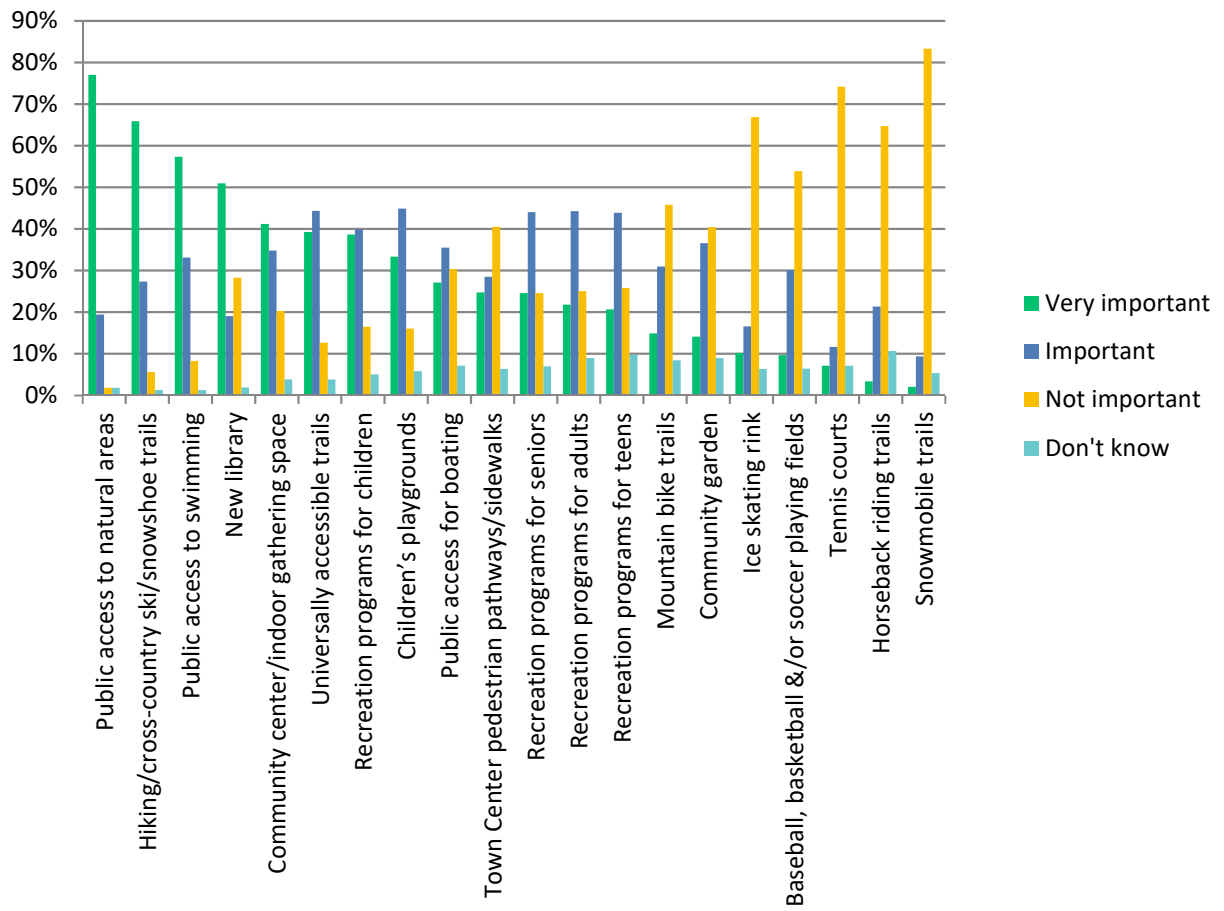
Generally, it appears that Shutesbury residents' use of public access trails is spread throughout town, without heavy use of any single recreation area. When asked where they hike, the top answer was "trails near my house" (Q5, open ended). For those who mountain bike (25 percent of total survey respondents), no single mountain bike area was used significantly more often than others. Sixty-three percent of respondents stated that they had increased their use of open space and recreation opportunities in Shutesbury as a result of the Covid-19 pandemic, but the responses did not show clearly where that increase occurred. When asked where they swim, 82 percent of respondents answered that they swim at Lake Wyola (Q6, open ended). Recreation areas in the Town center, including the Elementary School track and playground, and fields behind the Town Hall and fire station were little used in comparison to trails and the lake.

Figure 2: How often do you use the following open space and recreational resources in town? (169 responses)



When asked about the importance of various recreation resources, the results show that access to trails for various types of recreation, universally accessible trails, and swimming top the list, as does a new library or other indoor community gathering space (Q8 – see Figure 3). Recreation opportunities for children and public access for boating were also selected by over 50 percent of respondents.

Figure 3: How important are the following recreation resources to you? (168 responses)



B.1 Trails

Given how important trails are to Shutesbury residents, there is a need for more comprehensive planning for connecting, expanding, and maintaining the existing trail systems. Many trails cross private land and could benefit from formal public-access agreements or easements, where possible. Shutesbury could consider holding a “trail summit” to bring together the various stakeholders, identify trail user and landowner needs, and thoughtfully plan the next steps for improving the trail network. Developing a plan for recreational trails was in fact tied with a new library for the most-needed open space or recreation project in town (Q18, open ended). Concern about reliance on public access to private land was also a concern of respondents (Q11, open ended). Some specific suggestions came out of a question about access to recreation areas, including a request for better parking at popular hiking areas. In addition to enhancing the experience of Shutesbury residents, trail planning would support the development of the

statewide trail network identified in the SCORP.

There is also a need to create trail maps and provide more trail information to the public (Q10, open ended). Potential trail users want to know which trails are okay to use, their quality, and how accessible they are. They also want better-marked trails. Improving these resources can improve recreation and open space equity by making trails more accessible to all residents.

Survey takers also identified a need for a handicap-accessible trail, as there is currently none in Shutesbury. The Open Space Committee noted that there is potential to create an accessible trail at the South Brook Conservation Area, a Town-owned property actively managed by the Conservation Commission. There is room for a couple of parking spaces at the Lake Wyola Conservation Area Randall Road entrance that links to the South Brook Conservation Area Trails. A consultant mapped the trails of the adjoining conservation areas in 2021 with the intent that the Conservation Commission determine the best uses for each trail and develop an accessible trail that meets ADA standards. Access to trails for people with limited mobility aligns well with the SCORP's goal of improving recreational access for underserved populations.

B.2 Lake Wyola

There are three Town-owned public access points to Lake Wyola — the Lake Wyola Recreation Area on Randall road (including Elliott Park, formerly the Old Town Beach), the Top of the Lake Park on Merrill Drive, and the Garbiel Gift Property on Cove Road/Shore Drive. There is also a state-run public beach on Lakeview Road called the Lake Wyola State Park/Carroll A. Holmes Recreation Area. Some survey respondents mentioned wanting more access to the lake (Q10). Given the number of public access areas that do exist, it may be in the community's best interest to maintain and improve the existing public use areas rather than to create more. Specific suggestions from survey respondents for improvements at Lake Wyola include a place to keep personal kayaks and improvements to the Town's public boat ramp. The overall objective of improving access to Lake Wyola aligns well with the SCORP's goal of increasing the availability of water-based recreation.

The Town is currently pursuing some improvements to its public access areas and has conceived of additional improvements. The Highway Department plans to install two parking spaces at Top of the Lake Park. The Town also hopes to install an ADA compliant path to the water. It is possible that either Elliott Park or Top of the Lake Park may be an appropriate location for a public kayak tie-up area, but the risk of vandalism is giving the community pause.

B.3 Recreation Facilities

Shutesbury residents are accustomed to leaving town for activities that require recreational facilities. If more active recreation areas such as a playground available during school hours, a ball field, a tennis court, or a skating rink were built in Shutesbury, it is very possible that these spaces would get adequately used and even help attract or retain residents.

Accommodations for elderly Shutesbury residents is limited. There is a senior lounge in the

Town Hall, but there are no universally accessible trails in town. Shutesbury is in the process of becoming an Age-Friendly Community, a network that recognizes the need for planning and policies that consider the needs of citizens of all ages. Age-friendly planning principles could be granted additional consideration in the design of the proposed new library, accessible trails, community garden, and any other public sitting area, such as the parks around Lake Wyola.

B.4 Community Gathering Space

When asked if there was a specific recreational area or facility that respondents would like to see Shutesbury develop or improve (Q11, open ended), a library garnered the largest response (17). A community center was also mentioned four times. Responses throughout the survey give the sense that Shutesbury residents want a place to come together. When well designed and programmed, community gathering spaces help strengthen a sense of community, as the farmers' market and current library do. The community garden under development may serve this purpose. A library that can accommodate a space large enough for community gatherings, provide programming, be a source of information, and include trails on its property could have a central role in this kind of community building. Clustering these various "community creating" spaces and recreation spaces could amplify their value to the town.

Aside from public beaches on Lake Wyola, teens specifically lack a gathering space in Shutesbury. Most teen gathering spaces are found in the neighboring towns of Amherst where and Hadley. Revival of ball fields behind the Town Hall could create an outdoor space for pick-up games and training. The teen population of Shutesbury is too small to recommend a standalone gathering space, but a new library could accommodate space for teens to study, play games, and participate in structured programming.

B.5 Pedestrian Safety and ADA Accessibility

Survey respondents also identified a need for sidewalks and other improvements to pedestrian safety (Q11, Q18, open ended). The 2021 Regional Pedestrian Plan recommends traffic-calming measures to reduce vehicle speeds in areas of pedestrian activity. It also recommends an assessment of the need for sidewalk construction and/or wider shoulders to better accommodate pedestrians and bikers.⁶ Shutesbury recently adopted a Complete Streets Policy and can become eligible for funding to improve pedestrian and bike safety after completing a Complete Streets Prioritization Plan.⁷

The 2021 ADA Self-Evaluation and Transition Plan (*Appendix C*) names a number of short-through long-term actions that would bring Shutesbury recreation facilities up to ADA standards. Recommendations generally address the need for designated accessible parking

⁶ FRCOG. *Regional Pedestrian Plan for Franklin County*, 2021: <https://frcog.org/wp-content/uploads/2021/11/Pedestrian-Plan-for-Franklin-County-2021.pdf>

⁷ Shutesbury Complete Streets Policy: https://www.shutesbury.org/sites/default/files/files-and-images/policies%20and%20guidelines/Policy%20191029_CompleteStreetsPolicy.pdf

spaces and accessible paths. The plan notes that the school playground requires a different surface under play structures, an area of improved pathway, a modification to a ramp, and more visible accessible parking signs to comply with ADA standards.

B.5 Programming

According to the survey, there is general overall satisfaction within the community with programming options for seniors, adults, and children. This indicates that the community is satisfied with the programs for children and adult exercise classes regularly hosted by the Spear Memorial Library. Half of the survey respondents, however, were dissatisfied with options for teenagers, for whom most programming is available only through schools located outside of Shutesbury. While the regional high school provides a variety of afterschool programming for teens, the library could explore providing out-of-the house opportunities for teens during school breaks and summer.

Older Shutesbury residents are supported with programming through the Council on Aging, which hosts events such as potlucks and foot clinics. The Spears Library also hosted exercise classes throughout the pandemic via Zoom. Less than ten percent of survey responses indicated that the public is dissatisfied with program options for seniors, so there are no specific needs identified at this time.

When asked about specific recreational programs (Q13, open ended), survey respondents again promoted the improvement of trails, trail maintenance, and trail publicity. They also identified group hikes or a hiking club as a desired program. Nature programs and walks, establishment of the community garden, and swim lessons were also recommended. The community garden is under development and programming could be promoted around its use.

Community groups or members interested in facilitating public hikes and educational walks could promote them through the existing library activities platform. These kinds of outdoor activities could also be paired with promotion of Shutesbury conservation and recreation areas via the Town website and newsletter. For example, a different recreation or historic resource could be spotlighted in the newsletter with an associated public hike each month. Outdoor activities open to all help connect people and foster a sense of community.

C. SUMMARY OF MANAGEMENT NEEDS

Projects and scheduled activities provided by the Town rely heavily on individuals and volunteer committees. Although volunteer work has the positive effect of energizing residents toward a common cause and making needed improvements to the Town's systems, infrastructure, and landscape, it can often be difficult to sustain a volunteer base for committee and project work. Regardless, for the Shutesbury Open Space and Recreation Plan to have a meaningful impact in Shutesbury over the next seven years, a fully populated standing Open Space Committee must exist to steward the priority actions to completion. Coordination between a standing Open Space Committee and the newly regrouped Recreation Committee could be a valuable first step toward convening a "trail summit" and coordinating trail work. Specifically, there is need for a volunteer group to maintain and manage trails on the Town-owned South Brook Conservation

Area, which has the potential to be developed into an accessible trail.

Shutesbury boards and committees have a strong culture of communication and cooperation. It is imperative that this level of coordination be maintained on many of the topics important to natural resource protection, open space, and recreation in town: a) open space protection, recreation, and development, b) water quality and quantity, and c) management of Lake Wyola. The Town may enhance their communication by collaborating on an annual climate change report.

For existing recreation resources to meet the needs of Shutesbury residents, there is a need for clear and broad availability of information on recreation opportunities, both digitally and in print. This is especially true of trails, but the community may benefit from readily available resources on land protection, land stewardship, and Town grant guidelines and deadlines, among other topics.