# Southeastern Connecticut Council of Governments

# **Regional Open Space Plan**



September 2024



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### Section 1: Executive Summary

#### 1A. The Collective Experience of Our Regional Open Space and Recreation Network

Cyclists bike through miles of forest as they follow the Airline Trail into Willimantic. Paddlers pull canoes onto the banks of Salt Rock State Forest after a day exploring the Shetucket River. A new generation of farmers continues the region's agricultural tradition. They experience abundant harvests and enjoy convenient access to neighboring urban and suburban markets where shoppers purchase farm fresh produce. Residents of all races, income levels, and ages are healthy, active, and enjoy their local parks and the region's wild open spaces. Streams are full of fish jostling for space to spawn. Osprey and bald eagles pluck them from the waters to feed their young. Flocks of shorebirds rest and forage along the Thames estuary. Deer meander along the Quinebaug River, munching on vegetation.

Working together, the region's communities enjoy the benefits of the regional open space network that they have preserved and protected. The Regional Open Space Plan aims for such a future in Southeastern Connecticut. Toward that end, this plan maps the regional open space network and identifies the priority actions needed to sustain the region's open spaces and the critical ecological systems on which our communities depend, for generations to come.

Open space includes a wide spectrum of public and private, urban and rural, and natural and working lands. It includes lands such as trails, forests, farms, wetlands, floodplains, and shorelines. In planning, the basic unit is often the municipality, but natural systems do not neatly end at the municipal line. For example, what happens in one part of a watershed impacts upstream and downstream areas. A regional approach to open space accounts for the intermunicipal nature of many ecological, atmospheric and human network-based processes.

As summarized in Section 2A, open spaces help address some of the major issues facing the region. Open space is critical natural infrastructure for the region that provides essential recreational, cultural, aesthetic, climate, and ecological services. These benefits include clean water, food, recreational opportunities, flood mitigation, carbon storage, and cooling services. Open spaces also support economic development. Working lands provide jobs for farmers and timber employees. The unique abundance of open spaces in our region supports a thriving and growing recreation and tourism industry. They also help companies attract employees who want to live somewhere with a high quality of life. Open spaces support and improve physical and mental health, quality of life, and well-being.

High quality open spaces attract residents, and support growth management and the goals of the Regional Plan of Conservation and Development. To ensure that these open spaces continue to support the region's economy and quality of life and to accelerate their protection, this plan maps out the region's open space network, identifies the parts of the network that are already protected, highlights remaining conservation needs, and presents recommendations for future action.

#### 1B. The Regional Open Space Inventory

This plan envisions a complete regional open space network that connects and enhances local open space resources. Southeastern Connecticut Council of Governments (SCCOG) collaborated with a diverse set of non-profit and municipal partners to develop a regional open space network that is grounded in both data and local knowledge. In this way, the plan builds on the existing conservation planning efforts in the Southeastern Connecticut region.

The establishment of a baseline definition of open space helps to set the stage for the plan to come. While many lands may be undeveloped, land meets the definition of open space only when it is *preserved or protected for an open space use*. For this plan, we continue the practice established by the most recent Connecticut Green Plan (2016) and use an adapted definition of open space from the PA-490 legislation as follows:

Open Space is any area of undeveloped or relatively natural land, including forest land, land designated as wetland under section 22a-30, and not excluding farm land, **the preservation or restriction of the** <u>use</u> of which would (A) maintain and enhance the conservation of natural or scenic resources, (B) protect natural streams or water supply, (C) promote conservation of soils, wetlands, beaches or tidal marshes, (D) enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open spaces, (E) enhance public recreation opportunities, or (F) preserve historic sites. [emphasis added]

In practice, we find that the open space use criteria included in the state statute fall into six types of open space lands, each of which can encompass more than one open space use:

- **Conservation Lands** are preserved or protected from development for the purposes of conservation. Because their highest purpose is to support ecosystems, water resources, and undisturbed refuge for wildlife they may not be accessible to the public. *These lands generally meet open space statutory use classes A, B, C, and D.*
- Working Lands are farms and managed forests that support jobs and our rural economies, providing local food options for the region's residents along with wildlife habitat, stormwater management, and many other ecosystem benefits. These lands are typically not accessible to the public, or are accessible with limitations. The plan and its associated datasets include only permanently preserved working lands. *These lands generally meet open space statutory use classes C and D, and are specifically noted as not excluded from the category of open space in the statue.*
- **Passive Recreation Lands** are areas important for supporting wildlife and preserving ecosystems and also permit public access for low intensity recreation and/or experiencing nature. Passive recreation typically includes activities such as hiking, nature study, birding, fishing, hunting, or picnicking. *These lands generally meet open space statutory use classes A, B, C, D, and E.*

- Active Recreational Lands are the quintessential public park. They are typically landscaped and may contain significant amounts of impermeable surfaces. These lands, usually found in urban and village centers, primarily support recreational sports, community gatherings, and provide vital green spaces in developed areas, but may offer some natural value as well. *These lands generally meet open space statutory use classes A, E, and F.*
- Trails and Multi Use Paths are active transportation corridors that provide access to the region's open spaces and connect communities and other important regional destinations. Often, trails are interconnected with rivers, flood plains, and farmlands. Multi-Use Paths (MUPs) are distinct in that they are ADA accessible linear paths that may be located adjacent to roadways or on a separate alignment. MUPs on a separate alignment may coexist with open space (such as the Air Line Trail), or may connect destinations not specifically identified as open space (such as a path connecting the library to the school and ball fields in a municipal complex). *These lands generally meet open space statutory use classes A, D, and E.*
- **Cemeteries** can serve very similar purposes to passive or active recreation lands. They provide valuable green space in urban areas. The landscaping and unique architectural characteristics of cemeteries can make them excellent places for passive recreation and quiet contemplation. *These lands meet open space statutory use classes A, D, E and F.*

We note that the language establishing the PA-490 statute did not, at the time, contemplate the deep connection between open space land and climate resilience. Throughout this plan, we seek to overcome this omission and explore how open spaces are vital to both climate change adaptation and mitigation actions, in preserving and enhancing lands that can sequester carbon, cool heat-stressed communities, absorb floodwater, and make space for rising sea levels.

As in Connecticut's Open Space Plan, the CT Green Plan, this plan encompasses open space lands that are either protected or preserved. Protected open space implies a permanent prohibition, such as a deed restriction, that limits future use to open space. Preserved open space, though it may not include a deed restriction, is any area of land that has been acquired and is used for open space purposes. Even in the absence of a deed restriction, it is still *functionally protected*, and would require public deliberation and significant governmental action to appropriate for a non-open space use. As excerpted from the Green Plan, Protected and Preserved Open Space Definitions:

#### PROTECTED OPEN SPACE

Any area of land with a restriction that would limit its use to open space.

Includes lands subject to conservation restrictions, deed restrictions, or certain reserved rights.

#### PRESERVED OPEN SPACE

Any area of land that has been acquired and is used for open space purposes.

Includes DEEP's State Parks, State Forests, and Wildlife Areas, and Class I and II watershed lands

Currently, the SCCOG region contains 85,127 acres of open space, representing 22.2% of the region's total area. Given currently available information, SCCOG staff estimate that 48,500 of these open space areas are formally protected (12.7%) and 36,626 (9.6%) acres are functionally preserved with open space uses.

Open Space in the SCCOG Region		
85,127 ACRES		
Preserved Land	Protected Land	
36,626 ACRES 48,500 ACRES		

Conservation	Active-Passive Recreation	Working Lands	Trails	Cemeteries	Not Yet Classified	
24,292 ac	43,735 ac	14,216 ac	347 mi	816 ac	2,068 ac	

The regional open space network provides a unified, regional context for local conservation and planning efforts and lays out a vision for open space in the Southeastern Connecticut region. The network highlights open spaces that cross jurisdictional boundaries and lands that provide multiple open space services. It also emphasizes the value and importance of open space in the region, and thus, can help attract additional funding that supports key open space goals.

#### Map 1. Regional Open Space Inventory



Open Space Land in the SCCOG Region - Preserved Agriculture Subset

Water

Municipal Boundaries

Produced by SCLOG on 3/12/24, Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP Open Space Data Layer (2011), local town planning documents and review conversations. Base map: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.



#### 1C. Balancing Open Space with Other Community Priorities

Maintaining a strong regional economy and the economic and social wellbeing of residents and local municipal budgets is a top priority in many jurisdictions. Accelerating growth and development, however, can put pressure on the open space network. While population growth has been limited over the previous 30 years, the region is expected to grow modestly over the coming decades, creating demand for new housing and commercial areas, and increased public access to parks and open space.<sup>1</sup>

Connecticut, not unique in the Northeast, is currently facing a housing crisis – a sufficient supply of move-in ready, achievably priced housing for middle- and lower-income households is not available. This crisis has been compounding over time as we have consistently underbuilt for the housing needs of households along a spectrum of incomes, household sizes, and ages. SCCOG's 2018 Housing Needs Assessment found that Southeastern Connecticut is currently undersupplied with appropriate housing for its residents, especially for younger adults, newly forming households, and retirees wishing to stay in the region. The Assessment concluded that by 2030, the region would need to accommodate an additional 7,200 households to keep pace with expected growth. Affordability is also an issue, with one in four of all Southeastern Connecticut households earning less than 80% of the Area Median Income and living in housing that they cannot afford without sacrificing other essential needs (food, medical care, and similar). Housing needs are tied to workforce development. Maintaining a strong regional economy and the economic and social wellbeing of residents and local municipal budgets is a top priority in many jurisdictions. Alongside these goals, local governments also have a mandate to provide and maintain high-quality open space network, work toward greater resilience, and enforce regulations that protect the environment. The benefits of preserving open space must be balanced with the need to provide opportunities for housing, employment growth, and other public goods and community priorities.

Among the categories of open spaces in the region, farmland has ecological value and is also both a critical economic industry providing jobs and income, and a critical community institution upholding regional and statewide food security. According to The World Bank, food security is defined as the condition:

# When all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences of an active and healthy lifestyle.<sup>2</sup>

Farms located in the SCCOG region are a critical contributor to the supply and availability of food, but they are particularly vulnerable to development given their cleared acreage and drainage characteristics that make farmable land also highly developable land. Between 2012 and 2022, New London County roughly maintained a stable acreage of land in farms, while Windham County lost roughly 13% (7,500 acres) of its farmland. Small farmers were the most

<sup>&</sup>lt;sup>1</sup> (Connecticut State Data Center, 2017)

<sup>&</sup>lt;sup>2</sup> (The World Bank, 2024)

vulnerable, as during the same period the counties saw a net loss of 145 and 25 farms, respectively.<sup>3</sup> A range of factors is threatening the economic viability of farmland, including increased land values, farm costs exceeding revenues, lack of supporting infrastructure, a lack of new farmers to replace retiring farmers, and farming lands that lack protection through zoning or other regulatory designations.

Conservation efforts face barriers to protecting remaining high value open spaces. Insufficient funding for protection, restoration, and maintenance is a persistent constraint to open space conservation. Land prices are increasing, making purchase of land and conservation easements more challenging. As some jurisdictions struggle to provide and maintain access to parks and green spaces, outdoor recreation is more popular than ever. Open spaces became a vital outlet for activity during the COVID-19 pandemic, with usage of parks and trails surging.<sup>4</sup> In both extreme and everyday situations, open spaces play a critical role in the region's quality of life. New, non-traditional sources of conservation funds, innovative land protection techniques, and new partnerships will be necessary to keep up with increased demand.

The purpose of the Regional Open Space Plan is to accelerate the conservation of open spaces in the region for the benefit of future generations. Rather than pitting development against conservation, we can identify and articulate the natural lands that are most essential to preserve for the greatest community benefit (the factors behind this judgement may vary by landscape and community context), while also recognizing that some land will continue to be developed for housing, economic development, community facilities, and even resilience (e.g. renewable energy) purposes. We have the best chance at achieving balance in these aims through proactive planning.

#### 1D. Equitable Access to Open Space

Open spaces provide significant physical and mental health benefits and contribute to a high quality of life. However, not everyone in the region has easy access to open space. Access to open space refers both to the ability to go to large, wild open spaces and the ability to go to local parks and recreation areas. Access to large, wild open spaces almost invariably requires a car and leisure time, adding barriers to access, especially for people with lower incomes. Expanding public transit options and targeted programming can help enhance access to these places.

This plan takes a first step in analyzing residents' proximity to open space. The preliminary analysis in this plan found that **77.6%** of suburban and urban residential parcels are at least partially located within a walking distance buffer (defined as half of a mile) of an open space parcel with unrestricted public access. However, that leaves **22.4%** of residential parcels in the region's suburban and urban areas outside of this buffer, an indication that the residents of these areas may lack ready access to open space. While local urban parks are generally the

<sup>&</sup>lt;sup>3</sup> (United States Department of Agriculture, 2017)

<sup>&</sup>lt;sup>4</sup> (Brown, 2024)

responsibility of local city and county governments, a regional approach to analyzing urban open space needs can help target resources to underserved communities. Over time, SCCOG will aim to strengthen regional open space equity analysis capabilities by continuously building out public access data for all open space parcels, and creating procedures to map open space access points to complete a true walkshed analysis.

#### 1E. Regional Goals, Objectives, and Action Items Overview

Through a robust public engagement process and alignment with municipal and non-profit stakeholders, this plan identifies **six overarching goals** for regional open space and **25 corresponding objectives** that further define these goals and provide direction for action. The open space planning public and stakeholder engagement process through which plan goals and objectives were developed is summarized in Section 6 and detailed in Appendix 3. Additional context related to each goal and its corresponding objectives are contained in Section 7.

#### Figure 1. Regional Open Space Plan Six Overarching Goals and Corresponding Objectives

	IMPROVE OPEN SPACE ACCESS: Members of the public and other				
	stakeholders express the need for additional open spaces to increase access				
	for all users and ensure that their distribution is more equitable across				
	communities. S	takeholders also consistently express desire for a connected			
	open space net	work, where open spaces are connected not only to each			
GOAL 1	other, but also	to other land uses such as residential or commercial areas.			
	Open spaces sh	ould be widespread and proximate enough to be part of			
	everyday routi	nes throughout the region.			
		Ensure all residents in urban and suburban communities			
	Objective 1	have access to an open space, trail, or recreational facility			
		within 0.5 miles.			
8	Objective 2	Expand ADA accessible open space and connect users with			
	Objective 2	ADA open space and recreation information and mapping.			
	Objective 3	Develop a robust designated Greenway / Blueway network.			
		Pursue additional open space preservation activities, but do			
	Objective 4	so in balance with other community goals like housing.			
		ER RESOLIRCES: The watercourses waterbodies wetlands			

GOAL 2	AL 2 and coastline of Southeastern Connecticut are some of its most defining geographic features. Their stewardship protects critical drinking water, natural habitat, recreational opportunities, and the economic livelihood of			
	many of the region's residents.			
	<b>Objective 5</b> Improve regional collaboration in stormwater management.			
	Objective 6	Protect riparian corridors.		

Obje	ctive 7	Increase the amount of permanently protected public coastline.
Obje	ctive 8	Protect aquifers and public water supplies.

IMPROVE SAFE journey to and open space acc	<b>TY:</b> Making sure that people are and feel safe, both on their while visiting open spaces, is critical to ensuring equitable cess.	
Objective 9	Prioritize pedestrian, cycling, and public transit infrastructure near open spaces.	
Objective 10	Compile datasets related to unsafe crossings and pedestria network gaps.	
Objective 11	Improve upkeep and safety-oriented design of open spaces.	
Objective 12	Assist in the creation and availability of open space informational resources.	

DEVELOP A "RI	GHT PARCEL RIGHT PLACE" PRESERVATION APPROACH. Not			
all narcels have equal open space preservation value. While this plan does				
an parcers have equal open space preservation value. While this plan does				
not recommend specific parcels for preservation, it builds a case for giving				
careful conside	ration to the landscape characteristics of land, and weighing			
these against c	omplementary community goals when making preservation			
decisions. Parce	els that provide multiple benefits, increase community			
climate resilien	ce. or that have unique environmental and/or recreational			
value should be	given highest consideration. This plan advocates for			
supporting and assisting municipalities, land trusts, and conservation				
supporting and assisting municipanties, rand trusts, and conservation				
focused non-profits to develop and use tools that help to prioritize parcels				
with the greatest value, recognizing that value is subjective depending on				
goals and context.				
Objective 12	Maintain and continue to improve the SCCOG Open Space			
Objective 15	Planning and Implementation Dashboard.			
	Improve the availability of environmental data for open			
Objective 14	space managers.			
	Maintain knowledge of communicate and support grant			
<b>Objective 1</b>				
improvement.				
				Provide resources and data that can assist in the protection
<b>Objective 16</b> and enhancement of whole and healthy habitats, diverse				
	natural communities, and core forests.			
	DEVELOP A "RI all parcels have not recommend careful conside these against co decisions. Parce climate resilien value should be supporting and focused non-pr with the greate goals and conte Objective 13 Objective 14 Objective 15			

GOAL 5	EXPAND OPPO planning partne on-road and of activities are al and access. Exp high priority fo	partners' top three current recreational pursuits are walking (both ind off-road trails), cycling, and non-motorized boating. These are also called out as the top choices for expanded opportunity ss. Expansion of safe opportunities for active mobility should be a rity for recreational planning in the region.			
	<b>Objective 17</b> Increase opportunities for walking.				
Objective 18 Plan and program cycling routes connecting ope other land uses (businesses, restaurants, resider schools, and transit).					
	Increase access to Southeastern CT watercourses and provide more opportunities for water-based recreation.				
	Objective 20	Support emerging recreational interests and facilities.			

GOAL 6 Space to include small but key patches of green infrastructure that perform critical functions, such as roadside bioswales that collect stormwater runoff and urban forestry networks that cool neighborhoods.

Objective 21	Support working lands projects that protect food security.
Objective 22	Generate additional data to identify extreme heat impacts.
Objective 23	Pursue grants, projects, and studies that reduce flood risk.
Objective 24	Identify opportunities for marsh migration.
Objective 25	Remove or overcome barriers to wildlife passage.

After a careful consideration of goals and objectives, the plan includes a series of recommended actions that, when pursued, implement this plan. Plan recommendations are delivered at both the regional and municipal level. Section 8 presents regional action items that apply across jurisdictions, apply broadly to all municipalities, would be most impactful if undertaken collaboratively, or enable best practices and robust local decision making. These recommended regional action items mainly center around potential SCCOG-led initiatives.

ID#	Recommendation	Furthe	ers Oper	n Space	Goals		
R1	Deepen our Open Space Access Methodology	€ €		÷	÷	六	Ś
R2	Pursue Integrated Open Space and Transportation Planning	€ Ĵ		C		六	
R3	Advance the Expansion of Regionally Significant Multi-Use Paths	م م		C	•£	六	
R4	Develop Regional Recreational Waters Access Plans	م م		C	•£	六	
R5	Be clear about where Development SHOULD go	₽ ₽			<b>.</b>	庎	S
R6	Create a SCCOG-based Regional Watershed Planning and Implementation Technical Assistance Program				÷.		Ś
R7	Develop Regional Priorities for Dam Removal			C			Ś
R8	Reactivate the Regional Stormwater Collaborative			C	•£		
R9	Conduct a Regional Low Impact Development Regulation Review				<b>.</b>		
R10	Explore the Creation of a Regional Food Action Plan	م م			ŧ.		Ś
R11	Create a Regional Heat Action Plan			C	•£		Ś
R12	Convene and administer Multi- Jurisdictional Flood Mitigation Studies and Implementation Projects			¢	•£		Ś
R13	Keep the SCCOG Open Space Planning and Implementation Dashboard Updated	€ ₽		C	<b>-</b> F	六	
R14	Pursue Grant Funding for Data Collection Projects	ţ,		<b>G</b>	<b>.</b>	六	
R15	Maintain an Open Space Grants Database	<b>~</b>				六	

Figure 2. Recommended Regional Open Space Action Items Summary Table

Section 10, organized by municipality, presents municipal-level recommendations in individualized toolkits. Different objectives are emphasized in each municipality depending on the local context, needs, and opportunities available in that municipality. A sampling of recommendations includes the expansion of conservation efforts in towns where little protected land exists, overcoming gaps along regional blueways, improving urban park upkeep, and reconsidering the use of town-owned parcels with little ecological value. When combined, the sum of the municipal recommendations represents an exciting step forward for

conservation and recreation in the region and would make the region a leader in outdoor recreation.

In addition to local and regional government efforts, dozens of entities are working towards open space and recreation related objectives in the region. Municipalities are encouraged to leverage these resources whenever possible. A directory of conservation and recreationoriented organizations in the region can be found in Appendix 2.

The regional open space network is a core component of the region's economy, quality of life, and identity. It makes the region a desirable place to live and work and resilient to climate change. However, if we do not carefully adhere to our regional vision to protect the open space network, we risk losing the very open spaces that draw people and companies to locate here. Most critically, our actions must be collaborative, with all parties working in concert, for maximum efficiency; equitable, to ensure that everyone can enjoy the benefits that open spaces provide; and strategic, concentrating our efforts toward the most effective actions. It is toward these objectives that this plan is aimed.

#### 1F. Additional Information and Resources

For those seeking additional information or clarification of key concepts, the Plan's appendices provide further explanation and direction.

<u>Appendix 1. Definitions and Acronyms</u> provides a listing of key terms and acronyms for reference as needed when reading the plan.

**Appendix 2. Open Space Directory** contains a list of conservation and recreation focused organizations that operate in Southeastern Connecticut.

<u>Appendix 3. Open Space Plan Public Engagement Report</u> provides and analysis of public and stakeholder comments that were given during the public engagement process, showing the bases for the main themes that SCCOG draws out to describe community vision and build the plan's goals, objectives, and recommendations in Sections 6, 7, and 8.

Finally, this plan is accompanied by an online **Open Space Planning and Implementation Dashboard**. Built as an interactive map that allows users to turn layers of data on and off, it is intended to help individuals and organizations as they explore specific areas and parcels for potential open space acquisition or enhancement. This layering of information can assist in exploring all of the potential ecosystem, resilience, and environmental equity services that a given piece of land may have the potential to provide. Alongside environmental data, the Dashboard includes social and economic indicator datasets that help demonstrate project need and explore project eligibility for grants that prioritize equity outcomes. In many cases, grant applications that accomplish open space acquisition or improvement benefit when applicants demonstrate how an open space project is tailored to the purpose of the grant, and when applicants can show a number of co-benefits, or overlapping positive impacts, of improving or preserving a particular piece of land. The Dashboard is meant to help in this exploratory effort, but note that it is purposefully framed as a "working" database. SCCOG hopes to work with municipal, conservation, land trust, and other partners in keeping this information updated, and welcomes and encourages stakeholders to inform us at SCCOG when new acquisitions occur, so that we can keep this Dashboard up to date, and also provide any needed corrections to the underlying data as they are observed. The Dashboard is available by clicking or copying and pasting <u>https://arcg.is/0y5STT2</u> into a web browser.

## Section 2: Plan Purpose

#### 2A. Why Plan for Open Space?

Open spaces are vital community assets. The reasons for their significance to community wellbeing and the public sphere include, but are not limited to:



**Biodiversity Conservation**: Open spaces serve as critical habitats for a wide array of plant and animal species. These areas provide homes, breeding grounds, and food sources for various organisms, contributing to the overall health and resilience of entire ecosystems. Through open space planning, we can safeguard these habitats, maintain ecological balance, and protect endangered and vulnerable species.



**Green Infrastructure and Ecosystem Services**: Open spaces play a vital role in providing essential ecosystem services. *Ecosystem services* are the benefits and essential services that natural processes provide to people. Open space lands provide regulating services (filtering polluted air and water, sequestering carbon, absorbing floodwaters, moderating microclimates, aquifer / ground water recharge), provisioning services (food and fiber production, drinking water), supporting services (sheltering and allowing for the movement of wildlife, nutrient cycling, crop pollination), and cultural services (physical activity and recreation, mobility, cultural identity, spiritual inspiration, community cohesion) (Rouse, 2013). Open spaces lands that provide these services are often called "green infrastructure." They benefit communities by minimizing built infrastructure costs and improving regional resilience.



**Climate Change Mitigation and Adaptation**: Open spaces have a significant impact on climate change mitigation. Vegetated areas, including forests, wetlands, and grasslands, can sequester carbon dioxide, reducing greenhouse gas emissions and mitigating the effects of climate change. By preserving and expanding open spaces, we can enhance carbon sinks, promote climate resilience, and contribute to global efforts in addressing climate challenges. Open spaces also have a role to play in climate change adaptation – when we restore the proper

functioning of wetlands and floodplains, for example, they can store floodwater and help communities cope with larger storm events.



Cultural and Historic Preservation: Open spaces often encompass cultural and historic sites that hold immense value in preserving our heritage. These areas provide opportunities for education, recreation, and reflection, fostering a sense of connection to our past and cultural identity. Open space planning allows us to protect and celebrate these cultural and historic assets, promoting community pride and understanding.

Health and Well-being: Access to open spaces has a positive impact on physical and mental health. Research indicates that access to green spaces promotes physical activity, reduces stress, and improves mental well-being. Open spaces and natural features offer opportunities for outdoor recreation, exercise, and relaxation, promoting active lifestyles and reducing stress. Open spaces contribute to improved air quality, noise reduction, and the overall well-being of communities. By incorporating open spaces into community planning, cities and towns can foster healthier populations, potentially reducing healthcare costs associated with sedentary lifestyles and related illnesses, and prioritize the health and happiness of residents.



Ethical Responsibility: Open space planning reflects our ethical responsibility as stewards of the environment. By recognizing the intrinsic value of nature and open spaces passed onto us by prior generations, we acknowledge our duty to protect and preserve them for future generations. Open space planning ensures that we leave a legacy of natural beauty, biodiversity, and sustainable ecosystems. It is an ethical imperative to safeguard these spaces, promoting a harmonious coexistence between humans and the natural world.



**Recreational Opportunities:** Open spaces provide valuable recreational opportunities for residents and visitors alike. Parks, trails, and green spaces offer spaces for physical activity, youth sports and outdoor engagement, leisure, and community gatherings. These amenities contribute to residents' quality of life, promoting health and well-being.



**Tourism:** Accessible and well-designed open spaces can attract tourism, generating revenue and stimulating local economies through visitor spending on accommodations, dining, and recreational activities. Southeastern Connecticut's lengthy watercourses and open spaces

strongly position the region to become a leader in the outdoor recreation industry in Southern New England.



**Property Values**: Proximity to well-maintained open spaces can significantly enhance property values in surrounding areas. Studies consistently demonstrate that homes near parks or natural amenities command higher prices and tend to have greater market appeal. As documented by the CT Trail Census, there are resources identifying property value increase adjacent to trails, and statewide data about how much trail users are spending in the local economy on goods like food, hotels, and equipment. Open space planning ensures the preservation and accessibility of these natural assets, contributing to the economic prosperity of the region by bolstering property values and attracting potential homeowners and investors.



**Community Cohesion**: Open spaces serve as gathering places that foster social interaction, community cohesion, and a sense of belonging. They provide settings for organized events, festivals, and cultural activities, strengthening community ties and fostering social integration. These shared spaces contribute to a vibrant and inclusive community fabric, promoting civic pride and engagement.

This list is not comprehensive but is rather intended to demonstrate the practical value of open spaces to our communities, health, and economic vitality. By recognizing and prioritizing these aspects, communities can make informed decisions that support the long-term well-being and prosperity of the region.

#### 2B. Why Now?

The last time that open space planning was conducted at the regional level in Southeastern Connecticut was in 1968. The absence of any subsequent planning efforts prompts the question, why now?

Southeastern Connecticut is defined by its relationship to its natural systems. The region's waterways, coastline, forests, and soil have been an economic driver. The north-central portion of the district is part of a designated national heritage corridor known as "The Last Green Valley," while the southern extent of the district is a coastal destination for tourism from New England and beyond. The health of Long Island Sound and the many rivers and streams which feed it are the heart of the region for both our natural systems and our communities. Planning for open space is critical to ensuring the economic and environmental resilience of our region, conserving our finite natural resources, and ensuring that future generations can experience the natural splendor of Southeastern Connecticut.

Across planning projects, residents and stakeholders in the region have consistently communicated the value placed on open space. Past and current development has impacted

the region's environment, and loss of open spaces to development over time threatens the sustainability of these key regional assets. However, the state and greater northeast region are facing a housing crisis, and economic development goals are also significant drivers of community well-being. Open space planning can and should be compatible with other community goals.

In many cases, the conservation of open space is an issue that necessitates or benefits from planning at the regional level. Open spaces do not follow political boundaries and successful conservation efforts often require cross-jurisdictional coordination. Even open spaces wholly located in one jurisdiction can affect areas farther away. A developed floodplain can cause increased flooding in downstream communities. Loss of farmland in one county affects the viability of the farming economy in neighboring counties and regional food security. Additionally, different types of open spaces are overseen by different agencies at different levels of government with different goals, further complicating efforts. Regional activities and growth patterns also impact open space. Decisions in one part of the region can lead to development pressure on undeveloped land in other parts of the region.

The purpose of the Regional Open Space Plan is to assist member municipalities and stakeholder groups to identify and articulate the natural lands that are most essential to preserve for the greatest community benefit (the factors behind this judgement may vary by landscape and community context), while also recognizing that some land will continue to be developed for housing, economic development, community facilities, and even resilience (e.g. renewable energy) purposes. We have the best chance at achieving balance in these aims through proactive planning.

SCCOG's most recent Regional Plan of Conservation and Development was adopted in 2017. This Open Space Plan provides a deep dive and detailed analysis that will inform the conservation side of the next POCD update in 2027. Between now and the initiation of plan development in 2025, SCCOG will also research and develop potential tools for best informing the development side of the POCD. Not only does this Open Space Plan cover key community planning areas and establish immediate action items, it also enables deeper conversations as SCCOG develops the Regional POCD and differentiates areas of the region that are best positioned to receive development and those that retain a highest and best community purpose as conserved open space.

### Section 3: Regional Context

#### 3A. Environmental History of the Region

Prior to European colonization, southeastern Connecticut was inhabited by various Native American Tribal Nations, including the Niantic, Mohegan, and Pequot, alongside abundant flora and fauna. The dominant vegetation in Southeastern Connecticut was the Eastern Deciduous Forest, comprising a mix of hardwood and coniferous trees. Common hardwood species included oak (such as red oak, white oak, and black oak), hickory, maple, beech, and ash. Native Chestnut trees, vanished from the landscape after Chestnut Blight was introduced to the U.S. in 1904, were then abundant. Coniferous trees like eastern white pine, hemlock, and cedar were also present. The forests were diverse, supporting a rich understory of shrubs, ferns, and wildflowers. Open meadows and grasslands were abundant in Southeastern Connecticut, especially in the interior areas. Native grasses like switchgrass, big bluestem, and Indian grass were prevalent, along with wildflowers such as goldenrods, asters, and milkweeds.

The region's wetlands were characterized by a variety of plant communities. Cattails, bulrushes, and sedges were common in freshwater marshes, while salt marshes along the coast supported cordgrass, salt meadow hay, and other halophyte species adapted to saline conditions. Coastal areas were home to specialized plant communities, including dune grasses, beach heather, and seaside goldenrod, which were adapted to the harsh and sandy conditions along the shoreline. The riparian zones were lined with a mix of trees, including willows, sycamores, and alders, which helped stabilize the banks and provide habitat for wildlife.

Common fauna in the region included the white-tailed deer, black bear, beavers, and wild turkey. Prevalent bird species included the now extinct passenger pigeon, the bald eagle, and a variety of common waterfowl such as geese and ducks. Important marine life included bass, trout, perch, eels, and shellfish in the region's coastal and estuarine areas.

European settlers arrived in the region in the early 17th century, establishing towns and trading posts. This period saw increased land use for agriculture and the establishment of mills along rivers, harnessing water power for various industries. Significant deforestation occurred in the first two centuries of settlement as land was cleared for intensive agriculture and pasture. Today, we see signs of previous centuries of farming activity in the stonewalls that vein the Connecticut landscape, many of which are present in areas that have re-forested after the cessation of agricultural use.

During the 18th and 19th centuries, industrialization brought significant changes to the region. Manufacturing industries, such as textiles, shipbuilding, and metalworking boomed along waterways, leading to economic growth but also increased pollution and environmental degradation. Industrial facilities often discharged untreated or poorly treated wastewater directly into rivers and waterways. This led to the contamination of surface water with various pollutants, including heavy metals, chemicals, and organic compounds. Water pollution harmed aquatic life, degraded water quality, and compromised drinking water sources. A variety of heavy metals, including lead, arsenic, and nickel, continue to be found at dangerous levels in many of the region's waterways today.

The 20th century dramatically changed the environmental landscape of the region through widespread suburbanization. Undeveloped land was converted into residential and commercial development, resulting in the loss and fragmentation of habitat. Suburban development involved the construction of roads, driveways, parking lots, and buildings, which created extensive impervious surfaces. Rainwater could no longer be absorbed into the ground naturally, leading to increased stormwater runoff. Stormwater runoff from suburban areas often contains pollutants from roads, lawns, other surfaces, and septic systems, carrying chemicals, fertilizers, heavy nutrient loads, bacteria, and sediment into nearby rivers and water bodies. This pollution contributed to degraded water quality and harmed aquatic ecosystems. The 20<sup>th</sup> century also saw the widespread adoption of phosphorus-based fertilizers, with significant impacts in agricultural portions of the region, particularly the Yantic River watershed. The river itself continues to suffer from high concentrations of phosphorus.

Starting in the late 20<sup>th</sup> century and into the 21<sup>st</sup> century, advocacy continues to grow around the preservation of remaining core habitat and the restoration of water quality in the region's waterways. Over a dozen land trusts and over fifty other conservation and outdoor recreation focused non-profits operate in the region. Funds from both the public and private sector are increasingly available for land preservation and environmental restoration. New environmental challenges emerge even as organizations try to undo and mitigate the lasting impact of 19<sup>th</sup> and 20<sup>th</sup> century contamination and land use decisions. Coordinated efforts between municipalities, businesses, non-profits, and state agencies will be required to address the unprecedented challenges associated with climate change, and to tackle novel issues as scientific knowledge advances, such as current work around water impairment from Per- and Polyfluoroalkyl Substances (PFAS) and other "forever chemicals."<sup>5</sup>

#### 3B. Landscape Character

Southeastern Connecticut is not dominated by any one form of development, but rather has a blend of urban, suburban, and rural patterns. Development has historically followed the region's waterways. More intense urban development tends to be located at historically strategic points such as estuaries (New London, Groton, Mystic, and Niantic), or major river confluences (Norwich, Willimantic, Jewett City). Smaller pockets of density can be found in former mill villages such as Baltic (Sprague) and Fitchville (Bozrah). Undeveloped areas are largely wooded, characterized by a mix of hardwood trees like oaks, maples, and hickories and coniferous species like Eastern white pine and hemlock. The region's southern border is defined by the Long Island Sound, providing a prominent coastal landscape. Coastal areas feature sandy beaches, tidal marshes, and rocky shorelines.

<sup>&</sup>lt;sup>5</sup> (Weston & Sampson, 2023)

As of the 2017 SCCOG Regional Plan of Conservation and Development (POCD), 42% of the region's land was considered undeveloped, with the remaining land split between residential (23%), commercial (including institutional and industrial, 7%), and transportation or utility uses (7%). The POCD found that 20% of the land could be characterized as either agricultural or open space use, down from 22% in the previous POCD. Tribal lands make up the remaining 1% of land area.<sup>6</sup>





Most of the region's residential land is low density, defined as fewer than one unit per acre. Medium and higher density residential areas are found in urban centers, as well as suburban and rural village centers. Most residents live in the region's urban and suburban communities<sup>7</sup> (46% urban, 44% suburban, 9% rural), while the majority of developed residential and commercial land is in suburban and rural communities (56% suburban, 23% rural, 21% urban). This inverse relationship is due to the spatial requirements of the low-density development pattern typically found in these communities. Rural communities hold much of the region's undeveloped land and land set aside for open space or agricultural use.<sup>8</sup>

<sup>&</sup>lt;sup>6</sup> (Southeastern Connecticut Council of Governments, 2017)

<sup>&</sup>lt;sup>7</sup> Urban communities in the 2017 POCD were defined as New London, Norwich, Groton, and Windham. Rural communities were defined as Bozrah, Franklin, Lebanon, North Stonington, Preston, and Salem. Suburban communities were the remaining municipalities. These distinctions are a generalization and do not reflect differences within towns, such as the rural character of much of Windham's land area and the density of Jewett City compared to the remainder of Griswold.

<sup>&</sup>lt;sup>8</sup> (Southeastern Connecticut Council of Governments, 2017)

#### Map 2. Generalized Land Use



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#### 3C. Population Characteristics

The population of Southeastern Connecticut grew steadily during the 19<sup>th</sup> and early 20<sup>th</sup> century, followed by a significant growth period during the post-WWII "baby boom" from 1940 (population of 135,906) to 1970 (population of 242,380). Growth then slowed until reaching a plateau of 286,711 in 2010. The 2020 census reflects a slight decline in population to 280,430. Despite this decline, the region is expected to grow modestly over the next two decades, with a projected 2040 population of over 300,000.<sup>9</sup>

Regionally, SCCOG's population is slightly older than the state average, with 18.4% of residents age 65 and older (statewide 17.9%), 19.3% under the age of 18 (statewide 20.4%), and 4.8% under the age of 5 (statewide 4.9%). Median age differs greatly across the region. Per the 2020 census, the median age in the region's municipalities ranged from 32.9 to 51.6 (statewide 41.1). Older residents are more likely to be found in suburban and rural areas than in urban ones.<sup>10</sup>

The region has grown more diverse in recent decades. The proportion of the population identifying as non-Hispanic white decreased from 76% in 2010 to 69.6% in 2020. The Hispanic population has grown from 11% to 14.5% in that time frame, and the Black or African American population has grown from 5% to 6.1%. Asian residents make up 4.1% of the population and Native Americans 1.1%. This diversification has occurred largely within urban communities. New London became the region's first "majority minority" municipality as of the 2010 census. Norwich's non-Hispanic white population share has dropped from 65% in 2010 to 54.1% in 2020. The four municipalities with the lowest share of non-Hispanic white populations are New London, Norwich, Groton, and Windham. Rural communities have the highest share of non-Hispanic white populations, while the suburban municipalities range significantly, but are less diverse than the urban communities.<sup>11</sup>

Household income ranges. Approximately a third of households earning less than \$50,000 per year, a third earning \$50,000-\$100,000, and a third earning \$100,000 or more. Over 29,000 households in the region are considered housing-cost-burdened, which means that the household spends more than 30% of its income on housing.<sup>12</sup> Approximately 60% of the region's 125,180 housing units are single-family homes. Large-lot, single-family residential development is more costly to homeowners compared with denser development patterns, and requires significantly more land area. Driving alone is by far the most common way of commuting to work and getting around, with the region's Metropolitan Transportation Plan finding higher than national average rates of driving alone to commute to and from work.<sup>13</sup> <sup>14</sup>

<sup>&</sup>lt;sup>9</sup> (Connecticut State Data Center, 2017)

<sup>&</sup>lt;sup>10</sup> (United States Census Bureau Decennial Census, 2020)

<sup>11</sup> Ibid

<sup>&</sup>lt;sup>12</sup> (Southeastern Connecticut Council of Governments, 2018)

<sup>&</sup>lt;sup>13</sup> (United States Census Bureau, 2022)

<sup>&</sup>lt;sup>14</sup> (Southeastern Connecticut Council of Governments, 2023)





Population Density in Persons per Acre by Census Block Group Geography

0 - 0.3
0.3001 - 1.0
1.001 - 2.0
2.001 - 5.0
5.001 - 19.71

Produced by SCCOG on 1/22/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: US Decennial Census 2020 TIGER files and P1 Total Population Block Group geography shapefile and data table. Block group divisions were first classified into quantiles, and then rounded to nearest figures for clear interpretation of the layer legend.



#### Environmental Justice and Low Income and Disadvantaged Communities

There a several different methodologies for documenting Environmental Justice (EJ) and Low Income and Disadvantaged Communities (LIDAC) at the state, federal, and regional SCCOG scale. Because of the diversity in methodologies, this plan does not include one EJ/LIDAC map. Rather, the accompany **Open Space Planning and Implementation Dashboard** includes social and economic indicator datasets at all relevant geographic scales and can be utilized to help demonstrate project need and explore project eligibility for grants that prioritize equity outcomes given the particulars of each funding program. EJ and LIDAC factors can help to prioritize and develop project selection criteria, and often inform the identification of open space project needs and supporting infrastructure for park and trail projects (bus stop, sidewalk, lighting, call box, bathrooms, and similar).

#### 3D. Historic Open Space Planning in the Region

#### State Open Space Planning

In 1997, the Connecticut General Assembly set a goal of protecting 21% of Connecticut's land by 2023 for public open space. The Comprehensive Open Space Acquisition Strategy, also known as The Green Plan, is the primary state document that guides progress towards this goal. This plan is produced and updated by The State Department of Energy and Environmental Protection (DEEP). The Green Plan, which was most recently updated in 2016 and is undergoing an update at the time of this document's production, utilizes the following definition of open space, adapted from PA-490:

"Any area of undeveloped or relatively natural land, including forest land, land designated as wetland under section 22a-30, and not excluding farm land, the preservation or restriction of the use of which would (A) maintain and enhance the conservation of natural or scenic resources, (B) protect natural streams or water supply, (C) promote conservation of soils, wetlands, beaches or tidal marshes, (D) enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open spaces, (E) enhance public recreation opportunities, or (F) preserve historic sites."

The 2016 iteration of the Green Plan found that the State, between itself and partner entities such as land trusts and municipalities, has protected or preserved roughly 15% of the state's land area for open space use. Subsequent annual reports have shown this has risen to 15.86% as of 2019. The Green Plan, recognizing that not all acreage is of equal value, prioritizes four characteristics for preservation:

- Natural Waters and Drinking Water Resources
- Significant Coastal Areas
- Natural Heritage Resources
- Outdoor Recreational Trails

DEEP has expressed a desire for a unified definition of Open Space to be in use across the state. SCCOG welcomes this push for statewide consistency and intends to remain aligned with the DEEP definition for planning purposes.<sup>15 16</sup>

Another primary state document relevant to open space planning is the State Plan of Conservation and Development (State POCD). The State POCD covers a significantly broader focus than just open space, but it does specifically call on state agencies and municipalities to "Expand the state's open space and greenway network through the acquisition and maintenance of important multi-functional land and other priorities identified in the State's Open Space Plan (i.e., Green Plan)"<sup>17</sup>

Many other state planning documents also have ties to open space planning. These documents were considered in the development of this plan, and alignment with them are discussed in further detail in Section 9. These plans include:

- Governor's Council on Climate Phase 1 Report (2021)
- CT Forest Action Plan (2020)
- CT Climate Change Preparedness Plan (2011)
- <u>CT Greenways Council Designated Connecticut Greenway List</u>
- Statewide Comprehensive Outdoor Recreation Plan (2017)
- CT Coastal and Estuarine Land Conservation Program Plan (2015)
- CT State Water Plan (2018)
- <u>Coordinated Water System Plan for the Eastern Public Water Supply Management Area</u> (2018)
- Long Island Sound Blue Plan (2019)
- <u>Report on the status of the implementation of the state water plan and planned updates</u> (2023)

#### Regional Open Space Planning

The Southeastern Connecticut Council of Governments (SCCOG) has not undertaken a regional level open space planning effort since the 1964 "Open Space and Recreation Plan" and subsequent 1968 "Recommended Open Space Program," which served as an implementation study for the prior planning effort. The most recently related regional effort was the 2002 "Inventory of Open Space with Trails in Southeastern Connecticut." Since these efforts, the geographic boundaries of SCCOG have changed to include the towns of Lebanon and Windham, and no longer include Voluntown. The 1964-68 planning effort focused primarily on the recreational aspect of open space, with inventories of recreational assets such as tennis courts and golf courses. A similar inventory is not included in this plan, as open space and recreation

<sup>&</sup>lt;sup>15</sup> (Connecticut Department of Energy and Environmental Protection, 2016)

<sup>&</sup>lt;sup>16</sup> (Connecticut Land Conservation Council, 2023)

<sup>&</sup>lt;sup>17</sup> (Connecticut Office of Policy and Management, 2019)
planning has moved away from universal per capita standards (e.g. "1 swimming pool per 10,000 residents") toward a more nuanced evaluation of local contexts, needs, and concerns.

SCCOG's most recent Regional Plan of Conservation and Development (2017) recognized the value of the region's open spaces and natural resources and established three goals for open space in the region:

- 1) Connected parkland and open space that support recreation, wildlife, and ecological functions.
- 2) Public access to waterfront along the Long Island Sound, the Thames River, and other waterbodies.
- 3) Clean waters that are protected from contamination and overuse.

The plan also reported a poll from DataHaven with the notable result that survey respondents in the urban communities of New London and Norwich were much less likely to say that the condition of their public parks and other public recreational facilities were excellent or good as compared to the region overall.<sup>18</sup>

Non-SCCOG regional planning efforts around open space have focused primarily around water resources. Water resources and their watersheds are naturally conducive to regional level planning because they typically cross municipal lines, and decisions made in one area of a watershed can have impacts in other areas. Since 2005, Watershed Management Plans (WMP) and Watershed Based Plans (WBP) have been developed in collaboration between DEEP and regional stakeholders for several waterbodies in the region (see Recommendation 6 in Section 8 for a full list).<sup>19</sup>

In addition to scientific and planning studies, several watershed-based groups are active throughout the region. The Thames River Basin Partnership was established as a voluntary, cooperative effort to share resources and to develop a regional approach to resource protection. The Partnership's quarterly meetings serve as a forum for issues of common concern and an opportunity to network and coordinate between regional conservation and water quality actors in the region. Other watershed groups include the Baker Cover Watershed Committee, the Niantic River Watershed Committee, and the Alliance for the Mystic River Watershed, among others.

The 2008 Southeastern Connecticut Drinking Water Quality Management Plan, a collaboration between Groton, Ledyard, Montville, North Stonington, Norwich, Preston, and Waterford, recommended that participating municipalities "take proactive measures to secure critical lands within the watershed such that they are protected in perpetuity" as well as "adopt a balanced approach to harnessing the creational benefit of the large land holdings within the

<sup>&</sup>lt;sup>18</sup> (Southeastern Connecticut Council of Governments, 2017)

<sup>&</sup>lt;sup>19</sup> (Alliance for the Mystic River Watershed, 2023)

drinking water supply watersheds while maintaining an appropriate level of security of these resources."<sup>20</sup>

Many other regional planning documents have ties to open space planning. These documents were considered in the development of this plan, and alignment with them will be discussed in further detail in the "Alignment with State, Regional, and Local Planning Documents" section. These plans include:

- SCCOG Critical Facilities Assessment (2017)
- secTer Comprehensive Economic Development Strategy (2023)
- ERWUCC Coordinated Water System Plan (2018)
- SCCOG Bike/Ped Plan (2019)
- SCCOG Hazard Mitigation and Climate Adaptation Plan (2023)

## Municipal Open Space Planning

The Southeastern Connecticut Region is made up of nineteen independent municipalities, plus three municipal subdivisions and two tribal affiliates. Planning for open space at the local level varies across the region. Seven municipalities have adopted an Open Space or Parks and Recreation Plan.

All municipalities cover open space in their plans of conservation and development. Common topics covered include the preservation of habitat, protection of drinking water, expanded recreation opportunities, trails and greenways, and preservation of agricultural lands. All town planning documents consistently find that the preservation of undeveloped land for open space is viewed favorably by residents. However, many of these same documents find that the idea of raising taxes to fund the acquisition of land for preservation is unpopular. Many municipalities have thus found success in utilizing fee-in-lieu of open space payments to fund open space acquisitions as well as utilizing collaboration with the region's land trusts and conservation non-profits to manage open space lands. Many municipalities have recognized the value of cross-jurisdictional collaboration on open space planning to strengthen applications for grant funding and for the prioritization of large, contiguous undeveloped parcels that may cross municipal boundaries.

A full accounting of alignment with individual municipal plans of conservation and development, open space plans, and parks & recreation planning documents is available in the Section 10 Toolkit annex of the respective municipality.

## 3E. Regional Context: Take-Aways for Open Space Planning

The Regional Context section included a baseline of information that situates Southeastern Connecticut geographically, historically, and in the context of previous and ongoing planning

<sup>&</sup>lt;sup>20</sup> (Milone & MacBroom, Inc, 2008)

related to open space at the municipal, regional, and state levels. As the plan develops, the following take-aways are particularly salient to future-oriented open space goals.

- Southeastern Connecticut developed around its coastal and inland waters. Denser developments grew out of settlement along the Long Island Sound coast, and at historically strategic points such as estuaries (New London, Groton, Mystic, and Niantic), or major river confluences (Norwich, Willimantic, Jewett City).
- Southeastern Connecticut is the ancestral and current home of several Native American Tribal Nations, including the Niantic, Mohegan, and Pequot.
- Agriculture and industry brought growth, but in some lands and waters, created legacy pollutants. Heavy metals continue to be found at dangerous levels in some waterways.
- Twentieth-century suburbanization changed the landscape of the region, with resulting habitat loss and fragmentation, increased impervious surfaces, and water quality issues stemming from runoff and residential practices (lawn fertilizer, septic systems).
- The region contains a blend of urban, suburban, and rural development patterns. As of 2017, 42% of the region's land was considered undeveloped. Approximately 60% of the region's 125,180 housing units are single-family homes. Population density ranges from less than 1 to about 20 persons per acre. High density population centers include Willimantic, Norwich, New London, Groton City, Jewett City, and Pawcatuck, and areas along the Thames River and Long Island Sound shore.
- Despite a small decline to 280,430 persons in 2020, the region is expected to grow in coming decades. Regional and state demographic trends align. Local figures diverge; for example, municipal median age ranges from 32.9 to 51.6 (statewide 41.1). The region is becoming more diverse. The proportion of the population identifying as non-Hispanic white decreased from 76% in 2010 to 69.6% in 2020. The income varies within the region, with approximately a third of households each earning less than \$50,000 per year, \$50,000-\$100,000, and \$100,000 or more.
- In 1997, the Connecticut General Assembly set a goal of protecting and/or preserving 21% of Connecticut's land by 2023 for public open space. At the end of 2022, the statewide open space level was 16.09%. The Southeastern CT region is outpacing statewide progress. As of the writing of this plan, 21.6% of the region's total land area is open space.
- The State Green Plan prioritizes four land characteristics for preservation: (1) Natural Waters and Drinking Water Resources; (2) Significant Coastal Areas; (3) Natural Heritage Resources; and (4) Outdoor Recreational Trails.
- The SCCOG 2017 POCD has three goals for open space in the region: (1) Connected parkland and open space that support recreation, wildlife, and ecological functions; (2)

Public access to waterfront along the Long Island Sound, the Thames River, and other waterbodies; and (3) Clean waters that are protected from contamination and overuse.

Municipalities cover open space in local POCDs. Seven municipalities have adopted Open Space or Parks and Recreation Plans. Town planning consistently finds that residents favor the preservation of undeveloped land for open space, but that raising taxes to fund the acquisition of land is less popular. Municipalities have succeeded through fee-in-lieu of open space payments and collaboration with land trusts and conservation non-profits.

# Section 4: Environmental Inventory and Analysis 4A. Geology, Soils, and Topography

## Geology

The geology of the Southeastern Connecticut region is shaped by its location in the northeastern United States, with influences from both ancient and recent geological processes.

The bedrock geology of the region primarily consists of metamorphic and igneous rocks. These rocks formed hundreds of millions of years ago during the collision of tectonic plates, resulting in the formation of mountains and subsequent metamorphism. The predominant rock types include gneiss, schist, granite, and amphibolite. These rocks provide a foundation for the landscape and influence the formation of soils and drainage patterns.

Like much of New England, the southeastern Connecticut region was heavily influenced by glaciation during the last ice age. Glaciers advanced and retreated multiple times, leaving a significant impact on the landscape. Glacial deposits, such as till, outwash plains, and moraines are common features in the area. Glacial action also carved out valleys, shaped hills, and created many of the region's lakes and ponds. The presence of permeable bedrock formations and glacial deposits has resulted in the development of aquifers, which are underground layers of water-bearing rock or sediment. These aquifers serve as vital sources of ground water, supplying drinking water to the communities in the region.

The southern part of the region is characterized by coastal features, including beaches, barrier islands, salt marshes, and tidal flats. These coastal formations are the result of sediment deposition and erosion processes along the coast. The Thames River has helped to shape coastal geology over time by transporting sediment from its tributary network, which stretches north into Central Massachusetts (near Worcester) and east into Northwestern Rhode Island.

## Soils

Soil types play a crucial role in shaping the geography of a region and have significant impacts on various natural processes and human activities. Understanding a region's soil helps to explain why certain areas are more suited to development, agriculture, or conservation. The soil in the Southeastern Connecticut region is influenced by a combination of geological processes, glacial activity, and natural vegetation.

The parent materials from which the soils in the region have developed include weathered bedrock, glacial deposits, and alluvial deposits from rivers and streams. The specific parent materials contribute to the mineral composition and texture of the soils. Glacial till, which consists of a mixture of clay, silt, sand, and gravel, is common throughout the area. The composition and characteristics of glacial till vary depending on the local geology and the nature of the underlying bedrock.

The region exhibits a variety of soil types, including loamy soils, sandy soils, and clay soils. Loam, which is a mixture of sand, silt, and clay, is often considered the most desirable type for agriculture and gardening due to its balanced drainage and nutrient-holding capacity. Sandy soils have larger particles and tend to drain more quickly, while clay soils have smaller particles and hold more water.

Well-drained soils are essential for development, ensuring that buildings stay dry and free of deterioration from water damage and support accessory infrastructure such as septic system installation. Soil drainage characteristics are linked to their inherent particle composition and "hydric rating." Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil horizon. The Soils Drainage Class Map below demonstrates drainage level classifications, from excessively drained to very poorly drained and subaqueous soils.

Soil type is a main contributing factor to determining the presence of wetland areas. Wetlands not only represent critically productive habitat and carbon sequestration areas, but also areas with poorly drained soils that are prone to flooding. Wetland areas are not suitable for development given their associated drainage class and profiles. Per Connecticut General Statues (Chapter 440), wetlands are identified by soil properties, and include areas of poorly or very poorly drained soils, alluvial soils, and/or floodplains soils, which explains their substantial overlap with certain drainage classifications.

Southeastern Connecticut contains 69,400 acres of classified inland wetland areas (or 17.6% of the region's total area). When left intact, wetlands actually provide an environmental service to upland development through their capacity to absorb and filter flood waters.

## Map 4. Soil Drainage Class



## **Soils Drainage Class**

- Excessively drained and somewhat excessively drained soils
- Well drained and moderately well drained soils
- Somewhat poorly drained
- Poorly drained, very poorly drained, and subaqueous soils
- Municipal Boundaries

Produced by SCCOG on 1/23/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP GIS database / NRCS National Cooperative Soil Survey SSURGO 2023 edition.



#### Map 5. Inland Wetlands





Produced by SCCOG on 1/23/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP GIS database / NRCS National Cooperative Soil Survey SSURGO 2023 edition.



The fertility and productivity of the soils in the region can vary. Factors such as nutrient content, pH levels, and organic matter content influence soil fertility. The soils in the region generally support a range of agricultural activities, with some areas known for their farming and horticulture industries.

As depicted in the Agricultural Soils Map, a quarter of the region's land is considered either Prime Farmland Soil or Statewide Important Farmland Soil. Prime farmland has the best combination of physical and chemical qualities for raising crops. Statewide Important Farmland Soils are those that fail to meet one or more of the requirements of prime farmland, but are nearly prime farmland and are capable of economically producing high yields of crops. Finally, Locally Important Farmland Soils are not prime or statewide farmland soils, but are used for the production of crops and may be important to the local economy.

Significantly, we note that the farmland soils classifications reflect the quality of the underlying soils, without comprehensive reference to land use. While a quarter of the region's land is Agricultural Soil or Prime or Statewide significance, a large portion of this may already host residential or other development. The zoomed in figure below demonstrates an area classified as Prime Agricultural soil (dark green) that is a residential development. Further study is required to understand how much soil with strong agricultural potential remains farmable.



## Figure 4. Prime Agricultural Soils (dark green) overlain by Residential Land Use

## Map 6. Agricultural Soils



## Soils Farmland Classification

- All areas are prime farmland
- Farmland of statewide importance
- Farmland of local importance
- Municipal Boundaries

Produced by SCCOG on 1/23/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP GIS database / NRCS National Cooperative Soil Survey SSURGO 2023 edition.



## Topography

The topography of the southeastern Connecticut region encompasses a mix of coastal plains, hilly areas, and river valleys. The southern part of the region is characterized by relatively low-lying coastal plains. These areas are generally flat to gently rolling and are often associated with coastal features such as beaches, dunes, and salt marshes. The coastal plains provide scenic vistas and support various recreational activities.

Moving inland, the topography becomes more undulating, with numerous hills and ridges. The region includes several prominent upland areas and hill ranges, such as the Lantern Hill Range. These hills can reach moderate elevations and contribute to the scenic beauty of the landscape. While the region does not have extensive mountain ranges, there are notable elevation changes throughout. The elevation generally increases as you move north and west from the coastal plains. While some areas have modest elevations, others experience more significant changes in elevation, particularly in the hilly regions and along river valleys.

The region is intersected by several major rivers, most notably the Thames River and its tributaries. These rivers have carved out deep and wide valleys, creating diverse and picturesque landscapes. River valleys often feature fertile floodplains and offer opportunities for outdoor recreation and water-based activities. The topography of Southeastern Connecticut offers numerous scenic features, including cliffs, bluffs, waterfalls, and gorges. These natural formations can be found in various state parks, nature reserves, and protected areas within the region, providing opportunities for hiking, sightseeing, and outdoor exploration.

## Map 7. Topography





Produced by SCCOG on 1/18/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: UCONN & CTDEEP CTECO Map and Image Services - Elevation - Shaded Relief (Statewide 2016). Basemap: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS



## 4B. Hydrology & Water Resources

Southeastern Connecticut is defined by its relationship with water. The Long Island Sound makes up the region's southern border, from which communities derive and maintain a legacy of coastal recreational, economic, and cultural activities. Inland development traces alongside rivers and estuaries. The region's ample surface and ground water resources provide drinking water in both centralized reservoir systems and private drinking wells, the latter of which are common in non-urban areas. The hydrology of the region is heavily influenced by dams both within the Thames River and in its upstream tributaries. Over 250 dams are registered across the region, with potentially several other minor dams scattered throughout.

The SCCOG region spans four major watershed basins: the Thames River, the Connecticut River, the Pawcatuck River, and the Southeast Coast. Much of the SCCOG region is contained within the Thames River major basin. The Thams River itself flows from north to south originating at the confluence of the Yantic and Shetucket Rivers in Norwich, through the municipalities of Preston, Montville, Ledyard, Waterford, Groton, and New London. The upstream watershed tributary area is quite extensive, stretching north into Central Massachusetts (near Worcester) and east into Northwestern Rhode Island. Major tributaries to the Thames include the Yantic, Shetucket, Quinebaug (which forms portions of the borders between Lisbon, Preston, and Griswold), and Pachaug.

The region's western extent, including portions of the towns of Colchester, Salem, and East Lyme, is located in the Connecticut River Major Basin. Major Connecticut River tributaries in the SCCOG region include the East Brach of the Eightmile River and the Salmon River and their watersheds. The region's connection to the Pawcatuck River Major Basin is largely concentrated in the town of North Stonington, inclusive of the Shunock River tributary. The Pawcatuck River forms part of the border between Rhode Island and the region.

Finally, the region's coastal areas drain directly to the Sound and are therefore located in the Southeast Coast Major Basin, including larges parts of the towns of East Lyme, Waterford, Groton, Ledyard, and Stonington. Major tributaries in the Southeast Coast Major Basin include the Niantic River (which forms the border between East Lyme and Waterford), and the Mystic River, which forms the border between Groton and Stonington.

Regional hydrology and soils also influence the availability of drinking water supplies, one of the most fundamental resources for supporting human life and settlement. Public water supply sources can come from surface waterbodies, such as a reservoir or large lake systems, or ground water wells. Households in the region are either served by community public water supply systems, or have privately-maintained wells.

#### Map 8. Major Basins and Sub-watersheds



Produced by SCCOG on 1/23/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: DEEP GIS basin and Aquifer Protection Areas (7/3/23).

SCCOG Southeastern Connecticut Council of Governments According to state Department of Public Health data, about 80% of the SCCOG region is outside the public water service area. However, many households are concentrated in the 20% of the region that *is* located within a Community Public Water System. In a GIS analysis, there are about 57,500 residential parcels (68% of all residential parcels) that intersect the public water service area. Some of these parcels contain multifamily housing units and serve multiple households. Community water supply systems vary greatly in size, from those associated with housing developments that cover less than 50 acres, to those run by municipal water divisions covering one or more municipalities. In some cases, areas served by public water are near source water. In other cases, public water infrastructure runs across municipal borders to connect water sources and population centers, such as the connections between Deep River Reservoir in Colchester and the City of Norwich, or the extension of the Westerly, RI Water Department service area into Pawcatuck. Outside of the public water service area, there are an estimated 32,726 residential and commercial parcels that rely on individual private wells.

Ground water flows are critical to all drinking water resources, both public and private supply, and well-driven and surface water systems. Below the soil surface, ground water is contained in geologic features called aquifers. An aquifer is a body of porous rock or sediment that is saturated with ground water. Ground water moves through an aquifer, and can resurface in waterbodies, springs, or through wells. There are two main classifications of aquifers. Confined aquifers have a layer of impenetrable rock or clay above them. Unconfined aquifers are situated below a permeable layer of soil. The speed with which ground water moves through an aquifer varies depending on the rock's permeability.

For community public water systems sourced from ground water, CT DEEP has designated Aquifer Protection Areas, also commonly known as wellhead protection areas. Aquifer Protection Areas represent land contributing ground water to active public water supply wells or well fields that serve more than 1,000 people and that are set in sand and gravel aquifers, which are more vulnerable to the effects of contamination from polluted water infiltration. Connecticut General Statues require land use and hazardous material handling protections in Aquifer Protection Areas that help to minimize potential well field contamination. There are several designated Aquifer Protection Areas in the SCCOG region, located in Colchester, Sprague, Griswold, Ledyard, North Stonington, Stonington, and East Lyme.

Future population increases may require additional public drinking water systems and sources. To help plan, the state has studied surficial aquifers (those in the upper surface of a zone of saturation, where ground water is not confined by an overlaying impermeable zone) and delineated the areas considered to have the greatest potential for ground water yield (see the Surficial Aquifer Potential map). Surficial aquifer potential areas are located throughout the SCCOG region. The state has also classified ground water and surface water into their suitability for particular uses like drinking water, aquatic habitat, and recreation. Some identified potential aquifer areas in the SCCOG region may have compromised ground water quality that is not suitable for drinking water use.



Map 9. Public Water Supply Service Areas, Watersheds, and Aquifer Protection Areas

Map 10. Surficial Aquifer Potential and Water Quality Classifications relative to Drinking Water Uses



#### **Ground Water Quality Classifications**

- GA: Potential drinking water
- GAA, GAAs: Existing drinking water and tributiares to public water supply reservoir GB: Ground water not suitable for drinking
- water GC: Assimilration of permitted discharges to ground water
- GA, GAA Subset: May be impaired

- Surface Water Quality Classifications
  - A: Potential drinking water use
  - AA: Existing or proposed drinking water use
    - B, B\*: No drinking water use
  - SA, SB: Marine Waters
- Surficial Aquifer Potential
- **Municipal Boundaries**
- Produced by SCCOG on 1/30/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP GIS Database



## 4C. Vegetation

The vegetation of southeastern Connecticut is diverse, reflecting the region's varied landscape, climate, and soil conditions. The area is characterized by a mix of coastal, wetland, forested, and urban ecosystems.

Along the coastline, one can find coastal dunes covered with vegetation adapted to sandy and windy conditions. Beach grasses, such as American beachgrass, play a crucial role in stabilizing the dunes and preventing erosion. Coastal areas also feature a number of salt marshes, which are ecologically important habitats that provide a nursery for various marine species. Salt-tolerant plants like saltmarsh cordgrass dominate these areas. In the region's estuaries, where salt and fresh water mix, one finds a mix of unique aquatic vegetation, such as eelgrass, among a variety of submerged and floating aquatic plants.

Moving upriver, riparian zones are characterized by vegetation adapted to periodic flooding. One can find species like willows, alders, and river birch in these areas. Inland areas are predominantly covered by deciduous forests, including oak-hickory forests, mixed hardwood forests, and beech-maple forests. These forests support a variety of tree species such as oak, maple, hickory, beech, and birch. Certain areas, especially in the northern parts of the region, feature coniferous forests. Eastern white pine, hemlock, and various spruce and fir species are common in these forests. Some areas, particularly in agricultural regions, feature grasslands and meadows, where native and non-native grass species grow. These areas may be managed for hay production or conservation purposes.

Within developed urban and suburban areas, one will find a mix of lawns, ornamental shrubs, and shade trees commonly used in landscaping.

## 4D. Fisheries and Wildlife

Off the region's southern coast in the Long Island Sound, one can find many of the saltwater marine life that is common to the Northern Atlantic. Fish such as striped bass, bluefish, flounder, and blackfish are popular fish for recreational and commercial fishing. Striped bass was once an overfished species, but the population has been recovering according to DEEP tracking.<sup>21</sup> Atlantic and Shortnose Sturgeon, both federally designated as endangered species, can also be found in Long Island Sound.

Smaller fish such as herring and menhaden provide an ample food source for larger fish, a variety of predatory birds such as osprey and terns, and mammals such as harbor seals. Dolphins, long absent from Long Island Sound, have also been spotted returning to the waters in recent years.

The sound also provides a variety of crustacean and shellfish species that have greatly influenced the culinary tradition of shoreline communities. Blue crabs are regularly sought

<sup>&</sup>lt;sup>21</sup> (Hajdasz, 2023)

after, and can be found alongside other crustaceans such as spider crabs, rock crabs, and the invasive European green crab. Lobster, once common and a large industry in the Long Island Sound, have not significantly recovered from a widespread die-off that occurred from 1999-2002.<sup>22</sup> Shellfish in the Long Island Sound include a rich diversity of oysters, including the mystic oyster local to the region's waters, as well as several species of clams, mussels, and scallops.

Moving upriver into the region's fresh water systems, one can find a number of fish such as large and smallmouth bass, pickerel, perch, and American eel. Eastern Brook Trout, who have seen their populations decline nationally but to a lesser extent in the northeastern United States, are under facing a long-term threat from diminishing cold water habitat.<sup>23</sup> Certain fish species with a long natural and cultural history within Connecticut communities, like Brook Trout, are dependent on cold water to live. They are cold water indicator species, highlighting conditions for other species within aquatic ecosystems that are connected to one another. According to CT DEEP research, if the average water temperature in a stream is 64.9°F or less from June – August, cold water fish can survive. However, even small increases in the average summer water temperature (6°F) can change move a stream from cold waters and shifts overall and seasonal temperature averages. Fish may seek migration to cooler aquatic habitat, but find their movements blocked by the network of dams in our region's waters. Actions that preserve riverine buffers and their vegetation can help to shade cold water habitats, and dam removals can maximize aquatic species movement and access to cold water.

The American Shad, Connecticut's State Fish, is an anadromous fish that can be found in significant numbers in the Thames, Lower Shetucket, and Pawcatuck rivers. The riparian corridors and wetlands of the region are also home to numerous fresh water mollusks, which play a crucial role in acting as a natural water quality filter. Other present invertebrates include crayfish, and insects such as dragonflies, damselflies, and mayflies. Reptiles and amphibians common to the region include turtles, primarily the eastern painted turtle, eastern box turtle, and the common snapping turtle, and bullfrogs, green frogs, and the red backed salamander.

<sup>&</sup>lt;sup>22</sup> (Woodside, 2021)

<sup>&</sup>lt;sup>23</sup> (Petty & Merriam, 2012)

#### Map 11. Cold Water Fish Habitat





Produced by SCCOG on 1/31/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP Connecticut Dams layer (11/8/23), Coldwater Sites Set layer (7/3/23), CT Hydrography Set, and Named Waterbodies layers. Base map: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.



Moving inland, one finds many of the animals, birds, and insects common to the broader northeastern United States. Mammals such as the white-tailed deer, eastern gray squirrel, skunks, chipmunks, and raccoons have managed to thrive despite widespread suburbanization, while coyotes have also managed to adapt to increased human intrusion on their habitat. The black bear has made a strong recovery in other parts of the state, but so far is not as common in Southeastern Connecticut.

Numerous birds can be found in the region both seasonally and year-round. Songbirds such as the American Robin, Northern Cardinal, and Eastern Bluebird are ubiquitous. Larger fowl, such as wild turkeys, Canadian geese, and many species of ducks can be found roaming across the region. Norwich, Sprague, Salem, and Groton are known DEEP-verified bald eagle nest locations, which represents an impressive recovery for a species that had declined to the point of having no known nests in the state in the 1950s.<sup>24</sup>

Insects make up a vital part of the region's ecosystem. Pollinators such as honeybees, bumblebees, and numerous species of butterflies are common in the region's natural areas. Ticks and mosquitoes, which can present a serious hazard to humans and wildlife, are abundant in the region and are commonly found everywhere outside of the most developed urban areas. Ants, beetles, and many other common ground insects can be found throughout in the region.

Alongside more generalist and populous species, Southeastern Connecticut also hosts threatened and endangered species and 14 critical habitat types that support the needs of specialist species. The Critical Wildlife Habitat Map below shows the significant natural community types that occur in the SCCOG region, alongside a table of critical wildlife habitat types in each host municipality. These key habitats are known to host rare species, including highly specialized invertebrates with very specific habitat needs and species identified as having the Greatest Conservation Need in the state's Comprehensive Wildlife Conservation Strategy. The Map also shows a regional selection of the state's Natural Diversity Database Areas, which represents known historic and current locations of species that are state- and federally-listed as Endangered, Threatened or Special Concern. The data include over 100 years' worth of field observations, scientific collections, and publications. Unmapped areas may represent potential habitat that has not been adequately surveyed. These ecologically significant areas preserve species diversity, and are priorities for continued conservation management and protection.

<sup>&</sup>lt;sup>24</sup> (Connecticut Department of Energy and Environmental Protection, 2020)







Municipality	Present Critical Habitat Types		
Colchester	Acidic Atlantic White Cedar Swamp, Medium Fen		
East Lyme	Acidic Rocky Summit Outcrop (continuous with Waterford), Coastal Bluffs and Headlands, Intertidal Marsh, Beachshore, Coastal Woodland/Shrubland		
Griswold	Acidic Atlantic White Cedar Swamp, Medium Fen, Poor Fen, Sand Barren		
City of Groton	Intertidal Marsh		
Town of Groton	Acidic Atlantic White Cedar Swamp, Beachshore, Intertidal Marsh, Medium Fen, Poor Fen, Coastal Grassland, Coastal Woodland/Shrubland, Freshwater Aquatic		
Lebanon	Dry Subacidic Forest (contiguous with Windham)		
Ledyard	Acidic Atlantic White Cedar Swamp		
Lisbon	Floodplain Forest		
New London	Beachshore		
North Stonington	Acidic Atlantic White Cedar Swamp, Acidic Rocky Summit Outcrop		
Norwich	Floodplain Forest		
Preston	Acidic Atlantic White Cedar Swamp, Intertidal Marsh, Sand Barren		
Salem	Sand Barren, Poor Fen		
Sprague	Floodplain Forest		
Stonington	Beachshore, Intertidal Marsh, Poor Fen, Sea Level Fen, Coastal Woodland/Shrubland,		
Stonington Borough	Beachshore		
Waterford	Acidic Rocky Summit Outcrop, Intertidal Marsh, Beachshore, Coastal Grassland		
Windham	Sand Barren, Acidic Atlantic White Cedar Swamp, Floodplain Forest, Poor Fen, Dry Subacidic Forest		

## Figure 5. Critical Wildlife Habitat Type by Host Municipality

## Figure 6. Critical Wildlife Habitat Type by Frequency and Total Acreage in the SCCOG Region

Habitat Type	Number of Sites	Total Acreage
Acidic Atlantic White Cedar Swamp	32	1,454
Acidic Rocky Summit Outcrop	9	12
Beachshore	27	144
Coastal Bluffs and Headlands	1	< 1
Coastal Grassland	11	51
Coastal Woodland/Shrubland	8	113
Dry Subacidic Forest	2	6
Floodplain Forest	13	130
Freshwater Aquatic	1	1
Intertidal Marsh	15	804
Medium Fen	6	24
Poor Fen	9	40
Sand Barren	12	55
Sea Level Fen	1	< 1

## 4E. Environmental Challenges

## Brownfields

Brownfields are abandoned or underutilized properties, often former industrial sites, where there is known or suspected contamination from hazardous substances. These sites pose significant challenges to communities due to their potential negative impacts on public health, perception of safety, the environment, and economic development. Hazardous substances like heavy metals, petroleum products, solvents, and other chemicals that are inputs to or byproducts of historical industrial activities often leave a legacy of contamination on brownfield sites. These materials can leach into soil and ground water, affecting the quality of water resources and potentially posing risks to human health and ecosystems. Contaminated sites can also emit pollutants into the air and create dust particles that may carry hazardous substances and be spread by wind.

Direct contact with contaminated soil or water, inhalation of airborne pollutants, and consumption of contaminated plants or animals can lead to a range of health issues, including respiratory problems, skin disorders, and even cancer. Contaminants from brownfields can also infiltrate nearby natural areas, affecting plants and animals. Runoff carry contaminants can flow into water bodies, disrupting aquatic ecosystems and causing harm to fish and other aquatic organisms while spreading pollutants far beyond the original site.

While brownfields can pose significant environmental challenges, they also present a unique opportunity to increase open space - alone or in conjunction with other site reuse options - utilizing funding that is not traditionally available for this purpose. They can provide an opportunity to fit new green space in to preexisting pockets of density where land can be otherwise unavailable or prohibitively expensive, or to include open space and recreation considerations in new residential or commercial redevelopment projects.

SCCOG is working to expand its brownfield technical assistance to municipalities. Staff are working to expand our regional brownfields inventory, and gaining experience in applying for state and federal brownfields assessment grants. Site reuse and reactivation often involves a coalition of partners; municipal, private developers, and community non-profits. SCCOG can have a role in convening these partners around brownfield assessment, cleanup, and reuse.

#### Brownfield Open Space Case Study: Norton Park

Colchester's efforts at Norton Park, the former Norton Paper Mill site, demonstrate a circumstance in which open space is the highest and best end use after brownfield remediation. Located at 139 Westchester Road in Colchester, the abandoned ruins of a paper mill and its associated dam sat derelict on the Jeremy River until the Town retained ownership of the property in 2015. Given the site's location within the "100 year" high risk flood hazard area, the town's decision to remove development from the property and develop permanently protected parkland is the best way to minimize flood risk while reactivating this site as an active

community asset. Preserve open space at this site will connect two important greenways, provide a destination or stop-off for Air Line Trail users, create easy access to the Jeremy River with riverside fishing, and honor local history.

Multiple grants and partnerships have been brought to bear in the ensuing years. Demolition of the buildings on site were supported with funding from the Small Town Economic Assistance Program. The Town partnered with The Nature Conservancy to fund dam removal. After dam removal, resident and migratory fish gained access to over 17 miles of high-quality habitat upstream. Migratory species had not been able to access this part of the river since the first dam was built here in 1726. The project is still ongoing, but has made steady progress over the years thanks to the tireless efforts of Colchester residents, the town, and partners.

In future years, there is promise that brownfields projects like Norton Park will be streamlined and eased by changes to state level remediation requirements that are currently being finalized. Connecticut's brownfields remediation approach will transition from the Transfer Act's historical requirements to a release-based framework. In other states, the release-based approach has resulted in better project completion rates and reduced project timelines.



Figure 7. Past, Present, and Future Plan Images of the Norton Park Brownfield Project Area

The abandoned Norton Paper Mill building and dam in 2015. Source: connecticutmills.org / Bing



Park Development Progress, March 2024



Future rendering of final park design, Norton Park Committee

## Forest Fragmentation

Forest fragmentation is an environmental challenge that occurs when large, continuous forested areas are broken up into smaller, isolated patches due to human activities such as

development, agriculture, and infrastructure construction. This process has significant implications for biodiversity, ecosystem health, and the overall functioning of ecosystems. The extent of forest fragmentation in the SCCOG region is shown below in the Core Forest and Forest Fragmentation Map. There are pockets of core forest throughout the region, but especially large continuous areas in North Stonington, Salem, and East Lyme.

As forests are fragmented, the total area of suitable habitat for many species decreases. Species that require large contiguous areas for survival, such as certain mammals and birds, may struggle to find suitable territory and range. Smaller patches of forest can become isolated "islands" that are harder for species to access, leading to reduced genetic diversity and increased vulnerability to local extinctions. Species that need to roam over large areas to find food, mates, or suitable habitat can be hindered by roads, buildings, and other barriers. This can lead to increased mortality due to vehicle collisions, reduced reproductive success, and decreased ability to find resources. The edges of fragmented forests often experience different environmental conditions compared to the interior. These edges are more exposed to wind, sunlight, and human activity, leading to altered microclimates, increased temperature, and changes in plant composition. These changed conditions can impact species that have adapted to live in interior forests. Invasive plants and animals can also exploit the disturbed edges of forests and outcompete native species, disrupting ecosystem balance.

Healthy, intact forests provide a wide range of ecosystem services such as air and water purification, carbon sequestration, and regulation of local climate. Fragmentation can compromise these services, affecting the overall health of the environment and human communities. The loss of tree cover in fragmented forests can lead to increased soil erosion and runoff. Resulting sedimentation can degrade water quality in nearby streams and rivers, impacting aquatic ecosystems. Fragmented landscapes can also pose challenges for conservation entities, because protecting and managing smaller, isolated patches of forest can be more complex than managing larger contiguous areas and create barriers to access, recreation, and the development of public stewardship ethics.

#### **Case Study: Pachaug State Forest**

Pachaug State Forest encompasses 26,477 acres in six towns -- Voluntown, Sterling, Plainfield, Griswold, North Stonington, and Preston, making it the largest state forest in Connecticut. As such, it provides critical habitats for numerous plant and animal species. However, even such large tracts of forest can be vulnerable to the effects of fragmentation. Pachaug State Forest is not a contiguous land extent. Development and other privately held lands break the forest into seven DEEP-designated forest management blocks. Some of these blocks retain limited connectivity, but the breaks in connectivity presented by roads and isolated pockets of residential and commercial use fragment large chunks of forest into smaller patches. These patchwork parcels are less resilient and require more human management to retain their ecological value because of the previously described edge effect.





Patch Forest
 Edge Forest
 Perforated Forest
 Core Forest (small)
 Core Forest (medium)
 Core Forest (large)
 Municipal Boundaries

Produced by SCCOG on 1/31/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CTECO/UCONN CT Forest Fragmentation Land Cover layer (2015). Base map: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.



Figure 8. Pachaug State Forest



By increasing "surface area" exposure to unprotected land, more opportunities become available for invasive species to make their way into the ecosystem. This vulnerability is born out in the invasive species mapping that DEEP prepared for each block's management plan, which shows areas along the forest periphery as most likely to contain invasive species. Invasive plants have contributed to uncommonly dense understory growth that hinders the growth of native shade-intolerant trees such as aspen, pitch pine, gray and paper birch, scrub oak, and red cedar. DEEP also notes the challenges presented by erosion caused by unauthorized use of dirt bikes and allterrain vehicles (ATVs). Forest network fragmentation creates more potential entry points for these kinds of activities.

Pachaug State Forest shows both the value of undisturbed core forest in its largest contiguous sections while also demonstrating the vulnerability caused by significant fragmentation. Throughout the region, prioritizing the preservation of existing core forest blocks and strategically restoring others when opportunities present themselves will have a high payoff value for the resources and effort put in to conservation.

## Impaired Water Resources

Coastal and inland waterbodies have always influenced the human geography of Southeastern Connecticut. While many waterbodies continue to have high ecological and environmental quality, others have become damaged from the chronic effects of human use and settlement. Impaired water resources refer to bodies of water, such as rivers, lakes, and coastal areas that do not meet water quality standards set by regulating agencies for different activities and use thresholds. Impaired water resources often suffer from poor water quality due to the presence of pollutants such as nutrients (like nitrogen and phosphorus), bacteria, heavy metals, and organic matter. These pollutants can come from various sources, including agriculture, urban runoff, industrial discharges, and wastewater treatment plants.

In the Thames River watershed, lead, arsenic, nickel, zinc, and phosphorus were found to be present above safe levels in a 2023 study.<sup>25</sup> The understanding of contamination from per- or poly-fluoroalkyl substances (PFAS) is still evolving, but CT DEEP did find these substances, colloquially known as "forever chemicals" because of how slowly they break down, in all sampled wastewater discharge across the state, including those samples in the SCCOG region at Windham, Montville, Ledyard, and New London. These chemicals were also found in all fish tissue sampling conducted across the state, though no fish tissue sampling was done directly within the SCCOG region.<sup>26</sup> The limited management of certain common household systems (such as septic systems) and practices (such as over-fertilization of lawns) have also contributed to water impairment over time.

Polluted water resources can harm aquatic ecosystems. Excess nutrients can lead to harmful algal blooms, which consume oxygen and produce toxins that can kill fish and other aquatic life. These outcomes can have cascading effects on the entire ecosystem, disrupting the food web, affecting biodiversity, and degrading habitats. The resulting decline of aquatic species populations, including fish, amphibians, and invertebrates, can even impact non-aquatic species that depend on these species.

Contaminated water also poses health risks to humans who touch or consume it. Swimming in polluted waters can lead to skin rashes, eye infections, and gastrointestinal illnesses. Ingesting contaminated water or consuming contaminated fish can also be harmful. While drinking water is strictly regulated and contamination is carefully filtered out and screened for, pollution can lead to increased treatment costs and pose challenges in providing safe drinking water to communities. Impaired water resources can have further economic implications. Declines in fish populations and poor water quality can negatively impact recreational and commercial fishing industries. Moreover, degraded water bodies can deter tourists and homebuyers, affecting local economies.

Water may support one use, such as aquatic habitat, while being impaired for other uses, such as recreation or drinking water, so it is important to drill down into the specifics of each impaired water when considering issues and solutions (see the Niantic River Case Study below). Waterbodies can be added or sometimes fall off the impaired waters list. For example, the Shetucket River was listed as impaired in 2016 for not fully supporting river recreation, but was delisted in 2018 and beyond.

As can be seen in the Impaired Waterbodies Map, there are areas of impairment in each regional drainage basin that the SCCOG region contains. Reginal drainage basins cross municipal

<sup>&</sup>lt;sup>25</sup> (Richardson, Butler, Yellen, Oyewumi, & Ouimet, 2023)

<sup>&</sup>lt;sup>26</sup> (Weston & Sampson, 2023)

boundaries, such that some municipalities themselves contain no impaired waters (Salem), very few impaired waters (Colchester, Windham, Bozrah) or impaired waters that make up part of their municipal boundaries (Norwich, Lisbon, Griswold). Large river extents with impairment are found on the Tenmile River, Susquetonscut River, Pease Brook, Quinebaug River, Broad Brook, Copps Brook, Shunock River, Pawcatuck River, Fenger Brook, Latimer Brook, Pattagansett River, and Brid Brook. Most the region's coastal waterbodies are impaired, including estuarine areas up into the Thames River, Niantic River, and Mystic River.

The impairment of coastal and estuarine waterbodies in part suggests that these downstream receiving waters are facing cumulative impacts from widespread impairment sources that are more dilute in upstream portions of major basin watershed areas, but aggregate downstream. Rather than waterbodies suffering from one particularly onerous polluter or discharge point, diffuse "non-point" stormwater runoff transports water over vast acreages and impervious surfaces, carrying pollutants across the landscape and delivers them into waterbodies. Stormwater runoff picks up contaminants from roads, buildings, industrial areas, and agricultural fields, and carries them into waterbodies, watercourses, and ground water drinking supplies. Storm water runoff has become a greater concern in the region as the amount of impervious surface has increased and is a known, serious issue. Regulatory entities at the federal and state level have created mandatory programs aimed at reducing stormwater flows, pollutant transport, and waterbody impairment.

In particular, the Municipal Separate Storm Sewer System (MS4) program requires each municipality that owns and operates a storm sewer system in a Census data-defined Urbanized Area containing at least 1,000 people to take steps to keep the stormwater entering its storm sewer systems clean before that stormwater enters water bodies. Municipalities must take steps to track stormwater flows (such as mapping their outfall and other stormwater systems), educate the public about stormwater pollution mitigation, and stop illicit flows and inflow and infiltration into and from the stormwater system. Municipalities are required to submit a Stormwater Management Plan that identifies at least six minimum control measures for preventing or treating polluted runoff.

The MS4 program first took effect in Connecticut in 2004, covering 113 of Connecticut's 169 municipalities. A renewed permit in 2016 added 8 towns, for a current total of 121, as well as all state and federal institutions that operate a stormwater system. Over half of the municipalities in the SCCOG region are MS4 towns, consisting of Sprague, Lisbon, Griswold/Jewett City, Norwich, Montville, Ledyard, East Lyme, Waterford, New London, Groton Town/Groton City, and Stonington Town/Stonington Borough. The State of Connecticut and UCONN have partnered to establish the CT Nonpoint Education for Municipal Officials (NEMO) to support communities with stormwater management and MS4 compliance. The figure below shows MS4 communities in relation to waterbodies that NEMO identifies as having impairments that are significantly linked to stormwater runoff.



Figure 9. MS4 Municipalities and Waterbodies with Significant Stormwater Impairments<sup>27</sup>

Greater attention is being given to how we can interrupt and recapture stormwater flows across impervious surfaces. Redesigns and retrofits of stormwater infrastructure can accomplish better on-site stormwater infiltration, with the added benefit of reducing flooding.

In some cases, in addition to stormwater, underground flows from uncontained septic system effluent can also contribute to nutrient pollution in waterbodies. Currently, 34,645 acres (9%) of the SCCOG region is sewered, as can be seen in the Connected Sewer Service map below.

<sup>&</sup>lt;sup>27</sup> Interacive map available online at: https://nemo.uconn.edu/ms4/tools/ms4map/

#### Map 14. Impaired Water Bodies



Produced by SCCOG on 2/1/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: DEEP GIS basin, hydrography, and 2022 impaired waters set (11/16/22). Base Map: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS



Map 15. Connected Sewer Service Areas



Areas Connected to Sewer Service
Municipal Boundaries

Produced by SCCOG on 2/8/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CT DEEP Connected Sewer Service Areas layer (3/7/22). Basemap: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.



## **Case Study: Niantic River**

The Niantic River, which makes up the border between East Lyme and Waterford, has long been listed as one of the region's impaired waterbodies by DEEP.<sup>28</sup> The water quality of the river is not supporting the aquatic life known to inhabit the estuary. This has manifested through algal blooms, seasonal variations in eelgrass populations, loss of scallop populations, and changes to the fish communities.







Latimer Brook - 01				
Use	Attainment			
Aquatic Habitat	Not Supporting			
Recreation	Not Supporting			
Fish Consumption	Insufficient			
	Information			
Niantic River				
Use	Attainment			
Aquatic Habitat	Not Supporting			
Recreation	Not Supporting			
Fish Consumption	Insufficient			
	Information			
Shellfish Harvest	Not Supporting			
for Direct				
Consumption				
where authorized				
Niantic Bay Shore West (East Lyme)				
Use	Attainment			
Aquatic Habitat	Not Supporting			
Recreation	Fully Supporting			
Fish Consumption	Insufficient			
	Information			
Shellfish Harvest	Not Supporting			
for Direct				
Consumption				
where authorized				
Niantic Bay				
Use	Attainment			
Aquatic Habitat	Not Supporting			
Recreation	Not Assessed			
Fish Consumption	Insufficient			
	Information			
Shellfish Harvest	Fully Supporting			
for Direct				
Consumption				
where authorized	1			

<sup>&</sup>lt;sup>28</sup> (Fuss & O'Neil, 2020)

The difficulty with the impairment of a water body like the Niantic River is that there is not a single point source of pollution that one can identify and remediate to solve the water quality problem. The Niantic primarily receives its contamination from non-point source pollution, which is pollution that draws contaminants from a broad, diffuse area. In this case, as the NEMO analysis above demonstrates, stormwater runoff is a major contributor to water quality impairment. As the 2009 Niantic River Watershed Management Plan describes, roughly 5% of the acreage within the watershed was converted from deciduous forest to developed land or turf and grass between 1985 and 2006. Many of the impaired water bodies in the region are like the Niantic, which find themselves contaminated from the results of decades of land use decisions and development methods that deteriorate the natural ecosystem's ability to serve as a buffer for the region's waterbodies. Alternative, low-impact development styles that rely on less impervious surface coverage and greater on-site stormwater capture are possible, and many local municipalities are working to ensure that their regulations allow for these options.

## **Erosion & Sedimentation**

Erosion and sedimentation can have far-reaching impacts on landscapes, water bodies, ecosystems, and human activities. These processes occur when soil particles are detached and transported by wind, water, or ice, ultimately leading to sediment deposition in new areas.

Erosion removes the nutrient-rich topsoil layer that is crucial for plant growth. Loss of topsoil can disrupt ecosystem dynamics and reduce agricultural productivity. Inherent soil properties make areas vulnerable to different kinds of erosion. Connecticut has created a dataset that shows areas most susceptible to terrace escarpment type erosion. Terrace escarpment slopes are steep slopes (> 15%) with specific soils that are easily disturbed. These soils can erode slowly or suddenly, posing a hazard risk to property placed on them. To counter these effects, property owners can refrain from placing buildings or pools on or near the top of the slope, from dumping yard waste materials that weigh down the slope, and from removing existing vegetative cover that keeps soil in placed through root action.<sup>29</sup> In the SCCOG region, the most susceptible soils often occur near waterbodies, as shown in the Erosion Potential map.

Eroded soil particles can carry pollutants such as pesticides and heavy metals. Contaminants attached to sediment particles can be transported to water bodies, causing pollution. Alongside chemical contamination, sedimentation can fill and bury streambeds, riverbeds, and aquatic habitats. Sediment-laden water is often more turbid, reducing light penetration and disrupting aquatic ecosystems. Fish and invertebrates may be forced to alter their feeding, breeding, and sheltering areas, and have increased difficulty finding food, evading predators, and performing migrations that are critical to different organism life stages. Accumulated sediment in water bodies also reduces their capacity to hold water, potentially leading to increased flood risks during heavy rainfall events.

<sup>&</sup>lt;sup>29</sup> (Town of Enfield, 2024).






Coastal erosion is its own category of constant and dynamic sediment change and transport. Beaches and dunes are affected by short- and long-term changes in waves, wind, tides, storm surge, sand availability and sea level rise. Erosion in Connecticut is generally caused by storms, rising sea levels, changes in sand availability, and exacerbated by constructed elements like jetties, groins, and seawalls.<sup>30</sup> DEEP's Shoreline Protection website describes the coastal geology of Long Island Sound as "in constant flux: some areas are eroding, others accrete or add sand, and still other erode and accrete depending on weather and seasonal factors."<sup>31</sup>

FEMA Region 1 recently undertook an effort to quantify and spatially demonstrate the potential extent of coastal erosion areas within its jurisdiction, including New London County. The *FEMA Region 1 Costal Erosion Hazard Map*<sup>32</sup> includes anticipated coastal erosion impact areas under five sea level rise scenarios for the years 2030, 2050 and 2100. There are erosion risks throughout the SCCOG district's coastal zone, especially in the areas of Rocky Neck, Niantic Bay, Jordan Cove, the mouth of the Thames River, Bluff Point, Mumford Cove, Esker Point and Esker Bay, the head of West Cove, Six Penny Island, Mason's Island, Latimer Point, Wilcox Cove Quiambaug Cove, Stonington Harbor West, Stonington Point, and Wequetequock Cove (see Figures 10 and 11 below). Future coastal erosion hazard extents vary significantly between sea level rise scenarios. Actual sea level rise levels that come to pass will depend on our collective ability to limit Greenhouse Gas emissions.

Coastal erosion can undermine property and infrastructure. Actions to combat its effects typically take the form of "nature-based" solutions, such as the installation of living shorelines, or engineered solutions, like the installation of bulkheads. Unfortunately, engineered structures are often expensive, prone to failure, and exacerbate erosion on adjacent properties.<sup>33</sup> Several resources exist to help consider potential methods for addressing shoreline erosion at a site-specific scale.

The UCONN Sea Grant publication *Connecticut Beaches and Dunes: A Hazard Guide for Coastal Property Owners* considers the alternatives of doing nothing, moving landward, elevating structures, designing new structures appropriately, constructing a living shoreline, enhancing or constructing dunes, beach nourishment, and repairs to existing seawalls.<sup>34</sup> Similarly, UCONN's *Modelling Site Suitability of Living Shorelines in Connecticut* project considers where less environmentally damaging living shoreline projects may be most appropriate for installation.

<sup>&</sup>lt;sup>30</sup> (Connecticut Sea Grant, 2024)

<sup>&</sup>lt;sup>31</sup> (CT DEEP, 2020)

<sup>&</sup>lt;sup>32</sup> Resource available at:

https://www.arcgis.com/apps/webappviewer/index.html?id=a4aa86031a3a40be9d453d781ff210b3 <sup>33</sup> lbid.

<sup>&</sup>lt;sup>34</sup> Publication available at: https://beachduneguide.uconn.edu/wp-content/uploads/sites/1827/2016/08/Final-CTSG-Coastal-Hazards-Beach\_Dune.pdf

While the shorelines of many SCCOG communities are included in the analysis, limitations of available bathymetric data leaves Stonington out of the effort.<sup>35</sup>

The impacts of erosion work not only on natural systems, but human ones as well. Erosion can undermine and undercut public infrastructure and private property, such as roads and building foundations. Sediment deposition can block drainage systems and culverts, leading to infrastructure damage, road closures, exacerbated urban flooding, and disrupted water-based recreation.

Figure 11. FEMA Region 1 Coastal Erosion Hazard Map - <u>Intermediate</u> Sea Level Rise Scenario, New London County Excerpt



Figure 12. FEMA Region 1 Coastal Erosion Hazard Map - <u>High</u> Sea Level Rise Scenario, New London County Excerpt



<sup>35</sup> Resource available at:

https://www.arcgis.com/apps/MapSeries/index.html?appid=150edfcff35d4103afe8a20856067c05

#### **Case Study: Alewife Cove**

Alewife Cove, which separates New London from Waterford, has suffered from severe sedimentation that began when beach dunes were deposited into the cove during Superstorm Sandy in 2012.

# Figure 13. An aerial picture of sedimentation in Alewife Cove, courtesy of Alewife Cove Conservancy



Sedimentation has disrupted the tidal flow of the estuary, causing strain on the many fish who utilize the cove for spawning, and disjointed the local food web for birds who depend on those fish.

Alewife Cove's sedimentation challenge highlights the need for regional coordination on supporting and restoring ecological systems. The cove is not the sole responsibility of New London, Waterford, or the State, and there is no liable party that caused this environmental impact. The question becomes: who is responsible for addressing the problem? The Alewife Cove Conservancy was formed by private citizens concerned with the condition of the cove to partner with government entities, non-profit organizations, and private benefactors to restore and maintain the cove's health. Partnerships like this can be a model for how to manage multijurisdictional environmental systems and challenges.

#### **Balancing Development**

At any given time, communities are working to address several priorities. Connecticut, not unique in the Northeast, is currently facing a housing crisis – a sufficient supply of move-in ready, achievably-priced housing for middle- and lower-income households is not available. Maintaining a strong regional economy and the economic and social wellbeing of residents and local municipal budgets is a top priority in many jurisdictions. Alongside these goals, local governments also have a mandate to provide and maintain high-quality open space network, work toward greater resilience, and enforce regulations that protect the environment.

Southeastern Connecticut is expected to add thousands of high-quality jobs over the coming decade with the expansion of operations at Electric Boat, increased investment in offshorewind generation based out of the state pier at New London, and major developments such as Great Wolf Lodge, Preston Riverwalk, and Norwich's Business Park North come online. The increase in job opportunities will likely bring population growth that can, with the present resources available, exacerbate high housing costs and create pressure to meet this expanded demand with expanded supply.

There is often a false dichotomy established that pits all growth and development against land conservation. As a collective, municipal staff, developers, government officials, and residents know more today about the interactions between development and natural systems. And as the saying goes, when you know better, you can do better.

Particular forms of development and urbanization present greater environmental challenges than others. The widespread suburban development that characterized the post-WWI development boom often requires clearing land, leading to habitat loss for native flora and fauna, and fragmentation of natural areas that isolates populations, hinders wildlife movement, and disrupts ecosystems. Increases in impervious surfaces like rooftops and expansive roadway networks needed to service a spread-out population lead to increased stormwater runoff and decreased ground water recharge, which can lead to erosion, sedimentation, and contamination of water bodies as discussed in prior challenges.

While the single-family household continues to be an important and sought after development type, other trends in demographics and lifestyle preferences support adding alternative forms of housing units to the regional housing mix. Average household size has been decreasing for years, as younger generations wait longer to have children and have fewer total children than previous generations. These types of families may require fewer bedrooms, and often appreciate the time and resource savings from maintaining less overall square footage.



# Figure 14. Total Household Number Growth and Average Household Size Decrease Over Time (SCCOG 2017 Regional POCD)

Denser "missing middle" residential development types, such as multi-family, condo, townhouse, and small-lot single family development provides housing that is both more affordable than traditional large-lot single family development, and suited to a wider range of lifestyles, including young families and households, and seniors that would prefer to downsize but age in place within their community of choice.

Denser housing options also help to create more walkable, convenient neighborhoods, and add vitality to public spaces. They accommodate an equal number of housing units in a smaller overall development footprint, with a resulting balance of land that is not developed and can, in fact, be conserved. There are denser housing types that can fit all kinds of communities, to cluster subdivisions and village-style development in rural areas, to allowing for two-family or accessory dwelling units in more suburban communities, to denser and taller housing in urban centers, especially when these units come about from redevelopment of underutilized areas.

Figure 15. "Missing Middle" Housing Types



Southeastern Connecticut will experience increasing pressure to build more housing over the coming decade and beyond. However, framing this pressure as a choice between the provision of housing and environmental conservation is a false dichotomy and should be rejected. It is beyond the scope of this plan to lay out a regional sustainable housing strategy. However, through the utilization of infill development, upzoning, the promotion of village centers, extension of water and sewer infrastructure, and low-impact development requirements for less impervious surface and on-site stormwater capture, net housing stock can be increased in a way that meets demands without the environmental degradation that has historically characterized development.

#### Climate Change

Climate change, a looming threat to the region, is a complex topic, and one that is significantly related to open space planning and implementation. Our modern human civilization developed during a time of relative stability in earth's geological history. This stability enabled us to design buildings, communities, infrastructure – all the cornerstones of modern life – with confidence that in planning these structures, we knew what to expect. The ability to draw on prior conditions to anticipate future conditions is the principal of 'stationarity.' For example, engineers could design a road to withstand a weather event called a "1% annual chance" or "hundred-year" storm, which represented the intense weather conditions that would be expected to occur just once in a one-hundred-year period. Stationarity allowed us to prepare for the future with the knowledge of prior conditions and static probabilities.

Climate change is shifting what is typical of our region's temperature and precipitation beyond the typical boundaries of predictability. Presently occurring climate shifts and the anticipated new conditions toward which we are moving with additional Greenhouse Gas (GHG) emissions will continue to move the needle, representing a paradigm shift into 'non-stationarity;' a

condition in which we can no longer rely on historical records to precisely predict future outcomes. While we know the *direction* of over-arching trends (higher temperatures, more precipitation, more intense storms), the *degree* of these changes depends on policies that we put into place today to control GHG emissions. We are planning for our communities today against a future that is a moving target. What was previously classified as the 100-year storm event may become a more likely and frequent occurrence; it may become the twenty- or tenyear storm event. Everything from emergency response plans, to siting community facilities, to designing roadways, to determining flood insurance rates will likely have to evolve continually and quickly.

Since 1895, Connecticut's annual average temperature has increased by 3°F. Observations show the greatest increases in the SCOOG region (along the southern coast and eastern half of the state).



# Figure 16. Anticipated Physical Climate Temperature, Precipitation, and Sea Level Rise Changes for Connecticut under a High GHG Emissions Scenario (RCP 8.5)<sup>36</sup>

Additional resources developed by Resilient CT and the Connecticut Institute for Resilience & Climate Adaptation (CIRCA) show overall anticipated climate change conditions, and areas where our existing landscapes face present and growing vulnerabilities. Regional heat vulnerability (existing) and future Sea Level Rise hazard areas are shown in the maps below.

<sup>&</sup>lt;sup>36</sup> (CIRCA, 2024)

#### Map 17. Regional Heat Vulnerability



#### HEAT VULNERABILITY SCORE NORMALIZED

0.000000 - 0.086331
0.086332 - 0.180030
0.180031 - 0.305736
 0.305737 - 0.466854
0.466855 - 1.000000
Municipal Boundaries

Produced by SCCOG on 2/8/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CIRCA Climate Change Vulnerability Index Heat Vulnerability layer (accessed 02/08/24). Basemap: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.







#### Special Flood Hazard Area Zones and Sub-Types

- 1 PCT Annual Chance Flood Hazard (A, AE, AH)
- 1 PCT Annual Chance Flood Hazard with Wave Action (VE)
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD CONTAINED IN CHANNEL (one in Bozrah)
- ZZZ AREA WITH REDUCED FLOOD RISK DUE TO LEVEE (one in New London)
  - FLOODWAY
  - Municipal Boundaries

Produced by SCCOG on 2/27/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: FEMA Flood Insurance Rate Map for New London County (download dated 10/05/23). Basemap: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.

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Map 19. Current Mean Higher High Water (MHHW) and MHHW with 20" of Sea Level Rise

\*Mean Higher High Water is the average of the higher of the two high water heights of each tidal day,

**Municipal Boundaries** 

averaged over the U.S. National Tidal Datum Epoch.

NASA, USGS, EPA, NPS, USFWS.











Municipal Boundaries

Produced by SCCOG on 2/14/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: CIRCA Connecticut Sea Level Rise and Storm Surge Viewer Dataset (accessed 02/14/24). Basemap: Esri, TomTom, Garmin, SafeGraph, FAO, METI/ NASA, USGS, EPA, NPS, USFWS.



Areas of heat vulnerability in the region include many of our urban, village, and commercial centers and environmental justice tracts, as well as transportation networks. The communities of Windham, Norwich, New London, Jewett City, and Groton have significant heat risk extents. Additional places and neighborhoods with increased heat risk are central Colchester, Baltic, the Mohegan Tribal Reservation, Oxoboxo River, Niantic, central Waterford, Groton Long Point, Stonington Boro, and Pawcatuck.

As one may intuit, these are some of the areas in the region with the highest concentrations of buildings and impervious surfaces, with limited tree cover. Heat has a significant link to impervious surface. As explained by the EPA: "Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become 'islands' of higher temperatures relative to outlying areas."<sup>37</sup>

These "heat island" effects result in daytime temperatures that are 1-7°F higher than temperatures in outlying areas and nighttime temperatures that are 2-5°F higher. There are several factors that contribute to heat island impacts, including: (1) reduced natural landscapes in urban areas; (2) urban material properties such as pavements or roofing that absorb and emit more of the sun's heat compared to vegetation; (3) urban geometry related to the dimensions and spacing of buildings blocking wind and heat release; (4) heat generated from human activities such as vehicles, air-conditioning units, and industrial facilities; and (5) weather and geography, with calm and clear weather conditions resulting in more severe heat islands. Humid regions like the eastern US and cities with larger and denser populations experience the greatest temperature differences. Extreme heat exposure can result in deadly acute illnesses, such as heat exhaustion and heat stroke, and exacerbate chronic conditions, such as heart, renal, and respiratory diseases (the body's cooling mechanisms tax these internal systems). In fact, heat is the leading weather-related killer in the U.S.<sup>38</sup>

Alongside land impacts, regional waterbodies are experiencing temperature increases. Bay scallop populations in the Long Island Sound's Peconic Bay (located on its southern extent in Long Island) have undergone a collapse since 2019 due to warming waters and present, in combination with the lobster die-off similarly caused by the warming of the sound, a potential "canary in the coal mine" instance for the impacts of climate change on the ecosystem of the sound.<sup>39</sup> Shellfish are the foundation of the food chain for many species in the Sound, including other mollusks such as the moon snail, as well as a local source of food and income for communities in Southeastern Connecticut. A 2022 study found "that the [1999 lobster] die-off had profound and lasting impacts on individuals, their families, and communities with little

<sup>&</sup>lt;sup>37</sup> (US EPA, 2023)

<sup>&</sup>lt;sup>38</sup> (US EPA, 2016)

<sup>&</sup>lt;sup>39</sup> (Tomasetti, et al., 2023)

evidence of a successful recovery."<sup>40</sup> This shock is demonstrative of the wide-ranging risks associated with climate change.

Sea level rise in the region will affect both daily conditions, and storm inundation extents. As shown in the Sea Level Rise maps above, daily Mean Higher High Water (MHHW; the average of the higher of the two high water heights of each tidal day, averaged over the U.S. National Tidal Datum Epoch) will see high tides extending much farther inland than current levels for certain areas of the SCCOG district like Barn Island and areas along Route 1 in Stonington, portions of Groton Long Point and near the Groton-New London Airport, and areas in East Lyme along the Pattagansett River and Black Point. The 100-year return period storm inundation extent will expand landward, especially impacting the Groton-New London Airport area and surrounding lands between Birch Plain Creek/Baker Cover and the Poquonnock River.

The uncertainty associated with non-stationarity means that communities must take the long view and build some of this uncertainty into their decision-making structures with strategies that are flexible and nimble, that can adapt to and mitigate the effects of climate change. **Mitigation** refers to reducing the overall amount of climate change caused by human released GHG, requiring a reduction in the amount of GHG an individual, municipality, or country emits, or the establishment of ways to draw GHG out of the atmosphere. By mitigating GHG emissions, we can help slow down the rates of human-caused climate change, lengthen stationarity, and reduce the uncertainty caused by climate change. **Adaptation** refers to implementing changes in our built or natural environment to reduce our societal and individual vulnerability to the negative impacts of climate change. Adaptation strategies can cut across all sectors of life, including our behaviors, building techniques, and where we live.

Open spaces are integral to helping the region mitigate and adapt to climate change. Toward climate change mitigation, key open spaces including forests, forest soils, and wetlands store large quantities of carbon, preventing GHG from entering the atmosphere and contributing to additional warming. Open space and recreation planning that protects these areas is a component of local climate change mitigation. Loss of these lands would result in much of this carbon entering the atmosphere.

Open spaces of both large and smaller scales are key pieces of climate change adaptations. Preserving critical upstream areas like undeveloped floodplains and aquifers will enable the absorption of rainfall and storm water runoff, thereby minimizing the impact of extreme storm events and drought downstream. Complementary stormwater mitigation efforts can be achieved through the reclamation of grey infrastructure and impervious surfaces in downtowns with green infrastructure like rain gardens and bioswales to assist in interrupting and retaining stormwater runoff. Adaptation could also refer to actions like planting more trees so that they cool neighborhoods and protect people from rising temperatures. Communities can expand their traditional definition of open space to also include small but key patches of green

<sup>&</sup>lt;sup>40</sup> (Seara, Owens, Pollnac, Pomeroy, & Dyer, 2022)

infrastructure that perform critical functions, such as roadside bioswales that collect stormwater runoff and urban forestry networks. Communities can expand recreation offerings to activities that provide educational programming on household resilience and connect residents with the landscape to further a community stewardship ethic.

For non-human communities, enhancing forested riparian areas can help keep rivers cooler and healthier for fish. As wildlife habitat ranges shift to follow cooler habitats, open spaces can provide corridors and stepping stones for wildlife movement.

SCCOG's <u>2023 Hazard Mitigation and Climate Adaptation Plan</u> recommended Open Space as a key intervention for climate change resilience. As it states; "The permanent preservation of undeveloped land can help support natural hazard mitigation efforts by preventing development in areas prone to natural hazards such as floodplains and wildland/urban interfaces."<sup>41</sup> Adaptation efforts are flexible and can incorporate changes in both our environment and our behavior; using conservation subdivisions, planning migration away from the coasts and many other nature-based resilience actions involve elements of protecting open spaces both large and small. Protecting open space now allows communities to hedge against an uncertain future and tap into the multitude of benefits of adaptation and mitigation.

# 4F. Environmental Resources: Take-Aways for Open Space Planning

The Environmental Resources section included a baseline of information that situates Southeastern Connecticut in the context of its landscape characteristics. As the plan develops, the following take-aways are particularly salient to future-oriented open space goals and action items.

- The region is particularly characterized by Eastern Deciduous Forest, open meadows, riverine corridors and wetlands, and coastal natural communities.
- Southeastern Connecticut contains 69,400 acres of classified inland wetland areas (or 17.6% of the region's total land area). Wetland areas are not suitable for development given their associated poorly or very poorly drained drainage class and profiles.
- A quarter of the region's land is considered either Prime Farmland Soil or Statewide Important Farmland Soil. However existing data reflects the quality of the underlying soils, without reference to land use. Follow-on analysis is needed to determine if large portion of prime agricultural soils already host residential or other development.
- The topography of the Southeastern Connecticut region encompasses a mix of coastal plains, hilly areas, and river valleys. Coastal plains include beaches, dunes, and salt marshes, provide scenic vistas, and support recreational activities.

<sup>&</sup>lt;sup>41</sup> (Resilient Land and Water, LLC, 2023)

- The topography of the region offers numerous scenic features, including cliffs, bluffs, waterfalls, gorges, river valleys, and floodplains. These natural formations provide opportunities for hiking, sightseeing, and outdoor exploration.
- The SCCOG region spans four major watershed basins: the Thames River, the Connecticut River, the Pawcatuck River, and the Southeast Coast. The hydrology of the region is influenced by dams, with over 250 dams are registered across the region.
- While the majority of Southeastern Connecticut's residents are served by public water systems, about 80% of the region's land is outside of public water service area extents. In these areas, residences and businesses rely on individual private wells. There are an estimated 32,726 parcels with private wells in the region. There are several designated Aquifer Protection Areas in the region.
- Planning tools like surficial aquifer potential maps and ground water quality maps will help to plan for future expansions of public drinking water supply.
- Southeastern Connecticut hosts threatened and endangered species and 14 critical habitat types that support the needs of specialist species. Climate change and human impact can already be seen in reduced numbers and habitat areas for key indicator aquatic species like cold water fish and crustaceans.
- Brownfields in the region with actual or perceived contamination can pose significant environmental challenges, but also present an opportunity to increase open space. SCCOG is working to expand the regional brownfields inventory and to take on a role in convening partners around brownfield assessment, cleanup, and reuse.
- Healthy, intact forests provide a wide range of ecosystem services such as air and water purification, carbon sequestration, and regulation of local climate. Forest fragmentation in the region has implications for biodiversity, ecosystem health, and the overall functioning of ecosystems. Prioritizing the preservation of existing core forest blocks and strategically restoring others when opportunities present themselves will have a high payoff value.
- There are impaired waterbodies in each regional drainage basin contained in SCCOG region. Water may support one use, such as aquatic habitat, while being impaired for other uses, such as recreation or drinking water, so it is important to drill down into the specifics of each impaired water when considering issues and solutions.
- Most the region's coastal waterbodies are impaired, including estuarine areas up into the Thames River, Niantic River, and Mystic River. The impairment of coastal and estuarine waterbodies suggests that these downstream receiving waters are facing cumulative impacts from widespread "non-point" impairment sources upstream. Greater collaboration around stormwater management is required to address these issues. Currently, only 9% of the SCCOG region is sewered.

- In both inland and coastal environments, erosion and sedimentation can have farreaching impacts on landscapes, water bodies, ecosystems, and human activities. There are several coastal erosion risk areas in SCCOG's coastal zone. Several resources exist that help to identify sites where less environmentally damaging living shoreline restoration projects are most appropriate for installation.
- The region is currently facing a housing crisis. A sufficient supply of move-in ready, achievably-priced housing for middle- and lower-income households is not available. Maintaining a strong regional economy and the economic and social wellbeing of residents and local municipal budgets are top priorities, alongside the provision of open space, community climate resilience, and environmental protection.
- Framing the provision of housing as antithetical to environmental conservation is a false dichotomy and should be rejected. Some forms of development present greater environmental challenges than others. Denser housing options create more walkable, convenient neighborhoods, and add vitality to public spaces. They accommodate an equal number of housing units in a smaller overall development footprint, with a resulting balance of land that is not developed and can, in fact, be conserved. There are denser housing types that can fit all kinds of communities, to cluster subdivisions and village-style development in rural areas, to allowing for two-family or accessory dwelling units in more suburban communities, to denser and taller housing in urban centers, especially when these units come about from redevelopment of underutilized areas. The utilization of infill development, upzoning, the promotion of village centers, extension of water and sewer infrastructure, and low-impact development requirements for less impervious surface and on-site stormwater capture, can increase net household stock without the environmental degradation that has historically characterized development.
- Climate change is shifting what is typical of our region's temperature and precipitation beyond the typical boundaries of predictability. By 2050 under a high GHG emissions scenario, Connecticut is expected to see a 5°F increase in annual average temperatures; 20 more days where temperatures reach and exceed 90°F; 4 additional inches of rain each year; and 20 inches of sea level rise. Open spaces are integral to helping the region mitigate and adapt to climate change. Toward climate change mitigation, key open spaces including forests, forest soils, and wetlands store large quantities of carbon, preventing GHG from entering the atmosphere and contributing to additional warming. Open spaces of both large and smaller scales are key pieces of climate change adaptations, particularly against extreme heat and flooding vulnerabilities.

# Section 5: Inventory of Existing Open Space Lands 5A. Open Space Concepts

#### Definition of Open Space

The establishment of a baseline definition of open space and related concepts helps to set the stage for the inventory to come. While many lands may be undeveloped, land meets the definition of open space only when it is *preserved or protected for an open space use*. For this plan, we continue the practice established by the most recent Connecticut Green Plan (2016) and use an adapted definition of open space from the PA-490 legislation as follows:

Open Space is any area of undeveloped or relatively natural land, including forest land, land designated as wetland under section 22a-30, and not excluding farm land, **the preservation or restriction of the** <u>use</u> **of which would** (A) maintain and enhance the conservation of natural or scenic resources, (B) protect natural streams or water supply, (C) promote conservation of soils, wetlands, beaches or tidal marshes, (D) enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open spaces, (E) enhance public recreation opportunities, or (F) preserve historic sites. [emphasis added]

#### SCCOG's Open Space Classification System

In practice, we find that the open space use criteria included in the state statute fall into six types of open space lands, each of which can encompass more than one open space use:

- **Conservation Lands** These lands generally meet open space statutory use classes A, B, C, and D.
- Working Lands These lands generally meet open space statutory use classes C and D, and are specifically noted as not excluded from the category of open space in the statue.
- Passive Recreation Lands These lands generally meet open space statutory use classes A, B, C, D, and E.
- Active Recreational Lands These lands generally meet open space statutory use classes A, E, and F.
- Trails and Multi-Use Paths These lands generally meet open space statutory use classes A, D, and E.
- Cemeteries These lands meet open space statutory use classes A, D, E and F.

We note that the language establishing the PA-490 statute did not, at the time, contemplate the deep connection between open space land and climate resilience. Throughout this plan, we seek to overcome this omission and explore how open spaces are vital to both climate change adaptation and mitigation actions, in preserving and enhancing lands that can sequester carbon, cool heat-stressed communities, absorb floodwater, and make space for rising sea levels.

#### **Open Space Ownership**

The open space network consists of both *publicly owned* and *privately owned* lands. Permanent protection does not strip all uses from a particular property in every case. Agricultural land, for example, can be privately owned, but permanently protected for agricultural use through state and federal agricultural preservation restriction programs. Examples of *privately owned* open space lands include farmland in agricultural preservation programs, and portions of large residential properties that are placed into a conservation restriction.

Protected public and nonprofit lands are mainly comprised of town owned conservation and park properties, state and federal properties, and land owned by nonprofit land trusts and statewide or regional conservation organizations. Major nonprofit land holders in the SCCOG region are local municipal land trusts, and the regional land trusts Avalonia and Joshua's Trust, among others. The inventory includes publicly owned land, land held by nonprofit conservation-focused entities, and privately-held properties that have a component of permanent open space or recreation preservation.

It is important to note that some land that currently looks like open space, or that is experienced as open space by Southeastern Connecticut community members may not, in fact, be permanently protected. Some may be in temporary preservation programs, like the Connecticut's PA-490 program that reduces property tax levels for farm and forest land owners who make a term-limited commitment to preservation. These lands, valued for their open space qualities by the community at large, are vulnerable to development or change in use. Privately held lands without use restrictions or protections, or without recreational public access are not included in the SCCOG regional inventory.

#### Protection versus Preservation

Open Space also includes both permanently *protected* and functionally *preserved* properties.

As in the CT Green Plan, this plan encompasses open space lands that are either protected or preserved. Protected open space implies a permanent prohibition, such as a deed restriction, that limits future use to open space. Preserved open space, though it may not include a deed restriction, is any area of land that has been acquired and is used for open space purposes. In the absence of a deed restriction, it is still *functionally protected*, and would require public deliberation and significant governmental action to appropriate for a non-open space use.

As excerpted from the Green Plan, Protected and Preserved Open Space Definitions:

### PROTECTED OPEN SPACE

Any area of land with a restriction that would limit its use to open space.

Includes lands subject to conservation restrictions, deed restrictions, or certain reserved rights.

#### PRESERVED OPEN SPACE

Any area of land that has been acquired and is used for open space purposes.

Includes DEEP's State Parks, State Forests, and Wildlife Areas, and Class I and II watershed lands

Protected properties are those which have been placed into a permanent state of preservation. There are several mechanisms by which permanent protection can be achieved for a piece of land. Private lands can be permanently protected lands if the deed is restricted by a conservation restriction. Municipality-owned parcels, properties owned by land trusts, and lands purchased by water utilities for water quality protection may also be deed restricted. Similarly, lands obtained through specific grant programs like CT DEEP's Open Space and Watershed Land Acquisition Grant Program must be placed into permanent protection. Municipal lands purchased for general municipal purposes are afforded only temporary protection unless otherwise specified or provided for by legal agreement. Aside from legal protections, some lands are functionally preserved by the land uses that overlay them. These lands were acquired for and continue to be maintained for open space uses, and converting them to another non-open space use would require community deliberation.

## 5B. Open Space Inventory

#### **Regionwide Summary**

This plan envisions a complete regional open space network that connects and enhances local open space resources. Southeastern Connecticut Council of Governments (SCCOG) collaborated with a diverse set of non-profit and municipal partners to develop a regional open space network that is grounded in both data and local knowledge. In this way, the plan builds on the existing conservation planning efforts in the Southeastern Connecticut region.

# However, we note that this inventory will continually evolve, and constitutes an ongoing work in progress toward better and better data refinement, correction, enhancement, and maintenance.

Currently, the SCCOG region contains 85,127 acres of open space, representing 22.2% of the region's total area. Given currently available information, SCCOG staff estimate that 48,500 of these open space areas are formally protected (12.7%) and 36,626 (9.6%) acres are functionally preserved with open space uses.

Open Space in the SCCOG Region					
85,127 ACRES					
Preserved Land	Protected Land				
36,626 ACRES	48,500 ACRES				

#### Figure 17. Open Space Summary Statistics for the SCCOG Region

Conservation	Active-Passive Recreation	Working Lands	Trails	Cemeteries	Not Yet Classified
24,292 ac	43,735 ac	14,216 ac	347 mi	816 ac	2,068 ac

SCCOG's open space dataset also classifies open space parcels into nine owner types: state, federal or municipal government, land trust or non-profit organizations, water or electric utilities, and homeowners' associations or private entities. The data shows that the State of Connecticut owns the most open space land in the SCCOG region (30%), followed by private entities (20%), municipalities (19%), and land trusts (10%). Additional clarification is needed to assign ownership categories for significant acreage (14%).







# Map 21. SCCOG District Open Space by Class of Primary Use

#### Primary Open Space Use Class

- Conservation Lands Working Lands
  - Passive and Active Recreation
  - Cemetery
  - Use Not Yet Classified

Produced by SCCOG on 3/27/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Base map: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.



#### **Conservation Lands**

Conservation lands are preserved or protected from development for the purposes of conservation. Because their highest purpose is to support ecosystems, water resources, and undisturbed refuge for wildlife they may not be accessible to the public. To identify lands that belong in this category, SCCOG staff performed several queries in the overall open space dataset. We selected for lands where:

- public access = restricted or none and purpose = conservation
- purpose = utilities and owner does not equal CL&P
- purpose includes values Water Co Class I, II or III
- purpose = flood control

A total of 10,801 acres (or 12.6%) of all open space land has been set aside as purely conservation land. These areas are particularly concentrated around drinking water supply reservoirs for the municipalities of Norwich, New London, and Groton, and other public water supply well areas.

## Working Lands

Working lands are farms and managed forests that support jobs and our rural economies, providing local food options for the region's residents along with wildlife habitat, stormwater management, and many other ecosystem benefits. These lands are typically not accessible to the public, or are accessible with limitations. As described by the Connecticut Department of Agriculture:

In Connecticut, the Department of Agriculture preserves working lands by acquiring development rights to agricultural properties through two programs, ensuring that the land remains available only for agricultural use in perpetuity: the Farmland Preservation Program (FPP) and the Community Farms Preservation Program. A permanent restriction on non-agricultural uses is placed on the deed to these properties, but the farms remain in private ownership and continue to pay local property taxes. The programs are voluntary and give farmers a realistic alternative to selling their land for residential development.<sup>42</sup>

The plan and its associated datasets include only permanently preserved working lands. To identify lands that belong in this category, SCCOG staff performed queried the overall open space dataset to select for lands where purpose = Agriculture.

A total of 9,676 acres (or 11.3%) of all open space lands are working lands. The Town of Lebanon has by far and away the highest concentration of APR land, with additional concentrations in Franklin, Bozrah, Griswold, Preston, and Salem.

<sup>&</sup>lt;sup>42</sup> (Connecticut Department of Agriculture, 2024)

Working lands designated under PA-490 offer some temporary protection for agricultural and forest land, however this protection is time limited and can be waived in exchange for paying a tax penalty. Thus, PA-490 lands are functionally preserved, but their status as such is continuously at the discretion of a private land owner. These properties are not considered to be open space under the definition utilized in this plan.

#### Passive and Active Recreation Lands

The key definitional quality for both passive and active recreation land is public access. Passive recreation lands are areas important for supporting wildlife and preserving ecosystems that also permit public access for low intensity recreation and/or experiencing nature. Passive recreation lands are often frequently also conservation areas, serving other open space use functions, such as habitat or landscape conservation. They are distinctive for their allowance of public access and, though they are minimally improved areas, accommodate passive recreation for activities such as walking, hiking, nature study, birding, fishing, hunting, or picnicking. Active recreation lands are the quintessential public park. They are typically landscaped and may contain significant amounts of impermeable surfaces. These lands, usually found in urban and village centers, primarily support recreational sports, community gatherings, and provide vital green spaces in developed areas, but may offer some ecological and resilience value as well.

At present, the SCCOG open space dataset is not granular enough to readily distinguish between active and passive recreation areas. We have combined them into a single "passive and active recreation" class. To identify lands that belong in this category, SCCOG staff performed several queries in the overall open space dataset. We selected for lands where:

- purpose includes the values park, recreation, golf, or historic
- purpose is conservation and access is unrestricted
- local name includes the text School, College, Library, Park, Play, or Beach

A total of 33,860 acres (or 39.6%) of all open space land is available for passive or active recreation. Most state-owned open space lands fall into this category of open space use, including at least 32 State Parks, Forests, and Wildlife Management Areas. As indicated in the 2016 State Green Plan, these lands are considered preserved for open space use (instead of protected for open space through a deed restriction). State-owned land amounts to 25,777 acres of open space in the SCCOG region. Many active recreation sites – ballfields, local parks, playgrounds, courts, and similar, are owned, operated, and programmed by municipalities.

#### Trails and Multi-Use Paths

Trails are active transportation corridors that provide access to the region's open spaces and connect communities and other important regional destinations. Often, trails are interconnected with rivers, flood plains, and farmlands. Multi-Use Paths (MUPs) are distinct in that they are ADA accessible linear paths that may be located adjacent to roadways or on a separate alignment. MUPs on a separate alignment may coexist with open space (such as the

Air Line Trail), or may connect destinations not specifically identified as open space (such as a path connecting the library to the school and ball fields in a municipal complex). At present, SCCOG has recorded 347.3 miles of trails throughout the SCCOG region. Existing trails and MUPs were mapped for the 2019 Bike Ped Plan, and SCCOG's GIS department has maintained and expanded this initial dataset as knowledge of additional trails comes to light. Many trails are located within state and municipal parkland, but trials also include easements that cross privately-owned parcels.

Connecticut has a long history of supporting trail infrastructure. In 1929, the Connecticut Forest & Park Association (a non-profit established in 1895) established the Blue-Blazed Hiking Trail System. This statewide network of 825 miles of trails is generally maintained by volunteers. The State acknowledges the importance of the Blue-Blazed network, enacting state statute to define "those portions of the Connecticut Blue-Blazed trail system which cross state property are hereby designated as state hiking trails."<sup>43</sup> Blue-Blazed trails in and adjacent to the SCCOG region include the Pequot Trail (Preston-Ledyard), the Narragansett Trail (North Stonington), the Pachaug Trail (Griswold), the Nehantic Trail (Griswold), and the Nipmuck Trail (Windham).

SCCOG's 2019 Bike and Pedestrian Plan discusses many kinds of trails and their applicability to active transportation, and provides the following classification system for common bike and pedestrian facility types that exist in the region:



#### Figure 19. Common Bike-Ped Facilities in the SCCOG Region (2019 Bike-Ped Plan Excerpt)

<sup>&</sup>lt;sup>43</sup> (Connecticut Forest & Park Association, 2024)

As can be seen above, active transportation routes and trail facilities often interconnect and overlap. They can vary in their degree of improvement (unpaved trails versus on-road lanes), their overlap with other modes of transportation (bike lanes and off-road trails versus sharrows), and their level of accessibility for those with mobility challenges (unimproved trails versus Multi-Use Paths). There many sources of information about existing trails, but the disaggregated nature of these resources can make it challenging for users to locate the most authoritative and reliable information. The Connecticut Trail Finder (www.cttrailfinder.com) and the Connecticut Forest & Park Association (https//ctwoodlands.org/explore-trails/interactive-map/) websites are two helpful resources, alongside trail maps published by state agencies and local land trusts. UConn hosts the Connecticut Trail Census, which has deployed both sensor- and volunteer-based surveys to measure trail usage across the state. At present, there are five active trail counters in the SCCOG region, on the Hop River Trail, Airline Trail, Niantic Boardwalk, Bluff Point Trail, and New London Waterfront Park (recently relocated from the Trolley Trail in Groton).





## Cemeteries

Cemeteries can serve very similar purposes to passive or active recreation lands. They provide valuable green space in urban areas. The landscaping and unique architectural characteristics of cemeteries can make them excellent places for passive recreation and quiet contemplation. To identify lands that belong in this category, SCCOG staff performed selected the regional open space dataset for lands where purpose = cemetery. A total of 773 acres (or 1%) of all open space land is held in cemeteries.

# Not Yet Categorized

This regional open space plan is SCCOG's first effort to aggregate data across municipalities and open space entities and owners into one cohesive and complete open space dataset. We have gleaned a significant amount of information to date, but there are still data gaps that SCCOG

will work to address over time with additional research. We have left fields null where more information is required, erring toward an approach that leaves room for accurate research over an approach that relies on estimation and potential mis-classification. At present there are 30,307 acres (35% of open space land area) that require further research and classification.

# Section 6: Community Vision and Integrated Planning

# 6A. Description of Public Process

SCCOG employed a variety of public engagement methods to gather public opinion and input on the conservation and recreational needs of the region. Staff publicized and conducted a series of public workshops, released an online survey, engaged directly with stakeholder organizations, and held meetings with municipal staff.

### Public Workshops

During the plan's development, SCCOG held four live public workshops that provided an opportunity for public comment and group discussion. In three workshops that occurred in February 2023, participants received a presentation on the plan, its goals, and the planning process. A group mapping exercise then asked participants to specify locations as either positive examples of open space or as areas that could be improved in some way.

Workshops were held:

Saturday, 2/11/2023, from 10:00am-11:00am at the Public Library of New London.

Monday, 2/13/2023, from 7:00pm-8:00pm on Zoom (Virtual).

Wednesday, 2/15/2023, from 5:30pm-6:30pm at Otis Library in Norwich.

A fourth, similar workshop was conducted at the Niantic Earthfest event on May 13<sup>th</sup>, 2023 where members of the public were able to receive information about and provide feedback on the planning effort as well as participate in the mapping exercise.

Workshop times and locations were chosen to provide a range of opportunity for participation from the community, particularly those from traditionally underserved communities. Notices for the meeting were posted on the SCCOG website and social media, through direct email to towns and the plan's contact list, and the posting of flyers across the region including but not limited to town halls, post offices, community centers, public libraries, fish and game club facilities, private businesses with community boards, and public parks and trailheads with informational kiosks. A press alert was sent to The Day, The Norwich Bulletin, The Windham Chronicle, ECSU Lantern, Mitchell College Magazine, and The College Voice.

SCCOG captured and digitized the points raised in the public workshop group mapping exercises, and combined those with locationally-specific action items that were provided in the survey. A regional view of this public comment summary map is included below. Participants in

the Open Space Plan provided input that both highlighted beloved community open space assets (shown in green), and provided insight into where improvements are needed or where there are opportunities for additional open space and recreation facilities (shown in yellow or red). The map below shows the location of comments. See the municipal annexes in Section 10 for the full text of each comment.



Figure 21. Public Workshop Group Mapping Exercise Outcome Sample

# Figure 22. Digitized Composite of all Locationally-Specific Open Space Comments received in Public Workshops and the Online Survey

See the municipal annexes in Section 10 for the full text of each comment tagged to its location on the map. **Red balloon** = existing open space that needs improvement. **Yellow balloon** = suggested new open space. **Green balloon** = open space assets.



#### **Online Survey**

In addition to workshops, SCCOG staff released a fifteen-question survey with the goal of developing a broad understanding of how and why people in the region utilize conservation and recreation spaces, what they value about open space landscapes and their role in community, and how the regional open space network could be improved. The survey received 118 responses. East Lyme and Ledyard residents made up a significant proportion of respondents. No responses were received from residents of Griswold, Norwich, Preston, Sprague, or Windham. Thirteen responses were received from outside of the region, including West Hartford, Quincy (MA), Durham, Hebron, Westerly (RI), Stratford, Old Lyme, Plainville, Deep River, Waterbury, Haddam, Stamford, and East Hampton. SCCOG's analysis of survey responses can be found in Appendix 3.

#### Stakeholder Engagement

There are organizations throughout the region with missions related to open space and recreation, including municipal departments, divisions, and committees. SCCOG reached out to land trusts and other non-profit actors in the region to discuss their organization and open space in the region. In conjunction with public feedback, these conversations added greatly to staff's understanding of existing conservation and recreation work in the region, as well as the barriers to this work and potential opportunities to overcome them. The specific focus areas of these groups include land and habitat conservation, watershed protection, food access, bicycle and pedestrian infrastructure, sustainability and climate resilience, and larger umbrella organizations, like state agencies, that touch on many subareas of focus. A full list of organizations that met with SCCOG staff, and their mission statements, can be found in Appendix 3.

For local government perspective, SCCOG engaged with municipal staff, commission members, and elected officials from nearly all of its municipalities to assist in the development of this plan. SCCOG provided two potential means of engagement: one-on-one meetings (selected by seven jurisdictions) or response to a written questionnaire (selected by 10 jurisdictions). In either case, each municipal briefing covered the following topic areas: a review of open space plan goals and process, verification of open space parcel data, a review of public open space feedback specific to the municipality, review of the status of items included in municipal plans, discussion of local attitudes towards open space, use of open space, and municipal policy towards the preservation or expansion of open space. While items raised in these conversations could be locationally-specific, SCCOG analyzed them for patterns and trends, which are summarized in Appendix 3.

### 6B. Engagement Outcomes & Community Vision

The main themes expressed through public and stakeholder engagement translate into a community vision for the regional open space network.

Overall, engagement results reflect a population that is knowledgeable about open space offerings, and desirous of additional open space protection and recreation opportunities. When asked to assign the importance of land preservation on a scale of 1 (minimal importance) to 10 (maximum importance), the response average of 9.2 suggests a widespread regional belief in the need for land preservation. While open space is highly valued, people also see the need to balance open space goals against other community proprieties for the use of undeveloped land, such as housing.

People in Southeastern CT have a diverse range of recreational interests. Walking and hiking activities, both on trails and roads or multi-use paths, have exceptionally high participation rates, indicating their widespread popularity. Cycling, birding, nature watching, and water-based activities also show strong appeal. Engagement participants also highlighted less-traditional activities that are growing in popularity, such as nature photography, and activities that hold deep significance for health and community empowerment, such as community gardening and citizen science data collection.

Open spaces and outdoor recreation are increasingly popular, spurred on by a notable shift in behavior and additional usage during the height of the COVID-19 pandemic, potentially influenced by factors such as lockdowns, social distancing measures, and a greater appreciation for outdoor activities as a means of coping with the collective health crisis.

In questions that asked the public to identify the activities that they would engage in more with increased opportunity and accessibility, participants most frequently cited hiking / backpacking, biking, and walking. These are activities with relatively low barriers to entry that require relatively little equipment and training. They can be made part of a daily routine that includes engages with the outdoors and open spaces near to where people live. A robust trail system would contribute to the expansion of these activities. Participants most often want to see additional trail connections that link up open spaces, and trails that connect residential areas to schools. General trail comments focused on (1) trails as alternatives to cars, (2) trails as ecotourism and recreation corridor- and destination-based economic development, (3) trails as elements of open space and recreation access equity, and (4) trails for safe, non-vehicular circulation routes. Respondents want more trails in specific towns, and across municipalities. The completion of the Tri Town Trail was mentioned most frequently, along with the potential for spurs off the Air Line Trail, the Goodwin Trail, and trails along the coast, including both a regionwide connection between village centers for cyclist and walkers (embodied in plan for the Eastern Shoreline Path) and additional and extended shore boardwalks.

As the population grows in its experience of open spaces and in its overall level of engagement, people also have a broadened understanding of the barriers to additional open space and

recreation access. There are four main areas of needed improvement to the open space and recreation network:

#### ✤ A desire for diverse recreational facilities and improved accessibility.

Such as: more disc golf courses, pickle ball fields, ice skating rinks, and dog parks, among others

#### **☆** Interest in water-related and passive/individual outdoor activities.

Such as: more areas to fish and swim, additional car top boat access, more multi-use trails for hiking and biking

#### **\*** An emphasis on conservation and nature preservation.

Such as: limiting development in environmentally sensitive areas

#### **Concerns about safety and the need for better supportive infrastructure.**

Such as: safe biking and walking conditions, better trail maintenance, more signage, better site parking, improved access for those with disabilities, better site information and resources like maps, and safer street crossings.

People value open space for many reasons. In our region, people place a significant emphasis on preserving high quality water resources, including waterbodies and waterways, coastal waters, and drinking water resources. Forests, urban parks, farmland, and historic and cultural areas are also all landscapes that receive significant support for preservation. Of all the associated societal benefits of open space land, stakeholders value open space for its ability to play a role in combating climate change. Its ability to contribute to regional food security and the preservation of agricultural landscapes is also a deeply held value, along with the basic protection of land from development and the ability of open space to contribute to environmental equity.

In all, public input reflects a diverse range of perspectives on open spaces and recreational opportunities. While some emphasize the importance of land conservation and the creation of public trails, others express concerns about open space preservation at the expense of other significant community goals, such as affordable housing development. Several participants highlight the need for coordinated efforts among stakeholders, including local government, utilities, and conservation committees. Suggestions also show how respondents view open space as connected and integral to other community goals, such as GHG reduction and multimodal transportation options. There is also a call for responsible mixed-use development, emphasizing the economic and environmental value of open spaces. Overall, the responses reveal a balance between the desire to preserve natural spaces, where preservation overlaps with other community goals, and the recognition of the need for affordable housing and recreational amenities.

Figure 23. Key Community Regional Open Space Vision Elements



# Section 7: Open Space Goals and Objectives

To realize the community's vision for regional open space formulated through the engagement process described above, this plan establishes six regional open space goals and 25 corresponding open space objectives. The regional action items and municipal toolkits found in Sections 9 and 10 that follow are designed to help advance the region in these six goal areas.

#### **REGIONAL OPEN SPACE GOALS**

- 1. Improve Open Space Access: Members of the public and other stakeholders express the need for additional open spaces to increase access for all users and ensure that their distribution is more equitable across communities. Stakeholders also express desire for a connected open space network, where open spaces are connected not only to each other, but also to other land uses such as residential or commercial areas. Open spaces should be widespread and proximate enough to be part of everyday routines throughout the region.
- 2. Protect Water Resources: The watercourses, waterbodies, wetlands, and coastline of Southeastern Connecticut are some of its most defining geographic features. Their stewardship protects critical drinking water, natural habitat, recreational opportunities, and the economic livelihood of many of the region's residents.
- 3. Improve Safety: Making sure that people are and feel safe, both on their journey to and while visiting open spaces, is critical to ensuring equitable open space access. Many factors contribute to developing parks, trails and other open spaces that are safe for disadvantaged groups. Safe design, access and call boxes for Emergency Medical Services, clear wayfinding signage, lighting, water safety, yield signage describing the hierarchy of users, maintenance of landscaping and paths, and erosion control, among others, contribute to spaces that are and feel safe to young, old, women, minority, and disabled individuals, as well as all groups.
- 4. Develop a "Right Parcel, Right Place" Preservation Approach: Not all parcels have equal open space preservation value. While this plan does not recommend specific parcels for preservation, it builds a case for giving careful consideration to the characteristics of land, and weighing these against complementary community goals when making preservation decisions. Parcels that provide multiple benefits, increase community climate resilience, or that have unique environmental and/or recreational value should be given highest consideration. "Right parcel, right place" lands will come in different shapes and sizes depending on need, including linear passable corridors that are critical to providing access between open space lands and multiple neighborhoods, and may fall under a variety of ownership structures (including fee simple ownership, public rights of way, and easements). This plan advocates for supporting and assisting municipalities, land trusts, and conservation focused non-profits to develop and use tools that help to prioritize parcels with the greatest value, recognizing that value is subjective depending on goals and context.

- **5.** Expand Opportunities for Active Mobility: Public and stakeholder planning partners' top three current recreational pursuits are walking (both on-road and off-road trails), cycling, and non-motorized boating. These activities are also called out as the top choices for expanded opportunity and access. Expansion of safe opportunities for active mobility should be a high priority for recreational planning in the region.
- 6. Harness Open Spaces, both Large and Small, to reduce Community Climate Change Vulnerability and Risk: Open spaces are integral to helping the region mitigate and adapt to climate change. Toward climate change mitigation, key open spaces including forests, forest soils, and wetlands store large quantities of carbon, preventing GHG from entering the atmosphere and contributing to additional warming. Open spaces of both large and smaller scales are key pieces of climate change adaptations for both people and wildlife. We should support large-scale conservation efforts, but also expand our traditional definition of open space to include small but key patches of green infrastructure that perform critical functions, such as roadside bioswales that collect stormwater runoff and urban forestry networks that cool neighborhoods.

The remainder of this section will outline these broad goals in more detail, assess the current state of the open space system as it relates to each, and identify opportunities (abbreviated as O1 - O25) for improvement across the region.

### Goal 1: Improve Open Space Access

Open spaces provide significant physical and mental health benefits and contribute to a high quality of life. Neighborhood and community parks, passive recreational areas, and neighborhood tree canopy help provide these benefits, especially to people living in cities and urban areas. Child development can be impacted by limited access to nature and green spaces. Increasing the connections between people and open spaces, and ensuring widespread open space distribution relative to population makes the benefits of open space accessible to everyone in the region.

# O1: Ensure all residents in urban and suburban communities have access to an open space, trail, or recreational facility within 0.5 miles.

Map 22 provides a very basic demonstration of residents' access to open space, and a preliminary identification of where that access is lacking, by showing open space tracts in the region's urban and suburban communities and the residential land uses that are within and outside of a half-mile buffer area "as the crow files." At present, of the 73,693 residentially classified parcels in urban and suburban communities, 57,227 (77.7%) are located with the half-mile buffer, meaning that about a quarter of the urban-suburban population lacks sufficient access to open space areas. Urban and suburban community classifications come from SCCOG's 2017 POCD. The half-mile distance was selected to represent a ten-minute walk.

This map provides a basis for informing Objective #1, but there are several weak points in this analysis. In future analysis, SCCOG will verify the public access status of each of these parcels to ensure that they truly are available for use by the public without restriction. The analysis would also be enriched if SCCOG could pinpoint the entryways to each open space tract, so that it is possible to run a true "walkshed" analysis that respects half-mile distances along the roadway network, rather than an "as the crow flies" approach that buffers all edges of the open space parcel perimeter. Additional analysis would also set parcel size thresholds for different access purpose indicators. While the presence of all open space types can encourage mental wellbeing, community resilience factors, and smaller passive activities (playgrounds, picnic areas), activities like off-street walking and biking that add opportunities for active fitness into daily routines require larger park sizes.

# O2: Expand ADA accessible open space and connect users with ADA open space and recreation information and mapping.

Children, the elderly, and people with disabilities may have a harder time accessing open spaces than an able-bodied adult. It is important that those undergoing park planning and design work consider how all populations will utilize these spaces while on site, and on their journey to and from the site. As a region, SCCOG, member municipalities, and partners should work to provide additional accessible open spaces and Multi-Use Paths by supporting planning, design, construction, and programming of accessibility improvements in existing and new open spaces.


Map 22. Basic Demonstration of Urban and Suburban Residential Area Access to Publicly Accessible Open Spaces within Walking Distance (half a mile / 10-minute walk)

**Municipal Boundaries** 

Rural Communities - Not Part of Access Analysis

Sources: CT DEEP Open Space Data Layer (2011), local town planning documents and review conversations. Base map: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS.



Resources and design guidelines are available to help municipal and non-profit organizations that manage open spaces develop them in a way that makes them as accommodating as possible while preserve the natural beauty of the space.

#### USDA Accessibility Guidebook for Outdoor Recreation and Trails

#### United States Access Board: Outdoor Developed Areas

There are some informational resources that detail ADA accessible open space and recreation areas. The Last Green Valley National Heritage Corridor Organization won a grant to catalog ADA accessibility within the heritage corridor region. Similarly, the CT Trail Finder (<u>https://www.cttrailfinder.com/</u>) has a statewide trail dataset with a filter for ADA accessibility. All SCCOG municipalities were requested to participate in that statewide data mapping project. Multi-Use Paths (also known as Shared Use Paths) in particular describe a path providing access to various users and providing ADA accessible design.

Notably there is a standard for ADA outdoors, defined by the National Park System, which is less stringent than the Public Rights of Way Accessibility Guidelines (PROWAG; the adopted ADA standard for public rights of way). Specific Multi-Use Path funders operate under different requirements. Project completed with Federal Highway Administration funds, for example, would be required to meet PROWAG.

# O3: Develop a robust designated Greenway / Blueway network

Corridors of contiguous and connected protected open spaces, often consisting of a network of natural areas, parks, trails, and other undeveloped lands, are known as "Greenways," or sometimes "Blueways" when they follow and involve a natural watercourse corridor. These areas hold significant value for both the environment and communities.

Greenways provide spaces and extended routes for outdoor activities such as hiking, biking, jogging, birdwatching, and picnicking. They promote physical and mental well-being, offering opportunities for relaxation and exercise. Greenways enhance the visual appeal of communities by preserving natural landscapes and scenic views. They contribute to the quality of life and overall aesthetics of an area while fostering a sense of community and pride in shared natural resources. Greenways can also attract tourism, leading to increased business activity in surrounding areas, and increase property values.

The SCCOG region is home to several state-designated greenways, mapped and listed below. Extending these greenways and working toward their interconnection will enable a more robust open space network and bring entry points to these recreation areas to more of the region.



#### Map 23. Overview Map of State Designated Connecticut Greenways in the SCCOG Region

Official Designated
Connecticut Greenways

Produced by SCCOG on 2/15/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: DEEP Official Designated Connecticut Greenways (12/21/23). Inset maps for the towns of Colchester, Windham, and New London-Groton follow this overview map.





Figure 24. Detailed View of State Designated Greenways in Windham

Figure 25. Detailed View of State Designated Greenways in Colchester





Figure 26. Detailed View of State Designated Greenways in New London-Groton

# State Designated Greenways in Southeastern CT:

- Eightmile River (Salem)
- Hop River State Park Trail (Windham)
- Airline State Park Trail (Colchester, Lebanon, Windham)
- Quinebaug River Multi-Purpose Trail (Lisbon, Griswold)
- Colchester Greenway System (Colchester)
- Willimantic River Greenway (Windham)
- New London Waterfront Walkway/Bikeway (New London)
- Natchaug River Watershed (Windham)
- Shetucket River Greenway (Windham, Sprague, Norwich, Lisbon, Preston)
- Yantic River Greenway (Lebanon, Bozrah, Norwich)
- Great Oak Greenway (Ledyard)
- Groton Cross Town Greenway (Groton)
- Tri-Town Trail (Groton, Ledyard, Preston)

# *O4: Pursue additional open space preservation activities, but do so in balance with other community goals like housing.*

At any given time, communities are working to address several priorities. Maintaining a strong regional economy and the economic and social wellbeing of residents and local municipal budgets is a top priority in many jurisdictions. Alongside these goals, local governments also have a mandate to provide and maintain high-quality open space network, work toward greater resilience, and enforce regulations that protect the environment.

Connecticut, not unique in the Northeast, is currently facing a housing crisis – a sufficient supply of move-in ready, achievably-priced housing for middle- and lower-income households is not available. SCCOG's 2018 Housing Needs Assessment found that the region would add at least 7,200 households between 2015 and 2025, and that new housing would need to be constructed at a rate of 500 units per year to meet demand. We are not meeting this need.

The purpose of the Regional Open Space Plan is to accelerate the conservation of open spaces in the region for the benefit of future generations. Rather than a zero-sum game, we can identify and articulate the natural lands that are most essential to preserve for the greatest community benefit (the factors behind this judgement may vary by landscape and community context), while also recognizing that some land will continue to be developed for housing, economic development, community facilities, and even resilience (e.g. renewable energy) purposes. We have the best chance at achieving balance in these aims through proactive planning.

# Goal 2: Protection of Water Resources

Water is critical to Southeastern Connecticut. The region's relationship to the coast and its rivers have defined its development patterns. The strategic location of the Thames River made it appealing for national defense, and now offshore wind investment. Large portions of the population rely on safe ground water for daily use, while others depend on the high quality of surface reservoir systems. The region's lakes and ponds are popular recreation destinations. All of these rely on careful management to preserve water quality for safe recreation and consumption. Open space plays a critical role in this management process by acting as a natural filter of contamination and absorbing runoff. Preservation efforts oriented toward actions that preserve and enhance water quality will maintain essential community services, the region's ecology, community resilience, and long-term economic benefits from flooding mitigation and the avoidance of costly water treatment interventions.

# O5: Improve regional collaboration in stormwater management

As described in the environmental challenges section, every regional watershed in the SCCOG region, particularly much of our coastline, contains impaired waterbodies. The greatest non-point source pollution affecting these waterbodies is from stormwater runoff.

In 2018, the City of New London became the only municipality in Connecticut to establish a Stormwater Authority and a dedicated stormwater enterprise fund via a pilot program with Connecticut DEEP enabled in 2007 under Public Act 07-154. Severe flooding on Bank Street in New London in 2015 from extreme precipitation events helped residents and businesses understand the need for the funding. The city now generates about \$1 million annually through their stormwater utility fee. This money is reinvested into the stormwater system to upgrade ageing infrastructure and keep up with routine maintenance. New London has been open about sharing their experiences with the stormwater utility system since its inception.

SCCOG partnered with CIRCA and CDM Smith to conduct a <u>Municipal Stormwater Utility</u> <u>Feasibility Study</u> for the towns of Waterford, Ledyard, Preston, and Stonington that was published in January of 2023. The study found, among other recommendations, that "if the community is intending to move forward with a utility, a significant public education and outreach program has proved critical to the success of getting approval for the utility, as well as the actual operation of the utility." Stormwater systems, like all hydrologic systems, are not neatly contained within municipal boundaries. By improving regional coordination on stormwater management, towns throughout the region may be able to leverage the experiences of other municipalities such as New London in improving their own systems. Successful outreach campaigns can be best achieved through regional collaboration and coordination, by sharing examples and success stories.

# O6: Protect riparian corridors

Aquatic systems provide rich habitats and vital ecological services to the region. Waterbodies provide our drinking water, absorb heat, remove pollutants, absorb flood waters, and transport organic matter across the region. As the environment changes, protecting these resources is more important than ever to maintaining the region's resilience, biodiversity, and water supply. Riparian corridors are the unique plant and animal communities that grow and live near a river, stream lake, or other natural body of water. This interface zone between land and waterbodies is critical to maintaining the health of the waterbody itself, and is significant for aquatic species (such as tree cover to shade cold water fisheries).

Regulated riparian buffer zones are the single most effective tool for protecting this critical interface area. It is not uncommon, but also not universal, for there to be an established 100-foot riparian buffer zone in local land use regulations across Southeastern Connecticut. Some towns have a "soft" buffer that triggers a review, making its effectiveness as a landscape protection tool dependent on the rigorousness of the review body. A "hard" buffer of at least 100' has been the preference of environmental protection authorities in Connecticut for decades.<sup>44</sup>

# 07: Increase the amount of permanently protected public coastline

<sup>&</sup>lt;sup>44</sup> (Murphy, 2000)

The region's coastline orients the region's development, is a foundation of its economy, and serves as the rich ecological meeting point between terrestrial and maritime habitats. Coastal habitats, including salt marshes, tidal flats, beaches, and dunes, host a diverse range of plant and animal species. These habitats serve as nurseries, breeding grounds, and feeding areas for various aquatic and terrestrial species. These habitats offer abundant food sources and protection for juvenile organisms, supporting healthy fisheries. As the Long Island Sound's commercial seafood production continues to suffer from warming waters, maintaining the integrity of these breeding grounds becomes all the more important to preserving this delicate industry.

The coastline, while a vital habitat worthy of protection in its own right, also provides a number of ecological services and other human benefits. The pristine beaches, dunes, and coastal landscapes of Southeastern Connecticut attract tourists and provide recreational opportunities such as swimming, beachcombing, birdwatching, and boating, contributing to the local economy. Coastal habitats, including dunes and salt marshes, serve as natural barriers that reduce the impact of storm surges, protecting inland areas from flooding and property damage. Coastal vegetation, such as beach grasses and dune plants, helps stabilize shorelines and prevent erosion.

The 2016 DEEP Green Plan identified "significant coastal areas" as one of their target areas for preservation. Coastline preservation should be prioritized by communities along the coast of the Long Island Sound and the major estuaries of the region.

# **O8:** Protect aquifers and public water supplies

Residents rely on ground water or utilize public water systems in order to meet their daily needs. Ground water supplies require careful management, potentially across municipal lines, to ensure continued quality supply. In particular, open space preservation that limits development and activities in the region's Aquifer Protection Areas, also commonly known as wellhead protection areas, is a significant method for protecting more vulnerable public water supply wells. As described in Section 4B, there are several designated Aquifer Protection Areas located in Colchester, Sprague, Griswold, Ledyard, North Stonington, Stonington, and East Lyme, and mapped surficial aquifer potential areas throughout the SCCOG region.

# Goal 3: Improve Safety

Safety, both in reaching open spaces and while utilizing them, is of upmost importance to ensuring equitable access to the region's open spaces. Open spaces and recreational facilities with poor approaches can be a hazard for the residents that they intended to serve.

# O9: Prioritize pedestrian, cycling, and public transit infrastructure near open spaces

Outside of urban parks, the vast majority of the region's conservation and recreation lands are safely accessible only by a motor vehicle. Even within urban communities, one is more likely to find a parking lot than a bike rack. This lack of amenities feeds into a self-perpetuating cycle;

few people feel safe accessing the space by walking, cycling, or rolling (skating, etc. – all "micromobility" options), and towns see little reason to invest in these amenities when few people are accessing the space by those modes. Open Spaces are naturally suited for movement and activity. They are meant to be places of community, social gathering points that foster a sense of connection and community pride. As such, all are entitled to safely access these spaces, including non-driving populations such as young, the disabled, and the elderly.

Pedestrian and bicycle facilities, as well as other traffic calming measures, make getting to and from open spaces a safer and more inviting experience. Many such improvements have been identified in transportation planning documents such as the <u>Regional Transportation Safety</u> <u>Plan</u> and <u>Regional Bike and Pedestrian Plan</u>. Acting upon recommendations located in the vicinity of open spaces that are set forth in these documents will improve access to them in an equitable fashion.

# O10: Compile datasets related to unsafe crossings and pedestrian network gaps

The SCCOG planning documents referenced in Objective 9 also contain vital data on gaps and unsafe junctures and crossings in our region's roadway and sidewalk networks. These gaps and problem areas are felt by open space users. Take, for example, the two comments below from the open space survey:

Connect up existing sidewalks and trails along major roads. Often there is a dangerous and annoying gap between sidewalk segments.

Absolutely would love to start riding my bike and walking more to the grocery store/post office/coffee but only if I felt safe and protected. Current bicycle lane paint lines on the pavement do not feel sufficient enough for me.

SCCOG will continue to compile safety data, and in reviewing projects, advocate for and help to ensure that pedestrian and cyclist safety is integrate into transportation and corridor improvement projects.

# O11: Improve upkeep and safety-oriented design of open spaces

Poorly managed and maintained open spaces can become hot spots for criminal activity or highlight community disinvestment if there is an accumulation of trash, overgrowth, or facilities in a state of disrepair. In public engagement sessions, members of the public expressed concern with the condition of some of the region's open spaces, citing issues like drug use and discarded paraphernalia, litter, and deteriorating facilities.

Safety inside of open spaces is deeply tied to equity. Women and gender non-conforming individuals experience the public realm differently than men, especially at night, and are more

likely to feel unsafe. It is critical to include diverse perspectives throughout the park design process to ensure that these perspectives are taken into account. Proper lighting, lines of sight, and well-maintained public areas can all make parks feel safer. In the webinar "<u>It's Her Space, As Well: Ensuring Safe Nighttime Settings for Women</u>" a range of strategies are discussed that can be utilized in developed recreational parks throughout the region.

It is important that safety and maintenance needs are taken into account when planning for open space. By having a plan for the upkeep of open spaces, whether that be from volunteer organizations, municipal commissions, or professional staff, municipalities and land trusts can avoid developing a perception that the area is unsafe because of the accumulation of trash and illegitimate uses. Many factors contribute to developing parks, trails and other open spaces that are safe for disadvantaged groups. Safe and transparent ("eyes on the street") design, accessible paths and call boxes for Emergency Medical Services, ambulance-worthy bridges, clear wayfinding and mile point signage, lighting, water safety, yield signage describing the hierarchy of users, maintenance of landscaping and paths, and erosion control, among others, contribute to spaces that are and feel safe to young, old, women, minority, and disabled individuals, as well as all groups.

# O12: Assist in the creation and availability of open space informational resources

Safety and appropriate open space facility usage and access can also be encouraged by giving recreators tools and information to help them plan their trips, routes, and activities ahead of time. Assisting in the creation or promulgation of regional resources like online and print maps that provide up-to-date and accurate information on public access to open space parcels, available infrastructure like parking and lighting, and permitting site activities, can improve user experience and safety.

# Goal 4: Develop a "Right Parcel, Right Place" Preservation Approach

Not all parcels have equal open space preservation value. While this plan does not recommend specific parcels for preservation, it builds a case for giving careful consideration to the landscape characteristics of land, and weighing these against complementary community goals when making preservation decisions.

Large-scale open spaces can preserve intact habitat, protect and recharge aquifers, grow food, store carbon, and provide ample places for ballfields and areas for people to roam and recreate. Small scale open spaces can provide a place to plant a tree in dense downtowns, create cooling effects, accommodate a playground, fill a gap in the larger greenways, interrupt stormwater flows, and channel floodwaters into reconnected floodplain and flood storage areas. "Right parcel, right place" lands will come in different shapes and sizes depending on need, including linear passable corridors that are critical to providing access between open space lands and multiple neighborhoods, and may fall under a variety of ownership structures (including fee simple ownership, public rights of way, and easements). All are legitimate open

space preservation goals. Each is context dependent and related to underlying landscape characteristics and community needs.

This plan advocates for supporting and assisting municipalities, land trusts, and conservation focused non-profits to develop and use tools that help to prioritize parcels with the greatest open space value, recognizing that value is subjective depending on goals and context.

# *O13: Maintain and continue to improve the SCCOG Open Space Planning and Implementation Dashboard*

This plan is accompanied by an online Open Space Planning and Implementation Dashboard. Built as an interactive map, where users can turn layers of data on and off, it is intended to help individuals and organizations as they explore specific areas and parcels for potential open space acquisition or enhancement. This layering of information can assist in exploring all of the potential ecosystem, resilience, access, connectivity, and environmental equity services that a given piece of land may have the potential to provide.

In many cases, grant applications that accomplish open space acquisition or improvement benefit when applicants demonstrate how an open space project is tailored to the purpose of the grant, and when applicants can show a number of co-benefits, or overlapping positive impacts, of improving or preserving a particular piece of land. The database is meant to help in this exploratory effort, but note that it is purposefully framed as a "working" database. SCCOG hopes to work with municipal, conservation, land trust, and other partners in keeping this information updated over time.

# O14: Improve availability of environmental data for open space managers

The availability of quality data is critical to making informed open space decisions. Many data sources are available from federal and state agencies, as well as non-profit organizations. However, there is no single, comprehensive portal for data and information that may be relevant to the decision-making process of open space managers. This plan is supportive of DEEP efforts to include such a hub in the next iteration of the Green Plan, and will work to integrate new tools like these with SCCOG's own data products.

# O15: Maintain knowledge of, communicate, and support grant opportunities that relate to open space acquisition or improvement

Just as important as data, funding is critical to accomplishing open space acquisitions and improvements. SCCOG can assist in realizing the usage of these funds in communities across the region by staying informed and maintaining a working database of state and federal open space grants. Such a database could be organized by the focus area of the funder, and/or cross-referenced by eligible activities. In some instances, especially for inter-municipal projects, SCCOG may be able to play a role in grant application and administration.

# O16: Provide resources and data that can assist in the protection and enhancement of whole and healthy habitats, diverse natural communities, and core forests

As noted in Section 4D on Fisheries and Wildlife, and the Forest Fragmentation topic area of Section 4E, the SCCOG region has areas of unique and special habitat, as well as intact core forest areas. The data cited in this plan and in SCCOG's online open space dash board can assist in identifying areas that have these unique intact habitat qualities. In these instances, preservation of what is already outstanding and unique is often easier than restoration, and can be a key conservation priority.

# Goal 5: Expand Opportunities for Active Mobility

# O17: Increase public access for walking

Walking, jogging, and hiking, whether on sidewalks or trails, were the most popular active recreational activities as reported in the open space plan public outreach process. Despite, or perhaps because, these activities are so popular, they were also most frequently cited as areas of need for additional opportunities in the region. Outside of urban areas and village centers, sidewalks are uncommon. While many trails exist in the region's state parks and open spaces, demand for more is evident.

Opportunities for expanded pedestrian networks (both on and off road) are abundant. Specific pedestrian facility expansion opportunities for on road users are identified in the <u>SCCOG</u> <u>Regional Bike/Pedestrian Plan</u>. Municipalities should work to implement these recommendations as they provide safety benefits (separating modes of transportation), economic benefits (increase in property values, spending activity in connected downtowns), public health benefit (increased exercise), and transportation benefits (every trip taken on foot is one less car on the road) as outlined in the bike/ped plan, but also because there is significant demand for more safe recreational walking and running routes across the region.

Off-road trail opportunities are also abundant in the region. Two major sources of potential new walking trails come from partnerships with utility companies and private landowners of large, undeveloped parcels. Both types of properties may be areas of "perceived open space"; that is, large tracts of undeveloped land or utility corridors that the public may assume is protected from development or open to public access but is not. Both, however, have been used in many instances to stitch together networks of trails and open spaces. Instruments like easements and access agreements can be used to extend trail and open space network on these lands.

# O18: Plan and program cycling routes connecting open space to other land uses

After pedestrian activities, cycling was the clear second most popular recreational activity, and received a comparable amount of demand for increased facilities. Like promoting pedestrian activity, increased cycling activity and facility improvement can bring a broad spectrum of benefits to a community and its residents. The bike/ped plan identifies several specific cycling facility improvements that municipalities should program for implementation. Many of these recommendations focus on making cycling safer and more viable as a transportation option for commuting and everyday use.

The regional cycling network includes both on- and off-road facilities. Cycling facilities should be designed based on current best practices and ensure that anticipated users are considered in the facility selection. Speed and traffic volumes are typical inputs to facility design selection, however young, older, and disabled cyclist may require more protection than is indicated by those variables alone. Separated bike routes that are physically separated from vehicular traffic can enhance the safety of cyclists, especially families, children, and less experienced riders. Without the worry of sharing the road with motor vehicles, cyclists can enjoy a stress-free and relaxing ride for a more enjoyable recreational experience.





The Air Line Trail, which follows an abandoned rail right-of-way, is an exemplary multi-use trail that runs through eleven towns, including Colchester, Lebanon, and Windham. Abandoned rights of way are natural corridors for these types of multi-use paths, but new state legislation has opened the possibility of "railwith-trail" along active rights of way. House Bill 5255, passed in 2022, protects

railroad companies from undue liability so that municipalities can pursue multi-use trails within the unused portion of railroad right-of-way.<sup>45</sup> These legacy lines typically connect villages and

<sup>&</sup>lt;sup>45</sup> Relevant text from House Bill 5255 / Public Act No. 22-40 Section 4: "(NEW) (I) If the commissioner deems it to be in the best interest of the state, the commissioner may indemnify and hold harmless any railroad company in connection with an interim trail use and rail banking arrangement pursuant to 49 CFR 1152.29, as amended from time to time."

downtowns with each other, as well as many other developed and open space land uses in between, making them excellent corridors for both promoting active mobility and improving connectivity. While some lines, such as Amtrak's Northeast Corridor, are far too active to facilitate parallel trail use, the owners and operators of lower service lines should be engaged with to measure the feasibility of running parallel multi-use paths within their right-of-way.

We note that there is similar legislation in Connecticut that protects municipalities and Water Utilities from recreational use liability so long as the recreational access if offered free of charge. As described by the Connecticut Land Conservation Council: "Connecticut General Statutes Sections 52-557 f-j provide that private landowners (individuals, corporations, land trusts and other nonprofits, and private utilities) which open their land to the public for recreational purposes, without charging any fee, are immune from liability. In 2011, the Connecticut General Assembly passed a recreational liability bill (H.B. 6557) which extends the recreational liability protection to municipalities... Note that there are some exceptions to this immunity. Furthermore, even if ultimately found to be immune from liability, a landowner can still incur expenses for getting a case dismissed. It is therefore important to have premises liability insurance to cover legal expenses in defending a lawsuit."<sup>46</sup>

# *O19: Increase access to Southeastern CT watercourses and provide more opportunities for water-based recreation*

Numerous rivers able to support paddling run through Southeastern Connecticut. The Willimantic, Natchaug, Shetucket, Quinebaug, Yantic, Pachaug, Thames, Poquonnock, Mystic, Wequetequock, Niantic, Jeremy, and Pawcatuck Rivers, in addition to numerous coves, ponds, and lakes, provide the region with some of the most diverse and abundant water bodies available for paddling in the state. Canoeing and kayaking ranked third behind walking and bicycling in terms of the region's most popular recreational activities.

Unfortunately, connectivity between many of these water courses is severely hampered by the presence of dams. Dams, particularly older industrial-era dams that lack modern ecological accommodation and are typical of the region, cause significant environmental impacts. While there are legitimate public purposes for some dams, including public water supply control, obsolete dams serve no on-going purpose and can disrupt aquatic species' migratory patterns, contribute to upstream flooding, and slow water velocities allowing sediment to settle and build over time.

Dams also present barriers to recreational water users. A *portage* is a route that allows paddlers to pull their boats out of the water just before a dam or other obstacle such as rapids and carry it to a safe put-in on the other side. Some watercourses in the region, such as the Shetucket River, have these established over the entirety of the river, making it possible for paddlers to safely traverse the length of the river. Other rivers in the region, such as the

<sup>&</sup>lt;sup>46</sup> (Connecticut Land Conservation Council, 2024)

Quinebaug, Pachaug, and Yantic, are accessible to recreational boaters in fragmented segments due to a lack of access points or portage routes around dams and natural obstacles. Another obstacle to taking full advantage of the lengthy rivers in the region is a lack of camping opportunities along the river. Salt Rock State Park is the only such camp site in the Thames River Watershed. The lack of camping opportunities along the watershed precludes multi-day paddling trips.

Land trusts, municipalities, and recreation-focused organizations can work to close these gaps and provide low-impact campsites for paddlers along the region's rivers. Improving these recreational opportunities will help attract paddling enthusiasts to the region's lengthy waterways and bolster the region's outdoor recreation industry. Due to the low impact of portage trails and tent-only campsites, these accommodations can be included on preserved lands with minimal disruption to the local ecosystem.

#### O20: Support emerging recreational interests and facilities

In certain instances, SCCOG may be able to provide research support to inform facility specifications and parameters for new and emerging recreation interests and activities. Additional previously unaccounted for recreational activities did emerge from responses to the open space plan survey. A total of 28 respondents listed 19 new activities that were not included in SCCOG's provided activity listings, or that represent clarifications, adjacent uses, or different uses for listed facilities. The most popular additional activity was outdoor / nature photography. Respondents are engaging in badminton and yoga as additional land-based recreational activities that can occur on existing parks and recreation fields. The additional water-based activities of paddle boarding and rowing (crew) were included. Respondents noted the winter sports of skiing and sledding. Hunting was expanded to also note related activities of target shooting and trapping. Respondents noted their participation in stewardship (trail maintenance) and citizen science (FrogWatch USA observation) related activities. Throughout the survey, there were calls for more pickleball courts and disc / frisbee golf facilities.

Emerging new activities can take hold in profound and interesting ways. The rapid growth in the popularity of pickleball is perhaps the most recent and widespread example. Towns that engage with these emerging interests can sometimes do so with very creative, positive and innovative results. Minimally, adapting existing underutilized recreation space for new activities can repurpose and activate community assets. At its highest realization, finding space within a community for a popular emerging activity can create a draw to a town with economic development implications. For example, the Stamford Town Center mall owners embraced the power of pickleball, revitalizing the mall with the installation of a 27-court pickleball complex that now acts effectively an anchor store alongside Macy's. Similarly, pump tracks - a training space for new mountain bikers comprised of ramps or earthen berms in a single track loop or network – are rising in popularity. Groton is putting one in Depot Road and there are commercial pump tracks in Westerly, RI and other Connecticut towns. Land use boards may

need to ensure that recreational activities are permitted uses in untraditional zones, to lay the ground work for similar projects.

Goal 6: Harness Open Spaces, both Large and Small, to reduce Community Climate Change Vulnerability and Risk

# O21: Support working lands projects that protect regional food security

According to The World Bank, food security is defined as the condition:

When all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences of an active and healthy lifestyle.<sup>47</sup>

The regional food security network has many facets. From engagement activities, it is clear that people value locally-grown food, agricultural soils, and agricultural landscapes. The regional food system involves farms, farmland preservation entities, home grown and community gardens, supermarket and famers market and other food retail locations, emergency food institutions, and consumers. SCCOG communities and staff should continue to discuss the priority of deepening our understanding in this area.

In 2021, the Connecticut Food System Alliance noted that Connecticut is the only state in New England that does not have a Food Action Plan, though the state's Food Policy Council does host a website with some data and information. Our region could consider the possibility and priority of creating its own Southeastern Connecticut Food Action Plan, to both expand food access and work toward and bolster the case for additional farmland preservation.

Farms located in the SCCOG region are a critical contributor to the supply and availability of food, but they are particularly vulnerable to development given their cleared acreage and the drainage characteristics. Between 2012 and 2022, New London County roughly maintained a stable acreage of land in farms, while Windham County lost roughly 13% (7,500 acres) of its farmland. During the same period the counties saw a net loss of 145 and 25 farms, respectively.<sup>48</sup> A range of factors is threatening the economic viability of farmland, including increased land values, farm costs exceeding revenues, lack of supporting infrastructure, a lack of new farmers to replace retiring farmers, and farming lands that lack protection through zoning or other regulatory designations.

<sup>&</sup>lt;sup>47</sup> (The World Bank, 2024)

<sup>&</sup>lt;sup>48</sup> (United States Department of Agriculture, 2017)

	2012	2017	2022	Change 2012-2022						
Land in Farms (Acres)										
New London County	65,159	60,122	67 <i>,</i> 987	4%						
Windham County	58,264	51,990	50,753	-13%						
Number of Farms										
New London County	949	823	804	-145						
Windham County	692	646	667	-25						
Median Size of Farms (Acres)										
New London County	28	26	30	2						
Windham County	30	30	30	0						

# Figure 28. USDA Census of Agriculture Key County Statistics (2012, 2017, 2022)

# O22: Generate additional data to identify extreme heat impacts

As discussed in the climate change section, by 2050 under a high GHG emissions scenario, we Connecticut can expect a 5°F increase in annual average temperatures. In summer months, this translates into an addition 20 days where temperatures exceed 90°F. Heat risk is a serious issue. Extreme heat exposure can result in deadly acute illnesses, such as heat exhaustion and heat stroke, and exacerbate chronic conditions, such as heart, renal, and respiratory diseases (the body's cooling mechanisms tax these internal systems). Heat risk is not equally distributed. Urban areas, where pavement, buildings, and impervious surfaces are concentrated and tree cover is limited, become 'islands' of higher temperatures relative to outlying areas.

Areas of heat vulnerability in the region include many of our urban, village, and commercial centers and environmental justice tracts, as well as transportation networks. The communities of Windham, Norwich, New London, Jewett City, and Groton have significant heat risk extents. Additional places and neighborhoods with increased heat risk are central Colchester, Baltic, the Mohegan Tribal Reservation, Oxoboxo River, Niantic, central Waterford, Groton Long Point, Stonington Boro, and Pawcatuck. Not everyone has access to an air conditioner, and many people have jobs with significant outdoor exposure. As the seriousness of this issue continues to raise in public consciousness, professionals are creating new tools to help understand heat impacts, and thereby formulate a path to mitigate them. SCCOG and member communities can work with researchers and others that are trying to develop consistent heat data collection methods, and explore other elements of heat risk, such as cooling center access, regional tree cover mapping, and other data toward the potential creation of a regional Heat Action Plan.

# O23: Pursue grants, projects, and studies that reduce flood risk

As predicted, climate change is brining additional water to the region, especially concentrated in the winter and spring seasons. Inland and coastal flooding is becoming a more frequent occurrence. Many known problem and risk areas throughout the region are documented in SCCOG's Multi-Jurisdiction Hazard Mitigation and Climate Adaptation Plan. In many instances, flooding in an inter-municipal issue, because waterbodies span administrative boundaries. SCCOG assistance in administering flood studies and potential implementation grant applications and projects can especially assist for these larger-scale project area extents that cross municipal boundaries.

# O24: Identify opportunities for marsh migration

As a coastal region, portions of Southeastern CT are particularly vulnerable to the impacts of sea level rise. Saltmarshes, which provide important wildlife habitat, carbon storage and protection from storm surge, are uniquely adapted to exist within a specific tidal range where they are inundated for part of the day. As the daily tide reaches farther and farther inland, salt marsh grasses are dying, and marsh habitat is converting to mud flat.

Salt marshes may naturally migrate farther inland to adapt to these changing conditions; however, several factors impact whether marshes will be able to adapt quickly enough to keep pace with ongoing sea level rise. A healthy salt marsh is much more likely to adapt than one that is already degraded. In many cases, existing structures like buildings, roadways and parking lots create hard barriers preventing marsh migration. SCCOG and member communities can work to access the best available data on existing salt marsh habitat and their potential migration areas. Migration areas include undeveloped areas adjacent to existing marshes that are either already protected or are conservation opportunities to allow for migration, as well as developed areas where restoration can provide room for marsh migration. These adjacent uplands will play a critical role in protecting the region's coastal habitats in the future.

# O25: Remove or overcome barriers to wildlife passage

In addition to the recreation benefits that greenways provide (see Objective 3), greenways and large areas of contiguous open space act as wildlife corridors, enabling species to migrate, find food, reproduce, and adapt to changing conditions. This connectivity is crucial for the long-term survival of many species, especially in landscapes dominated by urbanization. Greenways provide habitats for a wide range of plant and animal species. By connecting different natural areas, greenways help maintain biodiversity, prevent habitat fragmentation, and support the movement of wildlife. By restoring degraded habitats along greenways, invasive species can be controlled, native vegetation can be reintroduced, and overall ecosystem health can be improved.

The Nature Conservancy (TNC) has analyzed local wildlife connectivity, with the results for Southeastern CT displayed in the map below. The local connectedness metric estimates how easily species can access their local neighborhoods based on the arrangement of roads, industrial agriculture, development, and other human structures. The principle underlying this metric is that most built structures (roads, buildings, etc.) create resistance to movement and can make it difficult for populations to access microclimates and adjust to change. Some areas in the SCOOG region remain more sparsely developed with fewer built obstructions, preserving connectedness for wildlife movement. These areas are especially concentrated along our eastern and western borders in Colchester, Lebanon, Salem, East Lyme, and North Stonington, as well as areas in protected lands around major water supply waters like Deep River Reservoir and the Morgan Pond / Ledyard Reservoir.

As climate change drives shifts in species and ecosystems, conservation plans based on current biodiversity patterns will become less effective at sustaining species and natural processes over the long term, and the current configuration of protected areas may fail to adequately provide access to diverse climactic conditions needed for species and populations to persist and thrive. The TNC Resilience and Connected Network addresses this problem by identifying a connected network of climate resilient sites, which if conserved, could help sustain biodiversity into the future as it moves and changes. The Network also protects the source water, carbon stocks, oxygen, and recreation space that people depend on. The Resilient and Connected Map integrates three datasets:

- Climate Resilient Sites: Ecologically representative sites with a diversity of connected microclimates and low human modification
- Connectivity and Climate Flow: Linkages that allow species to move across sites and climate gradients
- Recognized Biodiversity Value: Places with intact habitats, rare species, or exemplary communities.

Importantly, the "diffuse" and "concentrated" flow types suggest conservation strategies:

- Diffuse flow: areas that are extremely intact and consequently facilitate high levels of dispersed flow that spreads out to follow many different and alternative pathways. The conservation strategy here might be to keep these areas intact and prevent the flow from becoming concentrated.
- Concentrated flow: areas where large quantities of flow are concentrated through a narrow area. Because of their importance in maintaining flow across a larger network, these pinch points are good candidates for land conservation.

Map 24. TNC Local Landscape Connectedness



#### Local Connectedness



Most local connectedness



Average/Median local connectedness

- Slightly less local connectedness
- Less local connectedness
- Least local connectedness
- Developed
- Municipal Boundaries

Produced by SCCOG on 2/20/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: TNC Resilient and Connected Network Data for Connecticut, Local Connectedness Layer, downloaded (2/20/24).



Map 25. TNC Resilient and Connected Network



Produced by SCCOG on 2/20/24. Maps are for illustrative purposes only and should not be used for legal boundary definitions. Data Sources: TNC Resilient and Connected Network Data for Connecticut, Resilient and Connected Network Regional Customized Layer, downloaded (2/20/24).

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# Section 8: Regional Action Items

The recommendations in this plan are the result of an extensive outreach effort to the public, key stakeholders, and municipal staff as described in Section 6. This input was supplemented by data from federal, state, and non-profit sources and an extensive body of literature on environmental and recreational best practices. These recommendations are split into regional recommendations and municipal recommendations. Regional recommendations are high level and/or general recommendations that are either multi-jurisdictional in character or apply to many communities across the region, and often focus on SCCOG's work program. Municipal recommendations are presented individually in each municipality's Municipal Toolkit, found in Section 10.

In general, open space is a vast topic that includes many kinds of lands. Just the six specific open space land types covered in this plan – conservation, passive recreation, active recreation, working lands, trails, and cemeteries – are implicated in a wide array of community issues. The category of "open space" contains multitudes, as open space land uses and features are integrated with public health, mobility, climate resilience, biodiversity protection, social resilience, food security, and more. In some cases, the recommended regional action items below have already advanced to specific facility-level activities, where they can be readily operationalized. Others call for further planning and study. While we are aware of the frustrations that can arise when we seem to "plan to plan," we are doing the work of recording our collective regional needs and visions for the future, in an increasingly specific way, to reach those on-the-ground opportunities with community buy-in that can be matched with funding and pursued for implementation. Sound planning takes time, but the goal is always to understand, make the case, and realized better conditions for community wellbeing.

Moving forward, we will always consider how the recommendations in this plan overlap with other related documents, such as the Regional Bike/Pedestrian Plan, Regional Hazard Mitigation and Climate Adaptation Plan, and Metropolitan Transportation Plan, to find where projects advance multiple goals across a spectrum of community priorities. The following recommendations are made with the intention of advancing the goals and objectives listed in Section 7, but may be complementary to other regional priorities as well.

# R1: Deepen Our Open Space Access Analysis Methodology

#### Responsible Parties: SCCOG Staff and Interns | Objectives Supported: 12, 13, 14

SCCOG is very excited to introduce the **Open Space Planning and Implementation Dashboard.** Built as an interactive map, where users can turn layers of data on and off, it has great potential to help individuals and organizations as they explore specific areas and parcels for potential open space acquisition or enhancement. However, the act of writing this plan and putting the Dashboard together also helped to illuminate data gaps. While outside the scope of this overall open space plan effort, SCCOG has developed a path forward whereby we can work to improve our working understanding of open space in the region, particularly open space access.

#### **Immediate Next Steps:**

To initiate this process, SCCOG sets the goal of inventorying actual parkland access points across the region, so that a true roadway-based network analysis can be performed, at a rate of five communities per year. At this rate, it will take four summer field seasons to complete this inventory, with a final goal date-of-completion for Summer 2027.

# R2: Pursue Integrated Open Space and Transportation Planning

# Responsible Parties: SCCOG Staff | Objectives Supported: 1, 9, 10, 17, 18

Transportation and open space are planning areas with multiple dimensions of cross-over and linkages. Large state and local parks are often popular destinations; they generate automobile trips from users who access them by car, and must have adequate and safe automotive support infrastructure, such as parking areas, that ensure user access and safety without compromising habitat and conservation goals. In denser areas where access to parkland and open space is theoretically possible by walking, biking, or other non-motorized means of transport, there can be gaps in the sidewalk and bike route network that functionally preclude these modes of access. Stakeholders and members of the public continually raise safety concerns related to accessing open space areas on bike or foot. As we develop our open space access methodology described in Recommendation 1, SCCOG can integrate transportation and transit related data, to identify and close gaps in bike, pedestrian, and transit pathways to open spaces and parks.

#### Immediate Next Steps:

# After the first data collection field season described above in Recommendation One, in late 2024 and early 2025, SCCOG staff can pilot gap analysis approaches for bike, pedestrian, and transit routes to parklands.

R3: Incorporate all Recommendations from the 2019 SCCOG Bike-Ped Plan into this Open Space Plan by Reference and Advance the Expansion of Regionally Significant Multi-Use Paths

# Responsible Parties: SCCOG Staff, Municipal Staff | Objectives Supported: 1, 18

The SCCOG region is fortunate to host several natural corridors carved out by the region's many waterways, as well as numerous intact railroad rights of way. These linear corridors connect the region's most populated areas, and provide opportunity to appreciate and access natural areas in between population centers. Recent state legislation has made "rail-with-trail" a viable option in the state for the first time. This opportunity, combined with the revival of prior efforts for regional greenways, can form the backbone of an interconnected regional network for non-motorized recreation and transportation. Trails recommended for near-term pursuit are:

• **Tri-Town-Trail between Groton and Preston.** This trail was the most mentioned connection in stakeholder and community engagement. It has a passionate stakeholder group behind it, which is actively pursuing grant funds and working to implement trail

segments. However, there are currently barriers in trail routing that need to be overcome; utility land once envisioned as part of the route may not be accessible.



#### Map 26. SCCOG 2019 Bike / Ped Plan Preliminary Recommendations

Note: The Southeastern Connecticut Council of Governments does not make any warranty, expressed or implied, and does not assume any legal liability or responsibility for the accuracy completeness, or usefulness of the data provided herein. Areas depicted are approximate, are for illustration purposes only and do not take the place of a professional survey. The data are not necessarily accurate to mapping, survey, or engineering standards. Areas depicted are not subtable for site-specific decision-making and have no legal bearing on the true shape, size, location, or existence of a geographic feature, property line, or political boundary time representation. This map may contain errors and omissions and should not be referenced or incorporated in any manner in legal documents or proceedings. This data (map) is for general reference only.

- Trolley Line Trail between Norwich and Stonington (Pawcatuck) to the Westerly border. This trail would run on a rail-with-trail route from Norwich through the Preston Riverwalk redevelopment area, and onward along an old trolley right-of-way. Most of the trolley line ROW is owned by Eversource, which uses it for transmission lines. The Preston Riverwalk property has an existing easement to access the river across the rail tracks. A portion of it goes through the Mashantucket (Western) Pequot Reservation, where it is an active roadway. Eversource has not yet been approached about this concept. If realized, there would be potential connections to the Tri-Town-Trail.
- Gold Star Greenway between the Gold Star Bridge (New London-Groton) and Old Mystic. This route would be an off-road multi-use path running alongside Route 184, where it would take advantage of excess ROW affiliated with 184 and connect to points east (Stonington/Old Mystic) and west (toward New London). To the east in Old Mystic, it could connect with an existing segment of Tri-Town-Trail.
- The "Route 11" Greenway planning effort from Salem to the Colchester Air Line Trail. While this route has been discussed previously, engagement participants raised it again as a potential connection. DEEP owns the ROW land around Route 11 in Salem, but in most other places, the parcels have been sold to private owners.
- The Eastern Shoreline Path. The most ambitious recommendation of the 2019 Bicycle and Pedestrian Plan was a shoreline route for cyclists and pedestrians that meets the AASHTO United States Bicycle Route System (USBRS) requirements of: ADA accessibility, connection of communities and a vision of interstate long-distance bicycle travel. The proposed route would capitalize on existing multi-use paths in the towns of Stonington, Groton, New London, and East Lyme. Gaps between those multi-use paths would be filled by context sensitive on-road bicycle and pedestrian facilities in the short term. The route may be redesignated if improved facilities are constructed. South Central Council of Governments, River Council of Governments, SCCOG, Connecticut Department of Transportation and Rhode Island Department of Transportation would be responsible for applying for designation of the route by AASHTO. The further development of this route is strongly supported by bicycle demand data.
- Explore the viability of Rail-with-Trail on low volume and disused freight railroads. Corridors initially identified as providing potential connectivity include:
  - 1) Between Willimantic and Norwich, connecting with the Air Line Trail. The existing freight line ROW is relatively wide, and abutters are few.
  - 2) Between Norwich and Fitchville, connecting with the Willimantic route and utilizing the abandoned Fitchville spur. A trail utilizing the Fitchville spur is consistent with

recommendations in the SCCOG Bike/Ped Plan. As a first step, SCCOG could work with towns to confirm the ownership of the line.

3) Between Willimantic and Sprague (Baltic), connecting with the Air Line Trail. This is an active, State-owned, low-intensity fright line, with one train per day. This corridor has environmental justice implications, connecting two disadvantaged communities through Baltic to the Sprague Land Preserve. The link from Baltic to the Sprague Land Preserve could be a Phase 1 pilot project.

Regional and multi-jurisdictional coordination will be required between municipalities, tribes, the state, railroad companies, and landowners to accomplish these trail connections.

# Immediate Next Steps:

Several trails-related grants exist that could advance portions of these projects. SCCOG maintains a database of grants, but additional proactive steps can be taken with member municipalities and stakeholder groups to anticipate grant applications and provide technical assistance to towns to ensure that they can access funding. Annual grants with fairly regular time tables can be planned for far in advance, and have known scoring criteria. SCCOG could undertake a preliminary project comparison and scoring, to provide guidance on or potentially take on a grant application on behalf of member municipalities that has the highest chance of success in state-wide or federal grant competitions. As part of evaluating potential trails related projects, SCCOG will initiate a review of the ownership of land along priority corridors. SCCOG can also assist communities in the application of newly-adopted PA 23-207 concerning municipal tax abatements for recreational trails, and continue to build relationships with utility companies to pave the way for the use of utility easements as connective trail segments where possible. SCCOG will continue to coordinate with CTDOT to accomplish bicycle and pedestrian amenities and highway crossings.

# R4: Develop Regional Recreational Waters Access Plans

# Responsible Parties: SCCOG, Municipal CEOs, Non-Profit Orgs | Objectives Supported: 1, 19, 20

The development of regional Recreational Waters Access Plans can help expand public access to shoreline and other water bodies throughout Southeastern Connecticut. With examples completed in other regions, the goal of these plans is to get specific about feasible and publiclyand locally-supported opportunities to increase public access to recreational waters. The plan would result in the identification of 15-20 sites that SCCOG or individual municipalities can pursue for additional public access or major public access improvements for recreational waterbased activities. Given the desire to arrive at this level of specificity, the most appropriate scale for this type of plan is the major watershed basin. The SCCOG region extends into four such basins: the Thames River, the Connecticut River, the Pawcatuck River, and the Southeast Shoreline. The plans are meant to be to-the-point and nimble. Data can be drawn from other planning efforts (even and especially this open space plan), so that the focus is on developing the list of priority implementation action items. The plans can also develop strategies for expanding or requiring public access through regulation alongside site specific implementation action items.

#### Immediate Next Steps:

In 2024-2025, SCCOG will communicate with member municipalities and stakeholder organizations to decide on which of the four major watershed basins to pursue as a pilot Recreational Waters Access Plan target area. We would anticipate that, alongside other SCCOG activities, such a plan could be developed over the course of an average of one year, depending on the size of the planning area. If pursued steadily, we could accomplish the four Recreational Waters Access Plans by 2030.

# R5: Be clear about where Development SHOULD go

#### Responsible Parties: SCCOG Staff and Municipalities | Objectives Supported: 1, 4, 12

Communities need to change and grow over time, and conservation and development are two sides of the same coin. While the gray area is replete with decision-points of degree and intensity, development and conservation are the two basic options that can be applied to a given piece of land. Communities that are rich in vitality will be those that make space for everyone. The young children of today become the regional workforce of tomorrow that maintains society and polity as predecessor generations age. When seniors can age in place, we retain the wisdom of their experience, and their ability to care for the larger community after the work of raising a young family has passed. Land is incredibly precious, both for conservation and for offering space for people to live and grow. When Plans of Conservation and Development are clear and serious about the development side of this equation – where people and buildings can land and be received and should go, at a range of densities and intensities to welcome and accommodate people at all walks and stages of life, we actually further the aim of conservation by proactively directing development away from our most precious open space networks and resources.

#### **Immediate Next Steps:**

SCCOG's next Regional Plan of Conservation and Development will be released in 2027. This Open Space Plan has provided a detailed analysis that can inform the conservation side of this effort. Between now and the initiation of plan development in 2025, SCCOG will research and develop potential tools for best informing the development side of the POCD. The goal will be to develop datasets and resources that can illuminate and provide support for regionally significant sites and opportunities for development, delving into topics like workforce development and industry growth, commute-sheds from major institutions, and development around transportation hubs. We will work to lead by example in clearly identifying and demonstrating the areas of the region that are best positioned to receive development.

# R6: Create a SCCOG-based Regional Watershed Planning and Implementation Technical Assistance Program

#### Responsible Parties: SCCOG, Municipal CEOs, Non-Profit Orgs | Objectives Supported: 6, 8, 16

As noted in Section 4E, our region, like many others, struggles with waterbody impairments. The EPA and the State of Connecticut have developed a consistent program for setting these waterbodies on a path to pollution control and water quality improvement through the "319" program. Through the 319 program, eligible entities can receive funding to develop a Watershed Based Plan for addressing nonpoint source impairments. Watershed based planning can also be pursued outside of the 319 program process, depending on the goals of a particular watershed based plan.

So far in the region, Watershed Management Plans have been developed for Amos Lake (Preston), Baker Cove (Groton), Flat Brook (Ledyard / Groton), Lower Natchaug River (Windham / Mansfield), Niantic River (East Lyme, Montville, Salem, Waterford), Spaulding Pond (Norwich), Eight Mile River (Salem), Fenger Brook (New London / Waterford), Groton Utilities Drinking Water Quality Management Plan, Ledyard Source Water Protection Plan, Pawcatuck River Estuary and Little Narragansett Bay Interstate Management Plan (North Stonington / Stonington), Salmon River (Colchester), and Stony Brook (Waterford). SCCOG can establish a consistent work program associated with monitoring and supporting implementation of existing watershed management plans, and make the case for and pursue new watershed based plans to address ongoing impairments.

Recommendations for accomplishing restoration may call for site specific, nature-based, or grey infrastructure stormwater capture. However, recommendations may also relate to industrial best management practices (agriculture, hazardous waste management, etc.) and broad-based land use controls and regulations. For example, Inland Wetland and Watercourse regulations require review of development within the riparian corridor, but this review requirement has unfortunately proven ineffectual in protecting our watercourses. Adoption of a hard riparian buffer overlay on perennial streams and greater water bodies (including ponds, lakes, rivers, marshes, etc.) will ensure the continued health of these aquatic systems and the vast array of benefits that they provide.

#### **Immediate Next Steps:**

To move forward with a watershed-based planning technical assistance work program, in 2024-2025, SCCOG will begin with a back-read of existing watershed management plans and discussions to develop relationships with watershed-protection centered non-profits. SCCOG can work with member municipalities and state agencies to develop an understanding of recommendations that were developed previously, their status, and any actions poised for priority implementation. SCCOG will deepen its understanding of the specific impairments affecting polluted waterbodies, and develop a database of grants that match specific contaminant concerns.

# R7: Develop Regional Priorities for Dam Removal

# Responsible Parties: SCCOG, Municipalities, Non-Profit Orgs | Objectives Supported: 19, 25

Dams powered the mills and factories of Connecticut in the 19<sup>th</sup> and early 20<sup>th</sup> century. As such, Connecticut has an incredible density of dams, with about 4,000 of them throughout the state. Some dams today still serve a practical purpose, either for hydro-electric power generation, water supply, or flood control. However, many no longer serve any active purpose, and present an unnecessary obstacle for the passage of wildlife and people along our watercourses. For example, Willimantic Whitewater Partnership would like to expand whitewater recreation opportunities, and other groups are interested in fish habitat restoration and water quality.<sup>49</sup>

Many dams have regional-scale impacts, and the costs of removal often require more resources than a single municipality can muster. Multiple benefits will accrue when we remove dams, including the long-term restoration of aquatic habitat, improved water quality, and full realization of river recreation.

#### Immediate Next Steps:

Established methods exist for evaluating dam removal prioritization, including the American Rivers and Trout Unlimited guide <u>Exploring Dam Removal: A Decision Making Guide</u>.<sup>50</sup> Dam removal prioritization should take place at the watershed level, given that dam removal focuses on connecting previously disjointed waterways. As part of developing its watershed based planning and implementation technical assistance program (see R6 above), SCCOG can become familiar with the state of dam removal prioritization in each watershed, and work with municipal, non-profit, and State partners toward an initial regional dam inventory and prioritization list.

# R8: Reactivate the Regional Stormwater Collaborative

#### Responsible Parties: SCCOG, Municipalities, Non-Profit Orgs | Objectives Supported: 5

SCCOG can take additional action to assist member communities in accomplishing effective stormwater management. Over half of the municipalities in the SCCOG region are MS4 towns, and must take steps to comply with the six minimum control measures for preventing or treating stormwater. At the writing of this recommendation in March 2024, DEEP is holding listening sessions on the challenges in complying with MS4 General Permit requirements. Small towns have raised concerns around the administrative and practical burdens of the program, and others are struggling to implement stormwater infrastructure retrofit projects to reduce Directly Connected Impervious Areas.

SCCOG, in partnership with the Eastern CT Conservation District (ECCD), previously supported a Regional Stormwater Collaborative. The Collaborative met six times per year, facilitating

<sup>&</sup>lt;sup>49</sup> Dam safety concerns are monitored and listed in the 2023 SCCOG Multi-Jurisdictional Hazard Mitigation Plan

<sup>&</sup>lt;sup>50</sup> (American Rivers; Trout Unlimited, 2002)

Regional discussion for municipal employees engaged in MS4 work. With expanded staff capacity, SCCOG has the renewed ability to host a Regional Stormwater Collaborative. The Collaborative could aim to create stormwater and MS4 compliance materials and resources that could be used throughout the district, and connect municipalities with funding and technical expertise in designing and advancing stormwater system retrofit projects. At a more macro level beyond MS4, SCCOG could represent the region within larger stormwater coalitions at the state and inter-state scales, and could continue conversations around municipal stormwater authorities that SCCOG most recently engaged with through its 2023 Municipal Stormwater Utility Feasibility Study for the towns of Waterford, Ledyard, Preston, and Stonington.

# Immediate Next Steps:

To initiate this work, SCCOG staff will inquire with member municipalities and determine those with interest Regional Stormwater Collaborative participation, and their preferred frequency of convening (bi-monthly, quarterly, etc.) Topics for the first year of quarterly meetings could take the following trajectory: (1) introduction and local MS4 compliance issues; (2) review of and trends in regional stormwater management plans; (3) Directly Connected Impervious Areas and stormwater infrastructure retrofits (with partners like TNC and the SNEP Network); (4) laying the groundwork for a Regional Review of Stormwater Codes as part of a larger regional LID Bylaw Review (the focus of Recommendation 9 below). SCCOG will also consider the funding source for staff time dedicated to this work.

# R9: Conduct a Regional Low Impact Development Regulation Review

# Responsible Parties: SCCOG, CLEAR, Non-Profit Orgs | Objectives Supported: 5

Throughout this plan and in follow-on work, we will continue to stress that different development types have greater or lesser impact on natural systems. It is possible to design development for lower impacts, to provide additional housing and economic development opportunities alongside the preservation of beneficial natural functions and ecosystem services. Low Impact Development ("LID" for short) uses natural systems to manage stormwater and decrease the impact of development, by using trees and other vegetation to filter and infiltrate water and provide shade and cooling:

"Done right, LID minimizes alteration of forests, wetlands, and greenspaces; reduces impervious surfaces; and supports retention of naturally vegetated buffers along wetlands and waterways. Constructed LID features like rain gardens, street trees, and permeable pavers also help:

- Minimize costs of development and local infrastructure maintenance (e.g. roads and stormwater)
- Reduce flooding
- Improve water quality

• Protect and restore natural features that improve quality of life and property values."<sup>51</sup>

Non-profit entities in other states have created tools for reviewing local land use, site plan review, and subdivision codes for the degree to which they enable and encourage Low Impact Development techniques. In the neighboring state of Massachusetts, Mass Audubon has developed a *Local Bylaw Review Tool for LID & Climate-Smart, Nature-Based Solutions*. Any Massachusetts town can use this Excel-based tool to see how their bylaw stacks up against best LID practices.

To SCCOG's current knowledge, no such equivalent bylaw audit tool exists for a Connecticutspecific context. SCCOG and member municipalities can advocate for the adaptation of this tool to a Connecticut-specific regulatory context and framework, and once in place, conduct a regional LID Bylaw Review analysis, to develop best practice updates and amendments to local regulations. An updated Connecticut-based tool can also bring in newer bylaw approaches, such as development regulations that limit turf in yard areas for new construction.

# Immediate Next Steps:

In 2024, SCCOG staff can reach out to UCONN CLEAR, The Nature Conservancy, and other potential resilient land use advocacy groups and experts to form a coalition around creating a LID Bylaw Review tool for Connecticut towns that SCCOG can pilot in Southeastern CT, and identify grant funds that could support this coalition-based work.

# R10: Explore the Creation of a Regional Food Action Plan

# Responsible Parties: CT RC&D, SCCOG, Municipalities, SeCTer | Objectives Supported: 21

Open space lands as defined in this plan include working lands – those that are used in the production of agricultural goods and forestry products. Portions of the SCCOG region retain concentrations of farms and agricultural operations, and have dedicated efforts to securing food production into the future through farmland preservation. In plan development, SCCOG spoke with several community-based organizations in the region's urbanized areas that are dedicated to local food security and community gardening, for both health and nutrition outcomes, and individual and community empowerment. To SCCOG's current knowledge, no study or plan currently exists that examines working lands – both large and small scale – in the context of regional food system and food security frameworks. Alongside an analysis of working lands and food production, a Regional Food Access Plan would examine equitable food access, the distribution of purchase points, emergency food access, food-related businesses and industry sectors, and how to support these pillars of the regional food system.

<sup>&</sup>lt;sup>51</sup> (Mass Audubon, 2024)

#### **Immediate Next Steps:**

To initiate this work, SCCOG staff could begin to build relationships with food-related nonprofits and Connecticut Resource Conservation and Development, and explore available food systems data. SCCOG could develop a white paper based on this initial research for review by member communities and determination as to desired next steps, including ways to support other non-profits or entities with food systems expertise in developing a Regional Food Access Plan.

# R11: Create a Regional Heat Action Plan

#### Responsible Parties: SCCOG, Municipalities, CIRCA, Health Districts | Objectives Supported: 22

Extreme heat is a newer issue in New England. In previous decades and climate conditions, it was not uncommon for houses to be built without air conditioning, with sustained extreme summer temperatures rare or mild enough to be addressed without cooling systems. The climate is changing, and extreme heat is now a present and growing concern. Climate modelers anticipate 20 additional days above 90°F each year by 2050 in Connecticut. With heat stress a leading cause of weather-related deaths, municipalities and individuals need new resources and strategies for managing these challenging weather conditions. A Regional Heat Action Plan can help to develop a working knowledge of extreme heat population vulnerabilities and heat-adaptive infrastructure, such as emergency cooling shelters and tree cover, and identify critical gaps in access and areas where additional tree cover is a significant need.

#### **Immediate Next Steps:**

Extreme heat planning is a growing field. SCCOG staff will begin by conducting an Existing Conditions analysis that builds on the 2023 SCCOG Multi-Jurisdictional Hazard Mitigation and Climate Adaptation Plan. This review and next-step roadmap would illuminate data gaps and identify priority extreme heat mitigation pilot projects throughout the region.

# R12: Convene and administer Multi-Jurisdiction Flood Mitigation Studies and Implementation Projects

#### Responsible Parties: SCCOG, Municipalities, Non-Profit Orgs | Objectives Supported: 5, 23

Open space conservation and floodplain protection play a critical role in floodwater management. The best way to mitigate flood risk is to keep property, infrastructure, and populations clear of flood-prone areas. Flood management is, by nature of watershed and waterway flows, often multi-jurisdictional in nature. SCCOG can serve a technical assistance role in flood mitigation by providing grant application and management assistance, as well as managing flooding-related community engagement and conversations. Restoring and reconnecting floodplains in preserved open space areas and managing retreat from flood hazards through the acquisition of open space and the return of developed areas to open land are flood mitigation options with open space planning implications.

#### Immediate Next Steps:

As of plan writing, SCCOG appears on track to take on a major flood study for the Yantic River and flood mitigation strategies at its downstream extent in Norwich. SCCOG will continue to build on this work in other high-need areas of the region by assisting in implementing floodrelated action items that are articulated in the 2023 HMP. In the coming year, SCCOG can pull this subset of recommendations from the HMP related to flood mitigation through open space acquisition, and prioritize floodplain enhancement technical assistance targets through the scoring system developed in that document.

# R13: Maintain the SCCOG Open Space Planning and Implementation Dashboard

#### Responsible Parties: SCCOG, Municipalities, Non-Profit Orgs | Objectives Supported: 13, 14, 16

The SCCOG Open Space Planning and Implementation Dashboard can serve as a valuable resource for exploring, categorizing, and expanding the region's open space network in concert with community goals for preserving the "right parcel in the right place" based on its intended function and public benefit. However, to continue to have maximum utility, SCCOG must regularly update the data in the Dashboard. SCCOG must find ways to make these data updates part of our routine work program, and work with municipal and nonprofit partners to ensure continued accuracy. We will aim for at least an annual update of regional open space data, and continual improvement of the Dashboard's content based on feedback from municipal and nonprofit partners.

#### **Immediate Next Steps:**

SCCOG already has one critical GIS and data collection related touch point with municipalities each year, during the collection of parcel and CAMA data as part of state-required processes. Pairing other regular data collection needs with this annual request may be a means by which we routinely have an opening and a point of recall for requesting other information that should also be regularly updated, such as developments in local open space networks. We can pioneer this approach in 2024. In 2025, SCCOG can also sponsor a half-day mini open space "retreat," soliciting participation from interested member municipalities who are willing to review the Dashboard and provide feedback on how it can continually evolve into the future.

# R14: Pursue Grant Funding for Data Collection Projects

#### Responsible Parties: SCCOG Staff, State of CT, Regional Non-Profits | Objectives Supported: 2, 10, 22

Making educated decisions in conservation and recreation planning requires the availability of detailed and accurate information. Many excellent sources of data exist, but there are notable gaps. Outside of the data exploration needs referenced above in other recommendations (food systems, heat, etc.), SCCOG should work with the state and regional conservation and recreation focused organizations to seek grant funding for three specific projects:

- Conducting an ADA assessment for open space and recreational facilities in the region. SCCOG received specific public comments on the need for these evaluations and increasing recreational facility accessibility.
- Inventorying vernal pools in the region. No current statewide vernal pool database exists in Connecticut, even though they are critical environmental features and habitat that should be targeted for conservation. (Other states maintain vernal pool datasets; Massachusetts is one such example.)
- 3) Exploring options to expand the trail counting program. Target areas for additional counters include the Goodwin Trail, East Lyme Boardwalk, Tritown Trail, and Gold Star Bridge MUP (2029), and other locations where we could include them like. To expand, SCCOG would need to purchase counters, install them, conduct annual calibration counts, and manage data or contract with a partner like CTTrailCensus to manage.

Having data available in these areas will help municipalities and other open space managers make these and other data collection subject areas priorities and factors in specific open space investments and acquisitions. Data availability is critical to pursuing grants, and making the case, as in these topic areas, that an ADA facility upgrade is needed and beneficial for a wide range of nearby park users, or that a tract of land is even more vital for conservation because of the presence of a vernal pool. SCCOG and other non-profits can support each other in this work. There may also be a role for the state to play in the development of a vernal pools database, or a consistent evaluation and certification process as exists in other states.

# Immediate Next Steps:

For vernal pools, SCCOG staff should reach out to CT DEEP, UCONN, and other partners that may have relevant history or current knowledge of efforts to develop a statewide database, and collect best practice information on how local conservation groups can initiate vernal pool inventory efforts. For ADA facility assessments, SCCOG can begin by identifying resources that have comprehensive recreation facility ADA metrics and standards, and by identifying grants and resources to fund assessment work.

# R15: Maintain an Open Space Grants Database

# Responsible Parties: SCCOG Staff | Objectives Supported: 4, 12, 15, 16, 23

Additional open space planning and implementation work will require resources – in staff and professional time, volunteer efforts, and legal, design and engineering, and capital expenses, depending on the project. SCCOG maintains a database of many grant programs, and staff can continue to improve upon this database to highlight open space grant opportunities. Regular grant programs with annual or semi-annual cycles provide stability and predictability, and allow

SCCOG, municipalities, and other entities to plan. This predictability is vital, because often grants are announced with deadlines that follow a few weeks' time. While this sounds ample, in practice, larger grants benefit from extended project development timelines. An expanded grants database can allow for filtering by topic area or grant focus, and include a "grant phase" entry for each grant that tracks typical release date window, typical due date window, but also the months preceding that are the prime "project development" window.

#### **Immediate Next Steps:**

SCCOG will review the existing agency grants database internally as an agency team, and use open space grants to pilot a database enrichment framework.

# Recommended Action Item Implementation Matrix

SCCOG WORK PROGRAM											
Rec ID	Rec Keywords Summary	2024	2025	2026	2027	2028	2029	2030			
R1	Open Space Access Analysis Methodology	Da	ction Data maintenance								
R2	Integrated Open Space and Transportation Planning	Continuous sharing and co-development of data									
R3	Regionally Significant Multi-Use Paths and Trails	Project development		Planning and implementation grant writing / admin assistance							
R4	Watershed-based Recreational Waters Access Plans	Prioritize watersheds	Pla	Plan 1		Plan 3	Plan 4				
R5	Define Development Supportive and Prime Receiving Areas	Literature and data source review		POCD development		Pursue development supportive projects					
R6	Regional Watershed Planning Technical Assistance	WBP reviews and relationship building		Technical Assistance							
R7	Regional Dam Removal Prioritization	Engagement with watershed orgs.		Dam Removal Technical Assistance							
R8	Regional Stormwater Collaborative	Establish Collabora	Continue the Collaborative and provide MS4 compliance assistance								
R9	Regional Low Impact Development Regulation Audit	Engage with NEMO around existing LID Audit Frameworks		LID Audits		LID Regulation Models and Best Practice Assistance					
R10	Regional Food Action Planning	Engage with determine	rs and need	Participate in plan process, if actualized							
R11	Regional Heat Action Planning	Existing Cone built from	Engage with partners to collect heat data and develop mitigation grants								
R12	Open Space Related Flood Hazard Mitigation Projects	Identify flood mitigation open space projects		Yantic River Pilot Tech. Assistance		Additional Technical Assistance					
R13	SCCOG Open Space Dashboard Maintenance	Pilot Annual Data Collection		Mini-Retreat Check-in		Maintain data for 2034 OSP Update					
R14	Data Collection Projects	Vernal Pools Data Research		ADA Access Da Research		ita and	Other Data Needs				
R15	Open Space Grants Database	Databas Enrichme	Database Database Maintenanc			tenance	9				
Group	ASSISTANCE WITH LOCAL RECON										
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Rec ID	Rec Keyword Summary & Municipal Rec IDs	2024	2025	2026	2027	2028	2029	2030			
L1	Car-top watercraft access points and portage: BZ1, CL2, GR-JC2, GR-JC3, CG-JC4, LB1, LI3, MT3, NW5, NW6, NW7, PR3, PR4, SP3, WI3, WI4	Create a StoryMap with site info overviews	SCCOG prepares / manages Implementation grant applications and projects								
L2	Advance Bike-Ped Plan Actions: Sidewalks on Route 608 (BZ3); Bike-Ped Connections to Open Space (CL3, GC2); I-95 Crossings (EL3)	Defer to timing and priority order in Bike-Ped Plan									
L3	Proactively identify priority conservation targets (large tracts): BZ4, FR2, LI, NS3, PR5, SP2, S-SB4, WA4	Hold SCCOG Trainings / W with local depar	Hold SCCOG OS Dashboard Trainings / Working Sessions with local boards and departments Assist with grant applications and project management					t oject			
L4	Proactively identify priority open space targets (neighborhood scale): GR-JC5, GC1, LE3, NL4, NL5, NW4, SP4, WI5	Hold SCCOG Trainings / W with local depar	OS Das orking S boards rtments	hboard Sessions and	app	Assist w lications manag	vith gran s and pro gement	t oject			
L5	Yantic River Phosphorus Mitigation: BZ5, CL4, FR3, LB3, SA2	Coordinate ECCD on exi conditions ar	with sting nalysis	with Conside sting and Sa alysis Nee		vith Consider ting and Samp alysis Need		As	sist with applicati	grant	
L6	Re-consider Route 11 Greenway: CL1, EL1, MT1, SA1, WA1	Create a StoryMap with Route info overview	Convene Stakeholder Group		Convene Stakeholder Group		Pursu greei	e grants to accomp nway implementat		mplish tation	
L7	Rail-With-Trail Windham to Norwich: FR1, LB1, NW1, WI2	Create a StoryMap with Route info overview	Convene Stakeholder Group Feasibility		udy ibility	Next S deterr by fea stu	teps as mined sibility ıdy				

# Recommended Action Item Implementation Matrix, continued

Group Rec ID	Rec Keyword Summary & Municipal Rec IDs	2024	2025	2026	2027	2028	2029	2030	
L8	Rail-With-Trail Willimantic to Baltic: SP1, WI1	Create a StoryMap with Route info overview	Conv Stakeł Gro	vene holder oup	Stu Feasi	Study Feasibility		teps as mined sibility ıdy	
L9	Pursue Greenway Designation: Pachaug River: GR-JC1 Quinebaug River: LI2, PR2 Oxoboxo River: MT2 Pawcatuck River: NS2, S-SB2* *(may already be underway locally)		Convene stakeholders for nomination process		Com	plete nc design	ominatio ations	ons /	
L10	New Local Trail Routes and Open Space Area Plans: Washington Park Connections (GC3); Oak Street Cemetery (NW2); Mohegan Park Traffic Calming (NW3); Town POCD trail network (SA3); Fitchville Rail Spur (BZ2); CT-184 Multi-Use Path (GT2); Alewife Cove (NL2, WA2)	Meet wit stakeholde discuss pote next steps SCCOG's r	th rs to ential and ole	Assisi who path	Assist with project implementation where possible, with assistance pathways defined per project and with local stakeholders			tation ince t and	
L11	Continue Tri-Town Trail Implementation: GT1, LE2	Revisit Routing / Trail Master Plan	Study alternative route feasibility		Pur	sue imp	lementa	ition	
L12	Trolley ROW Trail: LE1, NS1, PR1, S-SB1	Create a St Route info Convene Stak	oryMap with overview and keholder Group		Sti Feas	udy ibility	Next a deterr by fea stu	Steps is mined sibility idy	
L13	Eastern Shoreline Path: EL2, NL3, S-SB3, WA3	Pursue rout	Pursue route designation			e designation USBR			ovide as a

# SCCOG 2024 Open Space Work Program

Activities sorted by Recommendation	J	F	Μ	Α	Μ	J	J	Α	S	0	Ν	D
R1: Setup data collection framework				•	•							
R1: First pilot field season of data collection						•						
R1: Reflection on pilot collection round							•	•				
R2: Use first season data to pilot an open space												
gaps analysis approach for different										٠	•	•
transportation modes (walk, bike transit)												
R3: Create a GIS model of land ownership along												
priority regional multi-use path routes							•	•				
R3: Evaluate best grant matches for 2025 grant												
application cycles									•	•	•	•
R4: Conversations with municipalities and												
stakeholder groups to select planning area pilot					•	•	•	•	•	•		
watershed for 2025-2026												
R5: Development-related data lit review				•	•			•	•	•		
R6: Impaired Waterbodies Data Frame (GIS)			٠	٠								
R6: Review of Existing Watershed Based Plans				•	•	•	•	•	•	•	٠	•
R6: Attendance at Watershed Based										•		
Partnership Meetings				•			•			•		
R7: Building on R6 activity, explore the state of												
dam removal prioritization by watershed												
through interactions with watershed-based												
groups												
R8: Confirm municipal interest in a Regional				•								
Stormwater Collaborative												
R8: Host 2024 quarterly meetings						٠			٠			٠
R9: Contact NEMO for previous LID study												
methodology												
R9: Review NEMO methodology and develop						•	•	•	•	•	•	
partnership-based grant application												
R10: Reach out to CT RC&D, SeCTer, and other									•	•		
partners to discuss need and possibilities												
R11: Synthesize heat info from HMP into												
existing conditions information												
R11: Create a regional heat risk story map							•	•	•			
R12: Synthesize flood mitigation strategies with					•							
an open space acquisition from the HMP					_							

To be updated each year in January, and posted to the SCCOG website

Activities sorted by Recommendation	J	F	Μ	Α	Μ	J	J	Α	S	0	Ν	D
R12: Determine potential grant applications for												
flood mitigation open space acquisition							•	•	•			
R13: Internal check-ins on how to structure												
annual open space data update requests				•								
R14: Reach out to CTECO and DEEP to												
understand current state of vernal pool data in					٠							
the state												
R15: Organize staff meeting around existing												
grants tracker, and possibilities for building in					•					•		
timelines that include project development					•					•		
periods; check in on progress												
R15: Build out data framework						•	•	٠	٠	•	٠	•
L1: StoryMap for Water Access and Portages								•				
with site info overview								•				
L3 and L4: First four local trainings on SCCOG									•	•	•	
OS dashboard									•	•	•	•
L5: Make contact with ECCD on Yantic						•						
Phosphorus												
L6: Route 11 Greenway Data Review StoryMap										•		
L7: Windham to Norwich Rail with Trail							•					
overview StoryMap							•					
L8: Windham to Baltic Rail with Trail overview								•				
StoryMap								•				
L10: Meet with three communities on local trail									•	•	•	•
routes and open space plans												
L11: Coordinate with Town and City of Groton												
and GU to determine if there is a viable route												
identified within the TriTown Master Plan. If							•					
not, advance a PEL study (NEPA + planning) to												
ensure that the solution is context sensitive and												
feasible.												

# Section 9: Alignment with State, Regional, and Local Plans

Ensuring alignment between regional planning documents and other local, regional, and state planning initiatives is of paramount importance for fostering coherent and sustainable development. When these planning documents harmonize, they create a unified framework that optimizes resource allocation, minimizes redundancies, and maximizes the positive impact on communities. Alignment between these documents facilitates efficient utilization of resources, streamlines decision-making processes, and promotes a holistic approach to addressing shared challenges. Moreover, it encourages collaborative efforts among different jurisdictions, fostering a sense of interconnectedness and enabling more effective crossboundary problem-solving.

This section discusses how the Regional Open Space Plan aligns with other planning documents, listed in chronological order starting from the most recently published.

# State Plans

# Taking Action on Climate Change and Building a More Resilient CT for All Governor's Council on Climate Change (GC3) – January 2021

This plan conforms with the "near term actions" recommended in the GC3 report. Open Space plays a critical role in making the state more resilient to the impacts of a changing climate. Land conservation helps ensure healthy forests, wetlands, rivers, farmlands, and coastlines. The recommendations and products in this plan directly support the reports call for prioritizing lands with high resilience value, for the improvement of ecosystems, for improving hydrological connectivity, for broadening safe and equitable access to water resources, and protecting forests, inland waters, and working lands.

# <u>Connecticut Forest Action Plan</u> – CT Department of Energy and Environmental Protection: Forestry Division – 2020

Connecticut's forests cover 56-61% of the state. The Forest Action Plan aims to protect and improve Connecticut's forests. The regional open space plan aligns with the forest plan's goals of preserving and expanding forest land, prioritizing the preservation of Connecticut's remaining core forest, supporting a broad spectrum of appropriate recreational activities, and improving connectivity between trail networks.

# <u>Long Island Sound Blue Plan</u> – CT Department of Energy and Environmental Protection: Land and Water Resources Division – September 2019

The Long Island Sound Blue Plan aims to protect important ecological resources and existing human uses of the Long Island Sound. While the Blue Plan does not cover coastal lands or the waterways that feed into the Sound, the Regional Open Space Plan plays a complimentary role

to the Blue Plan's goal of a "Healthy Long Island Sound Ecosystem." Upland conservation lands act as a natural filter for the water that flows into the Long Island Sound. Improving the quality of the water flowing in and the habitats along the coast will help to make Long Island Sound ecosystems more resilient and robust.

# <u>Conservation & Development Policies: The Plan for Connecticut</u> – Office of Policy and Management – 2018

The Regional Open Space Plan directly aligns with two of the state's stated growth management principles four and five: conserve and restore the natural environment, cultural and historical resources, and traditional rural lands; and protect and ensure the integrity of environmental assets critical to public health and safety. The planning effort itself is an execution of principle six, to promote integrated planning across all levels of government to address issues on a statewide, regional, and local basis. It is also consistent with principles one, two, and three, all of which support the type of development pattern necessary for the preservation of open space.

# Connecticut State Water Plan – CT Water Planning Council - 2018

As is often mentioned in this plan, water systems do not neatly conform to municipal boundaries. The CT State Water Plan helps inform water planning to encourage interjurisdictional coordination and the sharing of information. The Regional Open Space Plan directly aligns to the Water Plan's goals of water conservation and maintaining high quality drinking water. Land conservation is one of the primary tools for ensuring that drinking water supplies, both surface and ground waters, remain in good condition.

# <u>Statewide Comprehensive Outdoor Recreation Plan</u> – CT Department of Energy and Environmental Protection: Bureau of Outdoor Recreation – December 2017

Recreation and open space are inextricably linked. The Regional Open Space Plan serves as the regionally equivalent document for advancing the recreation goals of the SCORP in Southeastern Connecticut. Many goals and strategies directly overlap, including improving access, improving connectivity, and creating more opportunities for active recreation. Implementation of the recommendations in the Regional Open Space Plan will directly advance the goals of the SCORP.

# <u>Comprehensive Open Space Acquisition Strategy (Green Plan)</u> – CT Department of Energy and Environmental Protection: Land Acquisition and Management Unit – 2016

The Green Plan can be looked at as the "parent plan" to the Regional Open Space Plan. The goals and recommendations found in the Regional Open Space Plan will advance the state's goal of preserving or protecting 21% of its acreage. Like the Green Plan, the Regional Open

Space Plan strongly emphasizes the prioritization of lands with the most ecological and recreational value for preservation, though the regional plan also emphasizes the preservation of lands with high climate resilience value.

# <u>Connecticut Coastal and Estuarine Land Conservation Program Plan</u> – CT Department of Energy and Environmental Protection: Office of Long Island Sound Programs – October 2015

The CELCP seeks to protect important coastal and estuarine areas with significant ecological, recreational, historical, or aesthetic value. The plan utilizes a quantitative system to score lands for conservation based on a variety of criteria. The Regional Open Space Plan similarly emphasizes protection of Southeastern CT's coasts and estuarine habitat. Protection of, and recreational access to, these areas is consistent across both plans.

# **Regional Plans**

# <u>Hazard Mitigation & Climate Adaptation Plan</u> – Southeastern CT Council of Governments – 2023

There are few strategies as effective at improving resilience as the strategic preservation of land. The implementation of the recommendations found in the Regional Open Space Plan directly supports the mission of the Hazard Mitigation and Climate Adaptation plan by making the region more resilient to flooding and extreme heat. The HMCAP clearly outlines the long term economic necessity of robust open space networks, as investments in these features now will help the region as the impacts of climate change grow increasingly tangible.

# <u>Regional Bike & Pedestrian Plan</u> – Southeastern CT Council of Governments – November 2019

Two of the Regional Open Space Plan's goals, Improve Open Space Access and Expand Opportunities for Active Mobility, directly tie in with the regional Bike/Ped plan. Many of the recommendations found in each plan support the aims of the other. Full implementation of the Bike/Ped plan would greatly expand active recreational opportunities in the region and provide better multi-modal connections to open space destinations with our communities.

# <u>Coordinated Water System Plan</u> – Eastern Region Water Utility Coordinating Committee -May 2018

The Coordinated Water System Plan primarily focuses hard infrastructure improvements that support water utilities. However, preservation of land in the watersheds of public drinking supplies does help to ensure water quality and lower the costs of purification. The protection of potential future sources of drinking water is also consistent with the aims of both plans.

# <u>Critical Facilities Assessment</u> – Southeastern CT Council of Governments – November 2017

As discussed in the compatibility with the hazard mitigation plan, the strategic use of preserved lands for flood protection and wind breaking will make the region more resilient to extreme weather events. By including proximity to critical facilities as a factor in preservation prioritization, open space managers can advance complementary planning goals.

# <u>Plan of Conservation & Development</u> – Southeastern CT Council of Governments – November 2017

The Regional Open Space Plan directly advances and expands upon the goals for open space and natural resources listed in the Regional POCD. "Connect Parkland and Open Space" and "Public Access to Waterfront" are directly aligned with goal #1 of this plan, Improve Connectivity and Access. "Clean Waters" is directly aligned with goal #2 of this plan, "Protection of Water Resources." Implementation of the recommendations of this plan will also advance the "Resilient Natural Environments" goal listed in the plan.

# <u>Comprehensive Economic Development Strategy</u> – Southeastern CT Economic Development District – March 2017

The strategic protection of open space and availability of ample recreational opportunities plays a large role in quality of life. This plan is consistent with Goal 4 and its sub-objectives 4D and 4E, which emphasize the role of our natural, historic, and cultural assets in the region's economic competitiveness.

# **Municipal Plans**

All municipalities conduct planning for open space as a part of their decennial Plan of Conservation and Development process. The scope of this planning varies widely, and each municipality has priorities and capacity based on their specific context. Many municipalities have conducted local level open space plans, recreation plans, or other similar planning efforts.

Like the planning process, the ways in which open space is acquired and managed varies greatly as well. Some municipalities may directly own and manage all of their own open space, others may rely almost entirely on a local land trust to handle the acquisition and management of passive open spaces, or the town and land trust may both own and operate different types of open spaces while working cooperatively on the management of the system as a whole. Some municipalities have large institutions that own and operate land as open space, such as universities or utility companies.

Alignment of the Regional Open Space Plan with municipal planning documents is described individually in each municipal toolkit in Section 10.

# Section 10 – Municipal Toolkits

This section includes specific recommendations of regional significance for conservation and recreation improvements in each SCCOG municipality. Different objectives are emphasized in each municipality depending on the local context, needs, and opportunities available in that municipality.

A sampling of recommendations includes the expansion of conservation efforts in towns where little protected land exists, overcoming gaps along regional blueways, developing new rail-with-trail connections, improving urban park upkeep, and reconsidering the use of town-owned parcels.

# Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of town planning processes and high priority local needs, which can evolve over time.

The toolkits include guidance on:

- References to municipal planning documents and studies.
- Specific recommendations for actions that will advance the goals and objectives stated previously in this plan.
- Whom to contact regarding conservation and recreation.

The purpose of the toolkits is to provide a package of action items for each municipality to undertake. These action items complement the plan's regional recommendations and will result in significant improvements to open space in the SCCOG region.

	Verified open space
	Non-verified open space
<b>v</b>	Existing open space, good condition
<b>(</b>	Desired open space/suggestion
<b>v</b>	Existing open space, needs improvement
	Desired path or connector/suggestion

# Legend for municipal open space survey comments maps:

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## Bozrah

# Introduction

The Yantic River flows from west to east through Bozrah, one of the most rural communities in the SCCOG region. Much of the town's development is proximate to the river, including the villages of Gilman and Fitchville. Outside of these villages, much of the land in Bozrah is either undeveloped or utilized for agriculture. However, only 12.17% of the town is protected or preserved open space.

Much of the permanently protected land in town is preserved agricultural land. Land with public access for passive or active recreation also makes up a significant proportion of the town's protected or preserved open space, including the state-held Hopemead State Park and Bear Hill WMA tracts. Bozrah was awarded a state Open Space and Watershed Land Acquisition (OSWA) grant in cooperation with Montville in 2022 for a preserve that straddles the border of the two towns and will be managed by Avalonia Land Conservancy.

# Figure 29. Town of Bozrah Open Space Land Statistics

Total Protected Land	1,088 ac						
Total Preserved Land	491 ac						
Total OS Land <sup>52</sup>	1 590 20	С	R	Т	W	CE	NYC
Total US Land	1,580 ac	111 ac	450 ac	0 mi	998 ac	9 ac	11 ac
Total Land Area	12,982 ac						
Pct Open Space Land	12.17%						

Recorded to Date in SCCOG's Regional Open Space Dataset

Bozrah completed an Open Space Plan in 2021 that expands upon the open space planning in the town's 2015 POCD. The Open Space Plan includes the development of a quantified scoring system for parcel acquisition. Many of the recommendations made in the 2021 Open Space Plan pertain to the Inland Wetlands and Conservation Commission. Local Open Space Plan goals are complementary to the goals of the SCCOG Regional Open Space Plan.

<sup>&</sup>lt;sup>52</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 27. Bozrah Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



# Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of town planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
BZ1	Create small craft river access below Fitchville Dam at town owned parcel and portage route with wayfinding between this and above- dam access point behind town hall.	19
BZ2	Develop a Multi-Use Trail between Fitchville and Norwich utilizing town owned land and abandoned Fitchville rail spur (requires cross-jurisdictional cooperation with Franklin and Norwich).	18
BZ3	Provide sidewalks along Norwich-Colchester Turnpike (Rt 608 from the Post Office to Haughton Road) as recommended in the regional Bike/Ped Plan.	9, 17
BZ4	Utilizing the Inland Wetlands and Conservation Commission developed prioritization criteria, proactively identify parcels to pursue for fee acquisition, purchase of development rights, or easement by the town or partner land trusts.	4
BZ5	Partnering with local champions in the agricultural community and agricultural advocate groups like FarmLink and UCONN Extension, start conversations about phosphorus sources, and on best practices to minimize agricultural phosphorus impacts on water quality.	8, 11, 21

Bozrah's primary natural feature, the Yantic River, is presently underutilized as an opportunity for recreation and a draw for residents across the region. The lack of small-craft access immediately below the Fitchville Dam prevents a paddler from portaging around the dam and continuing along the river into Norwich. Facilitating this connection would link three- and five-mile segments into one eight-mile paddling route and attract outdoor recreation enthusiasts during periods of high water.

Bozrah's legacy mill village of Fitchville used to be served by a rail spur connection to Norwich on the New England Central Rail Road. This spur, now long abandoned, has not drawn interest as a rail trail because the main line remains active. However, new state legislation enabling railwith-trail creates new possibilities for this corridor. This route would provide a safe and scenic bike/ped connection between Fitchville and Norwich and increase the village's appeal as an outdoor recreation destination. The regional bike/ped plan is in general complementary to the goals and objectives of this plan. The introduction of sidewalks through the Fitchville neighborhood will support the above recommendations, making the area more welcoming to pedestrians and cyclists while also significantly improving the safety of paddlers portaging around the Fitchville Dam.

Bozrah has many unique advantages in developing an open space system. Its large tracts of undeveloped and agricultural land provide significant environmental value and open the possibility of creating open space corridors that preserve core forests and cold water fisheries, connect habitats, and connect people between developed areas and less disturbed natural spaces. The town should prioritize the protection of these natural assets, independently or through partnerships. It is recommended the Inland Wetlands and Conservation Commission build upon its prior work put into the municipal open space plan and prioritization methodology by proactively identifying parcels to target for preservation.

As described in Section 3E, the Yantic River is an impaired waterbody. It suffers from very high levels of phosphorus, which is detrimental to the health and safety of its ecosystem and impacts downstream communities. Phosphorus impairment is unique among SCCOG region watercourses and is primarily due to the agricultural nature of the Yantic River watershed communities of Colchester, Salem, Lebanon, Bozrah, and Franklin. Solving this contamination issue will require towns to engage operators and encourage best management practices to prevent runoff from impacting water quality. Related resources can be found at:

https://www.ars.usda.gov/is/np/bestmgmtpractices/best%20management%20practices.pdf https://www.epa.gov/sites/default/files/2015-09/documents/ag\_runoff\_fact\_sheet.pdf https://www.epa.gov/nps/nonpoint-source-agriculture

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in Bozrah, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Community Public Water Supply Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4E: Core Forest Map 13
- <u>Section 4E: Impaired Waterbodies Figure 8 / Map 14</u>
- Section 4E: FEMA Special Flood Hazard Areas Map 18

- <u>Section 7, Objective 3: Designated Greenways Map 23</u>
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

### Map 28. Public Engagement Feedback related to Bozrah

Number labels key each point to comments in the table below the map. Red balloon = existing open space that needs improvement. Yellow balloon = suggested new open space. Green balloon = open space assets.



Comment Key							
Point ID	Location	Comment/Suggestion					
1	Avalonia OSWA Parcel	Avalonia OSWA Parcel Being Conserved 155 Acres					

# Bozrah Open Space Points of Contact

Name	Address	Contact or Meeting Info
TO	NN OF BOZRAH	·
Glenn Pianka	1 River Road	(860) 889-2689 x1
First Selectman	Bozrah, CT 06334	firstselectman@bozrahct.org
SCCOG Contracted	5 Connecticut Ave	(860) 889-2324
Town Planner	Norwich, CT 06360	
ТОЖ	N COMMISSIONS	
Charlene Lathrop Chair, Inland Wetlands and Conservation Commission	1 River Road Bozrah, CT 06334	1 <sup>st</sup> Thursday of every month 7:00pm
Sarah Brush	45 Bozrah Street	4 <sup>th</sup> Tuesday of every month
Chair, Agriculture Commission	Bozrah, CT 06334	6:00pm
Stephen Seder	1 River Road	2 <sup>nd</sup> Thursday of every month
Chair, Planning and Zoning Commission	Bozrah, CT 06334	7:00pm
Alex Kapilotis	1 River Road	Irregular
Chair, Recreation Commission	Bozrah, CT 06334	860-334-8794
Miria Gray	45 Bozrah Street	1 <sup>st</sup> Wednesday of every
Chair, Maples Farm Park Commission	Bozrah, CT 06334	month, 5:30pm
Henry Granger Jr.	Irregular. See town	2 <sup>nd</sup> Tuesday of every month
Chair, Gardner Lake Authority	website.	March – November, 7:00pm
	OTHER	
Dennis S. Main Board President, Avalonia Land Conservancy	P.O. Box 49 Old Mystic, CT 06372	(860) 823-6246 president@avalonialc.org
CT Dept. of Agriculture Farmland Preservation Program	450 Columbus Blvd Suite 703 Hartford, CT 06103	(860) 713-2511 DoAg.Farmland@ct.gov
CT Dept. of Energy and Environmental	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200
Protection, State Parks Division	Hartford, CT 06106	Deep.stateparks@ct.gov

# Colchester

# Introduction

Colchester's present-day development pattern stems from a New England village tradition, with much of the town's denser development located around the town green. This concentrated form leaves significant amounts land available for preservation, recreation, and working lands. Colchester is also located around the 106-acre reservation of the Golden Hill Paugussett Tribe, a state recognized tribal nation. Approximately 21% of the town is preserved or protected open space, including large tracts owned by Norwich Public Utilities for drinking water protection around Deep River Reservoir and multiple state-managed publicly accessible facilities, such as the Babcock Pond WMA and Day Pond State Park. A significant portion of Colchester's open space land is accessible to the public and includes opportunities for active or passive recreation.

# Figure 30. Town of Colchester Open Space Land Statistics

Total Protected Land	2,810 ac						
Total Preserved Land	3,834 ac						
Total OC Land <sup>53</sup>	6.644.00	С	R	Т	W	CE	NYC
Total US Land	6,644 aC	1,622 ac	4,774 ac	24 mi	148 ac	25 ac	75 ac
Total Land Area	31,766 ac						
Pct Open Space Land	20.91%						

Recorded to Date in SCCOG's Regional Open Space Dataset

Air Line Trail State Park, an extensive multi-use path that follows the right of way of an abandoned rail line, runs through the northwest portion of the town and connects to the main village center via a spur. Colchester is a source point for numerous watercourses, containing headwaters for the Yantic, Eightmile, and Salmon Rivers. The town is also the junction point for State Routes 2 and 11, which serve as significant barriers to the free movement of wildlife.

Colchester developed and adopted an Open Space Plan in 2006. There are many local organizations involved in conservation and outdoor recreation, including the Colchester Land Trust, which plays a very active role in land stewardship. Many hunting and fishing clubs own land in town to partake in outdoor sport. The town has significant facilities for active recreation, including a dog park, public golf course, and a Parks & Recreation complex in the north of town.

<sup>&</sup>lt;sup>53</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 29. Colchester Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



# Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of town planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to develop a greenway along	3
CL1	the abandoned Route 11 corridor (requires intermunicipal	
	cooperation with East Lyme, Montville, Salem, and Waterford).	
0.2	Remediate and develop Norton Park, the former Norton paper	11, 19, 20
CLZ	Mill site, with small craft access to the Jeremy River.	
	Implement on-road bike lanes or shoulders to connect various	9
CL3	open space parcels and Colchester village as recommended in	
	the regional bike/ped plan.	
	Partnering with local champions in the agricultural community	8, 11, 21
	and agricultural advocate groups like FarmLink and UCONN	
CL4	Extension, start conversations about phosphorus sources, and on	
	best practices to minimize agricultural phosphorus impacts on	
	water quality.	

When plans to extend State Highway 11 to an interchange with I-95 and I-395 were still active, the Route 11 Greenway Authority Commission was created to develop a parallel greenway along the corridor. The greenway project was abandoned alongside the state's abandonment of the highway extension. However, the development of a greenway along the corridor is an idea with merit independent of the highway. Development of this greenway as an extension of the Air Line Trail Colchester Spur would be a key building block in the development of a regional network.

The redevelopment of the former Norton Paper Mill in Colchester's Westchester neighborhood has been a long-standing priority for the town. While recent attempts to secure remediation funds for the parcel have been unsuccessful, the town is encouraged to utilize SCCOG, UCCON TAB, and the Eastern CT Land Bank as partners in securing funding for this remediation. The future end use is likely to revolve around open space and community parkland.

The density of Colchester Village gives the town great potential for supporting bicycle and pedestrian use and infrastructure. Implementation of the regional bike/ped plan's recommendation to connect the village with open spaces is repeated here with an emphasis on the recreational value and accesses that these routes would enable.

Colchester benefits from a significant amount of preserved acreage and a diverse body of stakeholders that are engaged in conservation and recreation leadership. Future considerations

for preservation should be strategically targeted to maximize the benefit to the overall system as outlined in the Colchester Open Space Plan.

As described in Section 3E, the Yantic River is an impaired waterbody. It suffers from very high levels of phosphorus, which is detrimental to the health and safety of its ecosystem and impacts downstream communities. Phosphorus impairment is unique among SCCOG region watercourses and is primarily due to the agricultural nature of the Yantic River watershed communities of Colchester, Salem, Lebanon, Bozrah, and Franklin. Solving this contamination issue will require towns to engage operators and encourage best management practices to prevent runoff from impacting water quality. Related resources can be found at:

https://www.ars.usda.gov/is/np/bestmgmtpractices/best%20management%20practices.pdf

https://www.epa.gov/sites/default/files/2015-09/documents/ag\_runoff\_fact\_sheet.pdf

https://www.epa.gov/nps/nonpoint-source-agriculture

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in Colchester, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Aquifer Protection Areas and Drinking Water Watersheds Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- Section 4E: Connected Sewer Service Area Map 15
- Section 4E: Steep Slope Erosion Map 16
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

# Public Engagement Feedback related to Colchester

No specific comments within the boundaries of Colchester were recorded.

Name	Address	Contact or Meeting Info
	TOWN OF COLCHESTER	
Bernie Dennler	127 Norwich Ave	(860) 537-7220
First Selectman	Colchester, CT 06415	selectman@colchesterct.gov
Demian Sorrentino, AICP	127 Norwich Ave	(860) 537-7282
Planning Director	Colchester, CT 06415	dsorrentino@colchesterct.gov
Tiffany Quinn	127 Norwich Ave	(860) 537-7297
Recreation Director	Colchester, CT 06415	parksandrec@colchesterct.gov
Daniel Hickey	127 Norwich Ave	(860) 537-7283
Wetlands Enforcement Officer	Colchester, CT 06415	dhickey@colchesterct.gov
	TOWN COMMISSIONS	
Donna Rosenblatt	Virtual, see town	3 <sup>rd</sup> Monday of every month
Chair, Agriculture Commission	website for link.	7:30pm
Falk Von Plachecki	127 Norwich Ave	2 <sup>nd</sup> Wednesday of every
Chair, Conservation Commission	Colchester, CT 06415	month, 7:00pm
Robert Misbach	95 Norwich Ave	1 <sup>st</sup> Tuesday of every month
Chair, Norton Park Committee	Colchester, CT 06415	6:30pm
William Hochholzer, Chair,	127 Norwich Ave	2 <sup>nd</sup> Monday of every month
Open Space Advisory Committee	Colchester, CT 06415	6:00pm
Kristin Moody	95 Norwich Ave	1 <sup>st</sup> Monday of every month
Chair, Recreation Commission	Colchester, CT 06415	7:00pm
Jospeh Mathieu	127 Norwich Avo	1st & 2rd Wednesday of every
Chair, Planning & Zoning	Colchostor CT 06/15	month 7:00pm
Commission	Colchester, CT 00415	
	OTHER	
John Barnowski, Board Member,	P.O. Box 93	(860) 918-1537
Colchester Land Trust	Colchester, CT 06415	johnbarn@comcast.net
Pat Young	1066 Saybrook Boad	(860) 345-8700
Coordinator, Salmon River	Haddam CT 06/138	salmonriverct@att.net
Watershed Partnership		samonivereteatt.net
Pat Young	2 Dolbia Hill Road	(860) 615-6929
Director, Eightmile River	F Haddam CT 06423	info@eightmileriver.org
Watershed Committee		
CT Dept. of Agriculture	450 Columbus Blvd	(860) 713-2511

# **Colchester Open Space Points of Contact**

Farmland Preservation Program	Suite 703 Hartford, CT 06103	DoAg.Farmland@ct.gov
CT Dept. of Energy and Environmental Protection, State Parks Division	79 Elm St, 6 <sup>th</sup> Floor Hartford, CT 06106	(860) 424-3200 Deep.stateparks@ct.gov

#### East Lyme

#### Introduction

East Lyme is a suburban coastal community with denser development primarily concentrated in the village centers of Niantic and Flanders. Niantic is a quintessential Connecticut seaside village, characterized by mixed uses on small lots, while Flanders is defined by mid-century development with more separation of uses spread out over a larger area. Development is largely defined by water bodies, following the coast, Niantic River, and Latimer Brook. Additionally, the town is home to numerous lakes and ponds.

East Lyme has a diversity of open space areas. The town is home to large state properties such as Rocky Neck State Park and Nehantic State Forest, non-profit managed preserves like the Oswegatchie Hills, municipally-owned properties ranging from large properties like Darrow Pond to smaller neighborhood parks, and a parcel of forest land that is deed restricted for use as a working forest. Approximately 24% of the town is preserved or protected open space.

#### Figure 31. Town of East Lyme Open Space Land Statistics

Total Protected Land	1,230 ac						
Total Preserved Land	4,133 ac						
Total OS Land <sup>54</sup>	5,363 ac	С	R	Т	W	CE	NYC
Total US Land		1,514 ac	3,849 ac	40 mi	0 ac	0 ac	0 ac
Total Land Area	22,577 ac						
Pct Open Space Land	23.75%						

Recorded to Date in SCCOG's Regional Open Space Dataset

East Lyme is also impacted by several major institutions. The Connecticut National Guard operates a 67.5-acre camp on the Niantic River, as well as a separate 1,050-acre training ground in the western portion of town. A further 635 acres is occupied by the York Correctional Institution. Finally, Yale University holds approximately 1,700 acres in the northwest of the town as their Outdoor Education Center, a property often perceived as open space but that is neither protected from development nor open to the public.

<sup>&</sup>lt;sup>54</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 30. East Lyme Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



# Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of town planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to develop a greenway along	3
EL1	the abandoned Route 11 corridor (requires intermunicipal	
	cooperation with Colchester, Montville, Salem, and Waterford).	
	Implement CT-156 (Eastern Shoreline Path) bike lanes as	9
EL2	recommended in the regional bike/ped plan to better connect	
	existing open spaces.	
FI 2	Identify and implement crossing improvements for wildlife and	9, 25
	non-motorized transportation modes across I-95.	
	Consistently fund open space acquisition through the town	1, 4
FI /	budget, the institution of fee-in-lieu payments for regulated	
~~~	open space requirements, and private contributions to take	
	advantage of opportunities as they arise.	
	Work with RiverCOG to develop safe bike and ped routes on-	1, 17, 18
<b>EI E</b>	and off-road along Routes 1 and 156 that will connect SCCOG	
ELS	users with the Baldwin Bridge Bike Path. Development of a route	
	should take advantage of parks to reduce traffic safety issues.	

When plans to extend State Highway 11 to an interchange with I-95 and I-395 were still active, the Route 11 Greenway Authority Commission was created to develop a parallel greenway along the corridor. The greenway project was abandoned alongside the state's abandonment of the highway extension. The development of a greenway along the corridor is an idea with merit independent of the highway. East Lyme's participation in a revival of these efforts could bring a significant recreational amenity to the town and draw more economic activity to the Flanders commercial center.

East Lyme, as previously described, benefits greatly from the numerous properties across the town that are preserved or publicly accessible. Reaching these, or even moving between large contiguous tracts, can be difficult to navigate by non-vehicular means of transportation. A prime example of these network barriers is in the southwest portion of town, where Rocky Neck State Park, the Thomas Lee House, Peretz Park, and a large block of forestland owned by the state, town, and East Lyme Land Trust all share entrances within a 0.3 mile stretch of West Main Street (CT-156). Implementing the regional bike/ped plan recommendation of installing bike lanes on this stretch of roadway would greatly improve non-motorized access between these open spaces and help to minimize friction from auto traffic.

Interstate I-95 divides East Lyme between its north and south extents. Only three points in town exist where one can cross the highway with a vehicle. None of these points contain sidewalks or bicycle facilities and only at one of these points (N. Bridebrook Road) could wildlife have reasonable expectation of surviving a crossing. Incorporating robust bicycle and pedestrian facilities where I-95 meets CT-161 would open an as-of-yet impassible connection between the Flanders and Niantic neighborhoods. Facilitating wildlife crossings in the western and eastern reaches of town would knit together what are largely segregated habitats to the north and south.

The Natural Resource Commission Open Space Plan scores parcels based on value and identifies a specific set of priority parcels. Implementing this open space vision would set aside 30% of the town's acreage as open space. This plan is well incorporated into the town's POCD and informs robust acquisition priorities. The regional open space plan recommends the implementation of local priorities with an emphasis on ensuring funds are available to contribute as match when opportunities arise to acquire property via grant or through partnership acquisitions with the East Lyme Land Trust and other conservation organizations.

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in East Lyme, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4B: Regional Drainage Basins Map 8
- <u>Section 4B: Aquifer Protection Areas Map 9</u>
- <u>Section 4D: Cold Water Fish Habitat Map 11</u>
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Connected Sewer Service Area Map 15</u>
- Section 4E: Coastal Erosion Vulnerability Figures 11 / 12
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

# Map 31. Public Engagement Feedback related to East Lyme

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space assets.



Com	Comment Key					
ID	Location	Comment/Suggestion				
1	Nehantic State Forest	Beautiful to take kids way away out into wilderness. Great lake to swim in.				
2	Area west of Powers Lake at end of Pattagansett River tributary	Prevent development				
3	Oswegatchie Hills	Oswegatchie Hills - the remaining 238 acres on the Niantic River. (Be great if it was a regional thing because it will be expensive to buy the rest. 430 or so acres are preserved but they are not on the water. Last mile of salt water frontage that is not developed or preserved in CT!)				
4	Flanders Rd dt 161/ Industrial Park Rd / Chapman Woods Rd	More walkability/bikeability				
5	Oswegatchie Hills	Great hikes and nicely kept trails. 430+ acres already preserved.				
6	Niantic Village	Identified community asset				
7	McCook Park	Excellent venue - bandshell, beach and walking along the LI Sound (Niantic Bay) I hold Earthfest CT there each year. Take dogs during off beach season. Take kids year round.				
8	West side of Niantic Bay	Non-motorized shoreline trail				
9	Pattagansett River	Preserve the egrets & ospreys' habitat				
10	Rocky Neck State Park	We rise horses on the beach in Spring/Fall here. So fun!				
11	Darrow Pond	Need more Car Top Boat Accesses: @ Darrow Pond and Niantic River				
12	Town-Wide Suggestion	I would like to take longer bicycle rides but safe routes beyond Niantic are hard to find. Bike lanes are nonexistent and car traffic is not alerted to 'share the road'.				
13	Town-Wide Suggestion	It would be nice to have more community-oriented events in open spaces similar to how Niantic has food trucks/vendors on their green.				
14	Town-Wide Suggestion	A multi-use trail connecting East Lyme schools would go a long way to rejoining a town severed by state roads and highways.				
15	Town-Wide Suggestion	Connection of the Goodwin Trail with other regional trails and preserves. Possible use of a bike or multipurpose trail along the existing Route 11 corridor (finished and unfinished), and extending it to the south to Waterford. Multiple connections with adjacent existing preserves and trail systems would then be available.				

# East Lyme Open Space Points of Contact

Name	Address	Contact or Meeting Info				
TOWN OF EAST LYME						
Daniel R. Cunningham	108 Pennsylvania Ave	(860) 691-4110				
First Selectman	Niantic, CT 06357	dcunningham@eltownhall.com				
Gary A. Goeschel II	108 Pennsylvania Ave	(860) 691-4114				
Director of Planning /	Niantic. CT 06357	ggoeschel@eltownhall.com				
Inland Wetlands Agent						
Jerry Lokken	41 Society Road	(860) 739-5828				
Director of Parks & Recreation	Niantic, CI 06357	Jlokken@eltownhall.com				
T	OWN COMMISSIONS					
Penny Howell-Heller	108 Pennsylvania Ave	2 <sup>nd</sup> Wednesday of every month				
Chair, Comm. for Conservation of	, Niantic, CT 06357	7:00pm				
Natural Resources						
Kristen Chantrell	108 Pennsylvania Ave	1 <sup>st</sup> Tuesday of every month				
Chair, Inland Wetlands Agency	Niantic, CT 06357	7:00pm				
Chris Tomicnek Bresident Nientic River Watershed	108 Pennsylvania Ave	1 <sup>st</sup> Thursday of every month				
Committee	Niantic, CT 06357	7:00pm				
Bob Tukey	41 Society Road	2 <sup>nd</sup> Thursday of every month				
Chair. Recreation Commission	Niantic, CT 06357	7:00pm				
Richard Gordon	108 Pennsylvania Ave	2 <sup>nd</sup> Tuesday of every month				
Chair, Planning Commission	Niantic, CT 06357	7:00pm				
Peter Harris						
Chair, Waterford-East Lyme	Irregular. See town	3 <sup>rd</sup> Thursday of every month				
Shellfish Commission	website for schedule.	7:00pm				
OTHER						
Ronald Luich	P.O. Box 831	(860) 739-3127				
Board Chair, East Lyme Land Trust	East Lyme, CT 06333	luichr@earthlink.net				
CT Dept. of Energy and	79 Elm St. 6 <sup>th</sup> Eloor	(860) 424-3200				
Environmental Protection	Hartford CT 06106	Deen statenarks@ct gov				
State Parks Division						
Tom Migdalski	297 Upper	(203) 432-2492				
Yale Outdoor Education Center	Pattagansett Road	oec@yale.edu				
	East Lyme, CT 06333	- /				

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# Franklin

# Introduction

Franklin is the smallest municipality in the region by population and is primarily rural and agricultural in character. Open space preservation in Franklin includes the sale of development rights for working lands, which maintains the town's historic agricultural industry and the environmental and food system benefits that those lands provide. Approximately 29% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset. In particular, staff hypothesize that much of the unclassified acreage is preserved working lands.

# Figure 32. Town of Franklin Open Space Land Statistics

Total Protected Land	2,797 ac						
Total Preserved Land	848 ac						
Total OS Land <sup>55</sup>	3,645 ac	С	R	Т	W	CE	NYC
		99 ac	1,377 ac	0 mi	2,150 ac	19 ac	0 ac
Total Land Area	12,590 ac						
Pct Open Space Land	28.95%						

Recorded to Date in SCCOG's Regional Open Space Dataset

A lot of preserved undeveloped land in town is managed by conservation entities. Large amounts of woodlands have also been preserved in the town's northeastern section as part of the Sprague Land Preserve. Joshua's Trust, a regional land trust operating primarily in Windham and Tolland counties, owns two preserves in the town. The Nature Conservancy, a national environmental non-profit, owns and manages the Ayers Gap Preserve, commonly known as Bailey's Ravine. The Connecticut Department of Energy and Environmental Protection manages the Franklin Swamp Wildlife Management Area, which protects important habitat and is also open to recreational hunting.

The town is split almost evenly between the Yantic and Shetucket River watersheds, both of which drain into the Thames. Much of the town's denser development is located in its southeastern corner, near the Yantic River, CT-2, and Franklin's border with Norwich and Bozrah. Its primary transportation corridor is CT-32, which connects the town to Norwich to its southeast and Willimantic to its northwest.

<sup>&</sup>lt;sup>55</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

## Map 32. Franklin Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



## Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of town planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to develop rail-with-trail	1, 17, 18
	between Windham and Norwich, as well as a Fitchville Spur, in	
FR1	cooperation with the New England Central Rail Road (requires	
	cross-jurisdictional cooperation with Bozrah, Lebanon, Norwich,	
	and Windham).	
ED 2	Actively seek and support opportunities to connect open spaces	3
FNZ	in North Franklin.	
	Partner with local champions in the agricultural community and	8, 11, 21
	agricultural advocate groups like FarmLink and UCONN Extension	
FR3	to start conversations about phosphorus sources and best	
	practices to minimize agricultural phosphorus impacts on water	
	quality.	

Franklin's low population and primarily agricultural development pattern are notable given its proximity to two of the region's main urban areas, Norwich and Willimantic. Route CT-32, which connects Franklin to these surrounding population centers, is the most travelled road in the town. CT-32 is unfortunately notorious for incidents of speeding which, in combination with a lack of bicycle and pedestrian facilities and steep topography, make the route an intimidating one for active mobility. The New England Central Railroad, a freight rail line that runs from New London to the Canadian border, runs parallel to CT-32. Recent legislation making rail-with-trail more viable by removing undue liability from railroad companies opens the possibility of a multi-use trail along this route, connecting Franklin with Norwich, Willimantic, and Bozrah (Fitchville). The development of this trail would represent a regional recreational asset.

In northern Franklin, large tracts of open space land are managed by various non-profit and non-town government entities. These include DEEP's Franklin Swamp WMA, the Sprague Land Preserve, The Nature Conservancy's Ayers Gap Preserve, and properties held by Joshua's Trust. As the obvious convener of these entities, the Town of Franklin should encourage the connection of these properties into an open space network. This role could involve facilitating cooperation, providing letters of support for funding applications, or connecting open space managers with amenable property owners for easements or purchases. Additionally, land around Gagers Pond along Route 207 poses an opportunity for additional open space, adjacent to Ayers Grap Preserve. As of writing, the Town of Franklin is in communication with property owners regarding the possibility of selling development rights to this area. As described in Section 3E, the Yantic River is an impaired waterbody. It suffers from very high levels of phosphorus, which is detrimental to the health and safety of its ecosystem and impacts downstream communities. Phosphorus impairment is unique among SCCOG region watercourses and is primarily due to the agricultural nature of the Yantic River watershed communities of Colchester, Salem, Lebanon, Bozrah, and Franklin. Solving this contamination issue will require towns to engage operators and encourage best management practices to prevent runoff from impacting water quality. Related resources can be found at:

https://www.ars.usda.gov/is/np/bestmgmtpractices/best%20management%20practices.pdf

https://www.epa.gov/sites/default/files/2015-09/documents/ag\_runoff\_fact\_sheet.pdf

https://www.epa.gov/nps/nonpoint-source-agriculture

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features across the region. The following landscapes may be particularly salient features in Franklin, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- <u>Section 4A: Agricultural Soils Map 6</u>
- Section 4B: Regional Drainage Basins Map 8
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4E: Core Forest Map 13
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

# Map 33. Public Engagement Feedback related to Franklin

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comment Key				
Point ID	Location	Comment/Suggestion		
1	Trail Suggestion	Wishful thinking would be trails from the Franklin Swamp WMA connecting to Ayers Gap, which could connect to the Sprague Land Preserve. And then our imaginary rich benefactor could build a foot bridge crossing the Shetucket River and connect to Talbot Wildlife Area in Scotland. There's a lot of preserves on the coast near each other which could be connected.		

# Franklin Open Space Points of Contact

Name	Address	Contact or Meeting Info			
TOWN OF FRANKLIN					
Charles Grant	7 Meeting House Hill	(860) 642-6055			
First Selectman	Rd Franklin, CT 06254	firstselectman@franklinct.com			
Nicole Haggerty	5 Connecticut Avenue	(860) 889-2324			
Town Planner	Norwich, CT 06360	nhaggerty@seccog.org			
т	OWN COMMISSIONS				
Michael Miner Chair, Agricultural and Conservation Commission	7 Meeting House Hill Rd Franklin, CT 06254	3 <sup>rd</sup> Thursday of every month 7:30pm			
Ron Chalecki Wetlands Agent, IWWC	7 Meeting House Hill Rd Franklin, CT 06254	1 <sup>st</sup> Tuesday of every month 7:30pm			
John McGuire Chair, Planning & Zoning Commission	7 Meeting House Hill Rd Franklin, CT 06254	3 <sup>rd</sup> Tuesday of every month 7:30pm			
Richard Hiscox	7 Meeting House Hill	1 <sup>st</sup> Wednesday of every month			
Secretary, Recreation Commission	Rd Franklin, CT 06254	7:00pm			
OTHER					
CT Dept. of Agriculture Farmland Preservation Program	450 Columbus Blvd Suite 703 Hartford, CT 06103	(860) 713-2511 DoAg.Farmland@ct.gov			
CT DEEP, Franklin Swamp Wildlife Management Area	391 Route 32 North Franklin, CT 06254	(860) 424-3011 deep.franklinwildlife@ct.gov			
The Nature Conservancy Ayers Gap Preserve (Bailey's Ravine)	291 Pond Road North Franklin, CT 06254	(203) 568-6270 ct@tnc.org			
Bryan Avery	PO Box 4	(860) 429-9023			
Land Protection Manager, Joshua's Trust	Mansfield, CT 06250	bryan.avery@joshuastrust.org			
# Griswold and Jewett City

#### Introduction

SCCOG's regional POCD groups Griswold and the Borough of Jewett City into one suburban municipality. However, Jewett City has a more urbanized landscape than surrounding areas in Griswold. With this array of landscapes, the open space needs for Griswold and Jewett City are diverse. Griswold contains urban parks, large tracts of protected woodlands, preserved agriculture, and abundant water resources. Approximately 30% of the town is preserved or protected open space. Over half of this land has a public access passive or active recreation component.

# Figure 33. Griswold and Jewett City Open Space Land Statistics

Total Protected Land	1,938 ac						
Total Preserved Land	5,167 ac						
Total OS Land <sup>56</sup>	7,105 ac	С	R	Т	W	CE	NYC
		1,717 ac	4,568 ac	54 mi	672 ac	100 ac	49 ac
Total Land Area	23,659 ac						
Pct Open Space Land	30.03%						

*Recorded to Date in SCCOG's Regional Open Space Dataset* 

The Pachaug River and Quinebaug River are significant geographic features in Griswold. The Pachaug River headwaters begin in neighboring Voluntown, flowing through Griswold as a series of large impounded and/or dammed lakes and ponds connected by short stretches of river. Jewett City, which developed alongside the hydropower industry in the 19<sup>th</sup> century, is located at the confluence of the Pachaug and Quinebaug Rivers. Additionally, the Quinebaug River state-designated Greenway runs through town.

Much of Griswold's protected open space is managed by the State. Pachaug State Forest, Hopeville State Park, and agricultural properties in the state farmland preservation program comprise most of the town's protected acreage. Avalonia Land Conservancy, a regional land trust, also manages several preserves in the town. The open spaces managed by the town are primarily recreational in nature and cater to specific community needs like ballfields and parks. River Ridge, the golf course in town, is open to the public. Griswold's open space network supports interstate connections between the town, Pachaug State Park, and Burlingame State Park in RI via RT 138.

<sup>&</sup>lt;sup>56</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

# Map 34. Griswold and Jewett City Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



#### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of town planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objective
	Pursue state greenway designation for the Pachaug River to	3
GR-	increase access to grant funding opportunities. Leverage	
JC1	connections to The Last Green Valley National Heritage Corridor	
	to conserve and market riverine open space.	
GR-	Work with State of Connecticut to develop portage trail around	19
JC2	the Hopeville Pond Dam. The state owns the dam and the land around it.	
GR-	Work with land owners and Town of Lisbon to develop portage	19
JC3	trail around Aspinook Pond Dam on the Quinebaug River.	
GR- JC4	Develop small craft access to Ashland Pond in Jewett City.	19
	Utilize small, undeveloped town owned parcels to develop	1, 20
CP	neighborhood parks and playscapes for additional open space	
	and recreation access points near residences. These sites may	
103	also present opportunities for nature-based climate resilience	
	infrastructure for addressing heat and stormwater impacts.	
GR-	Explore a collaboration with Voluntown to create an active	1, 9, 17, 18, 25
	transportation linkage and/or wildlife corridor building on the	
100	connectivity of Route 138.	

The combination of rivers and open space lands in Griswold lay a strong foundation for recreational activity. However, the Pachaug and Quinebaug Rivers are currently underutilized. The presence of numerous impassible dams and limited access points create barriers to water-based recreation. There are two key bottlenecks that could be overcome. While these fixes would not open the entire length of the town's watercourses, they would stitch together fragmented waterbodies into a more robust blueway network and draw recreational paddlers from across the region and state.

First, on the Pachaug River, the Hopeville Pond Dam situated at the northwest edge of Hopeville Pond separates over 6 miles of navigable water to the southeast, including Hopeville and Pachaug ponds, from another two miles of navigable water, including Ashland Pond, to the west. A portage trail around the dam would allow paddlers to circumvent this barrier and navigate between the ponds. In public engagement, participants expressed the desire for better access to Ashland Pond. The only access point is on the pond's western, undeveloped edge, at the informal Norman Road access point. Most residents and businesses are located on the eastern side of the pond, presenting a mismatch between access and recreational user concentration. Developing an access point for small craft (canoe/kayak only) in Jewett City at Veterans Memorial Park or the adjacent recreational fields would create an opportunity to paddle nearly end to end and draw paddlers to Jewett City's small businesses at the start or end of their journey. Communities of similar scale elsewhere in the state have seen positive recreational tourism from river access points near commercial main streets. Collinsville's encouragement of paddling and related businesses and infrastructure on the Farmington River provides a prime example.

Second, The Quinebaug River stretches from Massachusetts south until it merges with the Shetucket in Norwich. Excluding a one-mile gap in Danielson that requires portage, paddlers encounter no barriers from Putnam all the way south to Jewett City. Once at the southern end of Aspinook Pond, however, paddlers run into a dam that cannot be circumnavigated, with no pullout point for their craft closer than three miles back upriver at Butts Bridge. This barrier effectively ends trips down the river. Developing a portage around this dam would connect 10 further miles of navigable river past Butts Bridge all the way to Quinebaug Falls. Again, such a portage need not have parking or be accessible other than to through paddlers.

There are also exciting opportunities to develop additional, neighborhood-scale recreation amenities throughout Griswold. The Town owns numerous properties that were acquired over time through subdivision dedication requirements. Many of these small properties are woven into the middle of residential neighborhoods. While Griswold is rich in major recreational attractions, these properties provide an opportunity to create local neighborhood parklets and playscapes that improve local quality of life and build outdoor recreation into daily routines.

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in Griswold and Jewett City, and can be explored further in the plan, or in SCCOG's online Open Space Dashboard:

- <u>Section 4A: Soil Drainage Class Map 4</u>
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Aquifer Protection Areas and Drinking Water Watersheds Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- <u>Section 4E: Impaired Waterbodies Figure 9 / Map 14</u>
- Section 4E: Connected Sewer Service Area Map 15

- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- <u>Section 7, Objective 25: Wildlife Corridors Maps 24-25</u>
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

# Map 35. Public Engagement Feedback related to Griswold and Jewett City

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space assets.



Comment Key					
ID	Location	Comment/Suggestion			
1	Land by Quinebaug River by Jewett City Cemetery/Saint Mary's Cemetery	More trails/Rec space			
2	Trail 2 off of Hopeville Rd	Astounding natural resources			
3	Fire Tower Rd by Pachaug State Forest / Dry Reservoir Shelter	Outfitter/gear rental			
4	Trail roughly from Billings Brooke to Dark Hollow Brooke tributary, crossing Coal Pit Hill Rd	No comment noted			

# Griswold and Jewett City Open Space Points of Contact

Name	Address	Contact or Meeting Info
TOWN OF GRIS	SWOLD / BOROUGH OF J	EWETT CITY
Tina Falk	28 Main Street	(860) 376-7061
First Selectman, Town of Griswold	Jewett City, CT 06351	firstselectman@griswold-ct.org
Timothy Sharkey	28 Main Street	(860) 376-7060 x 211
Warden, Borough of Jewett City	Jewett City, CT 06351	tsharkey65@gmail.com
Mario Tristany	28 Main Street	(860) 376-7060
Town Planner	Jewett City, CT 06351	townplanner@griswold-ct.gov
Ryan Aubin	68 Achland Street	(860) 376-7081
Director, Parks & Recreation	lowett City, CT 06351	recdirector@griswold_ct.org
Department	Jewell City, CT 00331	Tecurrector @griswoid-ct.org
	TOWN COMMISSIONS	
Courtland Kinnie	28 Main Street	3 <sup>rd</sup> Thursday of every month
Chair, IWW&CC & Aquifer	Lewett City, CT 06351	7·30nm
Protection Agency		7.50011
Martin McKinney	28 Main Street	2 <sup>nd</sup> Monday of every month
Chair, Planning & Zoning	Lewett City, CT 06351	7:00nm
Commission		7.000111
Ryan Snide, Chair	68 Ashland Street	3 <sup>rd</sup> Monday of every month
Recreation Commission	Jewett City, CT 06351	7:00pm
	OTHER	1
CT Dept of Agriculture	450 Columbus Blvd	(860) 713-2511
Farmland Preservation Program	Suite 703	DoAg Farmland@ct gov
	Hartford, CT 06103	Dorig. a manage ct.gov
CT Dept. of Energy and	79 Flm St. 6 <sup>th</sup> Floor	(860) 424-3200
Environmental Protection, State	Hartford CT 06106	Deen statenarks@ct gov
Parks Division		Deep.stateparks@et.gov
Dennis S. Main	P.O. Box 49	(860) 823-6246
Board President, Avalonia Land	Old Mystic CT 06372	president@avalonialc.org
Conservancy		

# City of Groton

#### Introduction

The City of Groton is a political subdivision of the Town of Groton, roughly comprised of the area south of Grove Street and west of Birch Plain Creek. It is bounded to west by the Thames River and to the south by the Long Island Sound. The city has a more urban landscape character than the overall town, and is home to many of Groton's major institutions, including Fort Griswold, Electric Boat, and UConn's Avery Point campus. The Avery Point campus is a major benefit to the region, hosting centers of statewide significance for ecological and resilience research including the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) and the Nonpoint Education for Municipal Officials (NEMO).

There are several recreational open spaces in the city, including athletic fields at Washington Park, the municipally-owned Shennecossett Golf Course, Eastern Point Beach, and the waterfront park at UConn's Avery Point campus. The city is largely built out. While remaining undeveloped land may be small in scale, these parcels, depending on their location, may present opportunities for nature-based stormwater capture infrastructure, tree planting and cooling, or other community-resilience related purposes.

Approximately 15% of the city is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

# Figure 34. City of Groton Open Space Land Statistics

Total Protected Land	265 ac						
Total Preserved Land	34 ac						
Total OS Land <sup>57</sup>	299 ac	С	R	Т	W	CE	NYC
		0 ac	201 ac	1.4 mi	0 ac	22 ac	75 ac
Total Land Area	2,053 ac						
Pct Open Space Land	14.56%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>57</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 36. City of Groton Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



# Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
GC1	Utilize small, undeveloped city-owned parcels to create	1, 20
	neighborhood parks and playscapes for additional open space	
	and recreation access points near residences. These sites may	
	also present opportunities for nature-based climate resilience	
	infrastructure for addressing heat and stormwater impacts.	
	Implement the recommendations in the regional bike/ped plan,	9, 18
GC2	all of which improve connectivity to the City's existing open	
	spaces.	
	Consider the feasible routing of a trail connecting Washington	3, 9, 17, 18
GC3	Park, Sassacus Nature Preserve, and Birch Plain Creek Open	
	Space.	
	Evaluate the bicycle infrastructure demonstration projects that	18
GC4	are being implemented in summer 2024, consisting of an on-	
	street bike facility on North Street connecting the Gold Star	
	Bridge and Washington Park and a buffered bike lane	
	accommodation on Bridge Street, for elevation from	
	demonstration project to permanent installation.	

The City of Groton has several large recreational amenities within its boundaries, as described above. These amenities are oriented towards serving the whole town, or in some cases, the whole region. Most residents of the city do not have an open space within a reasonable walking distance of their house (about half a mile). Many small, undeveloped municipal plots exist in the city that would be well-suited to filling this gap through the creation of parklets and playscapes. These small, neighborhood level open spaces play a crucial role in offering a convenient open space for families, particularly those with small children. These sites may also present opportunities for nature-based climate resilience infrastructure for addressing heat and stormwater impacts. The city can evaluate where open spaces for recreation access and resilience infrastructure each take priority, or where both community purposes can co-exist on a given site.

Ensuring that open spaces are easily accessible through non-motorized forms of transportation will also promote open space equity. Implementing the recommendations of the 2019 Regional Bike/Ped Plan will improve access to existing recreational assets at Fort Trumbull, Avery Point, and the regionally-significant Gold Star Bridge crossing.

During public outreach, Groton residents raised two complementary comments related to trails. Residents are interested in the development of trails in the Birch Plain Creek Open Space, as well as a trail connection between Washington Park and the Sassacus Nature Preserve. Developing a trail that combines these ideas, spanning the length of Washington Park to the Birch Plain Creek Open Space via Sassacus Nature Preserve would turn these individual tracts into a unified network of open space, making the whole greater than the sum of its parts. However, careful consideration will be needed in navigating the roadway network in this portion of the city to ensure safe crossings and bike/ped movement.

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution across the region. The following landscapes may be particularly salient features in the City of Groton, and can be explored further in the plan, or in SCCOG's online Open Space Dashboard:

- Section 4B: Regional Drainage Basins Map 8
- <u>Section 4B: Public Water Supply Service Areas Map 9</u>
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Impaired Waterbodies Figure 9 / Map 14</u>
- Section 4E: Connected Sewer Service Area Map 15
- Section 4E: Coastal Erosion Vulnerability Figures 11 / 12
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- <u>Section 4E: FEMA Special Flood Hazard Areas Map 18</u>
- Section 4E: Current and Future 100-Year Storm Flooding and Sea Level Rise Map 20
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26



Map 37. Public Engagement Feedback related to City of Groton

Comment Key					
Point ID	Location	Comment/Suggestion			
1	Trail connecting Birch Plain Creek and Washington Park	Nothing further specified			
2	Birch Plain Creek	Needs trail			
3	UConn Avery Point Sculpture Garden	Identified Community Asset			

# City of Groton Open Space Points of Contact

Name	Address	Contact or Meeting Info				
CITY OF GROTON						
Keith Hedrick	295 Meridian Street	(860) 446-4103				
Mayor	Groton, CT 06340	mayor@cityofgroton.com				
Leslie Creane	295 Meridian Street	(860) 446-4169				
City Planner	Groton, CT 06340	creanel@cityofgroton-ct.gov				
Mary Hill	205 Maridian Streat	(860) 446-4128				
Director, Parks & Recreation	Groton CT 06340	pr@cityofgroton com				
Department		preentyoigroton.com				
Eric Morrison	93 Plant Street	(860) 445-6912				
Superintendent, Shennecossett	Groton CT 06340	emorrison@groton-ct gov				
Golf Course						
CITY COMMISSIONS						
William Borysewicz	295 Meridian Street	2 <sup>nd</sup> Wednesday of every month,				
Chair, Beach and Parks Committee	Groton, CT 06340	7:00pm				
Richard Palmieri	295 Meridian Street	1 <sup>st</sup> Tuesday of every month				
Chair, Conservation Commission	Groton, CT 06340	7:30pm				
Paul Kunkemoeller, Chair,	295 Meridian Street	3 <sup>rd</sup> Tuesday of every month				
Planning & Zoning Commission	Groton, CT 06340	6:30pm				
	OTHER					
Annemarie Seifert	1081 Shannacossatt Rd	(860) 405-9000				
Campus Director, UConn Avery	Groton CT 06340	annemarie seifert@uconn.edu				
Point						
CT Dept. of Energy and	79 Flm St. 6 <sup>th</sup> Floor	(860) 424-3200				
Environmental Protection, State	Hartford CT 06106	Deen statenarks@ct gov				
Parks Division						

# Town of Groton

#### Introduction

The Town of Groton is a coastal community between the Thames River to the west and the Mystic River to the east. Groton, known as the "Submarine Capital of the World," is home to a major naval base as well as Electric Boat, which constructs submarine vessels. The town also hosts the Groton-New London Airport and I-95.

Alongside the two major rivers that make up its western and eastern borders, Groton contains several large lakes used for drinking water supply, the Poquonnock River, and several coves that divide the town's coastline into numerous peninsulas. Strong independent neighborhoods have developed over time. The areas of Long Hill, Center Groton, Mystic, Old Mystic, Long Point, and Noank all have distinct identities and, in some cases, distinct land use authority.

There are several conservation organizations that operate in the town, including The Groton Open Space Association (GOSA), Avalonia Land Conservancy, Tri-Town Trail Association, and the Groton Conservation Advocates (GCA). The town also hosts two state parks managed by the State Department of Energy and Environmental Protection (DEEP). The town has among the highest percentage of preserved and protected open space land in the region, at approximately 31% of its acreage. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

#### Figure 35. Town of Groton Open Space Land Statistics

Total Protected Land	4,229 ac						
Total Preserved Land	1,612 ac						
Total OS Land <sup>58</sup>	5,841 ac	С	R	Т	W	CE	NYC
		2,190 ac	2,938 ac	45 mi	389 ac	91 ac	233 ac
Total Land Area	18,597 ac						
Pct Open Space Land	31.41%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>58</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 38. Town of Groton Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



# Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Continue to pursue and develop a trail along the state	3
GT1	designated Tri-Town Trail Greenway (requires inter-municipal	
	cooperation with Ledyard and Preston).	
	Extend the existing CT-184 multi-use path to close gaps to the	18
GT2	Gold Star Bridge and Route 12 (western town border) and Old	
	Mystic (eastern town border).	
	Collaborate with other managers of open space to assess open	11
GT3	space maintenance efforts and coordinate around opportunities	
	for improvements.	
CT4	Implement Eastern Shoreline Path (ESP) projects as	18
014	recommended by 2019 Regional Bike/Pedestrian Plan.	

Groton's open space network is diverse and expansive. The town has numerous preserves, both small and large, and encompassing diverse coastal, inland woodland, lake, and former agricultural landscapes. Thus, recommendations of regional significance focus on connecting and improving the existing open space network.

The Tri-Town Trail received an official state greenway designation in 2022. This is a regionally significant trail that would connect the towns of Groton, Ledyard and Preston from the coast at Bluff Point State Park through uplands to the Preston Community Park. Collaboration between the towns and non-governmental stakeholders has been robust, and this plan strongly encourages continued efforts to complete this trail and link together numerous open spaces.

The Tri-Town Trail would serve as a north-south connecting spine for open space in Groton and the eastern portion of the SCCOG region. Establishing a similar east-west spine would connect more open spaces while also extending the reach of the north-south link.

CT-184 has generous right of way, lane width, and shoulders. There are also existing pedestrian facilities along a Multi-Use Path that extends from RT-117 west to Walmart. An extension of this route to the Gold Star Bridge to the west and Old Mystic to the east would link several open space preserves, connect to the Tri-Town Trail and existing CT-12 multi-use trail, and improve mobility for Old Mystic, Center Groton, and the commercial cluster near CT-184's junction with the bridge.

In public outreach, improving maintenance of existing open spaces of concern to participants. Open space maintenance can be difficult to coordinate, as no single entity controls all open spaces, and funding for maintenance is limited. Given Groton's robust public involvement in open space, there may be an opportunity to channel public support for open space into greater stewardship of these spaces, including litter cleanup, invasive species control, and small-scale physical maintenance through volunteer activities and "friends of" organizations.

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features. The following landscapes may be particularly salient in the Town of Groton, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Drinking Water Watersheds and Public Water Supply Areas Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- Section 4E: Connected Sewer Service Area Map 15
- Section 4E: Coastal Erosion Vulnerability Figures 11 / 12
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 4E: Current and Future 100-Year Storm Flooding and Sea Level Rise Map 20
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 7, Objective 25: Resilient and Connected Landscapes Map 25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

# Map 39. Public Engagement Feedback related to the Town of Groton

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space assets.



Comment Key					
Point ID	Location	Comment/Suggestion			
1	Phoenix Drive Park	New trails			
2	Land in/Behind Center Groton Park	Purchase?			
3	Area between Haleys Brooke and Mystic River	Potential community park / bike paths			

4	Tri-Town Trail	Complete tri-town trail
5	The Copp Family Park	Love the accessibility!
6	The Copp Family Park	Facilitate TTT
7	Dark Hollow	Protect
8	Wolfe Brooke	Just acquired
9	Pequot Woods Park	Mountain bike trails need improvement
10	Mystic River top to bottom	Path with water access
11	Mystic River by Coastal Public Access	Small craft launch
		Groton reservoir access for walking/hiking
12	Groton Reservoir	such a beautiful area, but it opens it up to
		people that don't respect the environment
13	Fort Hill Brook	Protect
		Downtown areas to school areas. Example:
	Groton Proposed Trail	The Fitch/Groton Middle/Grasso campus
1/		connected with both downtown Mystic and
14		downtown Groton. Also, a connection
		between downtown Mystic and Stonington
		Borough.
15	Groton Long Point Rd rt 215	Narrow bikeway, fast cars
16	Bluff Point State Park	Poor upkeep
17	Bluff Point	Identified community asset
18	Bluff Point	Love horseback riding there!!
19	Town-Wide Suggestion	East-west trail across southern Groton
20	Town Wide Suggestion	Groton Utilities properties should be open to
20	Town-while Suggestion	the public
		Trail connections that make use of what's
21	Town Wide Cogneties	already existing, schools & open space. Avoid
21	Town-white Suggestion	Groton/Ledyard reservoir lands to protect
		drinking water.
22	Town Wide Suggestion	Trail connections between Groton and New
22   T	i own-wide suggestion	London

# Town of Groton Open Space Points of Contact

Name	Address	Contact or Meeting Info				
TOWN OF GROTON						
John Burt	45 Fort Hill Road	(860) 441-6630				
Town Manager	Groton, CT 06340	jburt@groton-ct.gov				
Jonathan Reiner	45 Fort Hill Road	(860) 446-5970				
Director, Planning & Development	Groton, CT 06340	jreiner@groton-ct.gov				
Megan Granato	134 Groton Long Point	(860) 446-5974				
Sustainability & Resilience Manager	Road, Groton, CT 06340	mgranato@groton-ct.gov				
Mark Berry	27 Spicer Ave	(860) 536-5680				
Director, Parks & Recreation	Groton, CT 06340	parksrec@groton-ct.gov				
то	WN COMMISSIONS					
Larry Dunn	134 Groton Long Point	1 <sup>st</sup> Monday of every month				
Chair, Conservation Commission	Road, Groton, CT 06340	5:00pm				
Domenic L. Venditti, Jr., Chair, Copp	102 Newtown Road	1 <sup>st</sup> Wednesday of May,				
Family Park Board of Overseers	Groton, CT 06340	October, 6:00pm				
Margaret Hirsch	Virtual, see town	1 <sup>st</sup> Monday of every month				
Chair, Golf Advisory Board	website for link.	7:00pm				
David Scott	134 Groton Long Point	2 <sup>nd</sup> & 4 <sup>th</sup> Wednesday of				
Chair, Inland Wetlands Agency	Road, Groton, CT 06340	every month, 7:00pm				
Dominic Bassi, Chair,	102 Newtown Road	2 <sup>nd</sup> Thursday of every				
Parks & Recreation Commission	Groton, CT 06340	month, 7:00pm				
Brae Rafferty, Chair,	389 Sandy Hollow Road	4 <sup>th</sup> Saturday of April				
Pequot Woods Board of Trustees	Mystic, CT 06355	8:30am				
Jeffrey C. Pritchard, Chair,	134 Groton Long Point	2 <sup>nd</sup> Tues. monthly; 4 <sup>th</sup> Tues.				
Planning & Zoning Commission	Road, Groton, CT 06340	Jan-Jun, Sept, Oct, 7:00pm				
	OTHER					
Liz Raisbeck, Eugenia Villagra		(860) 536-8666				
Co-Chairs, Groton Conservation	Noank CT 06340	groconady2017@gmail.com				
Advocates		groconadv2017@gmail.com				
Dan O'Connell, President,	PO Box 9187	gosamail@gmail.com				
Groton Open Space Association	Groton, CT 06340	gosaman@gman.com				
Tom Olson, VP (Groton),	PO Box 482	tfolson@comcast net				
Tri-Town Trail Association	Ledyard, CT 06339	tioison@comcast.net				
Dennis S. Main, Board President,	P.O. Box 49	(860) 823-6246				
Avalonia Land Conservancy	Old Mystic, CT 06372	president@avalonialc.org				
CT DEEP. State Parks Division	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200				
	Hartford, CT 06106	Deep.stateparks@ct.gov				

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# Lebanon

# Introduction

Lebanon is the largest of the region's rural communities, both in terms of land area and population. Much of the town is comprised of agricultural working lands and undeveloped woodlands. The town has among the highest percentage of preserved and protected open space land in the region, at approximately **32**% of its acreage. As can be seen in the municipal open space land statistics figure below, additional data clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset (there is almost surely open space land with conservation use category, or additional working lands or areas open to passive recreation).

# Figure 36. Town of Lebanon Open Space Land Statistics

Total Protected Land	7,611 ac						
Total Preserved Land	3,613 ac						
Total OS Land <sup>59</sup>	11,224 ac	С	R	Т	W	CE	NYC
		1,647 ac	3,722 ac	22 mi	5,846 ac	9 ac	0 ac
Total Land Area	35,302 ac						
Pct Open Space Land	31.79%						

Recorded to Date in SCCOG's Regional Open Space Dataset

In public outreach for the last two iterations of the Lebanon POCD, a majority of residents identified "Farmland and Open Space" as their preferred focus of town planning efforts. The communitywide commitment to open space is matched by state investment in the town's network, with high levels of participation in state and federal agricultural protection programs. The cultural heart of the community, the Lebanon Town Green, is organized around a tract of open space land surrounded by community facilities like the library, town pool, and various historical museums. The state-managed Air Line Trail, a 50+ mile regional multi-use trail following an abandoned rail bed, runs along the town's northwest border. DEEP manages three state parks, two wildlife management areas, and several waterbodies in town. Nonprofit entities are also active in Lebanon, with preserves owned by The Nature Conservancy, Joshua's Trust, and the CT Forest and Parks Association. The Girl Scouts of Connecticut also own a large parcel, Camp Laurel, on Stiles Pond that is utilized for scouting activities, but is not deed restricted.

<sup>&</sup>lt;sup>59</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 40. Lebanon Existing Open Space and Regional Open Space Recommendations

**Townwide Recommendations** LB3 - Manage phosphorus omeroy State in watersheds enic Preserve Pigeon Swamp Preserve ecticut F orest and Parks As OC S end Lake Williams Rond Pond State Park ami Laurel Stil Lebanon Town Green Villiam mston Lake Brewster Pond Bartlett Brook Brook WMA WMA Lak Noween State Park

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



#### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Work with State of CT to develop portage around the McGrath	19
LB1	Lane dam and small craft access points for Yantic River, and start	
	conversations about the feasibility of dam removal.	
	Participate in a regional committee to develop rail-with-trail	1, 17, 18
	between Windham and Norwich, as well as a Fitchville Spur, in	
LB2	cooperation with the New England Central Rail Road (requires	
	cross-jurisdictional cooperation with Bozrah, Lebanon, Norwich,	
	and Windham).	
	Partner with local champions in the agricultural community and	8, 11, 21
	agricultural advocate groups like FarmLink and UCONN Extension	
LB3	to start conversations about phosphorus sources and best	
	practices to minimize agricultural phosphorus impacts on water	
	quality.	

Lebanon is fully located within the Thames River Major Basin. The majority of the town lies within the Yantic River watershed, a regional sub-basin, which eventually merges with the Shetucket to form the Thames River. Much of the Yantic's headwaters originate in Lebanon, with Savin Lake serving as the point where Bartlett Brook enters the Lake from the north, and becomes the Yantic River at its outflow to the south, with nearby inflow from Sherman Brook. The remaining areas of town are split between the Willimantic and Shetucket watersheds.

The Yantic River is one of the least easily navigable Thames River tributaries for recreational paddlers. Numerous dams and few access points make paddling the river difficult. One such barrier exists in Lebanon on the dead end of McGrath Lane south of Route 616, where a derelict, State-owned dam and out-of-use road-stream crossing remains along the former Route 2 ROW. There is no available portage route around this legacy infrastructure. This dam is a candidate for removal. However, this process takes considerable time and money, and there may be some historic preservation aspects and a desire, while still removing the dam for the ecological and recreational benefits, to honor this legacy in repurposing dam materials. In the short term, the Town should coordinate with the state, which owns the land, on developing a portage route with wayfinding for paddlers to navigate around it.

The other difficulty in paddling the Yantic River is a general lack of available put-ins and access. There are several locations in Lebanon where river access would be practical. Access immediately below Savin Lake would make for a natural "terminal" and allow paddlers to enjoy the length of the river during high water periods. Other locations could include improving the existing informal access at Camp Mooween Road, the end of Barstow Road, or at the McGrath Lane portage mentioned above. It is recommended that at least one of these options be pursued in addition to an access point below Savin Lake.

On land, The Air Line Trail is a premier recreational asset for Lebanon and the other communities it crosses. Opportunities for similar rail trails have been limited in Southeastern Connecticut as many railroads in the region are still in use for freight movement. Recent legislation has made developing trails alongside rails a more realistic proposition. Rail-with-Trail presents the opportunity to expand upon the existing network of regional scale multi-use trails and improve both mobility and recreational opportunity. One such opportunity is along the New England Central Rail Road, from Norwich north to Willimantic, where it would connect with the Air Line and Hop River multi-use trails. This right of way passes through Lebanon, making town representation vital on any committee related to advancing this pathway.

As described in Section 3E, the Yantic River is an impaired waterbody. It suffers from very high levels of phosphorus, which is detrimental to the health and safety of its ecosystem and impacts downstream communities. Phosphorus impairment is unique among SCCOG region watercourses and is primarily due to the agricultural nature of the Yantic River watershed communities of Colchester, Salem, Lebanon, Bozrah, and Franklin. Solving this contamination issue will require towns to engage operators and encourage best management practices to prevent runoff from impacting water quality. Related resources can be found at:

https://www.ars.usda.gov/is/np/bestmgmtpractices/best%20management%20practices.pdf

https://www.epa.gov/sites/default/files/2015-09/documents/ag\_runoff\_fact\_sheet.pdf

https://www.epa.gov/nps/nonpoint-source-agriculture

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in Lebanon, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- <u>Section 4A: Agricultural Soils Map 6</u>
- Section 4B: Regional Drainage Basins Map 8
- Section 4D: Cold Water Fish Habitat Map 11
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14

- <u>Section 4E: FEMA Special Flood Hazard Areas Map 18</u>
- <u>Section 7, Objective 3: Designated Greenways Map 23</u>
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

#### Public Engagement Feedback related to Lebanon

No specific comments within the boundaries of Lebanon were recorded.

#### Lebanon Open Space Points of Contact

Name	Address	Contact or Meeting Info
Т	OWN OF LEBANON	
Kevin Cwikla	579 Exeter Road	(860) 642-6100 x 1
First Selectman	Lebanon, CT 06249	firstselectman@lebanonct.gov
Phil Chester	579 Exeter Road	(860) 642-2006
Town Planner	Lebanon, CT 06249	pchester@lebanonct.gov
Sandy Tremblay	579 Exeter Road	(860) 642-4085
Coordinator, Recreation Department	Lebanon, CT 06249	stremblay@lebanonct.gov
тс	WN COMMISSIONS	
Keith LaPorte	579 Exeter Road	Irrogular, cao taun wahaita
Chair, Cemetery Commission	Lebanon, CT 06249	integular, see town website.
Marc Lang, Chair	570 Evotor Boad	1 <sup>st</sup> or 2 <sup>nd</sup> Monday every month
Conservation & Agriculture	Lobanon CT 06240	1° 01 2° Wonday every month,
Commission	Lebanon, CT 00249	see town website. 4.50pm
James McCaw	579 Exeter Road	1 <sup>st</sup> or 2 <sup>nd</sup> Monday every month,
Chair, Inland Wetlands Commission	Lebanon, CT 06249	see town website. 7:00pm
Francis Malozzi, Chair,	579 Exeter Road	3 <sup>rd</sup> Monday every month,
Planning and Zoning Commission	Lebanon, CT 06249	7:00pm
Nicholas Poppiti	579 Exeter Road	4 <sup>th</sup> Monday every month,
Chair, Recreation Commission	Lebanon, CT 06249	7:00pm
	OTHER	
CT Dept. of Agriculture	450 Columbus Blvd	(860) 713-2511
Farmland Preservation Program	Hartford, CT 06103	DoAg.Farmland@ct.gov
CT DEED State Darks Division	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200
	Hartford, CT 06106	Deep.stateparks@ct.gov
Clare Cain, Interim ED, Connecticut	16 Meriden Road	(860) 346-8733
Forest & Parks Association	Rockfall, CT 06581	info@ctwoodlands.com

Bryan Avery, Land Protection Manager, Joshua's Trust	PO Box 4 Mansfield, CT 06250	(860) 429-9023 bryan.avery@joshuastrust.org
Camp Laurel	175B Clubhouse Rd	(860) 423-8461
Girl Scouts of Connecticut	Lebanon, CT 06249	property@gsofct.org

# Ledyard

# Introduction

Ledyard is a suburban town situated between the Thames River to the west and Whitford Brook, which makes up its eastern border. The town has two primary villages, Gales Ferry and Ledyard Center, but most of its population resides in subdivisions outside of these commercial centers. Ledyard town land surrounds the Mashantucket Pequot Tribal Nation's reservation and Foxwoods Casino, a major regional destination. Ledyard is home to numerous large waterbodies, including Long Pond, Lantern Hill Pond, and the Morgan Pond Reservoir. Its land area is split almost evenly between the Thames and Mystic River watersheds.

The town is home to numerous preserves with varied ownership. Groton Utilities owns the land surrounding two large reservoirs in the town's southwest to ensure public drinking water quality. Avalonia Land Conservancy manages six preserves in the town for passive recreation, and The Nature Conservancy owns, but does not necessarily manage, several parcels. The state Department of Energy and Environmental Protection operates the Rose Hill Wildlife Management Area along Ledyard's border with Preston, as well as Stoddard Hill State Park, which has water recreation access and hiking.

There are several significant municipally owned and managed parks and recreation tracts in town, such as Sawmill Park, Colonel Ledyard Park, and Burton Memorial Park, among others. Additionally, the town owns parcels of open space of various sizes that were acquired as part of subdivision development requirements, but does not necessarily steward these parcels for any use outside of unmanaged conservation land. Approximately 20% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

# Figure 37. Town of Ledyard Open Space Land Statistics

Total Protected Land	3,787 ac	3,787 ac						
<b>Total Preserved Land</b>	1,281 ac							
Total OS Land <sup>60</sup>	5,069 ac	С	R	Т	W	CE	NYC	
		1,843 ac	2,706 ac	32 mi	428 ac	14 ac	78 ac	
Total Land Area	25,543 ac							
Pct Open Space Land	19.84%							

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>60</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 41. Ledyard Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



#### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Work with Preston, North Stonington, Stonington, the	18
1 5 1	Mashantucket Pequot Tribal Nation, and SCCOG to determine	
LCT	the current feasibility of a regional multi-use trail utilizing the	
	abandoned trolley right of way.	
	Continue to pursue and develop a trail along the state	3
LE2	designated Tri-Town Trail Greenway (requires inter-municipal	
	cooperation with Groton and Preston).	
	Utilize small, undeveloped town owned parcels to develop	1, 20
LE3	neighborhood parks and playscapes for additional open space	
	and recreation access points near residences.	
	Look for opportunities to collaborate with the Mashantucket	4, 17, 18
LE4	(Western) Pequot Tribal Nation on land preservation, trail	
	connection, and historical interpretation projects.	

From 1906 to 1922, electric trolley service ran between Norwich and Westerly, Rhode Island. Unlike many other trollies that utilized existing roads, this line ran along an exclusive right of way paralleling CT-2 that remains substantially intact to this day as an Eversource electric transmission line corridor. Possibilities for a trolley line trail, last studied in 1974 by SCRPA, would develop a significant recreational amenity for Ledyard and the region, while improving safety by separating cyclists and motorists on Route 2. The path, if completed end-to-end, would connect residential, commercial, and entertainment centers with numerous open spaces across each town.

The former trolley trail described above would intersect with the Tri-Town-Trail, another regional trail project. This north-south trail linking Preston, Ledyard, and Groton would also connect various uses with open spaces along its route. This plan recommends Ledyard continue to be a partner and advocate in working towards the Tri-Town-Trail project completion.

The Town of Ledyard, as well as neighborhood homeowners associations, own numerous properties throughout the town that were acquired through subdivision dedication requirements over the years. Many of these properties are woven into the middle of residential neighborhoods. While Ledyard is rich in major recreational attractions, these properties provide an opportunity to create local neighborhood parklets and playscapes that improve local quality of life and build outdoor recreation into daily routines.

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution across the region. The following landscapes may be particularly salient features in Ledyard, and can be explored further in the plan, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Aquifer Protection Areas and Drinking Water Watersheds Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- Section 4E: Core Forest Map 13
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- Section 4E: Connected Sewer Service Area Map 15
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

# Map 42. Public Engagement Feedback related to Ledyard



Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space assets.

Comme	Comment Key						
Point ID	Location	Comment/Suggestion					
1	Cider Hill Woodlands	Cider Hill 1000 acres of woodlands for trails while protecting an important watershed area for Whitford Brook Watershed					
2	Cider Hill Connection	Cross over Cider Hill, lots of private woodlands + MPTN woodlands to Town Farm Rd, Fosberg/ Olson Preserve					
3	Town-Wide Suggestion	Open more freshwater shoreline and trail access around some of the reservoirs inside Ledyard. It's depressing to look at a map of all the water we're not allowed to fish. More hiking trails are always good. An updated printing mailed out listing available trails and parking locations would be cool					
4	Town-Wide Suggestion	Connections that make use of what's already existing, schools & open space. Avoid Groton/Ledyard reservoir lands to protect drinking water.					
5	Town-Wide Suggestion	Connect Ledyard to Mystic, Groton or Norwich					
6	Town-Wide Suggestion	Connect Ledyard to Gales Ferry, perhaps utilizing some of the utility roads around the reservoir					

# Ledyard Open Space Points of Contact

Name	Address	Contact or Meeting Info					
TOWN OF LEDYARD							
Fred Allyn III	741 Col. Ledyard Hwy	(860) 464-8740					
Mayor	Ledyard, CT 06339	mayor@ledyardct.org					
Juliet Hodge	741 Col. Ledyard Hwy	(860) 464-3215					
Planning Director	Ledyard, CT 06339	planner@ledyardct.org					
Scott Johnson	12 Van Tassell Drive	(860) 464-9112					
Recreation Director	Gales Ferry, CT 06335	scott@ledyardrec.org					
ТОУ	VN COMMISSIONS						
Bruce Garstka	741 Col. Ledyard Hwy	3 <sup>rd</sup> Tuesday of every					
Chair, Agricultural Commission	Ledyard, CT 06339	month, 6:00pm					
Sheila Godino	741 Col. Ledyard Hwy	Quarterly, see town					
Chair, Cemetery Commission	Ledyard, CT 06339	website, 4:00pm					
Michael Marelli	741 Col. Ledyard Hwy	2 <sup>nd</sup> Tuesday of every					
Chair, Conservation Commission	Ledyard, CT 06339	month, 6:45pm					

Justin DeBrodt, Chair, Inland Wetlands	741 Col. Ledyard Hwy	1 <sup>st</sup> Tuesday of every month	
& Watercourses Commission	Ledyard, CT 06339	7:00pm	
Kenneth DiRico, Chair, Parks,	12 Van Tassell Drive	3 <sup>rd</sup> Tuesday of every	
Recreation & Senior Citizens Com.	Gales Ferry, CT 06335	month, 7:00pm	
Tony Capon	741 Col. Ledyard Hwy	2 <sup>nd</sup> Thursday of every	
Chair, Planning & Zoning Commission	Ledyard, CT 06339 month, 6:00pm		
	OTHER		
Dennis S. Main, Board President,	P.O. Box 49	(860) 823-6246	
Avalonia Land Conservancy	Old Mystic, CT 06372	president@avalonialc.org	
CT Dept. of Energy and Environmental	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200	
Protection, State Parks Division	Hartford, CT 06106	Deep.stateparks@ct.gov	
The Nature Conservancy	191 Avery Hill Rd	(203) 568-6270	
Poquetanuck Cove Preserve	Ledyard, CT 06339	ct@tnc.org	

#### Lisbon

# Introduction

Lisbon is a suburban community situated at the confluence of the Shetucket and Quinebaug Rivers. Its land area is split between the two rivers' watersheds. It has a lower population than other suburban communities in the region with a significant amount of remaining undeveloped land. Interstate 395 runs through the town, and it hosts Lisbon Landing, a major regional shopping center, near the highway and Route 12.

Lisbon has some developed recreational opportunities, including boat launches on rivers and lakes. The municipally owns Lisbon Meadows Park, which includes trails and disc golf, as well as walking trails. Despite the large amount of undeveloped land present, the town's preserved or protected open space is limited to approximately 8%. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

#### Figure 38. Town of Lisbon Open Space Land Statistics

Total Protected Land	863 ac						
Total Preserved Land	0 ac						
Total OS Land <sup>61</sup>	863 ac	С	R	Т	W	CE	NYC
		159 ac	128 ac	54 mi	21 ac	13 ac	542 ac
Total Land Area	10,658 ac						
Pct Open Space Land	8.09%						

Recorded to Date in SCCOG's Regional Open Space Dataset

Aside from the town, protected lands are owned and managed by The Archaeological Conservancy, a national non-profit that protects lands of significant archaeological value, and the Old Stone Mill Foundation Trust, a local non-profit formed specifically to acquire and hold this preserve. A small number of agricultural parcels are enrolled in state agricultural preservation programs, and a small number of parcels are held by utility companies.

<sup>&</sup>lt;sup>61</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 43. Lisbon Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



#### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Continue and expand proactive open space planning through	4
1.11	town planning documents like the POCD, and work with partners	
	to strategically increase the acreage of protected land within the	
	town.	
	Seek state greenway designation for the current Quinebaug	3
LI2	River gap, from Broad Brook to Quinebaug Falls (requires	
	intermunicipal cooperation with Preston.)	
112	Work with land owners and the Town of Griswold to develop	19
LIS	portage trail around Aspinook Pond Dam	
	Build upon the recent 2024 investment in sidewalk connections	1, 17
114	from Lisbon Landing to Jewett City on River Road to extend	
LI4	pedestrian connections from these areas to reach additional	
	residential developments.	

A very low percentage of Lisbon's acreage is permanently protected from development, despite the presence of large undeveloped land areas. In order to strategically focus preservation efforts, the town should work with stakeholders and the public to determine key priorities for open space, including target corridors (described in the Lisbon POCD) but also parcel qualities that would preserve the right parcel in the right place, depending on conservation, recreation, resilience, or other landscape goals. This level of analysis will improve collaboration with outside entities and ensure that preservation efforts are directed to the most valuable opportunities. Partners such as land trusts and conservation organizations should be actively engaged to acquire land in Lisbon as opportunities arise, in furtherance of specific town priorities. The town can also work with agricultural land owners and farmland advocacy groups to explore state and federal preservation programs and encourage enrollment.

The State's designation of the Quinebaug River as a greenway is fragmented; long stretches of the river have received designation with remaining gaps in between. In the SCCOG region, the river is designated from the Plainfield town line south to the Griswold/Preston town line. This leaves a 3.5-mile gap between the termination of the current greenway designation and the end of Quinebaug River where it meets the Shetucket (itself a designated greenway). Lisbon can work with Preston to get this final segment designated as a greenway, improving access to funds for conservation and recreation activities along the corridor.

# Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in Lisbon, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- <u>Section 4B: Public Water Supply Service Areas Map 9</u>
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- <u>Section 4E: Impaired Waterbodies Figure 9 / Map 14</u>
- <u>Section 4E: Connected Sewer Service Area Map 15</u>
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 7, Objective 25: Resilient and Connected Landscapes Map 25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

#### Public Engagement Feedback related to Lisbon

No specific comments within the boundaries of Lisbon were recorded

#### Lisbon Open Space Points of Contact

Name	Address	Contact or Meeting Info			
TOWN OF LISBON					
Thomas Sparkman	1 Newent Road	(860) 376-3400			
First Selectman	Lisbon, CT 06351	tsparkman@lisbonct.com			
Michael Murphy	1 Newent Road	(860) 376-3400			
Town Planner	Lisbon, CT 06351	mmurphy@seccog.org			
TOWN COMMISSIONS					
Richard Hamel	1 Newent Road	3 <sup>rd</sup> Tuesday of every month			
Chair, Conservation Commission	Lisbon, CT 06351	7:00pm			
Robert D. Adams	1 Newent Road	1 <sup>st</sup> Tuesday of every month			
Chair, Planning and Zoning	Lisbon, CT 06351	7:00pm			
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Commission					
Thomas J. Restivo	1 Newent Road	3 <sup>rd</sup> Monday of every month			
Chair, Recreation Commission	Lisbon, CT 06351	8:00pm			
Joseph P. Lewerk	1 Newent Road	2 <sup>nd</sup> Wednesday of every			
Chair, Trails Committee	Lisbon, CT 06351	month, 7:00pm			
OTHER					
CT Dept. of Agriculture	450 Columbus Blvd	(860) 713-2511			
Farmland Preservation Program	Hartford, CT 06103	DoAg.Farmland@ct.gov			
Kelley Berliner, Eastern Director,	22 S. Market St, Suite 2	(301) 682-6359			
The Archaeological Conservancy	Frederick, MD 21701	tac.eastern@gmail.com			

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## Montville

## Introduction

Montville is a suburban community on the western bank of the Thames River. The vast majority of its land drains to the Thames River main stem watershed, though other portions of the town are also located in the Yantic River and Niantic River regional basins. The Oxoboxo River runs from northwest to southeast through Montville and into the Thames. The river is heavily dammed, with numerous ponds and impoundments. The majority of the town's denser development follows these two rivers, which are paralleled by state routes 32 and 163. Interstate 395 runs north-south through the town, though it only has one exit onto local roads. CT-2A, another limited access highway, interchanges with I-395 in Montville and connects the town with Preston on the other side of the Thames. Montville's northeastern land area surrounds the Mohegan Tribal Nation's reservation and associated Mohegan Sun casino. The casino overlooks Trading Cove and is a major draw for visitors across the northeast.

Approximately 16% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset. The majority of Montville's open spaces are in the southwestern portion of the town. This area contains large tracts of land preserved for drinking water protection for both the New London and Norwich systems. The town itself manages a large recreational open space, known as Camp Oakdale, which contains recreational courts and fields, an event pavilion, and a dog park, and is located roughly in the center of town. Other open spaces in the town include smaller parcels managed by a variety of entities, including the state, local homeowners' associations, and the Waterford Land Trust. Recently, the town was awarded an OSWA grant for a joint venture with Bozrah and Avalonia for a preserve that straddles the Bozrah/Montville town line.

#### Figure 39. Town of Montville Open Space Land Statistics

Total Protected Land	4,032 ac	4,032 ac					
Total Preserved Land	603 ac	603 ac					
Total OS Land <sup>62</sup>	4,635 ac	С	R	Т	W	CE	NYC
		3,777 ac	713 ac	4 mi	0 ac	28 ac	118 ac
Total Land Area	28,316 ac						
Pct Open Space Land	16.37%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>62</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 44. Montville Existing Open Space and Regional Open Space Recommendations



Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.

### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to develop a greenway along	3
MT1	the abandoned Route 11 corridor (requires intermunicipal	
	cooperation with Colchester, East Lyme, Salem, and Waterford).	
N/T2	Consider increasing public access to the shoreline for	19
	appropriate recreational activities.	
N/T2	Look for opportunities to partner with one or more abutting	5
1011.5	towns to pursue open space protection.	
	Look for opportunities to collaborate with the Mohegan Tribal	4, 17, 18
MT4	Nation on land preservation, trail connection, and historical	
	interpretation projects.	
	Participate in regional efforts to establish and update a	12, 13, 14
MT5	comprehensive inventory of regional open space assets and	
	using, to the maximum extent practical, the established regional	
	classification scheme.	
	Develop and implement strategies which integrate open space,	1, 4, 9, 10, 11, 17,
MT6	trail, and recreational assets in ways that complement and	18
	enhance residential neighborhoods, the viability of existing	
	businesses, and the permitting of large solar arrays.	
	Pursue brownfield redevelopment and mitigation as a means of	11
MT7	creating strategically located and designed open space as part of	
	an integrated and holistic community development strategy.	
	Whenever possible, seek to use open space as a tool to improve	1, 2, 9, 11, 12, 17,
MT8	the economic, health, and social conditions of historically	21, 22
	underserved populations.	
	Support regional and state efforts to increase funding and	14, 15, 23
	staffing for open space preservation, purchase of development	
MT9	rights, brownfield redevelopment, public trails, potable water	
	supply protection and other related policies, programs and	
	initiatives.	

When plans to extend State Highway 11 to an interchange with I-95 and I-395 were still active, the Route 11 Greenway Authority Commission was created to develop a parallel greenway along the corridor. Though the greenway project was abandoned alongside the state's abandonment of the highway extension, the development of a greenway along the corridor is

an idea with merit independent of the highway. Development of this greenway would provide a marquee recreational amenity for the town and region and improve connectivity for nonmotorized transportation in the Chesterfield neighborhood of Montville. The Montville POCD contains excellent recommendations for the development of a park and trail system, centered on the large, town-owned facilities that comprise Camp Oakdale.

Montville is home to a number of large waterbodies. Many of these are restricted areas utilized for public drinking water supply, where access to the waters would compromise the water quality. Other waterbodies in town that do not have this recreational use restriction, but are accessible only to private shoreline landowners. Developing access to these waterbodies, specifically Oxoboxo Lake, Wheeler Pond, and Scholfield Pond, through easement or fee acquisition, would open significant recreational opportunities to the public while imposing only a small footprint in land requirements.

## Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in Montville, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Drinking Water Watersheds and Public Water Supply Infrastructure Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- Section 4E: Connected Sewer Service Area Map 15
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 25: Resilient and Connected Landscapes Map 25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

## Map 45. Public Engagement Feedback related to Montville

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space assets



Comment Key					
Point ID	Location	Comment/Suggestion			
1	Avalonia OSWA Parcel Avalonia 669 Acres OSWA Parcel Being Preserved				
2	Town-Wide Suggestion	More hiking trails needed in Montville. Very little			
2	Town while Suggestion	public open space as compared to surrounding towns.			

Montville Open Space Points of Contact

Name	Address	Contact or Meeting Info					
TOWN OF MONTVILLE							
Matthew Davis	310 CT-32	(860) 848-6779					
Land Use and Development Director	Uncasville, CT 06382	mdavis@montville-ct.org					
Colleen Bezanson	310 CT-32	(860) 848-8549 x 379					
Environmental Planner	Uncasville, CT 06382	CBezanson@montville-ct.org					
Peter Bushway	310 CT-32	(860) 848-6780					

Parks and Recreation Director	Uncasville, CT 06382	pbushway@montville-ct.org				
TOWN COMMISSIONS						
Nicholas Sabilia	310 CT-32	1 <sup>st</sup> Tuesday of every month				
Chair, Conservation Commission	Uncasville, CT 06382	6:00pm				
Douglas Brush	310 CT-32	3 <sup>rd</sup> Thursday of every month				
Chair, Inland Wetlands Commission	Uncasville, CT 06382	6:00pm				
Kate Southard	310 CT-32	3 <sup>rd</sup> Wednesday of every				
Chair, Parks and Recreation Commission	Uncasville, CT 06382	month, 6:30pm				
Sara Lundy	310 CT-32	4 <sup>th</sup> Tuesday of every month				
Chair, Planning and Zoning Commission	Uncasville, CT 06382	6:00pm				
	OTHER					
Dennis S. Main	P.O. Box 49	(860) 823-6246				
Board President, Avalonia Land Conservancy	Old Mystic, CT 06372	president@avalonialc.org				
David Lersch	P.O. Box 926	(301) 682-6359				
President, Waterford Land Trust	Waterford, CT 06385	info@waterfordlandtrust.org				

#### New London

#### Introduction

New London has one of the most distinctly urbanized landscapes in the region. It is the smallest municipality by land area, but the third largest by population (behind Norwich and Groton). It is bordered by the Thames River to the east, the Long Island Sound to the south, and by Waterford to the north and west. The vast majority of the city's land area is developed, and the city is home to many of the region's most well-known institutions, including Connecticut College, Mitchell College, and the United States Coast Guard Academy.

The city is also home to significant regional infrastructure. Interstate 95 crosses through New London, with its Gold Star Bridge connection between New London and Groton serving as the only crossing of the Thames River for ten miles, and the only bike/pedestrian crossing south of Norwich. Three rail lines operate in the city, including the Northeast Corridor, with passenger service to Boston and New York as well as freight rail serving points north on both sides of the Thames.

Open space in the city is primarily active recreation parks and landscaped green spaces, as well as a number of beaches. Riverside Park is a particularly notable facility, providing 18 acres of wooded open space. The city also has a rich inventory of historical sites that are incorporated into the open space system, including Ye Antientist Burial Ground, Fort Trumbull State Park, and the New London Harbor Lighthouse. Passive recreation opportunities in the city are available at Bates Woods and the Connecticut College Arboretum. Approximately 12% of the city is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

#### Figure 40. City of New London Open Space Land Statistics

Total Protected Land	39 ac						
Total Preserved Land	442 ac						
Total OS Land <sup>63</sup>	481 ac	С	R	Т	W	CE	NYC
		10 ac	468 ac	4 mi	0 ac	2 ac	0 ac
Total Land Area	Land Area 3,981 ac						
Pct Open Space Land	12.07%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>63</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

### Map 46. New London Existing Open Space and Regional Open Space Recommendations



Tri Town Trail

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.

## Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
NI 1	Coordinate between staff, commissioners, and residents to	11
INLI	identify maintenance gaps and maintenance plans for city parks.	
NI 2	Restore Alewife Cove (requires intermunicipal cooperation with	6, 8
INLZ	Waterford).	
	Implement Eastern Shoreline Path (ESP) projects as	18
INLS	recommended by 2019 Regional Bike/Pedestrian Plan.	
	Identify opportunities to develop small, neighborhood parklets	1, 20
NL4	and playscapes so all residents have an open space or	
	recreational amenity within 0.5 miles.	
	Evaluate where small-scale open spaces present opportunities	21, 22, 23
	for nature-based climate resilience infrastructure for addressing	
INLS	heat and stormwater impacts, and where additional community	
	garden space can bolster local food security.	
	Expand access at Riverside Park, coordinating wayfinding to	11, 17, 19
NIG	parks with New London's investments on Williams Street, and	
INLO	exploring restoration of deteriorated pedestrian waterfront	
	access infrastructure.	

In New London, along with elsewhere in the region, the public engagement effort for this plan highlighted the need for better maintenance of open space. Upkeep of public spaces can have significant impacts on perfections of safety. Staff, commissions, and local residents should work to identify the specific issues at local parks and develop interventions that address the concerns and establish long term solutions.

In urban contexts like New London, cycling is more frequently a form of regular, day-to-day transportation and commuting than in the SCCOG region at large. As such, robust infrastructure is critical to ensuring that cyclists have the ability to safely navigate the city and reach their intended destination. New London plays a critical role in connecting the eastern and western halves of the region via the Gold Star Bridge. This east-west link would be greatly supported by the implementation of recommendations for the Eastern Shoreline Path in New London as described in the Regional Bike/Ped Plan.

New London's urban character also means that its residents are less likely to own a vehicle or use an automobile for any given trip. As such, it is important that residents have access to open

spaces within reasonable walking reach of their homes. While the city is not geographically large, pockets remain where residents do not have an open space or recreational amenity within a half-mile of their home (about a 10-minute walk). The City should seek opportunities to acquire, either directly or in collaboration with partner organizations, parcels to turn into parklets and playscapes for local neighborhoods. These small, neighborhood level open spaces play a crucial role in offering a convenient open space for families, particularly those with small children. These sites may also present opportunities for nature-based climate resilience infrastructure for addressing heat and stormwater impacts. The City can evaluate where open spaces for recreation access and resilience infrastructure each take priority, or where both community purposes can co-exist on a given site.

One of the city's most notable geographic features, Alewife Cove, remains choked by silt and sediment that was deposited during Super Storm Sandy in 2012. Clearing this material would restore critical habitat for marine life in the area and improve recreational access for paddlers on the cove. The city should support outside efforts for restoration and provide assistance where possible in seeking funding and community support.

## Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in New London, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Public Drinking Water Service Areas Map 9
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Impaired Waterbodies Figure 9 / Map 14</u>
- Section 4E: Connected Sewer Service Area Map 15
- <u>Section 4E: Coastal Erosion Vulnerability Figures 11 / 12</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 4E: Current and Future 100-Year Storm Flooding and Sea Level Rise Map 20
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26



# Map 47. Public Engagement Feedback related to New London

Number labels key each point to comments in the table below the map.

Red = existing open space that needs improvement.

Yellow = suggested new open space.

Green = open space assets.

Comment Key					
Point ID	Location	Comment/Suggestion			
1	Riverside Park	Too many roads!			
2	New London parks	In general – poor upkeep			
3	Bates Woods Park	Undermaintained, dirty			
4	Garfield Ave Ext/Bates Woods	Public access to wetlands			
5	New London City Pier	Opportunities for sail boats or other recreational activities on water? At least once in a while?			
6	Green Harbor Beach	Identified community asset			
7	Pequot Ave	Underdeveloped strip between Green Harbor Beach and Fred Shanty, imo. Should be a hot spot for cafes, restaurants. Desperate need for protected bike lanes.			
8	Historic New London Lighthouse	Beautiful, historic lighthouse that is underutilized.			
9	Alewife Cove	No specific negative comment noted			
10	Ocean Beach Park	Identified community asset			
11	Ocean Beach Park	Love that this is welcoming to all suburban and urban alike. And lots of activities			
12	Fort Trumbull	Would like to see a better connection from Fort Trumbull			
12	Connection	to the Downtown New London riverfront path			
13	Town-Wide Suggestion	In general, more waterfront access and trails			
14	Town-Wide Suggestion	In general, more walkable park access and more cleanliness in open space			
15	Town-Wide Suggestion	I would love to see more hiking and walking paths in New London, with working crosswalk lights. Better cared for playgrounds too. Bates Woods could be a great resources for combining many of the things my family and I enjoy.			
16	Town-Wide Suggestion	Trail between Groton and New London			
17	Town-Wide Suggestion	I think this area has a wealth of hiking and water access opportunities, but there are no good biking paths other than the airline and hop river trails especially not around New London or Norwich.			
18	Water Access	Opportunity between state pier and riverside (boat launch) needs an overhaul to make it feel safe and connected. Community center development on Fort Trumbull desperately needs to coordinate with state park to provide boat racks and rental/programming. rehabilitation of Greens Harbor Beach pavilion to provide safe functional			

	pavilion, bath house, life guard space. Notably Greens
	harbor has ADA access to the water!!!!

## New London Open Space Points of Contact

Name	Address	Contact or Meeting Info				
CITY OF NEW LONDON						
Michael Passero	181 State Street	(860) 447-5201				
Mayor	New London, CT 06320	mpassero@newlondonct.org				
Felix Reyes, Director, Office of	111 Union Street	(860) 447-5203				
Development and Planning	New London, CT 06320	freyes@newlondonct.org				
Joshua Posey	111 Union Street	(860) 447-5230				
Director, Department of Recreation	New London, CT 06320	jposey@newlondonct.org				
C	ITY COMMISSIONS					
Robert Stuller, Chair,	Virtual soo town	2 <sup>nd</sup> Thursday, Japuary-				
Conservation/Inland Wetlands	website for link	October 7:00pm				
Commission	website for link.					
Norman Harrison Jr. / Donna Bailey	10 Brainard Street	1 <sup>st</sup> Wednesday of every				
Co-Chairs, Parks and Recreation	New London CT 06320	month 6:30pm				
Commission						
Barry Levine, Chair, Planning and	181 State Street	1 <sup>st</sup> and 3 <sup>rd</sup> Thursday of every				
Zoning Commission	New London, CT 06320	month, 7:00pm				
Terry Horton, Chair, Pedestrian	10 Brainard Street	Irregular, see town website.				
Advisory Committee	New London, CT 06320	5:00pm				
	OTHER					
Maggie Redfern, Director,	270 CT-32	(860) 439-5020				
Connecticut College Arboretum	New London, CT 06320	mredfern@conncoll.edu				
Gregory Both	63 Huntington Street	2 <sup>nd</sup> Tuesday of month,				
Secretary New London Trees	New London CT 06320	4:30pm				
		newlondontrees@gmail.com				
Edward Lamoureux	98 Neptune Ave	(603) 491-0656				
Co-Chair, Alewife Cove Conservancy	New London, CT 06320	edward@alewifecove.org				
CT DEEP. Stato Parks Division	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200				
	Hartford, CT 06106	Deep.stateparks@ct.gov				
Mirna Martinez, Executive Director,	539 Beach Pond Road	(860) 772-4012				
SE CT Community Land Trust	Voluntown, CT 06384	info@sectclt.org				
Alicia McAvay	Boz 285, 120 Broad St	(860) 574-9006				
Director, FRESH New London	New London, CT 06320	freshnewlondon@gmail.com				

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## North Stonington

#### Introduction

North Stonington is a rural community on the region and state's eastern border. Development in the town is primarily agricultural and low density residential. The town has a traditional New England town center at North Stonington village, which sits along the Shunock River. The Shunock flows from northwest to southeast through the town and eventually flows into the Pawcatuck River, which forms the town's southern boundary with Rhode Island. The town's land also surrounds the Eastern Pequot Tribal Nation's reservation. The Pawcatuck is the town's primary watershed, but portions of the town also drain into the Mystic River, Pachaug River, Quinebaug River, and Thames Main Stem.

Open Space in the town is diverse. Large portions of Pachaug State Forest can be found in the northern-central portion of town. A public hayfield and woodland preserve, Hewitt Farm, is managed by the town. Land trusts, including Avalonia Land Conservancy and the North Stonington Citizens Land Alliance, manage passive recreation preserves. Approximately 26% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset. For example, planning documents describe how some of the town's farms participate in agricultural preservation programs, but data analysis has not yet substantiated which parcels belong in this open space class.

## Figure 41. Town of North Stonington Open Space Land Statistics

Total Protected Land	4,369 ac						
Total Preserved Land	4,648 ac						
Total OS Land <sup>64</sup>	9,017 ac	С	R	Т	W	CE	NYC
		1,808 ac	6,708 ac	60 mi	491 ac	1 ac	10 ac
Total Land Area	35,159 ac						
Pct Open Space Land	25.65%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>64</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 48. North Stonington Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



## Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Work with Ledyard, Preston, Stonington, and the Mashantucket	18
NS1	Pequot Tribal Nation to develop a regional multi-use trail	
	utilizing abandoned trolley right of way.	
NS2	Work with Stonington to seek state greenway designation for	3
INSZ	the Pawcatuck River.	
NICO	Seek opportunities to develop contiguous open space corridors	3
1122	between existing blocks of open space.	
	Connect Hewitt Farm to the Commercial Center south of Main St	1, 17, 18
	(village triangle's southerly node) with an ADA-compliant path	
1134	suitable for cyclist sand walkers, which would provide access to	
	schools, parks and rec, village center, open space, and trails.	
	Look for opportunities to collaborate with the Mashantucket	4, 17, 18
NS5	(Eastern) Pequot Tribal Nation on land preservation, trail	
	connection, and historical interpretation projects.	

From 1906 to 1922, electric trolley service ran between Norwich and Westerly, Rhode Island. Unlike many other trollies that utilized existing roads, this line ran along an exclusive right of way paralleling CT-2. Possibilities for a trolley line trail, last studied in 1974 by SCRPA, would develop a significant recreational amenity for the region. Much of the trolley right of way in Preston, Ledyard, and western North Stonington to Gallup Pond remains intact to this day, utilized by Eversource as an electric transmission line corridor. Conversely, much of the right-ofway east of Gallup Pond in North Stonington and south into Stonington has been obscured and merged with surrounding parcels. The path, if completed end-to-end, would connect residential, commercial, and entertainment centers with numerous open spaces across each town, and create a safer off-road connection between other existing or planning trails.

The Pawcatuck River, a designated National Wild and Scenic River, is an inviting recreational asset for paddlers. The river's vital ecological and recreational value make it an excellent candidate for state greenway designation, which would help to support continued investment in the river. North Stonington and Stonington, the two towns that border the river in Connecticut, should jointly seek its designation.

North Stonington has multiple large open space clusters. Connecting these lands via strategic land acquisition or easement will promote access and bolster their recreation and conservation value.

## Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in North Stonington, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Aquifer Protection Areas and Drinking Water Watersheds Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- Section 4E: Core Forest Map 13
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

## Map 49. Public Engagement Feedback related to North Stonington

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comm	Comment Key				
Point ID	Location	Comment/Suggestion			
1	Avalonia TriTown Preserve Parking	Identified Community Asset			
2	Northeast North Stonington	Identified Community Asset			
3	Lantern Hill Trail	Great hike and connects to the Blue Trail.			
4	Old Trolley Line Connection	Follow old trolley line leads out to Wyassup Lake up to TriTown Preserve			
5	Land parcels in NS	More connectivity between parcels in NS			
6	Hewitt Farm	Frisbee Golf at Hewitt Farm, Bocce if available, Pickle Ball if available			
7	Town-Wide Suggestion	Opportunity to connect Ledyard and North Stonington, between White Hall Preserve to places like TriTown Preserve, and Wyassup Lake region			

# North Stonington Open Space Points of Contact

Name	Address	Contact or Meeting Info				
TOWN OF NORTH STONINGTON						
Robert Carlson	40 Main Street	(860) 535-0793				
First Selectman	N. Stonington CT 06359	rcarlson@northstoningtonct.gov				
Tom Fabian	267 CT-2	(860) 535-2162				
Recreation Director	N. Stonington CT 06359	nsrecplay@northstoningtonct.gov				
	TOWN COMMISSION	S				
Bill Ricker, Chair, Conservation	298 CT-2	3 <sup>rd</sup> Thursday of every month				
Commission	N. Stonington CT 06359	6:00pm				
Ed Harasimowitz	40 Main Street	2 <sup>nd</sup> Monday of every month				
Chair, Hewitt Farm Committee	N. Stonington CT 06359	4:30pm				
Mark Grigg	10 Main Street	2 <sup>nd</sup> Wednesday of every menth				
Chair, Inland Wetlands and	AU Main Street	7:00pm				
Watercourses Comm.	N. Stornington CT 00559					
James Holdridge Jr.	267 CT 2	1 <sup>st</sup> Thursday of overy menth				
Chair, Parks and Recreation	N Stonington CT 06250	1 mulsuay of every month,				
Commission	N. Stornington CT 00559	0.50011				
Edward Learned, Chair,	298 CT-2	2 <sup>nd</sup> Thursday of every month,				
Planning & Zoning Commission	N. Stonington CT 06359	7:00pm				
	OTHER					
Dennis S. Main, President,	P.O. Box 49	(860) 823-6246				
Avalonia Land Conservancy	Old Mystic, CT 06372	president@avalonialc.org				
Madeline Jeffery, President, N.	P.O. Box 327	(860) 599-5517				
S. Citizens Land Alliance	N. Stonington CT 06359	landallianceinc@gmail.com				
CT Dept. of Agriculture	450 Columbus Blvd	(860) 712 2511				
Farmland Preservation	Suite 703	(800) / 13-2511				
Program	Hartford, CT 06103	DOAg.Farmanu@ct.gov				
CT Dept. of Energy and	79 Elm St. 6 <sup>th</sup> Eloor	(860) 424-3200				
Environmental Protection,	Hartford CT 06106	Deen statenarks@ct.gov				
State Parks Division						

#### Norwich

#### Introduction

Norwich is the largest municipality in the region by population. The city is principally an urban landscape, it hosts diverse land uses and development patterns; dense urban development is present where the Shetucket and Yantic Rivers meet to form the Thames. More recent suburban commercial development can be found near I-395 on the city's perimeter. Residential neighborhoods include denser centers, distinctive villages, as well as leafy, single-family cul-desacs. Tracts in the north end of the city are rural, with large farms and extensive acreage protected by conservation easement and Norwich Public Utilities drinking water lands.

Mohegan Park, located in the uplands above the City's traditional downtown, is a vast municipal park that provides trails and disc golf opportunities. The park's western border integrates with facilities managed by the City's recreation department.

Open space in the city is mostly owned and managed by the various municipal departments and authorities. The City's recreation department operates many of its own facilities, including ball fields, courts, an ice rink, and a golf course located near the city's southwest border. Recently, Norwich has been working closely with the Avalonia regional land trust to acquire and operate more passive recreational preserves and seek conservation easements. Approximately 15% of the city is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

#### Figure 42. City of Norwich Open Space Land Statistics

Total Protected Land	1,880 ac						
Total Preserved Land	951 ac						
Total OS Land <sup>65</sup>	2,831 ac	С	R	Т	W	CE	NYC
Total US Land		1,275 ac	881 ac	2 mi	270 ac	269 ac	136 ac
Total Land Area	18,776 ac						
Pct Open Space Land	15.08%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>65</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

## Map 50. Norwich Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



## Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets
		Objectives
N\\/1	Work with Bozrah, Franklin, Lebanon, and Windham to develop Rail-	1, 17, 18
	With-Trail between Norwich and Willimantic with Fitchville Spur.	
NW2	Develop an Oak Street Cemetery Plan.	14
	Pilot low-impact traffic calming interventions to slow speeds within	10
NW3	Mohegan Park, and install where they are effective in reducing	
	vehicle speeds and reducing pedestrian conflict.	
	Utilize small, undeveloped city-owned parcels to create	1, 20
	neighborhood parks and playscapes for additional open space and	
	recreation access points near residences. These sites may also	
NW4	present opportunities for nature-based climate resilience	
	infrastructure for addressing heat and stormwater impacts, or	
	community gardens to bolster food security.	
NW5	Develop formal Yantic River access point at 31 New London Turnpike.	19
NW6	Facilitate portage for paddlers around Yantic Falls.	19
	Work with Norwich Public Utilities to develop public access at	19
NW7	Fairview Reservoir.	
	Develop comprehensive hike network plan to connect more residents	18
	to open space and overcome unsafe roadway/barriers to access	10
	Notably, the PT 92 corridor safety improvements will provide	
NW8	Notably, the KT 82 contract safety improvements will provide	
	improved bike ped conditions from Old Salem Plaza to Mechanic St	
	and connect existing and proposed bike facilities on Dunham Ave and	
	New London TPK.	

Norwich's advantageous geography makes it a natural hub for the Southeastern Connecticut region. This has been true since the city's founding, from its position alongside the Thames River, and later alongside railroad connections to points north and south. Passenger rail traffic to the city ended with the closure of New London-Worcester service in 1971, but the rail lines continue to be used for freight movement. Recently, state legislation opened the possibility of using corridors for regional trails alongside freight. The rail connection between Norwich and existing regional trails converging in Willimantic is a rail corridor with strong Rails-with-Trails potential. An abandoned rail right-of-way spur could also connect this trail to Fitchville.

Cemeteries, as described earlier in this plan, are part of the open space system. Oak Street Cemetery in downtown Norwich is a large, ideally situated potential green space with significant potential. The city could develop a plan to better activate this space and make use of an existing asset that could serve as an anchor green and historical attraction in downtown.

In public outreach, residents routinely cited Mohegan Park as a positive amenity for its recreational facilities and large area of natural land. However, there were safety concerns raised, particularly in terms of accessing the park itself. Though it is so close to the city's densest urban environment, it can be an intimidating approach by foot or pedal because cars regularly disobey speed limits. Low-impact traffic calming techniques such as deployable speed bumps should be piloted and installed at strategic locations to slow car traffic within the park.

Multiple neighborhoods within the city do not have publicly accessible recreation land within a convenient walk (0.5 miles) of their home. Some of these neighborhoods do have parcels within them owned by the city. The city should consider developing some of these parcels into community gardens, parklets, and/or playscapes to provide neighborhood level recreation opportunities and disperse opportunities to every neighborhood. These sites may also present opportunities for nature-based climate resilience infrastructure for addressing heat and stormwater impacts. The City can evaluate where recreation and resilience infrastructure each take priority, or where both purposes can co-exist on a given open space site.

The Yantic River, which flows through the city's southwest, has untapped potential as a paddling corridor. Improving the existing informal river access at 31 New London Turnpike would encourage more small craft paddlers (canoe and kayak) to make use of the river. Similarly, developing a portage route, with wayfinding and railroad crossing, around Yantic Falls, would allow paddlers to easily move between the Upper Yantic and Chelsea Harbor. Facilitating this portage would encourage long distance paddling trips that have a natural terminus in downtown Norwich.

Norwich Public Utilities (NPU) owns properties around reservoirs that are no longer in use for public drinking supply, such as Fairview Reservoir. The city and NPU have discussed the possibility of allowing recreational access to these sites. This plan recommends recreational access at these sites, as it would provide additional opportunities for the city as it grows.

## Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in Norwich, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- <u>Section 4A: Agricultural Soils Map 6</u>
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Drinking Water Watersheds and Public Water Service Area Map 9

- Section 4D: Cold Water Fish Habitat Map 11
- <u>Section 4D: Critical Wildlife Habitat Map 12 / Figure 5</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- Section 4E: Connected Sewer Service Area Map 15
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- <u>Section 4E: Regional Heat Vulnerability (Climate Change) Map 17</u>
- <u>Section 4E: FEMA Special Flood Hazard Areas Map 18</u>
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 7, Objective 25: Regional and Connected Landscapes Map 25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

Comment Key				
Point ID	Location	Comment/Suggestion		
1	Bog Meadow Reservoir	Reservoir access		
2	East side of Fairview Reservoir	Reservoir access		
3	Norwichtown	Love the historic character of Norwichtown		
4	Mohegan Park Lower Pond Lot	Sidewalks to Mohegan Park		
5	Uncas Leap Heritage Park	Love the mix of history and nature		
6	W Thames St Rt 32	Needs safe bikeway		
7	Town-Wide Suggestion	Use of the Trolley trail between Norwich, CT and Westerly, RI for a multitude trail.		
8	Town-Wide Suggestion	I think this area has a wealth of hiking and water access opportunities, but there are no good biking paths other than the airline and hop river trails especially not around New London or Norwich.		

#### Map 51. Public Engagement Feedback related to Norwich

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



# Norwich Open Space Points of Contact

Name	Address	Contact or Meeting Info				
CITY OF NORWICH						
John Salomone	100 Broadway	(860) 823-3750				
City Manager	Norwich, CT 06360	cmoffice@cityofnorwich.org				
Deanna Rhodes	23 Union Street	(860) 823-3766				
City Planner	Norwich, CT 06360	drhodes@cityofnorwich.org				
Kate Milde	75 Mohegan Road	(860) 823-3700				
Human Services Director	Norwich, CT 06360	kmilde@cityofnorwich.org				
Mike Svab	685 N.L. Tpke.	(860) 889-6973				
Head Golf Professional	Norwich, CT 06360	msvab@norwichgolf.com				
Shannon EitzCorald	641 N.L. Toko	(860) 892-2555				
Managar Dasa Cardan ka Arana	Norwich CT 06260	Shannon.RoseGardenIceAren				
Manager, Rose Garden ice Arena	Norwich, CT 06360	a@outlook.com				
CITY COMMISSIONS						
Frank Manfredi	23 Union Street	3 <sup>rd</sup> Tuesday of every month				
Chair, Commission on the City Plan	Norwich, CT 06360	7:00pm				
Bernard Caufield	685 N.L. Tpke.	3 <sup>rd</sup> Wednesday of every				
Chair, Norwich Golf Course Authority	Norwich, CT 06360	month, 6:00pm				
Richard Morrell, Chair, IWWC and	23 Union Street	1 <sup>st</sup> Thursday of every month				
Conservation Comm.	Norwich, CT 06360	7:00pm				
Beryl Fishbone, Chair, Mohegan Park	50 Clinton Avenue	2 <sup>nd</sup> Thursday of odd months				
Advisory Comm.	Norwich, CT 06360	6:30pm				
Jeff Brown	8 Mahan Drive	Irregular, see town website.				
Chair, Recreation Advisory Board	Norwich, CT 06360					
OTHER						
Dennis S. Main, President, Avalonia	P.O. Box 49	(860) 823-6246				
Land Conservancy	Old Mystic, CT 06372	president@avalonialc.org				

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### Preston

## Introduction

Preston is a rural town located to the southeast of Norwich. Denser development is primarily concentrated in the town's two village centers, Preston City and Poquetanuck Village. In terms of land cover, much of the town is either undeveloped or in agricultural use. Agricultural operations are primarily located in the northern section of town and along Preston Ridge. While Preston contains large undeveloped lands areas, preserved or protected open space in town is limited to approximately 10%. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

## Figure 43. Town of Preston Open Space Land Statistics

Total Protected Land	1,222 ac						
Total Preserved Land	725 ac						
Total OS Land	1,947 ac	С	R	Т	W	CE	NYC
Total US Land**		90 ac	852 ac	8 mi	993 ac	9 ac	1 ac
Total Land Area	Area 20,317 ac						
Pct Open Space Land	9.58%						

Recorded to Date in SCCOG's Regional Open Space Dataset

The town abuts the Quinebaug, Shetucket, and Thames Rivers. Poquetanuck Cove, a sizable and significant body of water, extends inland from the Thames under Route 12 to Route 2A and forms part of the town's southern border with Ledyard. Drainage of the town's land area is split between the watersheds of the three rivers, all of which eventually converge into the Thames. The town has two other significant waterbodies, Amos Lake (an impaired waterbody with a 319 watershed based plan in place) and Avery Pond, both of which are accessible via state boat launches.

Protected open Space in the town primarily consists of lands managed by DEEP and farms enrolled in agricultural preservation. The remaining open spaces are made up of town parks and trail systems like the Pequot Trail and Tri-Town Trail. Avalonia, a regional land trust, also operates one 55-acre preserve in Preston.

<sup>&</sup>lt;sup>66</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 52. Preston Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



## Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Objectives
	Work with Ledyard, North Stonington, Stonington, and the	18
PR1	Mashantucket Pequot Tribal Nation to develop a regional multi-use	
	trail utilizing abandoned trolley right of way.	
	Seek state greenway designation for the Quinebaug River section from	3
PR2	Broad Brook to Quinebaug Falls (requires intermunicipal cooperation	
	with Lisbon.)	
PR3	Work with Eversource to develop a portage route at Quinebaug Falls	19
	Ensure public access to Thames River as part of Preston Riverwalk	19
PK4	Development.	
PR5	Pursue conservation to meet Town's stated 30% land preservation goal.	4

The Town's Plan of Conservation and Development identifies particular corridors for preservation and the characteristics of land that underly preservation priorities. With a plan in place, the town can proactively seek preservation opportunities through direct acquisition, partnerships with land trusts, and promoting enrollment in agricultural preservation programs.

From 1906 to 1922, electric trolley service ran between Norwich and Westerly, Rhode Island. Unlike many other trollies that utilized existing roads, this line ran along an exclusive right of way paralleling CT-2 that remains substantially intact to this day as an Eversource electric transmission line corridor. Possibilities for a trolley line trail, last studied in 1974 by SCRPA, would develop a significant recreational amenity for the region and could connect with existing trails like the Pequot Trail and Tri-Town Trail. In Preston, the trolley path runs just northeast of Preston Community Park, parallel to Poquetanuck Brook and into the Rose Hill Wildlife Management Area, continuing on to reach Foxwoods Casino.

The State's designation of the Quinebaug River as a greenway is fragmented; long stretches of the river have received designation with remaining gaps in between. In the SCCOG region, the river is designated from the Plainfield town line south to the Griswold/Preston town line. This leaves a 3.5-mile gap between the termination of the current greenway designation and the end of Quinebaug River where it meets the Shetucket (itself a designated greenway). Preston can work with Lisbon to get this final segment designated as a greenway, improving access to funds for conservation and recreation activities along the corridor.

Located within the currently undesignated stretch of the River, Quinebaug Falls and the hydroelectric dam located there represent a significant barrier to recreational blueway

connectivity. In considering portage options that would allow paddlers to circumvent the falls/dam, the southern banks of the Quinebaug in Preston offer a more feasible location (railroad tracks are present along the northern banks of the river). This portage trail could also, but does not have to, provide an additional boat launch point. The power has ample unused land available for this purpose. Railroad tracks running on both sides of the Thames River significantly limit riverfront public access points. The expected redevelopment of the former Norwich State Hospital site in Preston, known as Preston Riverwalk, presents an opportunity to develop a Thames River public water access point and should be incorporated into any development scenario.

## Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in Preston, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4D: Cold Water Fish Habitat Map 11
- <u>Section 4D: Critical Wildlife Habitat Map 12 / Figure 5</u>
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- <u>Section 7, Objective 25: Resilient and Connected Landscapes Map 25</u>
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

## Map 53. Public Engagement Feedback related to Preston

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comment Key				
Point ID	Location	Comment/Suggestion		
1	Preston Community Park	Identified community asset		
2	Area roughly along Poquetanuck, Shewville,	Trolley line connecting historic		
	and Indiantown Brooks	resources		

## Preston Open Space Points of Contact

Name	Address	Contact or Meeting Info				
TOWN OF PRESTON						
Sandra Allyn-Gauthier	389 CT-2	(860) 887-5581				
First Selectman	Preston, CT 06365	allyngauthier@preston-ct.org				
Kathy Warzecha	389 CT-2	(860) 889-2529				
Town Planner	Preston, CT 06365	kwarzecha@preston-ct.org				
James Przybylski	389 CT-2	(860) 887-5581 x 117				
Parks and Recreation Director	Preston, CT 06365	recreation@preston-ct.org				
Len Johnson	389 CT-2	(860) 887-5581 x 118				
Inland Wetlands Agent	Preston, CT 06365	Len.johnson 48@yahoo.com				
TOWN COMMISSIONS						
Gary Piszczek, Chair, Conservation	389 CT-2	4 <sup>th</sup> Monday of every month				
and Agriculture Commission	Preston, CT 06365	7:30pm				
John Moulson, Chair, Inland Wetlands	389 CT-2	3 <sup>rd</sup> Tuesday of every month				
and Watercourses Comm.	Preston, CT 06365	7:30pm				
Mike Brockway, Chair, Parks and	389 CT-2	Last Tuesday of every month,				
Recreation Commission	Preston, CT 06365	7:30pm				
Art Moran Jr., Chair, Planning and	389 CT-2	4 <sup>th</sup> Tuesday of every month				
Zoning Commission	Preston, CT 06365	7:00pm				
	OTHER					
CT Dept. of Agriculture	450 Columbus Blvd	(860) 713-2511				
Farmland Preservation Program	Hartford, CT 06103	DoAg.Farmland@ct.gov				
CT Dept. of Energy and Environmental	79 Elm St <i>,</i> 6 <sup>th</sup> Floor	(860) 424-3200				
Protection, State Parks Division	Hartford, CT 06106	Deep.stateparks@ct.gov				
Dennis S. Main, President, Avalonia	P.O. Box 49	(860) 823-6246				
Land Conservancy	Old Mystic, CT 06372	president@avalonialc.org				
### Salem

### Introduction

Salem is a rural town on the SCCOG region's western edge. Its land area falls primarily within the Eightmile River watershed, though landscape divides place some eastern portions of the town in the Yantic and Thames Main Stem watersheds.

Open Space takes many forms in Salem. The town has among the highest percentage of preserved and protected open space land in the region, at approximately **32**% of its acreage.

Large tracts of the town's southeast are owned by the City of New London Department of Public Utilities and preserved for drinking water protection. The Salem Land Trust owns and manages numerous passive recreation preserves, and also manages a preserve owned by The Nature Conservancy. The State operates open space holdings such as Gardner Lake and Nehantic State Forest. Numerous properties are also protected, though not publicly accessible, by agricultural preservation programs or through conservation easements.

### Figure 44. Town of Salem Open Space Land Statistics

Total Protected Land	4,643 ac						
Total Preserved Land	1,705 ac						
Total OS Land <sup>67</sup>	6,349 ac	С	R	Т	W	CE	NYC
		3,045 ac	2,753 ac	21 mi	541 ac	9 ac	3 ac
Total Land Area	19,008 ac						
Pct Open Space Land	33.40%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>67</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

### Map 54. Salem Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to develop a greenway along	3
C A 1	the abandoned Route 11 corridor (requires intermunicipal	
SAL	cooperation with Colchester, East Lyme, Montville, and	
	Waterford).	
	Partnering with local champions in the agricultural community	8, 11, 21
	and agricultural advocate groups like FarmLink and UCONN	
SA2	Extension, start conversations about phosphorus sources, and	
	on best practices to minimize agricultural phosphorus impacts	
	on water quality.	
	Seek opportunities, through acquisition or easement, to connect	1, 3, 17
SA3	existing open space parcels in a municipal trail system as	
	recommended in the town's 2022 POCD.	
	Provide safe walking paths on RT 354 from 82 to the Gardner	17
SA4	Lake State Boat Launch and from the Salem Woods to Municipal	
	center via Music Vale Road.	

When plans to extend State Highway 11 to an interchange with I-95 and I-395 were still active, the Route 11 Greenway Authority Commission was created to develop a parallel greenway along the corridor. The greenway project was abandoned alongside the state's abandonment of the highway extension. However, the development of a greenway along the corridor is an idea with merit independent of the highway. The right of way acquired for this project is still intact through Salem, providing an advanced starting point for greenway development and simplifying efforts for the town. Development of this greenway would provide a marquee recreational amenity for the town and region.

Salem is situated at the headwaters of several watercourses. As such, it has a significant impact on water quality downstream. Runoff from agricultural fertilizer use can have negative impacts on water quality by introducing high levels of nitrogen and phosphorus into waterbodies. Town efforts and partnerships to engage operators and encourage best management practices to prevent nutrient-laden runoff from impacting water quality can help improve and maintain regional watercourses. Related resources can be found at:

https://www.ars.usda.gov/is/np/bestmgmtpractices/best%20management%20practices.pdf https://www.epa.gov/sites/default/files/2015-09/documents/ag\_runoff\_fact\_sheet.pdf

### https://www.epa.gov/nps/nonpoint-source-agriculture

The 2022 Salem POCD outlines an intermediate term (4-9 years) goal of completing trails that connect nodes of activity throughout town. This trail system is an important component of the municipal open space system, creating greenway connections and encouraging recreation. The Town can, in the short term, identify grant programs that will help to realize the municipal trail system and prepare to allocate local match funds to leverage grant funding as opportunities.

### Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their relative distribution across the region. The following landscapes may be particularly salient features in Salem, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4A: Agricultural Soils Map 6
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Drinking Water Watersheds Map 9
- <u>Section 4D: Cold Water Fish Habitat Map 11</u>
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Steep Slope Erosion Map 16
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

### Map 55. Public Engagement Feedback related to Salem

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comment Key						
Point ID	Location	Comment/Suggestion				
1	Trail Along Rt 11	Trail along Rt 11 would link preserves in Salem (Walden, Woodland Warbler and Burnham Brook) and could extend southward along existing incomplete corridor.				
2	Salem Land Trust Addition	Connection with Nehantic				

## Salem Open Space Points of Contact

Name	Address	Contact or Meeting Info					
TOWN OF SALEM							
Ed Chmielewski	270 Hartford Road	(860) 859-3873					
First Selectman	Salem, CT 06420	Ed.chmielwski@salemct.gov					
Liz Burdick	5 Connecticut Ave.	(860) 889-2324					
Town Planner	Norwich, CT 06360	nhaggerty@seccog.org					
Agnes Miyuki Program Coordinator, Recreation Department	270 Hartford Road Salem, CT 06420	(860) 859-3873 x275 recreation@salemct.gov					
TOW	N COMMISSIONS						
Diba Khan-Bureau Chair, Inland Wetlands and Conservation Commission	270 Hartford Road Salem, CT 06420	1st Monday of every month 7:00pm					
Vernon Smith	270 Hartford Road	2 <sup>nd</sup> and 4 <sup>th</sup> Tuesday of every					
Chair, Planning and Zoning Commission	Salem, CT 06420	month, 7:00pm					
Mary Durkee	270 Hartford Road	3 <sup>th</sup> Monday of every month					
Chair, Recreation Commission	Salem, CT 06420	7:00pm					
		1					
CT Dept. of Agriculture	450 Columbus Blvd	(860) 713-2511					
Farmland Preservation Program	Hartford, CT 06103	DoAg.Farmland@ct.gov					
CT Dept. of Energy and Environmental	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200					
Protection, State Parks Division	Hartford, CT 06106	Deep.stateparks@ct.gov					
Linda Schroeder	P.O. Box 2133	(860) 859-3520					
President, Salem Land Trust	Salem, CT 06420	Lschroeder@snet.net					

#### Sprague

### Introduction

Sprague is a suburban community with development that extends out from three village centers; Baltic, Hanover, and Versailles, where the town's denser development is concentrated. While the mills around which these villages formed have since closed, the village-centric development pattern has endured. Baltic, situated on the Shetucket River, is the largest village center and the location of the town's civic buildings. Versailles is further downstream on the Shetucket at its confluence with the Little River, and is located across from Norwich's Occum neighborhood and adjacent to Lisbon. Hanover further north and upstream on the Little River, near at the SCCOG region's northern border and the town's border with the communities of Scotland and Canterbury. The land between these villages is largely undeveloped, with low density residential and agricultural uses along roadways.

Protected lands include the Sprague Land Preserve in the town's northwest, Salt Rock State Park and Mohegan State Forest managed by DEEP, and town-owned parcels and easements including both passive open space such as the Baltic Reservoir and active recreational fields. Much of the preserved open space in town is concentrated around Baltic, or the town's northwest corner. Approximately 13% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

### Figure 45. Town of Sprague Open Space Land Statistics

Total Protected Land	552 ac	552 ac							
Total Preserved Land	572 ac								
Total OS Land <sup>68</sup>	1,124 ac	С	R	Т	W	CE	NYC		
		120 ac	920 ac	1 mi	0 ac	0 ac	84 ac		
Total Land Area	8,835 ac								
Pct Open Space Land	12.72%								

*Recorded to Date in SCCOG's Regional Open Space Dataset* 

<sup>&</sup>lt;sup>68</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

### Map 56. Sprague Existing Open Space and Regional Open Space Recommendations

**Townwide Recommendations** SP6 - Improve bike/ped infrastructure on rural roadways connecting with Mohegan open space State orest SP2 Hanover Reservoir orague Land Preserve Hanover Congregational Church 1 Brook Mohegan State Forest Salt Rock Campground Shetucker Baltic Mohegan Reservoir SP1 Industrial Waste State Ponds Forest Bombero Baltic Reservoit SP3 Papermill Pond **River** Park Beaver Br Little River SP4 ook: SP2 Sprague Town Hall Labbe Field and Babe Blanchette Memorial OccumiPond Versaille ields Pond Browning Easement State Proposed Bike Network Intermittent Water **Regional Recommendation** SCCOG Proposed Bike Ped Routes (2019) Flats Regional Recommendation Eastern Shoreline Trail Inundated Area **Open Space** Colchester-Norwich Bike Route Marsh Open Space Land Railroad Water (linear) Open Space - Agriculture Roads Intermittent Water (linear) Official Designated Connecticut Greenways Waterbodies Dredged Channel

Water

Existing Trails / Multi-Use Paths

Tri Town Trail

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.

Dams

### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to establish a multi-use-trail	18
SP1	between Willimantic and Baltic utilizing state owned rail right of	
	way (requires coordination with Scotland and Windham).	
502	Seek opportunities to expand preservation along the Shetucket	4, 6
JFZ	and Little Rivers.	
503	Require pond access for any future redevelopment of former	19
583	Fusion Paperboard Property.	
	Heat vulnerability maps identify Baltic as an area with increased	22
SD/	heat risk. Consider whether tree retention and/or planting	
514	programs or other cooling open space mechanisms are	
	appropriate for the village.	
	Create a new pedestrian bridge across the Shetucket River at	17
SD5	Main Street (tip of Sprague near Norwich Riverside Park and	
555	fields). There is not enough space on the existing bridge. There	
	would also be an opportunity for fishing platform.	
	Improve bike/ped accommodations on rural roadways	18
SP6	throughout town that providing access to significant open space,	
	such as Sprague Land Preserve, or RT 97 to state forests.	

The rail lines that cross Southeastern Connecticut no longer ferry passengers throughout the region. Abandoned rail beds, such as the former Air Line or Norwich-Westerly Trolley, have been or could be fully repurposed. Repurposing an abandoned railway for a trail project is a complicated task, but one with ample proof of concept nationally and locally. Other railways still carry freight, though less intensively than in previous decades. Rail-with-trail, where a multi-use trail runs parallel to an active rail line, has been enabled by recent state legislation that removes undue liability from rail owners in rail-with-trail setups. Rail-with-trail is often complicated by the need to work with private railroad owners. However, the rail right-of-way between Willimantic and Baltic is owned by the State of Connecticut, and is the lowest trafficked rail line in the region. A trail along this route would link Willimantic and Baltic to numerous open spaces, and tie in with the existing Air Line and Hop River trails.

Sprague residents currently enjoy benefits from an abundance of undeveloped land in the town. However, undeveloped land is not necessarily protected land, and can (and sometime should, depending on the precise location) be developed for other purposes, like housing,

economic development, or even renewable energy purposes. The town, through either direct acquisition or partnerships with conservation entities, should seek strategic opportunities to preserve undeveloped land in the town, particularly where these lands further other community goals like community resilience or the protection of core forests or unique natural communities. For example, preserving land along the Shetucket and Little River corridors with preserve floodplain and decrease flood risk.

The former Fusion Paperboard Mill is one of the largest and most complex brownfield projects in the region. It also sits on Papermill Pond, one of the largest water bodies in Sprague. The Town owns this site, and it can thus guide elements of its remediation and redevelopment. The town should ensure that public access to the pond is included in site redevelopment.

### Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features. The following landscapes may be particularly salient features in Sprague, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- <u>Section 4A: Agricultural Soils Map 6</u>
- <u>Section 4B: Regional Drainage Basins Map 8</u>
- Section 4B: Aquifer Protection Areas and Drinking Water Watersheds Map 9
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Connected Sewer Service Area Map 15</u>
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- <u>Section 7, Objective 3: Designated Greenways Map 23</u>
- Section 7, Objective 25: Wildlife Corridors Maps 24-25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

### Map 57. Public Engagement Feedback related to Sprague

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comment Key					
Point ID	Location	Comment/Suggestion			
1	Plot of land west of Shetucket River in Baltic across from Sayles School	Trails			

### Sprague Open Space Points of Contact

Name	Address	Contact or Meeting Info				
TOWN OF SPRAGUE						
Cheryl Blanchard	P.O. Box 677	(860) 822-3000				
First Selectman	Baltic, CT 06330	firstselectman@ctsprague.org				
Phil Chester	P.O. Box 677	(860) 822-3000 x 223				
Town Planner	Baltic, CT 06330	PhilipArch@aol.com				
ТОУ	VN COMMISSIONS					
Donald Boushee Chair, Conservation and Agriculture Commission	1 Main Street Baltic, CT 06330	2 <sup>nd</sup> Monday of every month 6:00pm				

Paul Cipriani Jr. Chair, Inland Wetlands and Watercourses Comm.	1 Main Street Baltic, CT 06330	1 <sup>st</sup> Monday of every month, 7:00pm
Sandor Bittman Jr. Chair, Planning and Zoning Commission	1 Main Street Baltic, CT 06330	1 <sup>st</sup> Wednesday of every month, 7:00pm
Recreation Committee	1 Main Street Baltic, CT 06330	3 <sup>rd</sup> Thursday of even months 8:15pm
	OTHER	
CT Dept. of Energy and Environmental	79 Elm St, 6 <sup>th</sup> Floor	(860) 424-3200
Protection, State Parks Division	Hartford, CT 06106	Deep.stateparks@ct.gov
Phyllis Alexander, Chair, Friends of the	P.O. Box 677	http://shetucket.org
Sheluckel kiver valley	Ballic, CT 06330	PAlexander@ulme-bank.com

### Stonington and Stonington Borough

#### Introduction

Stonington is located in the southeastern-most corner of Connecticut, bordering Rhode Island and the Long Island Sound in addition to the towns of Groton, Ledyard, and North Stonington. The town is suburban, with distinct village centers in Pawcatuck, Stonington Borough, and the cross-municipal villages of Mystic and Old Mystic. These villages are all located along the town's perimeter, at the Pawcatuck River, Long Island Sound, and Mystic River, respectively. Lower density residential, agricultural and undeveloped lands are located between the village centers.

Like many coastal towns in the region, the Stonington shoreline is a series of peninsulas situated among rivers and coves. Moving from west to east, there is the Mystic River, which also serves as the town's border with Groton, the Pequotsepos River, Quiambaug Cove, Lamberts and Quanaduck Coves, the Wequetequock River, and the Pawcatuck River, which serves as the town and state border with Westerly, Rhode Island. Town lands drain to these waterbodies, which are part of the larger Southeastern Connecticut coast major basin.

Diverse types of open spaces are dispersed throughout Stonington. Aquarion has preserved large tracts for drinking water protection, and the state operates the very large Barn Island Wildlife Management Area in the town's southeast. Stonington Land Trust and Avalonia Land Conservancy both manage passive recreation preserves in town. Several farms are enrolled in agricultural preservation programs. The Town and various neighborhood associations hold numerous small parcels as subdivision open space or in conservation easements. Additionally, the Town operates numerous recreational facilities. Approximately 22% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

Figure 46. Town of Stonington and Stoningto	n Borough Open Space Land Statistics
---------------------------------------------	--------------------------------------

Total Protected Land	2,570 ac						
Total Preserved Land	2,881 ac						
Total OS Land <sup>69</sup>	5,451 ac	С	R	Т	W	CE	NYC
		1,952 ac	2,473 ac	13 mi	632 ac	81 ac	313 ac
Total Land Area	25,128 ac						
Pct Open Space Land	21.69%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>69</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

### Map 58. Existing Stonington/Stonington Borough Open Space & Regional Recommendations

**Townwide Recommendations** S-SB4 - Prioritize riparian Hoffman Evergree and coastal preservation Pre serve that increases resilience Anguilla Brook **Headwaters** Preserve Perry Preserve homas Anguilla Peck/Callahan Miner Grande WestVine Preserve Nature Preserv Granview Street Marjory Preserve Preserve School Stanton Middletor Old Mystic S-SB1 **Collier Preserve** Copps S-SB2 Ridge Elmridge Brook Golf Soccer Fields Deans Course Mos Reser Fennerswood Par **Elm Grove** servoi US 1 Cemeter Woodlot Stonington High Sanctuary Spellman F Mystic Coogar Silvias P Reservoi Farm Meadow Woods Mistuxet Preserve Hill Rre SB tonington emetery IslandWM/A RI 1A Knox larsh 1 Preserve Wamphassuc Davis Farm -**Neck Marshes** Davis Farm -Greenhaven **Osbrook Point** Road State Proposed Bike Network Intermittent Water Regional Recommendation SCCOG Proposed Bike Ped Routes (2019) Flats Regional Recommendation Eastern Shoreline Trail Inundated Area **Open Space** Marsh Colchester-Norwich Bike Route Open Space Land Railroad Water (linear) **Open Space - Agriculture** Intermittent Water (linear) Roads Official Designated Connecticut Greenways Waterbodies Dredged Channel Existing Trails / Multi-Use Paths Dams Water Tri Town Trail

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.

### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Work with Ledyard, North Stonington, Preston, and the	18
S-SB1	Mashantucket Pequot Tribal Nation to develop a regional multi-	
	use trail utilizing abandoned trolley right of way.	
5-562	Continue to seek state greenway designation for the Pawcatuck	3
3-302	River in collaboration with North Stonington.	
5 5 5 2	Implement the Eastern Shoreline Path as recommended in the	18
3-303	2019 Regional Bike/Ped Plan.	
	Prioritize riparian and coastal preservation opportunities,	6, 7, 24
S-SB4	especially those that support marsh migration and combat	
	coastal erosion.	
	Develop an ADA accessible pedestrian and cycling connection	2, 17, 18
S-SB5	from Golden Triangle/Coogan Blvd to the Drawbridge area via	
	open space with DPNC.	

From 1906 to 1922, electric trolley service ran between Norwich and Westerly, Rhode Island. Unlike many other trollies that utilized existing roads, this line ran along an exclusive right of way paralleling CT-2. Possibilities for a trolley line trail, last studied in 1974 by SCRPA, would develop a significant recreational amenity for the region. Much of the trolley right of way in Preston, Ledyard, and western North Stonington to Gallup Pond remains intact to this day, utilized by Eversource as an electric transmission line corridor. Conversely, much of the right-ofway east of Gallup Pond in North Stonington and south into Stonington has been obscured and merged with surrounding parcels. The State's proposed bike network along Route 2 could serve as a potential alternative routing to make the final leg of the connection through Stonington to Westerly. The path, if completed end-to-end, would connect residential, commercial, and entertainment centers with numerous open spaces across each town.

The Pawcatuck River, a designated National Wild and Scenic River, is an inviting recreational asset for paddlers. The river's ecological and recreational value make it an excellent candidate for state greenway designation, which would help to support continued investment in the river. Stonington should continue to actively seek greenway designation, in partnership with North Stonington and Westerly, RI, which also border the Pawcatuck River.

Stonington's built environment is heavily influenced by the village centers that line its coast and major rivers. The series of compact village destinations can be especially conducive to cycling both as a means of transportation and for picturesque recreational riding. The Eastern

Shoreline Path, a route developed in the SCCOG Regional Bike and Pedestrian Plan, would establish east-west cycling facilities through Stonington. The route would make cycling safer, and also improve accessibility to some of Stonington's most popular open spaces.

Coastlines are critical and delicate ecosystems, providing immense habitat and resilience value. Dedicated efforts to preserve and restore coastal lands, estuarine reaches, and upstream riparian corridors can help to reduce flood impacts, filter stormwater, sequester carbon, and preserve unique habitats. Rapid sea level rise is impinging on many coastal ecosystems faster than they can adapt, though as can be seen in The Nature Conservancy's Connected and Resilient Lands mapping, Stonington contains potential coastal/marsh migration areas. Accepting open space fee-in-lieu payments for developments that would otherwise contribute lesser priority open space land, regularly replenishing the open space town's acquisition fund through the budgetary process, and partnering with non-profit conservation entities are all mechanisms that would allow Stonington to set aside local match fund to leverage even larger state and federal grants.

### Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in Stonington and Stonington Borough, and can be explored further in the plan, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- <u>Section 4A: Agricultural Soils Map 6</u>
- Section 4B: Aquifer Protection Areas and Drinking Water Watersheds Map 8
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- Section 4E: Connected Sewer Service Area Map 15
- Section 4E: Coastal Erosion Vulnerability Figures 11 / 12
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 4E: Current and Future 100-Year Storm Flooding and Sea Level Rise Map 20
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 25: Resilient & Connected Landscapes (coastal migration) Map 25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

### Map 59. Public Engagement Feedback related to Stonington and Stonington Borough

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comment Key				
Point ID	Location	Comment/Suggestion		
1	Great Thicket National Wildlife Refuge	Identified community asset		
2	Copps Brook Preserve	Identified community asset		
3	Town-Wide Suggestion	Stonington just added two pickleball courts however I do not think it will keep up with demand.		
4	Town-Wide Suggestion	(Proposed trail) The trolley line between Willimantic and Stonington		
5	Town-Wide Suggestion	A connection between downtown Mystic and Stonington Borough.		
6	Town-Wide Suggestion	Trails from Mystic to Pawcatuck and N. Stonington to Pawcatuck, Borough and Old Mystic/Mystic		
7	Town-Wide Suggestion	Old Lyme to Stonington		
8	Town-Wide Suggestion	Trail along the length of Route 1 through Stonington, connecting and Mystic and Pawcatuck.		

# Stonington and Stonington Borough Open Space Points of Contact

Name	Address	Contact or Meeting Info		
TOWN OF STONINGTON				
Danielle Chesebrough	152 Elm Street	(860) 535-5050		
First Selectman	Stonington, CT 06378	dchesebrough@stonington-ct.gov		
Clifton ller	152 Elm Street	(860) 535-5095		
Town Planner	Stonington, CT 06378	ciler@stonington-ct.gov		
Richard Ward	166 South Broad St.	(860) 535-5015		
Recreation Administrator	Pawcatuck, CT 06379	rward@stonington-ct.gov		
BOROUGH OF STONINGTON				
Michael Schefers	14 Wall Street	(860) 514-7326		
Borough Warden	Stonington, CT 06378	borowarden@att.net		
Amanda Barnes Commissioner of Parks, Trees, and Rights of Way	26 Church Street Stonington, CT 06379	(860) 460-2445 burgess.amandabarnes@gmail.com		
	TOWN COMMISSION	S		
Rick Newton, Chair, Climate	55 Coogan Blvd	3 <sup>rd</sup> Thursday of every month		
Change Task Force	Mystic, CT 06355	5:15pm		
Stuart Cole, Chair,	173 South Broad St.	4 <sup>th</sup> Monday of every month,		
Conservation Commission	Pawcatuck, CT 06379	December excluded, 7:00pm		
David Rathbun	173 South Broad St.	3 <sup>rd</sup> Tuesday of every month		

Chair, Flood Prevention, Climate Resilience, and Erosion Control Board	Pawcatuck, CT 06379	5:30pm
Howard Reichart Chair, Inland Wetlands and Watercourses Comm.	173 South Broad St. Pawcatuck, CT 06379	1 <sup>st</sup> Thursday of every month 7:00pm
Danielle Chesebrough Chair, POCD Implementation Committee	152 Elm Street Stonington, CT 06378	3 <sup>rd</sup> Monday of every quarter 5:00pm
Charles Sheehan, Chair, Planning and Zoning Commission	40 Field Street Pawcatuck, CT 06379	3 <sup>rd</sup> Tuesday of every month 7:00pm
Donald Maranell Chair, Borough Planning and Zoning Commission	26 Church Street Stonington, CT 06379	1 <sup>st</sup> Thursday of every month 6:00pm
C. Michael Crowley Chair, Recreation Commission	40 Field Street Pawcatuck, CT 06379	4 <sup>th</sup> Monday of every month, Jul., Aug., Dec. excluded, 6:00pm
	OTHER	
CT Dept. of Energy and Environmental Protection, State Parks Division	79 Elm St, 6 <sup>th</sup> Floor Hartford, CT 06106	(860) 424-3200 Deep.stateparks@ct.gov
CT Dept. of Agriculture Farmland Preservation Program	450 Columbus Blvd Suite 703 Hartford, CT 06103	(860) 713-2511 DoAg.Farmland@ct.gov
Stanton Smith Executive Director, Stonington Land Trust	P.O. Box 812 Stonington, CT 06378	http://stoningtonlandtrust.org info@stoningtonlandtrust.org
Dennis S. Main President, Avalonia Land Conservancy	P.O. Box 49 Old Mystic, CT 06372	(860) 823-6246 president@avalonialc.org

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### Waterford

### Introduction

Waterford is a suburban coastal municipality located between the Niantic and Thames Rivers. It is bordered by East Lyme to its west, Montville to its north, New London to its east, and the Long Island Sound to its south. The town is bisected by I-95, which runs east-west through the town, as well as I-395, which runs through the northwestern section of town and interchanges with I-95 at the town's border with East Lyme. The majority of the town's denser development is located south of I-95 and east of I-395. Development in Waterford is generally dispersed and low-density, though Quaker Hill and the Civic Triangle represent village centers for the town. Dominion's Millstone Nuclear Power Plant is located on the town's coast and provides a unique ecological resource in the form of staff expertise and environmental monitoring in its vicinity. The northern portions of town, particularly the northwest, remain largely undeveloped.

Many open space managers operate in the town. Large parcels in Waterford's northwest are preserved for drinking water protection, including areas managed by the City of New London Department of Public Utilities. The State operates two coastal open spaces; Harkness Memorial State Park and Seaside State Park. Connecticut College's Arboretum extends into the town and includes Mamacoke Island. Waterford Land Trust operates numerous preserves in the town, and one parcel is owned and managed by the Eversource Land Trust. The Town of Waterford itself holds conservation easements on a number of properties throughout the town. Approximately 14% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

### Figure 47. Town of Waterford Open Space Land Statistics

Total Protected Land	1,121 ac						
Total Preserved Land	2,052 ac						
Total OS Land <sup>70</sup>	3,172 ac	С	R	Т	W	CE	NYC
Total US Land		1,086 ac	1,743 ac	0 mi	0 ac	5 ac	338 ac
Total Land Area22,365 ac							
Pct Open Space Land	14.18%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>70</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 60. Waterford Existing Open Space and Regional Open Space Recommendations

Lyman Vauxhall Park Allen Park Lake Konomoo Club Sportsman onover verv Mil Trac Pond Ammirati Tract Easement Brook uaker Hill School dland Willys Me Broo Douglas Lane earv Andrade Broo Park Tract ege Lake Kashansk Brandeg WA1 Tract Dedrick Field Oswegatchie US 1 Woods Oswegatchie School Kiddies Beach Mada Mago Point Park land Rovetti Waterford **Townwide Recommendations Pleasure Beach** WA4 - Prioritize the **Boat Ramp** preservation of coastlines Seaside State Park WA2 and Niantic River headwaters State Proposed Bike Network Intermittent Water Regional Recommendation SCCOG Proposed Bike Ped Routes (2019) Flats Regional Recommendation Eastern Shoreline Trail Inundated Area **Open Space** Colchester-Norwich Bike Route Marsh Open Space Land Railroad Water (linear) Open Space - Agriculture Roads Intermittent Water (linear) Official Designated Connecticut Greenways Dredged Channel Waterbodies Existing Trails / Multi-Use Paths Dams Water Tri Town Trail

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.

### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to develop a greenway along	3
WA1	the abandoned Route 11 corridor (requires intermunicipal	
	cooperation with Colchester, East Lyme, Montville, and Salem).	
14/42	Restore Alewife Cove (requires intermunicipal cooperation with	6, 8
WAZ	New London).	
14/4.2	Implement the eastern shoreline path as recommended in the	18
VVA3	2019 Regional Bike/Ped Plan.	
14/4 4	Seek and prioritize opportunities to preserve coastlines and	6, 7, 8, 24
VVA4	Niantic River headwaters.	

When plans to extend State Highway 11 to an interchange with I-95 and I-395 were still active, the Route 11 Greenway Authority Commission was created to develop a parallel greenway along the corridor. The greenway project was abandoned alongside the state's abandonment of the highway extension. However, the development of a greenway along the corridor is an idea with merit independent of the highway. Development of this greenway would provide a marquee recreational amenity for the town and region.

One of the town's most notable geographic features, Alewife Cove, remains inhibited by silt and sediment from the effects of Super Storm Sandy in 2012. Clearing this sedimentation would restore critical habitat for marine life in the area and improve recreational access to paddlers on the cove. The town should support restoration efforts and provide assistance where possible in seeking funding.

The 2019 SCCOG Bike and Pedestrian Plan proposed a regional bike route known as the Eastern Shoreline Path that would connect towns across the coast from the Connecticut River to the Rhode Island border. As part of the route, Waterford would benefit from enhanced connections between its open spaces and improved recreational opportunities for cyclists, the second most popular recreational activity in the region.

Waterford's largely undeveloped northwestern extent contains the headwaters of the Niantic River. These headwaters play a critical role in maintaining water quality in the Niantic River, and are a factor in river restoration, shellfish bed restoration, and future preservation. Waterford should seek opportunities to preserve Stony Brook and Oil Mill Brook – both Niantic River tributaries – where possible, either directly or in cooperation with partners. While opportunities for coastal preservation are harder to come by because of pre-existing

development, coastal restoration and resilience through open space preservation and habitat restoration can be part of strategies that reduce flood impacts, filter stormwater, sequester carbon, and preserve unique habitats.

### Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in Waterford, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Drinking Water Watersheds and Public Water Supply Service Areas Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>
- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Connected Sewer Service Area Map 15</u>
- Section 4E: Coastal Erosion Vulnerability Figures 11 / 12
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- Section 4E: FEMA Special Flood Hazard Areas Map 18
- Section 4E: Current and Future 100-Year Storm Flooding and Sea Level Rise Map 20
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

### Map 61. Public Engagement Feedback related to Waterford

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset



Commo	Comment Key				
Point ID	Location	Comment/Suggestion			
1	Land surrounding Lake Konomoc	Land surrounding drinking water in Lake Konomoc. (The south side is not protected yet).			
2	Pember Road (Rt 11 Corridor)	Rt 11 - corridor. Lots of forests, WLT has small piece (55 Pember Road) and working on easements. Check into status of Woodlands & Madura Land Trust - not sure what is happening with those lands now that Ellis died. Lots of historical remains up there and a well maintained dirt road pulls all the parcels together. Also protects headwaters to Niantic River. Would be great Greenway!			
3	Headwaters of Niantic River	Preserve			
4	Stony Brook Headwaters Clam Lane	"Clam Lane" area - Stony Brook headwaters. WLT is working with TPL (just starting to).			
5	DOT Land	For sale			
6	Waterford Land Trust property	There's a sleepy bear living here right now. Space for Wildlife is important!			
7	Seaside State Park	Gorgeous views. UTILIZE the historic architecture. It's part of its character!			
8	Seaside State Park	Poorly kept			
9	Great Neck Rd Rt 213	Narrow, curvy, fast cars			
10	Harkness Park	Harkness Park is a wonderful asset to our community. I would love to see more historical landmarks, or signifiers that discuss the significance of the family in the community — funding L&M and CT College if I remember correctly. A little free library box would be sweet. As a work from homer, I personally would love wifi access to sit under the tree and get out of the house!!			
11	Harkness Memorial State Park	Identified community asset			
12	Harkness Park	More flowers and landscaping			
13	Town-Wide Suggestion	Some land that was designated in Waterford years ago as Industrial should be open space now to protect the last remaining trout streams & tributaries to LI Sound. Back when it was designated, clean water wasn't a priority. Now it is. We need to protect the forests that keep our waterways and aguifars clean			

# Waterford Open Space Points of Contact

Name	Address	Contact or Meeting Info		
TOWN OF WATERFORD				
Rob Brule	15 Rope Ferry Road	(860) 444-5834		
First Selectman	Waterford, CT 06385	firstsel@waterfordct.org		
Jonathan Mullen	15 Rope Ferry Road	(860) 444-5813		
Planning Director	Waterford, CT 06385	jmullen@waterfordct.org		
Maureen Fitzgerald	15 Rope Ferry Road	(860) 444-5813		
Environmental Planner	Waterford, CT 06385	mfitzgerald@waterfordct.org		
Ryan McNamara	24 Rope Ferry Road	(860) 444-5881		
Parks and Recreation Director	Waterford, CT 06385	rmcnamara@waterfordct.org		
ТОМ	/N COMMISSIONS			
Richard Muckle	15 Rope Ferry Road	2 <sup>nd</sup> and 4 <sup>th</sup> Thursday of every		
Chair, Conservation Commission	Waterford, CT 06385	month, 6:30pm		
Jennifer Kohl	15 Rope Ferry Road	3 <sup>rd</sup> Monday of every month,		
Chair, Flood and Erosion Control Board	Waterford, CT 06385	7:00pm		
Greg Massad	15 Rope Ferry Road	2 <sup>nd</sup> and 4 <sup>th</sup> Tuesday of every		
Chair, Planning and Zoning Commission	Waterford, CT 06385	month, 6:30pm		
Kenny Hall, Chair, Recreation and Parks	24 Rope Ferry Road	4 <sup>th</sup> Tuesday of every month		
Commission	Waterford, CT 06385	4:00pm		
	OTHER			
CT Dept. of Energy and Environmental	79 Elm St <i>,</i> 6 <sup>th</sup> Floor	(860) 424-3200		
Protection, State Parks Division	Hartford, CT 06106	Deep.stateparks@ct.gov		
David Lersch	P.O. Box 926	(301) 682-6359		
President, Waterford Land Trust	Waterford, CT 06385	info@waterfordlandtrust.org		
Maggie Redfern	270 CT-32	(860) 439-5020		
Director, Connecticut College	New London, CT	mredfern@conncoll_edu		
Arboretum	06320	mediem@conncoil.edu		

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### Windham

#### Introduction

Windham contains many kinds of landscapes within its borders – running the full spectrum of urban, suburban, and rural. Willimantic, on Windham's western extent, is one of the SCCOG region's principal urban centers. Outside of Willimantic, however, the town is quite rural, with a strong agricultural sector, large expanses of undeveloped land, and predominantly low-density residential development between the three village nodes of North Windham, Windham Center, and South Windham that run along Rt-203. Because of this landscape diversity, Windham has several distinct open space forms and needs. Urban parks as well as large conservation preserves can be found in the town.

Willimantic, the aforementioned urban center, sits at the confluence of the Nachaug and Willimantic Rivers, where they join to form the Shetucket River. The majority of protected lands in Windham are along these waterbodies and their tributaries. A variety of entities manage these lands, including the town, state, and even federal government. Joshua's Trust, a regional land trust focused on Northeastern Connecticut, also holds a number of parcels in the town. Overall, approximately 14% of the town is preserved or protected open space. As can be seen in the municipal open space land statistics figure below, additional data collection or clarification is required to build out complete information for all parcels in SCCOG's regional open space dataset.

The town is a hub for recreational trails that developed from former rail line conversations, owing in large part to its historic position as a regional railroad center. Willimantic is a terminal end of the Hop River Trail, and is also located at a halfway point along the existing Air Line Trail.

#### Figure 48. Town of Windham Open Space Land Statistics

Total Protected Land	1,456 ac						
Total Preserved Land	1,034 ac						
Total OS Land <sup>71</sup>	2,489 ac	С	R	Т	W	CE	NYC
Total US Land		228 ac	1,512 ac	16 mi	637 ac	111 ac	1 ac
Total Land Area 17,771 a							
Pct Open Space Land	14.01%						

Recorded to Date in SCCOG's Regional Open Space Dataset

<sup>&</sup>lt;sup>71</sup> SCCOG Open Space Classification Abbreviation Key: C = Conservation, R = Active and Passive Recreation, T = Trail, W = Working Land, CE = Cemetery, NYC = Not Yet Categorized

#### Map 62. Windham Existing Open Space and Regional Open Space Recommendations

Note: Map legend is consistent for all municipalities. Listed features may not appear on each local map.



### Recommendations

Note that municipal-specific recommendations of regional significance are advisory and should be considered and evaluated as part of local planning processes and high priority local needs, which can evolve over time.

Rec ID	Recommendation	Meets Objectives
	Participate in a regional committee to establish a multi-use-trail	18
WI1	between Willimantic and Baltic utilizing state owned rail right of	
	way (requires coordination with Scotland and Sprague).	
14/12	Work with Bozrah, Franklin, Lebanon, and Norwich to develop	1, 17, 18
VVIZ	Rail-With-Trail between Norwich and Willimantic.	
	Designate a portage route circumnavigating the dams on the	19
	Willimantic River and implement wayfinding signage. develop a	
WI3	river access point at the Windham Recreational Park / sewage	
	treatment plant and appropriate portage routes to	
	circumnavigate these in-stream barriers	
	Work with landowners along the Shetucket River to develop low-	19
WI4	impact paddler campsite between Willimantic and Scotland	
	Dam.	
	Evaluate where small-scale open spaces present opportunities	21, 22, 23
	for nature-based climate resilience infrastructure for addressing	
VV15	heat and stormwater impacts, and where additional community	
	garden space can bolster local food security.	
	Improve the Air Line trail between the Hop River trailhead and	18
MIG	Jackson Street. This urban section of the Air Line should provide	
VV10	clear wayfinding to Main Street, improve public safety, and	
	access to the park at Railroad Ave.	

The rail lines that cross Southeastern Connecticut no longer ferry passengers throughout the region. Abandoned rail beds, such as the former Air Line or Norwich-Westerly Trolley, have been or could be fully repurposed. Repurposing an abandoned railway for a trail project is a complicated task, but one with ample proof of concept nationally and locally. Other railways still carry freight, though less intensively than in previous decades. Rail-with-trail, where a multi-use trail runs parallel to an active rail line, has been enabled by recent state legislation that removes undue liability from rail owners in rail-with-trail setups. Rail-with-trail is often complicated by the need to work with private railroad owners. However, the rail right-of-way between Willimantic and Baltic is owned by the State of Connecticut, and is the lowest trafficked rail line in the region. A trail along this route would link Willimantic and Baltic to numerous open spaces, and tie in with the existing Air Line and Hop River trails. In addition to

the state-owned rail line to Baltic, a privately-owned railroad between Willimantic and Norwich represents another opportunity to connect two regional urban anchor points along with the scenic open spaces in between. Building off the existing multi-use path network in Windham, these two rail-with-trail additions would expand Willimantic's role as a hub for both recreational cycling and for multi-modal connectivity.

Willimantic's location at the confluence of major rivers could make it an ideal location for paddling enthusiasts. Two obstacles currently limit this potential; the series of dams on the Willimantic River, and the lack of nearby on-route camping areas for paddlers making multipleday journeys. In the long run, the town or other ecosystem restoration entities can study dam removal feasibility along the Willimantic River. In the short term, the town could work to develop a river access point at the Windham Recreational Park / sewage treatment plant and appropriate portage routes to circumnavigate these in-stream barriers. To address the lack of available camping sites, the Town can work with landowners along the Shetucket River to identify sites for low-impact camping accessible only by the river. These types of sites are common along other rivers with heavy canoe traffic such as the Connecticut and Housatonic Rivers. Potential partners include DEEP, land trusts, and utility companies.

Finally, Windham's urbanized land areas and proximity to rivers makes it vulnerable to climate issues like extreme flooding and heat risk. The town should seek opportunities to acquire, either directly or in collaboration with partner organizations, parcels to turn into parklets and playscapes for local neighborhoods. These small, neighborhood level open spaces play a crucial role in offering a convenient open space for families, particularly those with small children. These sites may also present opportunities for nature-based climate resilience infrastructure for addressing heat and stormwater impacts. The Town can evaluate where open spaces for recreation access and resilience infrastructure each take priority, or where both community purposes can co-exist on a given site.

### Significant Local Landscapes

The SCCOG Open Space Plan explores many environmental features and their distribution. The following landscapes may be particularly salient features in Windham, and can be explored further in the plan at the indicated section, or in SCCOG's online Open Space Dashboard:

- Section 4A: Soil Drainage Class Map 4
- <u>Section 4A: Agricultural Soils Map 6</u>
- Section 4B: Regional Drainage Basins Map 8
- Section 4B: Public Water Service Areas and Drinking Water Watersheds Map 9
- Section 4D: Cold Water Fish Habitat Map 11
- Section 4D: Critical Wildlife Habitat Map 12 / Figure 5
- <u>Section 4E: Core Forest Map 13</u>

- Section 4E: Impaired Waterbodies Figure 9 / Map 14
- <u>Section 4E: Connected Sewer Service Area Map 15</u>
- <u>Section 4E: Steep Slope Erosion Map 16</u>
- Section 4E: Regional Heat Vulnerability (Climate Change) Map 17
- <u>Section 4E: FEMA Special Flood Hazard Areas Appendix 4</u>
- Section 7, Objective 1: Urban and Suburban Public Access to Open Space Map 22
- Section 7, Objective 3: Designated Greenways Map 23
- Section 7, Objective 25: Resilient and Connected Landscapes Map 25
- Section 8, Recommendation 3: SCCOG Bike/Ped Plan Recommendations Map 26

### Map 63. Public Engagement Feedback related to Windham

Number labels key each point to comments in the table below the map. Red = existing open space that needs improvement. Yellow = suggested new open space. Green = open space asset.



Comme	Comment Key				
Point ID	Location	Comment/Suggestion			
1	Hop River and Airline Rock	Long distance trail connections			
2	Along Willimantic and Shetucket Rivers	Trails			
3	Town-Wide Suggestion	(Proposed trail) The trolley line between Willimantic and Stonington			

### Windham Open Space Points of Contact

Name	Address	Contact or Meeting Info		
TOWN OF WINDHAM				
Jim Rivers Town Manager	979 Main Street Willimantic, CT 06226	(860) 465-3004 jrivers@windhamct.com		
Matthew Vertefeuille Planning Director	979 Main Street Willimantic, CT 06226	(860) 465-3070 mvertefeuille@windhamct.com		
Tara Clixto Recreation Director	1 Jillson Square Willimantic, CT 06226	(860) 465-3046 windhamrec@windhamct.com		
	TOWN COMMISSIONS			
Laurel Freeman, Vice Chair, Conservation, Open Space, and Agriculture Commission.	322 Prospect Street Willimantic, CT 06226	4 <sup>th</sup> Monday of every month 7:00pm		
Susan Johnson Chair, Inland Wetlands and Watercourses Comm.	979 Main Street Willimantic, CT 06226	2 <sup>nd</sup> Thursday of every month, 7:00pm		
Paula Stahl, Chair, Planning and Zoning Commission	979 Main Street Willimantic, CT 06226	2 <sup>nd</sup> and 4 <sup>th</sup> Thursday of every month, 7:00pm		
	OTHER	-		
CT DEEP, State Parks Division	79 Elm St, 6 <sup>th</sup> Floor Hartford, CT 06106	(860) 424-3200 Deep.stateparks@ct.gov		
Bryan Avery Land Protection Manager, Joshua's Trust	P.O. Box 4 Mansfield, CT 06250	(860) 429-9023 bryan.avery@joshuastrust.org		
Vania Galicia, Community Farmer, GROW Windham	872 Main Street Willimantic, CT 06226	(860) 423-4534 x312 info@growindham.org		
Sydney Clements	872 Main Street Willimantic, CT 06226	http://windhamfood.org windhamfood@gmail.com		

Director, Windham Community		
Food Network		
Meg Reich, President,	P.O. Box 9193	(860) 455-0532
Willimantic River Alliance	Bolton, CT 06043	info@willimanticriver.org
Jana Roberson	D.O. Doy 406	https://willimanticy/hitowator.org
President, Willimantic	P.U. BUX 400	info@willimontiowhitowater.org
Whitewater Partnership	Willimantic, CT 06226	mo@wiiimanticwnitewater.org

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Total land acres: 382806.0837291304

Total overall area acres: 394641.954984

GIS Total Open Space acres 5/13/24: 85,267

# APPENDICES

### Appendix 1. Definitions and Acronyms

The following is a non-comprehensive list of terms and acronyms used within this plan and within the broader world of conservation and recreation planning. This appendix is for descriptive purposes only and is not an official, legal, or binding definition unless otherwise stated.

**Blueway** - A route on a waterway designated for recreational use especially by non-motorized watercraft (such as canoes and kayaks) and often for environmental protection.

**Class I / II / III Water Company Lands** – By law, all land owned by a water company or acquired from it through an involuntary transfer falls into three classes. Class I includes watershed land nearest to water supply sources, (e.g., within 250 feet of a reservoir, 200 feet of a well, or 100 feet of a watercourse). It also includes certain environmentally sensitive lands, such as those that are steeply sloped or where bedrock is less than 20 inches from the soil surface. Class II land is (1) on the public drinking supply watershed but not included in class I and (2) completely off the watershed but within 150 feet of a reservoir or a major stream that runs into it. Class III consists of the rest of the company's land. DPH regulations establish criteria and performance standards for the three classes (CGS § 25-37c).

**CLCC** – Connecticut Land Conservation Council, a state level non-profit that provides resources and technical assistance to land trusts.

**CRT** – Connecticut Recreational Trails Grant Program, a program run by DEEP to support the development of trails.

**CTDOT** – Connecticut Department of Transportation, this state department has many programs available to support improvements to active mobility.

**DECD** – Connecticut Department of Economic and Community Development, this department has many programs available for investments into community development, which may include recreational uses. DECD also has programs available to support environmental cleanup of contaminated properties.

**DEEP** – Connecticut Department of Energy and Environmental Protection, this state department is a primary partner in conservation and recreation planning, and is the lead agency for these at the state level. Many programs are available through DEEP to support open space at the regional and municipal level.

**Easement** - A voluntary, legal agreement that permanently restricts the use of a parcel of land. Easements may restrict a land's use to conservation, farming, recreation, or other uses. An easement may also provide access to a particular portion of a parcel for a trail or utility corridor.

**EPA** – United States Environmental Protection Agency, this federal agency has many programs available to support conservation.

**EWUCC** – Eastern Region Water Utility Coordinating Committee, this organization is heavily involved in conservation for the purpose of ensuring high quality public drinking water supplies.

**FEMA** – Federal Emergency Management Agency, this federal agency has many programs available to support open space with an emphasis on improving resiliency.

**Greenway** - A greenway is usually a shared-use path along a strip of undeveloped land, in an urban or rural area, set aside for recreational use or environmental protection.

LIS - Long Island Sound, the waterbody that makes up the southern border of Southeastern CT

**LT** – Land Trust, a non-profit organization created to acquire and manage preserved lands. Typically focused by either geography or type of lands.

**Open Space** – Open Space is defined within this plan as any land which is either preserved through deed restriction or fee ownership, or is open to the public for primarily recreational use.

**OSP** – Open Space Plan, a plan such as this one that specifically focuses on open space in a particular geography.

**OSWA** – Open Space and Watershed Land Acquisition Program, DEEP's primary funding mechanism for the acquisition of new lands for conservation.

**POCD** – Plan of Conservation and Development, the core planning document for a unit of government in Connecticut.

**RCP** – Representative Concentration Pathway, one of a range of Greenhouse Gas emissions scenarios used by climate scientists as a basis to predict how temperature and precipitation might change in the future based on different levels of Greenhouse Gas emissions. Under lower emissions scenarios called RCP 2.6 and RCP 4.5, humans would decrease our overall emissions to limit global temperature increases between 2-6°F. This shift to lower emissions scenarios would take material changes to the way that we live, plan our communities, and consume. RCP 8.5 represents a high emissions, business-as-usual scenario, under which global communities do not change emissions rates.

**SCCOG** – Southeastern Connecticut Council of Governments, the regional planning organization for 22 municipalities in Southeastern CT.

**SEAT** – Southeast Area Transit District, the primary public transit operator for the Southeastern CT region.

**SLE** – Shoreline East, the commuter rail line that connects New London with points west along the coast.

**TDR** – Transfer of Development Rights, the act through which the development rights to working or undeveloped lands are sold to a land trust, municipality, or other entity for the purposes of preservation.

**TLGV** – The Last Green Valley, both the name of a national heritage corridor that stretches from southcentral Massachusetts down to the SCCOG region, and the name of an environmental organization that advocates for the corridor. **TNC** – The Nature Conservancy, a national conservation organization with a significant presence in the region.

**UGCG** – Urban Green and Community Garden Grant Program, a funding program for distressed communities to fund passive recreation and community garden projects.

**USDA** – United States Department of Agriculture, this national department has many programs to support agriculture and working lands.

**USDOT** – United States Department of Transportation, this national department has many programs to support active mobility projects.

**Walkshed** – Area within a half mile walk of a given location. Considered walking distance for an able bodied person moving at average speed.

Watershed – The area from which water drains into a particular waterbody.

**WMA** – Wildlife Management Area. WMAs largely preserve habitat for many different species of animal, bird, and invertebrate with special interest given to grasslands, old fields, and coastal salt and freshwater marshes. They also provide public recreation for hiking, wildlife viewing, and photography but are usually more geared towards fishing, hunting, and trapping.

# Appendix 2. Open Space Directory

The following is a list of conservation and recreation focused organizations that operate in Southeastern Connecticut. These organizations may be local, regional, state-wide, or national in scope and their work must relate to conservation and/or recreation. This directory is intended to be purely informational and inclusion within it does not represent endorsement from the Southeastern Connecticut Council of Governments. Organizations are listed alphabetically.

If you are a representative of an organization and would like to add, update, or remove your organization's listing, please contact <u>openspace@seccog.org</u>.

# **4-H New London County**

Website:

**Mailing Address:** 

https://4-h.extension.uconn.edu/

562 New London Turnpike, Norwich, CT 6360

Primary Contact: Marc Cournoyer, Program Coordinator Phone: (860) 884-7250 Email: marc.cournoyer@uconn.edu **About:** UConn 4-H is the youth development program of UConn Extension. As part of the University of Connecticut, 4-H has access to research-based, age-appropriate information needed to help youth reach their full potential. The mission of 4-H is to assist all youth ages 5-18 in acquiring knowledge, developing leadership and life skills while forming attitudes that will enable them to become self-directing, productive and contributing members of their families and communities.

Tags: Youth, Agriculture

### **Alewife Cove Conservancy**

Website:

https://www.alewifecove.org/

**Mailing Address:** 

94 Neptune Avenue, New London, CT 06320

**Primary Contact:** 

Edward Lamoureux, Founder & Co-Chair

#### Email:

info@alewifecove.org

**About:** The Alewife Cove Conservancy (ACC) is a 501(c)(3) non-profit, community-based organization that is dedicated to protecting and improving the health of Alewife Cove which is bordered by Waterford and New London, CT.

Tags: Coast

# Alliance for the Mystic River Watershed

#### Website:

https://www.alliancemrw.org/

Primary Contact: Maggie Favretti, Co-Founder & Director Email: info@alliancemrw.org **About:** Artists, historians, church leaders, civic leaders both state and local, professors, data managers, scientists, and members of organizations with wide reach. Individuals from Long Pond to Long Island Sound, California, Rhode Island, and New York. People interested in gardens, marshes, farming, sailing, rowing, fishing, birds, waste and water, coastal resilience, community, and changes they see and experience right outside their doors. We are all different but united by the River. Missituck. We are a community with a shared purpose: to sustain the river who sustains us.

Tags: Watershed, Conservation

### Audubon CT

Website:

https://ct.audubon.org/

#### Mailing Address:

613 Riversville Road, Greenwich, CT 06831

#### **Primary Contact:**

Michael Burger, Ph.D., Executive Director

**Phone:** (203) 869-5272

#### Email:

ct@audubon.org

**About:** Audubon Connecticut is a leader in bird conservation throughout the state. Along with our members, supporters, and partners, we work together for birds, nature, and people.

Tags: Wildlife, Conservation

# **Avalonia Land Conservancy**

Website:

https://avalonia.org/

Mailing Address: P.O. Box 49, Old Mystic, CT 06372

**Primary Contact:** 

Dennis Main, President

Phone:

(860) 884-3500

Email:

president@avalonialc.org

**About:** Avalonia Land Conservancy, founded in 1968, is a land trust dedicated to conservation through the acquisition of open space. It is a non-profit, non-political, tax-exempt organization. We believe that the conservation of natural resources for the benefit of people and wildlife is essential and will ensure healthy and livable communities for generations to come.

Avalonia now conserves 4000 acres of land, preserved in perpetuity. Where appropriate, trails are maintained for passive enjoyment including hiking, birdwatching, nature study, and photography. We ask that you take only pictures and leave only footprints. Educational activities and scientific studies are encouraged on Avalonia preserves.

Tags: Land Trust, Conservation

## **Bike Groton**

Website:

https://www.bikegroton.org/

Mailing Address:

P.O. Box 6, West Mystic, CT 06388

**Primary Contact:** 

Brian Kent, President

Email:

bkent@kentfrost.com

**About:** Bike Groton is a volunteer nonprofit advocacy organization re-formed from Mystic Community Bikes in 2020. It supports improved conditions for bicyclists and pedestrians in Groton and southeast CT. Our focus is to develop cooperative relationships with local governments and stakeholders for adoption of Complete Streets policies and mechanisms that ensure their enactment. We coordinate our activities with Bike Stonington and Bike New London. Bike Groton meets on the second Monday of each month. For 2021 and foreseeable future, meeting are held using Zoom.

Tags: Cycling, Recreation

### **Bike New London**

#### Website:

#### https://www.bikenewlondon.org/

Mailing Address: 399 Williams Street, New London, CT 06320

Primary Contact:

Rob Bareiss, Chairman

Phone:

(860) 912-6882

#### Email:

bicyclenl@gmail.com

**About:** Bike New London is a not for profit group based in New London, Connecticut. We formed in 2009 with a mission to make New London a more bicycle-friendly city. Bike New London Inc. is a 501(c)3 non-profit organization.

Our skilled ALL VOLUNTEER staff of mechanics perform a wide range of repairs on bicycles of all types. We offer fairly-priced bicycles for commuting, exercise, beginner riders, utility riding, and bicycle trail use. 100% of sales are donations which allow us to continue to serve all members of the New London community, regardless of income.

Tags: Cycling, Recreation

# **Bike Stonington**

Website:

https://www.bikestonington.org/

#### **Mailing Address:**

6 School Street #4, Mystic, CT 06355

#### **Primary Contact:**

Jennifer Lacker, President

#### Phone:

(860) 941-8305

Email:

jenlacker@live.com

**About:** We're a group of passionate cyclists who believe that cycling is the future of sustainable transportation for our community, who are working towards a future Stonington that provides greater safety and access on our roads for cyclists and multi-modes of transportation.

Bike Stonington is a volunteer non-profit advocacy organization founded in 2015. We advocate for improved conditions for bicyclists in all of Stonington, CT, including the villages of Mystic, Pawcatuck, and Stonington Borough. We work closely with local government commission and stakeholders for adoption of Complete Streets policies and their implementation. We coordinate our activities with Bike Groton and Bike New London.

Tags: Cycling, Recreation

# Bike/Walk CT

Eugene.Goss@scouting.org

#### Website:

https://www.bikewalkct.org/

Mailing Address: P.O. Box 270149, West Hartford, CT 06127

Primary Contact:

Ric Barry, Co-Chair

Phone:

(860) 288-2543

Email:

BikeWalkCT@BikeWalkCT.org

# **Boy Scouts of America**

### **CT Rivers Council**

# Leaders of the Revolution District

Website:

https://ctscouting.org/lord/

#### Mailing Address:

60 Darlin St, East Hartford, CT 06108

#### **Primary Contact:**

Chip Goss, District Executive

#### Phone:

(860) 913-2733

Email:

**About:** Bike Walk Connecticut is a membersupported non-profit organization that works to make Connecticut a better place to bike and walk.

Tags: Cycling, Recreation

About: The District covers the northeast part of the state. It includes the towns of Andover, Ashford, Bolton, Bozrah, Brooklyn, Canterbury, Chaplin, Colchester, Columbia, Coventry, Eastford, Ellington, Franklin, Griswold, Hampton, Hebron, Killingly, Lebanon, Lisbon, Mansfield, Marlborough, Plainfield, Pomfret, Putnam, Scotland, Somers, Sprague, Sterling, Strafford, Thompson, Tolland, Union, Vernon, Voluntown, Willington, Willimantic, Windham, & Woodstock.

Tags: Youth, Recreation

# **Boy Scouts of America**

johnbarn@comcast.net

# **CT Rivers Council**

### **Southeastern District**

Website:

https://ctscouting.org/southeastern-district/

Mailing Address: 60 Darlin St, East Hartford, CT 06108

#### **Primary Contact:**

John Coleman, District Executive

#### Phone:

(860) 913-2738

Email:

John.Coleman2@scouting.org

# **Colchester Land Trust**

Website:

https://www.colchesterlandtrust.org/

#### Mailing Address:

P.O. Box 93, Colchester, CT 06415

#### **Primary Contact:**

John Barnowski, Board Member

Phone:

(860) 918-1537

Email:

**About:** South Eastern District covers the Southeastern part of the state. The District includes the towns of Chester, Clinton, Cromwell, Deep River, Durham, East Haddam, East Hampton, East Lyme, Essex, Groton, Haddam, Killingworth, Ledyard, Middlefield, Middletown, Montville, North Stonington, New London, Norwich, Old Lyme, Old Saybrook, Portland, Preston, Salem, Stonington, Waterford, Westbrook, & Fisher's Island, (NY).

Tags: Youth, Recreation

**About:** The purpose of the Colchester Land Trust is to protect the beauty and natural diversity of our area by preserving significant land and scenic areas for present and future generations. We are dedicated to maintaining Colchester's rural character and stand for clean air and water, wildlife habitat, outdoor recreation, and local agriculture.

Tags: Land Trust, Conservation

# **Community Foundation**

### of Eastern Connecticut

Website:

https://cfect.org/

Mailing Address: 68 Federal Street, New London, CT 06320

Primary Contact:

Jennifer O'Brien, Program Director

Phone:

(860) 442-3572

Email:

admin@cfect.org

# **Connecticut College Arboretum**

Website:

https://www.conncoll.edu/the-arboretum/

#### Mailing Address:

270 Mohegan Ave, New London, CT 06320

#### **Primary Contact:**

Maggie Redfern, Director

#### Phone:

(860) 439-5020

#### Email:

arbor@conncoll.edu

**About:** The Community Foundation is here to bring people together to work towards a healthy, thriving, sustainable Eastern Connecticut. We do this by putting philanthropy into action to address the needs, rights and interests of our region, while fulfilling the passions of our donors.

Tags: Advocacy, Conservation

**About:** The Connecticut College Arboretum provides a welcome connection with the natural world, offering opportunities for teaching, research, conservation, recreation, and public education. All Arboretum programs are open to the public and many are free or available at a discounted rate with membership.

Tags: Conservation, Recreation

# **Connecticut Coalition for**

### **Environmental Justice**

Mailing Address: 10 Jefferson St. Ste. C1, Hartford, CT 06106

Primary Contact: Sharon Lewis, Executive Director Phone: (860) 548-1133

Email:

ccej@environmental-justice.org

**About:** The Connecticut Coalition for Environmental Justice is an organization that was established in Hartford in the summer of 1997 in response to community concerns regarding the siting of a power generator in South Hartford. The Coalition is active in promoting community health and participation in addressing toxins in neighborhoods. The mission of the Connecticut Coalition for Environmental Justice is to protect urban environments in Connecticut through community education, promoting changes in state policy, and promoting individual, corporate and governmental responsibility towards the environment.

Tags: Advocacy, Education

# **Connecticut Audubon Society**

Website:

https://www.ctaudubon.org/

**Mailing Address:** 

314 Unquowa Road, Fairfield, CT 06824

**Primary Contact:** 

Tom Anderson, Communications Director

#### Phone:

(203) 259-0416

#### Email:

tandersen@ctaudubon.org

**About:** Connecticut Audubon manages 22 wildlife sanctuaries encompassing more than 3,400 acres of open space in Connecticut, and educates over 100,000 children and adults annually. Connecticut Audubon is an independent organization, not affiliated with any national or governmental group. Connecticut Audubon Society's scientists, educators, citizen scientists, and volunteers work to preserve birds and their environments in Connecticut. Our work includes sanctuary management, advocacy, environmental education and activities at our centers, scientific studies, and our annual Connecticut State of the Birds report.

Tags: Wildlife, Conservation

## **Connecticut Bicycle/Pedestrian**

### **Advisory Board**

Website: http://www.ctbikepedboard.org/

**Primary Contact:** 

Sandy Fry, Chair

Email:

psfry2016@comcast.net

**About:** The Connecticut Bicycle and Pedestrian Advisory Board was formed in 2009 by Public Act 09-154, codified at Conn. Gen. Stat. §13b-13a. The board is composed of 11 appointed members. By statute, the duties of the board are to: Examine the need for bicycle and pedestrian transportation, promote programs and facilities for bicycles and pedestrians in Connecticut, advise state agencies on policies, programs and facilities for bicycles and pedestrians, and report annually.

Tags: Cycling, Advocacy

### **Connecticut Forest and**

### **Parks Association**

Website:

https://ctwoodlands.org/

**Mailing Address:** 

16 Meriden Road, Rockfall, CT 06481

**Primary Contact:** 

Clare Cain, Interim Executive Director

#### Phone:

(860) 346-8733

Email:

info@ctwoodlands.org

**About:** The Connecticut Forest & Park Association (CFPA) is a 501c3 nonprofit organization dedicated to connecting people to the land in order to protect forests, parks, walking trails, and open spaces in Connecticut for future generations. With a staff of experienced conservation professionals and a Board of Directors who strongly support our mission and values, CFPA delivers programs on Blue-Blazed Hiking Trails, Environmental Education, Land Conservation, and Public Policy.

Tags: Conservation, Land Trust

## **Connecticut Greenways Council**

#### dianemciano@gmail.com

#### Website:

https://portal.ct.gov/DEEP/Outdoor-Recreation/Greenways/Connecticut-Greenways-Council

#### **Primary Contact:**

Bruce Donald, Chairman

**Phone:** (860) 424-3578

Email:

Bruce@greenway.org

# **Connecticut Horse Council**

Website:

http://www.cthorsecouncil.org/

#### **Mailing Address:**

P.O. Box 57 Durham, CT 06422

#### **Primary Contact:**

Diane Ciano, President

#### Phone:

(203) 757-1904

Email:

About: Members of the Connecticut Greenways Council are appointed by the Governor and the leaders of the General Assembly. Their duties include advising and assisting in the coordination of state agencies, municipalities, regional planning organizations and private citizens in voluntarily planning and implementing a system of greenways; providing assistance to state agencies, municipalities, regional planning organizations and private citizens in the technical aspects of planning, designing and implementing greenways, including advice on securing state, federal and nongovernmental grants; advising DEEP on selection of CT Recreational Trails Program grants; and establishing criteria for designation of greenways. Many Council members have had direct experience with trail and greenway development, and they can provide valuable insight into the development of successful local and regional projects.

Tags: Trails, Cycling

**About:** Since its creation in 1971, CHC has been striving to be the voice of the horse industry in Connecticut. We have been involved with zoning, enacting state laws, equine health issues, disaster planning for horses, and more. We regularly interact with legislators, agency heads, town boards and others in our day to day dealings with horse related concerns. We advocate for horse owners in Connecticut, and also act as a resource for those seeking information.

Tags: Advocacy, Recreation

# **Connecticut Institute for**

#### Email:

# **Resilience and Climate Adaptation**

Website: http://www.cthorsecouncil.org/

Mailing Address:

1080 Shennecossett Rd, Groton, CT 06340

**Primary Contact:** 

James O'Donnell, Executive Director

**Phone:** (860) 405-9214

Email:

circa@uconn.edu

# **Connecticut Land**

### **Conservation Council**

Website:

https://ctconservation.org/

#### **Mailing Address:**

27 Washington Street, Middletown, CT 06457

#### **Primary Contact:**

Amy Blaymore Patterson, Executive Director

Phone:

(860) 852-5512

abpaterson@ctconservation.org

About: CIRCA is a multi-disciplinary, center of excellence that brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to problems arising as a result of a changing climate. The Institute will help coastal and inland floodplain communities in Connecticut and throughout the Northeast better adapt to changes in climate and also make their human-built infrastructure more resilient while protecting valuable ecosystems and the services they offer to human society (food, clean air and water, and energy). The Institute will combine the world-class research capabilities of UConn and the progressive policies and practical regulatory experience of the Connecticut Department of Energy and Environmental Protection (CTDEEP) to translate sound scientific research to actions that can ensure the resilience and sustainability of both the built and natural environments of the coast and watersheds of Connecticut.

#### Tags: Education, Advocacy

**About:** CLCC is the only statewide service provider and voice for all Connecticut land trusts. CLCC is a leader in advocacy and policy, education and training, and technical assistance to empower Connecticut's 120+ land trusts and ensure the long-term viability of land conservation efforts in the state.

Tags: Conservation, Advocacy

### **Connecticut Nonpoint Education**

### for Municipal Officials

Website: https://nemo.uconn.edu/

Mailing Address:

P.O. Box 70, Haddam, CT 06438

**Primary Contact:** 

Dave Dickson, Co-Director

**Phone:** (860) 345-4511

Email:

nemo@uconn.edu

**About:** NEMO (Nonpoint Education for Municipal Officials) was created in the early 1990's to provide information, education and assistance to local land use boards and commissions on how they can accommodate growth while protecting their natural resources and community character. The program was built upon the basic belief that the future of our communities and environment depend on land use, and, since land use is decided primarily at the local level, education of local land use officials is the most effective, and most costeffective, way to bring about positive change.

Tags: Education

# **Connecticut Resource Conservation** & Development Area

#### Website:

https://ctrcd.org/

#### **Mailing Address:**

P.O. Box 70, Haddam, CT 06439

#### **Primary Contact:**

Jocelyn Lahey, Executive Director

#### Phone:

(860) 345.3977

Email:

admin@ctrcd.org

**About:** CT RC&D helps people protect and develop their economic, natural, and social resources in ways that improve Connecticut and local economy, environment, and quality of life. Currently, CT RC&D members represent sponsoring organizations that includes regional governments, soil and water conservation districts, towns, other nonprofit groups and atlarge citizens. CT RC&D generates local support for community improvement activities and locally-led boards and councils. Success of the CT RC&D program is directly related to the interest and dedication of the appointed council members.

Tags: Agriculture, Conservation

# **Connecticut Sea Grant**

Website: https://seagrant.uconn.edu/

Mailing Address:

1080 Shennecossett Rd, Groton, CT 06340

**Primary Contact:** 

Sylvain De Guise, Director

Phone: (860) 405-9128

Email:

seagrant@uconn.edu

**About:** Sea Grant is a national network comprised of 34 university-based and consortium programs and The Sea Grant Collection housed at the NOAA Central Library. Sea Grant programs are based mainly at flagship universities in U.S. coastal and Great Lake states and territories. The National Sea Grant College Program encourages the wise stewardship of our marine resources through research, education, outreach and technology transfer. The Program is focused on making the United States the world leader in marine research and the sustainable development of marine resources.

Tags: Coast, Education

# **Connecticut Urban**

**Forest Council** 

Website:

https://cturbanforestcouncil.org/

**Primary Contact:** 

Heather Dionne, Chair

Phone:

(860) 757-0683

Email:

Heather.Dionne@hartford.gov

**About:** The Connecticut Urban Forest Council, Inc. is a statewide organization composed of representatives from Connecticut environmental organizations, state agencies, universities, research institutions, corporations, professional communities and citizen tree groups. Its purpose is to provide advice, assistance, education, information and support to urban and community forestry professionals, associated professionals, municipal, state and corporate leaders, and volunteers

Tags: Education

### **Ducks Unlimited**

### **Connecticut Chapter**

Website: https://www.ducks.org/connecticut

#### **Mailing Address:**

159 Dwight Park Circle, Ste 205, Syracuse, NY 13209

#### **Primary Contact:**

Wayne Roberta, Regional Director

**Phone:** (484) 553-7088

#### Email:

DucksUnlimitedCT@gmail.com

**About:** DU got its start in 1937 during the Dust Bowl when North America's drought-plagued waterfowl populations had plunged to unprecedented lows. Determined not to sit idly by as the continent's waterfowl dwindled beyond recovery, a small group of sportsmen joined together to form an organization that became known as Ducks Unlimited. Its mission: habitat conservation.

Thanks to decades of abiding by that single mission, Ducks Unlimited is now the world's largest and most effective private waterfowl and wetlands conservation organization. DU is able to multilaterally deliver its work through a series of partnerships with private individuals, landowners, agencies, scientific communities and other entities.

Tags: Wildlife, Conservation

# East Lyme Land Trust

Website:

https://www.eastlymelandtrust.com/

#### **Mailing Address:**

P.O. Box 831, East Lyme, CT 06333

#### **Primary Contact:**

Ron Luich, Chair

#### Phone:

(860) 739-3127

Email:

Luichr@earthlink.net

**About:** In cooperation with public and private interests, The East Lyme Land Trust, Inc., protects and manages lands of significant natural resource, agricultural, cultural and open space value. Our members recognize the importance of East Lyme and Niantic as an area of great natural resources, scenic beauty, historical significance, and cultural heritage.

Tags: Land Trust, Conservation

# **Eastern Connecticut**

oakleyb@easternct.edu

# **Conservation District**

Website: https://conservect.org/eastern/

Mailing Address:

238 West Town Street, Norwich, CT 06360

**Primary Contact:** 

Dan Mullins, Executive Director

**Phone:** (860) 319-8806

Email:

dan.mullins@comcast.net

# **ECSU Department of**

### **Environmental Science**

Website:

https://www.easternct.edu/environmentalearth-science/

#### **Mailing Address:**

83 Windham Street, Willimantic, Connecticut 06226

#### **Primary Contact:**

Bryan Oakley, Department Chair

Phone:

(860) 465-0418

Email:

**About:** The Eastern Connecticut Conservation District (ECCD) is a local not-for-profit, 501(c)(3) organization dedicated to helping the towns and citizens of Eastern Connecticut with their conservation needs. The creation of the ECCD is a result of the reorganization of Connecticut's eight county-based soil and water Conservation Districts into five regional watershed areas: Northwest, Southwest, North Central, Connecticut River Coastal and Eastern.

Tags: Conservation

**About:** Environmental Earth Science (EES) students receive a foundation in environmental geoscience that draws upon classroom, online, laboratory and field-based experiences. Students develop an understanding of the natural world, its materials, processes and geologic records of environmental change, and associated energy and sustainability issues. EES majors prepare for careers or graduate studies in geoscience and energy studies.

Tags: Education

# **Eightmile River Wild &**

### Scenic Watershed

Website: https://www.eightmileriver.org/

Mailing Address:

2 Dolbia Hill Rd. East Haddam, CT 06423

**Primary Contact:** 

Patricia Young, Program Director

Phone: (860) 615-6929

Email:

info@eightmileriver.org

**About:** The purpose of the Eightmile River Wild & Scenic Coordinating Committee is to:

\* Coordinate and champion implementation of the Watershed Management Plan.

\* Bring the stakeholders in watershed management together on a regular and ongoing basis to facilitate continued cooperation and coordination.

\* Provide a forum for all watershed interests to discuss and resolve watershed related issues.

\* Monitor the outstanding resource values with respect to the degree they are protected, degraded or enhanced during implementation of the plan.

\* Assist in securing additional funding to facilitate implementation of the watershed management plan.

Tags: Watershed, Conservation

# **Environment Connecticut**

Website:

https://environmentamerica.org/connecticut/

#### **Mailing Address:**

1245 Farmington Ave. #1123, West Hartford, CT, 06107

#### **Primary Contact:**

Chris Phelps, State Director

#### Phone:

(860) 231-8842

**About:** Environment Connecticut works for clean air, clean water, clean energy, wildlife and open spaces, and a livable climate. Our members across the state put grassroots support behind our research and advocacy.

We envision a greener Connecticut: one that protects more places where nature can thrive, and offers us and our children a greater opportunity to live healthier, more enriching lives. Through our research, public education, advocacy, litigation and action, we advance policies and practices that put our state and our country on a better path.

Tags: Education

### **FRESH New London**

Website: <a href="https://freshnewlondon.org/">https://freshnewlondon.org/</a>

**Mailing Address:** 

P.O. Box 285, New London, CT 06320

**Primary Contact:** 

Alicia McAvay, Executive Director

**Phone:** (860) 574-9006

Email:

freshnewlondon@gmail.com

**About:** FRESH New London builds momentum for food system change by connecting communities, with an focus on youth of New London. We work to create the conditions for everyone to access food with dignity and have real control over their food access. We grow food as a way to reclaim land, highlight cultural relevance, inspire leadership, and incite change.

Tags: Agriculture, Advocacy

## **Friends of Connecticut State Parks**

Website:

https://friendsctstateparks.org/

**Mailing Address:** 

16 Meriden Rd, Rockfall, CT 06481

**Primary Contact:** 

Ryan Snide, President

Email:

friendsctstateparks@gmail.com

**About:** The Friends of Connecticut State Parks, Inc. (FCSP) is an all-volunteer organization, which was formed in 1994 in partnership with the Connecticut Department of Energy and Environmental Protection, DEEP, and the Connecticut Forest & Park Association, CFPA, by members of seven nonprofit advocacy groups, each dedicated to the preservation and enhancement of a single State park in Connecticut.

The FCSP mission is to support the Connecticut state parks, forests and conservation areas through education, advocacy, and public awareness, to protect and preserve the great legacy of Connecticut natural resources and historical treasures.

Tags: Conservation, Recreation

## **Friends of Fort Griswold**

Website: http://www.fortgriswold.org/

#### **Mailing Address:**

P.O. Box 7032, Groton, CT 06340

**Phone:** (860) 449-6877

Email:

info@fortgriswold.org

**About:** The purpose of the Friends of Fort Griswold is to work to preserve, restore, maintain, and promote the historic value, earthworks, buildings, and grounds, known as Fort Griswold Battlefield State Park in cooperation with the State of Connecticut Department of Energy and Environmental Protection.

Tags: Historic Preservation, Education

### **Friends of Fort Trumbull**

Website:

https://www.fortfriends.org/

Mailing Address:

P.O. Box 12, New London, CT 06320

**Primary Contact:** 

Barbara Mingo, Membership Chair

**Phone:** (860) 739-6846

#### Email:

barbming@aol.com

**About:** The purpose of "The Friends of Fort Trumbull State Park, Incorporated," (i.e., "The Friends") is to work in cooperation with the State of Connecticut Department of Energy and Environmental Protection (DEEP) to support its mission of bringing to the visiting public the history of Fort Trumbull and local area. In addition to historical interpretation of the fort's role in local and national history, the areas of interest to The Friends include program development, archival management and volunteer coordination.

Tags: Historic Preservation, Education

### **Friends of Harkness State Park**

Website: https://www.friendsofharkness.org/

Mailing Address:

P.O. Box 10 Waterford, CT 06385

**Primary Contact:** 

John Steffian, President

**Phone:** (860) 437-1523

Email:

info@friendsofharkness.org

**About:** The Friends of Harkness Memorial State Park, Inc is an all-volunteer organization formed in 1992 to help preserve and restore Eolia, the former estate of Edward and Mary Harkness . The Harkness property was bequeathed to the people of the State of Connecticut in 1950. Half of the former estate became a State Park in 1952. The other half became Camp Harkness, a State facility dedicated to provision of recreational opportunities to all CT citizens with disabilities.

Tags: Conservation, Recreation

### **Friends of Pachaug State Forest**

Website:

https://www.friendsofpachaugforest.org/

**Mailing Address:** 

36 Tatro Road, Griswold, CT 06351

**Primary Contact:** 

Ryan Snide, President

#### Phone:

(860) 376.5259

Email:

**About:** Founded on February 14, 2018, members of our local community, stewards, and activists formalized a nonprofit organization to promote educational and recreational activities, conservation management, volunteerism, and community support for the Pachaug State Forest. This forest was bestowed upon the people of Connecticut for future generations to enjoy. We choose to educate, inform, and volunteer to preserve and protect this essential piece of history. The forest touches on six towns and is visited by 85,000 individuals annually.

Tags: Conservation, Recreation

friendsofpachaugforest@gmail.com

### **Friends of Seaside State Park**

Website: https://friendsofseaside.org/

Mailing Address:

P. O. Box 1061, Waterford, CT 06385

**Phone:** (203) 966-9663

Email:

Info@FriendsofSeaside.org

# Friends the Oswegatchie Hills

#### **Nature Preserve**

Website:

https://www.oswhills.org/

Mailing Address:

P.O. Box 163, Niantic, CT 06357

#### **Primary Contact:**

Kris Lambert, President

Email:

Info@OSWHills.org

About: The mission of the Friends of Seaside State Park is to protect, promote and enhance the Park's dynamic coastal habitat, and to preserve its architectural heritage. Friends of Seaside State Park looks forward to working with the State of CT to determine a future for the park that focuses on the core concepts contained within its mission statement. We believe it is important to protect this unique and dynamic coastal habitat while enhancing the park's new fundamental role as open space for our citizens. In addition to the beloved ospreys, whose nest is being carefully moved, the buildings at Seaside have historic architectural significance, and retain the legacy of their renowned architect, Cass Gilbert. They tell a unique story that deserves to be fully documented and remembered.

Tags: Historic Preservation, Education

**About:** The Oswegatchie Nature Preserve is free and open to the public to explore yearround. Starting in 2001 the Friends of the Oswegatchie Hills Nature Preserve (FOHNP) started efforts to preserve and protect this place of quiet beauty above the Niantic River. In 2007 the nature preserve was dedicated and now consists of 457 acres. The Oswegatchie Hills contain rugged woodlands, vibrant wetlands and spectacular rock formations that serve as essential habitats to flora and fauna while protecting the fragile Niantic River.

Tags: Conservation, Recreation

### Friends of the Shetucket River Valley

Website: http://shetucket.org/

Mailing Address:

P.O. Box 677, Baltic, CT 06330

Primary Contact:

Phyllis Alexander, Chair

**Phone:** (860) 437-1523

Email:

PAlexander@dime-bank.com

**About:** The Mission of FoSRV is to identify and protect open space in the Shetucket River Valley for the future enjoyment of the public and the preservation of key habitat for fish and wildlife. The vision of the organization is that the entire river valley corridor and its ecosystem remain permanently protected from damage and inappropriate alteration caused by development both within the target area and up/downstream from it.

Tags: Watershed, Conservation

# **Girl Scouts of Connecticut**

Website:

https://www.gsofct.org/

**Mailing Address:** 

340 Washington St, Hartford, CT 06106

Phone:

(800) 922-2770

Email:

CustomerCare@gsofct.org

**About:** Girl Scouts create the world they want to live in and strive to make it better every single day. They explore their strengths, take on new challenges, and can always be themselves, regardless of background or ability. Supported by adult volunteers and mentors right here in our community, as well as millions of alums around the globe, Girl Scouts lead the way as they discover who they are and how they can make the future a brighter place.

Tags: Youth, Recreation

Groton Open Space Association	About: GOSA is a member supported, all
Website: https://www.gosaonline.org/ Mailing Address: P.O. Box 9187, Groton, CT 06340	volunteer, 501©3 non-profit organization, incorporated in 1996, which endeavors to balance the continuing need for protection of land, water, wildlife, and passive outdoor recreation with the growing interest in development.
Primary Contact: Dan O'Connell, President	We invite you to visit the properties that GOSA has helped protect. All properties are free and open to the public.
Phone: (860) 536-9811 Email: gosamail@gmail.com	Some properties offer family friendly spaces, good for exploration and play by smaller children, while others offer challenging excursions in rugged and scenic terrain. We encourage you to enjoy the plants, animals, sounds, and diverse beauty of nature in our special corner of the world. <b>Tags:</b> Conservation, Recreation
GROW Windham Website: https://www.growwindham.org/ Mailing Address:	<b>About:</b> GROW Windham cultivates relationships and creates space for youth, community members, and food system partners to work together to build a more just community and local food system.
872 Main St., Willimantic, CT 06226 Primary Contact: Sally Milius, Director of Program Sustainability Phone:	<b>Tags:</b> Agriculture, Advocacy
872 Main St., Willimantic, CT 06226 <b>Primary Contact:</b> Sally Milius, Director of Program Sustainability <b>Phone:</b> (860) 423-4534	<b>Tags:</b> Agriculture, Advocacy

info@growwindham.org

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# Holleran Center for

## **Community Action**

#### Website:

https://www.conncoll.edu/academics/majorsdepartments-programs/majors-andminors/holleran-center/

#### Mailing Address:

Box 5211, 270 Mohegan Avenue, New London, CT 06320

#### **Primary Contact:**

Rebecca McCue, Director of Community Engagement

**Phone:** (860) 439-2458

Email:

hollerancc@conncoll.edu

# Joshua's Trust

#### Website:

https://joshuastrust.org/

#### Mailing Address:

P.O. Box 4, Mansfield Center, CT 06250

#### **Primary Contact:**

Bryan Avery, Land Protection Manager

Phone:

(860) 429-9023

Email:
**About:** World-changing social movements and social innovation often begin at the local level. Being a Conn student means getting close to the day-to-day aspirations, challenges and nuances of our community, the historic seaport city of New London. Community learning and civic engagement happens through the College's Holleran Center, which unites with more than 50 organizations in the greater New London area to address issues of activism, diversity and social justice.

Our mission is to cultivate responsible civic engagement and leadership for social justice through engaged scholarship and reciprocal community collaborations.

Tags: Education, Advocacy

**About:** Joshua's Tract Conservation and Historic Trust, Inc. is a nonprofit and largely volunteer regional conservation organization protecting more than 5,000 acres in Northeastern Connecticut. Some properties are owned by the Trust and others are protected by conservation easements, methods that assure that those lands will remain open space and protected from development, forever.

Joshua's Trust works in a region that includes parts of Windham, Tolland, and New London counties. We maintain 42 miles of walking trails for the public to appreciate and enjoy. In addition to the land we protect, we maintain two sites of historic significance: the Gurleyville Grist Mill and Atwood Farm, our headquarters, both located in Mansfield Center.

Tags: Land Trust, Conservation

# Long Island Sound Study

Website: https://longislandsoundstudy.net/

#### **Mailing Address:**

888 Washington Boulevard; suite 9-11, Stamford, CT 06904

#### **Primary Contact:**

Mark Tedesco, Director

Phone: (203) 977-1541

#### Email:

Tedesco.Mark@epa.gov

**About:** EPA, New York, and Connecticut formed the Long Island Sound Study (LISS) in 1985, a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to restoring and protecting the Sound. In 1994, the LISS developed a Comprehensive Conservation and Management Plan to protect and restore Long Island Sound. This plan was updated in 2015 with ambitious targets to drive further progress through 2035.

LISS's partners have made significant strides in implementing the plan, giving priority to reducing nutrient (nitrogen) loads, habitat restoration, public involvement and education, and water quality monitoring.

#### Tags: Education, Advocacy

## **New England Forestry Foundation**

#### Website:

https://newenglandforestry.org/

#### Mailing Address:

P.O. Box 1346, Littleton, MA 01460

#### **Primary Contact:**

Robert Perschel, Executive Director

#### Phone:

(978) 952-6856

## Email:

rperschel@newenglandforestry.org

**About:** Through the application of our core expertise in conserving forestland and advancing Exemplary Forestry, New England Forestry Foundation (NEFF) helps the people of New England to sustain their way of life, protect forest wildlife habitat and ecosystem services, and mitigate and adapt to climate change.

Tags: Land Trust, Conservation

## **New London Trees**

Website: <a href="https://newlondontrees.org/">https://newlondontrees.org/</a>

63 Huntington Street, New London, CT 06320

Primary Contact:

**Mailing Address:** 

Gregory Roth, Secretary

Email:

NewLondonTrees@gmail.com

**About:** The mission of New London Trees is to restore New London's tree population through community planting and care, education, and advocacy.

We partner with the New London Public Works Department, Connecticut College Arboretum, residents, organizations, and businesses to implement a program that will sustainably manage our urban forests.

Tags: Education, Advocacy

# **Niantic River Watershed**

Website:

https://www.nianticriverwatershed.org/

**Primary Contact:** 

Jamie Vaudrey, Watershed Coordinator

Email:

NianticRWC@gmail.com

**About:** The Niantic River Watershed Committee is a volunteer organization dedicated to improving water quality in the Niantic River and its tributaries. The Committee is comprised of volunteers from the four watershed towns of East Lyme, Montville, Salem and Waterford, and nearby communities. We include environmental professionals, municipal land-use board members, shellfish and harbor management commissioners, teachers and professors, and business professionals.

Tags: Watershed, Conservation

# **North Stonington**

# **Citizen's Land Alliance**

Website: https://nslandalliance.org/

Mailing Address:

P.O. Box 327, North Stonington, CT 06359

**Primary Contact:** 

Madeline Jeffrey, President

Phone: (860) 599-5517

Email:

landallianceinc@gmail.com

**About:** The North Stonington Citizens Land Alliance is a 501(c) (3) , charitable, non-profit environmental advocacy organization founded in 1987 by residents interested in protecting the natural resources and rural character of our town. We are an all volunteer group. The Board of Directors meets each 3rd Monday of the month at North Stonington Elementary School Media Center unless otherwise noted.

Tags: Land Trust, Conservation

# **Outside Perspectives**

Website:

http://outsideperspectives.org/

## Mailing Address:

P.O. Box 576, New Hartford, CT 06057

#### **Primary Contact:**

Nicola Wood, Executive Director

#### Phone:

(208) 304-5857

Email:

info@outsideperspectives.org

**About:** Outside Perspectives is a nonprofit organization that partners with youth development organizations, schools and teams to provide transformative expedition, rock climbing and team building experiences in the natural environment. Immersive wilderness experiences are powerful catalysts for positive change.

Tags: Youth, Recreation

# **Rivers Alliance of Connecticut**

Website: https://riversalliance.org/

## Mailing Address:

P.O. Box 1797, Litchfield, CT 06759

#### **Primary Contact:**

Alicea Charamut, Executive Director

**Phone:** (860) 361-9349

Email:

rivers@riversalliance.org

**About:** The mission of Rivers Alliance of Connecticut is to protect and restore our state's invaluable and imperiled waters.

Rivers Alliance was founded in 1992 by the state's leading river and watershed groups in recognition of their need for consistent, reliable collaboration, networking, and unity in public policy development and public education. Watch this video about our history and our work.

Rivers Alliance of Connecticut is a membershipbased 501(c)(3) nonprofit organization dedicated to protecting and enhancing Connecticut's rivers, streams, and watersheds.

Tags: Watershed, Advocacy

## **Salem Land Trust**

Website:

https://salemlandtrust.org/

**Mailing Address:** 

P.O. Box 2133, Salem, CT 06420

**Primary Contact:** 

Linda Schroeder, President

## Phone:

(860) 859-3520

## Email:

Lschroeder@snet.net

**About:** The Salem Land Trust is dedicated to conserving for future generations the area's beauty, rural character and natural diversity.

We are an all-volunteer organization working to protect the Town of Salem's remarkable natural resources found in its swamps, watercourses, meadows, woodlands and farmland.

The Salem Land Trust achieves it goals through acquiring land for public passive recreation, conservation easements on active farms and forestland, educational programs, nature walks, and land stewardship. We collaborate with town, state, and federal entities and other private conservation organizations.

Tags: Land Trust, Conservation

## Save the River Save the Hills

Website: https://www.savetheriversavethehills.org/

## Mailing Address:

P.O. Box 505, Waterford, CT 06385

#### **Primary Contact:**

Deborah Moshier-Dunn, Vice President

**Phone:** (860) 444-9247

Email:

vp@savetheriversavethehills.org

## Save the Sound

Website:

https://www.savethesound.org/

Mailing Address:

127 Church Street, New Haven, CT 06510

**Primary Contact:** 

Leah Lopez Schmalz, President

## Phone:

(203) 787-0646

Email:

info@savethesound.org

**About:** SAVE THE RIVER-SAVE THE HILLS, Inc. is a non-profit 501(c)(3) grassroots environmental organization based on the Niantic River Estuary in Connecticut. Our organization is dedicated to preserving the health of the Niantic River Estuary, its Watershed in the towns of East Lyme, Montville, Salem and Waterford, and the natural beauty of the Oswegatchie Hills.

Tags: Advocacy, Conservation

**About:** Save the Sound leads environmental action in your region. We fight climate change, save endangered lands, protect the Sound and its rivers, and work with nature to restore ecosystems.

What makes us unique among regional nonprofits is the breadth of our toolkit and results. We work in many ways, from legislative advocacy and legal action to engineering, environmental monitoring, and hands-on volunteer efforts. Together, we restore and protect all that impacts New York's and Connecticut's environment, from rivers and shorelines to wetlands and forests, from the air we breathe to the waters of the Sound itself. For 50 years we've been ensuring people and wildlife can enjoy the healthy, clean, and thriving environment they deserve—today and for generations to come.

Tags: Coast, Conservation

# **Southeastern Connecticut**

## **Community Land Trust**

Website: https://sectclt.org/

Mailing Address: 539 Beach Pond Road, Voluntown, CT 06384

## **Primary Contact:**

Mirna Martinez, Executive Director

**Phone:** (860) 772-4012

Email:

info@sectclt.org

# Sierra Club – CT Chapter

Website:

https://www.connecticut.sierraclub.org/

#### **Mailing Address:**

P.O. Box 270595, West Hartford, CT 06127

#### **Primary Contact:**

Jhoni Ada, Community Outreach Coordinator

#### Phone:

(860) 578-4750

## Email:

Connecticut.Chapter@SierraClub.org

**About:** The Southeastern Connecticut Community Land Trust (SE CT CLT) holds land for the development and stewardship of permanently affordable housing for low-income individuals and families, land for community gardens, green space, and facilities for community organizations. We advance fair housing choice through advocacy and education.

Tags: Land Trust, Advocacy

**About:** The Sierra Club is the nation's largest and oldest grassroots organization with approximately 3.8 million members and supporters, and 40,000 here in Connecticut. We fight for clean air, clean water, the preservation of the state's natural and wild spaces.

The Connecticut Chapter of the Sierra Club is a non-profit organization working to protect communities, wild places, and the planet itself.

Tags: Advocacy, Education

# New England Mountain Bike Association – Southeast CT Chapter

Website:

https://www.nemba.org/chapters/sectnemba

Mailing Address:

**Primary Contact:** 

P.O. Box 2221, Acton, MA 01720

Brett Severson, Chapter President

Email:

southeastct@nemba.org

**Stonington Land Trust** 

Website:

https://www.stoningtonlandtrust.org/

Mailing Address:

P.O. Box 812, Stonington, CT 06378

**Primary Contact:** 

Stanton Simm, Executive Director

Email:

info@stoningtonlandtrust.org

**About:** The New England Mountain Bike Association is a community of mountain bikers committed to creating epic riding experiences, preserving open space, and guiding the future of mountain biking in New England.

NEMBA has 34 chapters and more than 10,000 members throughout New England. Our mission is to promote responsible mountain biking and to protect and preserve New England trails and open spaces. Each year NEMBA volunteers lead over a thousand recreational rides, organize hundreds of trail care events, and host a dozen mountain bike festivals across New England.

Tags: Cycling, Recreation

**About:** The Stonington Land Trust (SLT) seeks to preserve open space in the town of Stonington, Connecticut. We are a non-profit, 501(c)(3) tax-exempt organization, which was incorporated in 2007. To date, we have preserved a combined 535.41-acres of land. The acres preserved are in many areas of town, including land in the watersheds of the Mystic River, Anguilla Brook and the Pawcatuck River.

Tags: Land Trust, Conservation

## **Thames River Basin Partnership**

Website: https://thamesriverbasinpartnership.org/

#### **Primary Contact:**

Jean Pillo, Coordinator

**Phone:** (860) 928-4948

Email:

jean.pillo@comcast.net

**About:** The Thames River Basin Partnership (TRBP) grew out of locally-led workshops held by the region's Soil and Water Conservation Districts. Priority areas of concern for the Partnership are to:

Protect the region's agricultural and natural areas being threatened by land use changes; Protect ground and surface water quantity and quality being threatened and degraded by contamination; Protect the region's biodiversity; and Improve the coastal zone resource conditions.

Tags: Watershed, Education

# The Goodwin-Niering Center

## for the Environment

## Website:

https://www.conncoll.edu/academics/majorsdepartments-programs/majors-andminors/goodwin-niering-center-for-theenvironment/

#### **Mailing Address:**

Box 5293, 270 Mohegan Avenue, New London, CT 06320

#### **Primary Contact:**

Derek Turner, Director

## Phone:

(860) 439-5417

#### Email:

goodwin-nieringcenter@conncoll.edu

About: The Goodwin-Niering Center for the Environment at Connecticut College brings together faculty fellows, staff, and students for joint investigation of environmental problems. Named in honor of Richard Goodwin and William Niering, the Center builds on strong environmental traditions at Connecticut College. In addition to their research in botany and ecology, Goodwin and Niering were deeply involved in land conservation. Mindful of this legacy, the Goodwin-Niering Center today maintains close connections with the Avalonia Land Conservancy, where our students do service learning projects.

Tags: Education, Conservation

# **The Last Green Valley**

ct@tnc.org

Website:

https://thelastgreenvalley.org/

## **Mailing Address:**

P.O. Box 29, Danielson, CT 06239

#### **Primary Contact:**

Lois Bruinooge, Executive Director

**Phone:** (860) 774-3300

Email:

mail@tlgv.org

# **The Nature Conservancy**

Website:

https://www.nature.org/en-us/aboutus/where-we-work/united-states/connecticut/

#### **Mailing Address:**

55 Church Street, New Haven, CT 06510

Phone:

(203) 568-6270

Email:

**About:** The Last Green Valley is two things - it's the 35-town National Heritage Corridor in eastern Connecticut and south-central Massachusetts, and it's also your membersupported, non-profit stewardship organization working for you in the National Heritage Corridor.

The Last Green Valley National Heritage Corridor is green by day and dark by night, a place with a rich history in a surprisingly rural landscape. With 84% forest and farm, the Corridor is the last swath of dark night sky in the coastal sprawl between Boston and Washington, D.C.

As caretakers, TLGV connects people with the abundant and diverse natural, historical and cultural resources within eastern Connecticut and south-central Massachusetts. We advocate to sustain our region's legacy for future generations.

Tags: Conservation, Advocacy

**About:** The Nature Conservancy began when leading scientists, committed citizens and dedicated leaders came together with a shared vision to protect and care for nature. Today, as we take on the most complex environmental challenges of our lives, our diverse staff, partners and members impact conservation across more than 70 countries and territories.

Tags: Conservation, Advocacy

# **Tri-Town Trail Association**

Website: <a href="https://www.tritowntrail.com/">https://www.tritowntrail.com/</a>

Mailing Address:

P.O. Box 482, Ledyard, CT 06339

Primary Contact:

Tom Olson, VP - Groton

Email:

tfolson@comcast.net

**About:** The Tri Town Trail Association is built on a decades-old vision to create a regional recreation trail in Southeastern Connecticut. Our mission is to advocate for a regional recreation trail through Preston, Ledyard, and Groton, and to coordinate the efforts of three towns and several civic and recreational organizations.

Tags: Trails, Recreation

# **Trout Unlimited**

# **Thames Valley Chapter**

Website:

https://www.thamesvalleytu.org/

## **Mailing Address:**

P.O. Box 2181, Columbia, CT 06237

**Primary Contact:** 

Gary Lussier, President

Phone:

(860) 861-9344

Email:

gelconn@yahoo.com

About: The Thames Valley Chapter of Trout Unlimited is part of a national conservation organization dedicated to conserving, protecting and restoring our cold-water fisheries. As a conservation organization, the Thames Valley Chapter is involved in restoration work on local rivers and streams, but also promotes educational activities, hosts fishing outings and works with local and state agencies, local and regional environmental organizations to plan, promote and implement conservation programs.

Tags: Wildlife, Conservation

Waterford La	nd Trust
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Website: <a href="https://waterfordlandtrust.org/">https://waterfordlandtrust.org/</a>

#### Mailing Address:

P.O. Box 926, Waterford, CT 06385

#### Primary Contact:

Dave Lersch, President

Email:

info@waterfordlandtrust.org

**About:** The Waterford Land Trust (WLT) was founded in 1974 by a group of Waterford citizens concerned with preserving natural areas throughout the community.

Over the years WLT has conserved and managed Waterford and Montville properties ranging in size from 1/4 acre to 65 acres.

Tags: Land Trust, Conservation

## **Willimantic River Alliance**

Website:

https://willimanticriver.org

**Mailing Address:** 

P.O. Box 9193, Bolton, CT 06043

**Primary Contact:** 

Meg Reich, President

Phone:

(860) 455-0532

Email:

info@willimanticriver.org

**About:** The watershed area of the Willimantic River is 144,322 acres and extends into Monson & Wales, Massachusetts. Tributary streams in the Willimantic River watershed include Middle River, Furnace Brook, Roaring Brook, Bone Mill Brook, Eagleville Brook, Cedar Swamp Brook, and Mill Brook, Skungamaug River, Hop River and Ten Mile River. The Willimantic River Alliance is a nonprofit organization created to protect and preserve the Willimantic River through cooperative and educational activities.

Tags: Watershed, Conservation

## Willimantic Whitewater Partnership

Website: https://www.willimanticwhitewater.org/

#### **Mailing Address:**

P.O. Box 406, Willimantic, CT, 06226

#### **Primary Contact:**

Jana Roberson, President

Email:

info@willimanticwhitewater.org

**About:** The Willimantic Whitewater Partnership is an all-volunteer, non-profit organization formed in 2002 by environmentalists, whitewater kayaking enthusiasts and dedicated community members with the mission to recapture the waterfront of the Willimantic River by developing an urban waterfront and whitewater park.

From the start, our vision for the park included creating a green space and recreation hub for the community that increases safe access to the river for residents and restores the river's migratory fish populations. Future plans include a resource for environmental research, serving as a welcome center for hikers and cyclists and a place to support Willimantic's growth of transcultural arts and economic enterprise.

Tags: Land Trust, Conservation

# Windham Community Food Network

Website:

https://www.windhamfood.org/

## **Mailing Address:**

872 Main Street, Willimantic, CT 06226

## **Primary Contact:**

Sydney Clements, Director

Email:

windhamfood@gmail.com

**About:** The WCFN was launched in 2015 through a broad surveying initiative of local food system partners as well as a "dialogue-toaction" process facilitated by Everyday Democracy, that engaged diverse community members and food system partners in a series of community dialogues and an "action forum".

We are an alliance of diverse community members, farmers, businesses, agencies, and partners who are working together to build relationships, share ideas, and develop projects to promote access to healthy food, generate economic opportunities, and promote diverse community participation in problem-solving for the Windham Region. The network focuses on the intersection of community voice and local food system resources. "

Tags: Watershed, Conservation

# Wood-Pawcatuck

## Watershed Association

Website: https://wpwa.org/

Mailing Address:

203 Arcadia Rd Hope Valley, RI 02832

**Primary Contact:** 

Christopher Fox, Executive Director

**Phone:** (401) 539-9017

Email:

info@wpwa.org

**About:** Since its inception in 1983 as a 501(c)(3) non-profit organization, the Wood-Pawcatuck Watershed Association (WPWA) has fostered a mission to preserve and protect the integrity of the lands and waters of the Wood-Pawcatuck Watershed for the benefit of our natural and human communities. WPWA is recognized as an outspoken voice working for those who use and enjoy the rivers. Many of WPWA's activities are directed toward educating and informing residents, visitors, and public officials about the watershed's pristine lands and water resources.

Tags: Watershed, Conservation

## **Yale Outdoor Education Center**

#### Website:

https://sportsandrecreation.yale.edu/outdooreducation-center-0

## **Mailing Address:**

P.O. Box 208216, New Haven, CT 06520

## **Primary Contact:**

Tom Migdalski, Director

#### Phone:

(203) 432-2492

## Email:

oec@yale.edu

About: Located on 1,500 wooded acres, the Yale Outdoor Education Center (OEC) is nestled on the south shore of a pristine mile-long lake. There are cabins and campsites to rent, plenty of spots to picnic, a new hiking trail, and a clean lake in which to rowboat, kayak, paddleboard, fish or swim. The OEC is located in East Lyme, Connecticut, just northwest of the quaint, seaside town of Niantic and only 42 miles from New Haven. The OEC is available to all members of the Yale community and East Lyme residents via membership, day-use fee or rental. Nine rustic lakeside cabins and eight secluded campsites are available for summer rental. Campsites include a grill and picnic table; cabins have a picnic table, grill, and small deck.

Tags: Recreation

# Appendix 3. SCCOG Open Space Plan Public Engagement Report

## SECTION 1: EXECUTIVE SUMMARY

Across the Southeastern Connecticut Council of Government (SCCOG) region, community open spaces are integral to quality of life, support public health, and sustain natural landscapes. Working together, the region's communities enjoy the benefits of the regional open space network that they have preserved and protected.

Beginning in 2021, SCCOG initiated a Regional Open Space Plan effort to map the regional open space network and identify the priority actions needed to sustain open spaces and the critical ecological systems on which our communities depend. The plan encompasses a wide definition of open space, including conservation land, working lands (farms and forests), passive recreation land (hiking areas and similar), active recreation land (ballfields and similar), trails (corridors for cycling, walking, and similar), cemeteries (functionally preserved undeveloped lands).

SCCOG employed a variety of public engagement methods to gather public opinion and input on the conservation and recreational needs of the region. Staff publicized and conducted a series of public workshops, released an online survey, engaged directly with stakeholder organizations, tabled at Niantic EarthFest, and held meetings with municipal staff. This Open Space Plan Engagement Report summarizes these processes and the resulting public sentiment around open space – both strengths and continued needs – in Southeastern Connecticut.

Overall, engagement results reflect a population that is knowledgeable about open space offerings, and desirous of additional open space protection and recreation opportunities. When asked to assign the importance of land preservation on a scale of 1 (minimal importance) to 10 (maximum importance), the response average of 9.2 suggests a widespread regional belief in the need for land preservation. While open space is highly valued, people also see the need to balance open space goals against other community proprieties for the use of undeveloped land, such as housing.

People in Southeastern CT have a diverse range of recreational interests. Walking and hiking activities, both on trails and roads or multi-use paths, have exceptionally high participation rates, indicating their widespread popularity. Cycling, birding, nature watching, and water-based activities also show strong appeal. Engagement participants also highlighted less-traditional activities that are growing in popularity, such as nature photography, and activities that hold deep significance for health and community empowerment, such as community gardening and citizen science data collection.

Open spaces and outdoor recreation are increasingly popular, spurred on by a notable shift in behavior and additional usage during the height of the COVID-19 pandemic, potentially influenced by factors such as lockdowns, social distancing measures, and a greater appreciation for outdoor activities as a means of coping with the collective health crisis. As the population grows in its experience of open spaces and in its overall level of engagement, people also have a broadened understanding of the barriers to additional open space and recreation access. When asked to identify them, the public cited hiking / backpacking, biking, and walking as the most popular activities that they would engage in more with increased opportunity and accessibility. These are activities with relatively low barriers to entry; they require relatively little equipment and training, and can be made part of a daily routine that engages with the outdoors and open spaces near to where people live. A robust trail system would contribute to the expansion of these activities. Participants most often want to see additional trail connections that link up open spaces, and trails that connect residential areas to schools. General trail comments focused on (1) trails as alternatives to cars; (2) trails as ecotourism and recreation corridor- and destination-based economic development; (3) trails as elements of open space and recreation access equity; and (4) trails for safe, non-vehicular circulation routes. Respondents want more trails in specific towns, and across municipalities. The completion of the Tri Town Trail was mentioned most frequently, along with the potential for spurs off the Air Line Trail, the Goodwin Trail, and trails along the coast.

There are four main areas of needed improvement to the open space and recreation network:

## - A desire for diverse recreational facilities and improved accessibility.

- Such as: more disc golf courses, pickle ball fields, ice skating rinks, and dog parks, among others
- Interest in water-related and passive/individual outdoor activities.
  - Such as: more areas to fish and swim, additional car top boat access, more multi-use trails for hiking and biking
- An emphasis on conservation and nature preservation.
  - Such as: limiting development in environmentally sensitive areas
- Concerns about safety and the need for better supportive infrastructure.
  - Such as: safe biking and walking conditions, better trail maintenance, more signage, better site parking, improved access for those with disabilities, better site information and resources like maps, and safer street crossings.

People value open space for many reasons. In our region, people place a significant emphasis on preserving high quality water resources, including waterbodies and waterways, coastal waters, and drinking water resources. Forests, urban parks, farmland, and historic and cultural areas are also all landscapes that receive significant support for preservation. Of all the associated societal benefits of open space land, the region values open space for its ability to play a role in combating climate change. Its ability to contribute to regional food security and the preservation of agricultural landscapes is also a deeply held value, along with the basic protection of land from development and the ability of open space to contribute to environmental equity.

In all, public input reflects a diverse range of perspectives on open spaces and recreational opportunities. While some emphasize the importance of land conservation and the creation of public trails, others express concerns about open space preservation at the expense of other significant community goals, such as affordable housing development. Several participants highlight the need for coordinated efforts among stakeholders, including local government, utilities, and conservation

committees. Suggestions also show how respondents view open space as connected and integral to other community goals, such as GHG reduction and multi-modal transportation options. There is also a call for responsible mixed-use development, emphasizing the economic and environmental value of open spaces. Overall, the responses reveal a balance between the desire to preserve natural spaces, where preservation overlaps with other community goals, and the recognition of the need for affordable housing and recreational amenities.

While the expressed vision and desires for the open space network that were expressed during public and stakeholder engagement sessions form the bedrock of this plan and its goals and objectives, SCCOG understands that public input and data can enrich one another. For example, about three quarters of survey respondents reported having access to a park, trail, or conservation area within a safe 10-minute walk of their home. This feedback suggests a positive perception of accessibility to outdoor recreational spaces among a significant portion of the population. However, questions remain about the distribution of these lands and survey respondents. Perhaps survey responses come from a segment of the population that does have more ready access to open space than others in the SCCOG region. In such grey areas, the plan seeks additional clarity by combining public input with geographic data and additional research, to deepen and cross-check our understanding and draw complete conclusions about the current state of regional open space and open space access, and to serve as the basis for plan goals, objectives, and action items.

# SECTION 2: COMMUNITY SURVEY RESULTS

## A. Survey Development and Deployment Process

SCCOG published an online survey a method for encouraging public participation in plan development beyond attendance at in-person meetings. Survey questions were meant to gauge the public's current level of satisfaction with conservation, open space, and recreation lands and facilities throughout the regional open space network, as well as to help chart a course for future improvements.

Any member of the public could take the 15-question online survey at their convenience. It was posted on the SCCOG's website from November 2022 to January 2024, and was advertised, alongside the public workshops, through a print media press release.

A total of 118 respondents engaged with the survey. The number of responses for each question may vary, as it was possible for participants to skip some individual questions if they had no specific feedback to provide.

## B. Summary of Survey Responses by Question

## Question 1: What is the age of the person completing this survey?

Type: Multiple choice

Purpose: Understand the age distribution of survey respondents.

**Big Picture Results:** Most respondents fall into the "Under 18" and "Above 65" age groups. Youth engagement with the survey was particularly high as a percentage of total respondents.



**Detailed Results:** About a quarter of respondents (24%) were "Under 18." Middle-aged respondents in the "35 to 44" and "45 to 54" categories made up a little over a quarter of respondents (27%). About a quarter of respondents were seniors "Above 65" (22%). The final quarter of responses came from young adults "18 to 24" (6%), new household creators in the "25 to 34" range (8%), and the pre-retirement age "55 to 64" cohort (13%).

## Question 2: In what municipality (town/city) do you live?

## Type: Open ended

Purpose: Understand the geographic distribution of survey respondents.

**Big Picture Results:** The survey on respondents' municipalities (towns/cities) of residence presents a varied distribution across different locations. East Lyme, Ledyard, and Groton are among the municipalities with higher respondent counts. While most respondents live within the SCCOG region, there was also participation from outside the region.



**Detailed Results:** About half of the survey responses came from residents of East Lyme or Ledyard. East Lyme had the highest representation with 31 respondents (26%), followed closely by Ledyard with 27 respondents (23%). Groton and Salem had similar participation, with 11 respondents (9%) and 10 respondents (9%), respectively. Other municipalities had varying respondent counts, ranging from 1 to 10 individuals: Stonington had 7 respondents, New London had 5, and North Stonington had 3. The Towns of Waterford, Bozrah, Franklin, Colchester, and Lebanon each had 2 respondents. The raw data

indicates that Montville, Quincy (MA), Durham, Hebron, Stratford, Old Lyme, Plainville, Waterbury, Deep River, Stamford, Haddam, East Hampton, and Westerly each had 1 respondent. Eighty nine percent of respondents live within the SCCOG region, while 11% of respondents live outside the SCCOG region.

## Question 3: To the best of your knowledge, is there a park, trail or conservation area within a safe 10minute walk of your home?

## Type: Yes / No / Not Sure

**Purpose:** To understand the accessibility of Southeastern Connecticut's parks, trails, and conservation areas.

**Big Picture Results:** About three quarters of survey respondents (73%), report having access to a park, trail, or conservation area within a safe 10-minute walk of their home. This feedback suggests knowledge of nearby open space amenities and a positive perception of accessibility to outdoor recreational spaces among a significant portion of the surveyed population.

**Detailed Results:** 118 responses were received, with 26 responses (22%) answering "No," 86 (73%) answering "Yes", and 6 responses (5%) answering "Not sure".





## Type: Yes / No

**Purpose:** To gauge the changes in behavior toward open space and recreational activities during the COVID-19 pandemic.

**Big Picture Results:** Over three quarters of respondents (83%) reported an increase in their use or enjoyment of open spaces and recreational opportunities during the COVID-19 pandemic. These responses suggest a notable shift in behavior, potentially influenced by factors such as lockdowns, social distancing measures, and a greater appreciation for outdoor activities as a means of coping with the pandemic.

**Detailed Results:** Twenty respondents (17%) indicated that they did not experience an increase in their use or enjoyment of open spaces during this period. Ninety-eight respondents (83%) reported an increase in their use or enjoyment of open spaces and recreational opportunities because of the Covid-19 pandemic.



## *Question 5: Which of the following activities do you do in Southeastern CT? Check all that apply.*

Type: Check boxes, ability to select multiple options

**Purpose:** To gather information about the recreational activities that individuals engage in within Southeastern Connecticut.

**Big Picture Results:** The results demonstrate a diverse range of recreational interests in Southeastern Connecticut. Walking and hiking activities, both on trails and roads or multi-use paths, have exceptionally high participation rates, indicating their widespread popularity. Cycling, birding and nature watching, and water-based activities also show strong appeal, reflecting the varied preferences of the community.

**Detailed Results:** The breakdown below demonstrates recreation activities by brackets of degree of participation.

## More than 75% Participation Rate:

Only one activity - "Walking / Hiking (Trail)" - falls within this category, at an impressive 81% participation rate.

## Between 50-75% Participation Rate:

About two thirds of respondents (68%) report engaging in "Walking (Road / Multi-Use Path)." Just over half of respondents (52%) report participating in "Biking / Cycling (Road / Multi-use Path)."

## Between 25-50% Participation Rate:

Activities falling within this range include "Canoeing / Kayaking" at 42%; "Birding / Nature-Watching" at 40%; "Swimming" at 35%; "Jogging (Road / Multi-Use Path)" and Jogging (Trails) at the similar rates of 33% and 31%, respectively; "Picnicking" at 29%; "Camping" at 28%; "Playgrounds" at 27%; and "Boating (Motorized)" at 25%. These activities demonstrate moderate but notable levels of engagement.

## Under 25% Participation Rate:

Activities with lower participation rates include "Fishing" at 24%; "Dog Parks" at 20%; "Mountain Biking (Trails)" at 17%; "Soccer" at 14%; "Basketball" at 14%; "Volleyball" at 11%; "Ice Skating/Ice Hockey" at 10%; "Baseball/Softball" at 9%; "Hunting" and "Tennis" both at 8%; "Rock Climbing," "Frisbee Golf," and "Football" all at 7%; "Lacrosse" at 6%; "Skateboarding," "Horseback Riding," and "ATV-ing" all at 4%; "Pickleball" and "Bocce" both at 3%; "Incline Skating" at 2%; and "Shuffleboard" at 1%. This category represents activities that, while engaging for a portion of the population, have a smaller but still significant following. The inclusion of many team sport activities in this category may reflect that while 24% of the survey respondents were under age 18, most respondents belonged to the combined "adult" categories of age cohort, when organized sports participation can fall off.



Question 6: Are there any other activities not listed above that you use open space for?

## Type: Open ended

**Purpose:** To understand if Southeastern Connecticut residents regularly engage in any other recreational activities not considered in Question 5 above.

**Big Picture Results:** Additional previously unaccounted for recreational activities did emerge from responses to this question. A total of 28 respondents listed 19 new activities that were not included in Question 5, or that represent locational clarifications, adjacent uses, or different uses for listed facilities. The most popular additional activity was outdoor / nature photography.

**Detailed Results:** Six respondents specifically noted their engagement in outdoor / nature photography. Two respondents expanded the hiking category to include backpacking and long-distance hiking more specifically. Respondents are engaging in badminton, marching band, dog walking (distinct from the specific use of dog parks) and yoga as additional land-based recreational activities that can occur on existing parks and recreation fields. Dirt biking was listed as similar but distinct from ATV-ing. Golf was not a listed activity, with one respondent indicating participation. The additional specific water-based activities of paddle boarding, rowing (crew) and walking on the beach were included. Respondents noted the winter sports of skiing and sledding. Hunting was expanded to also note related activities of target shooting and trapping. Essential quiet enjoyment and similar reading outdoors were listed. One respondent ties open space to exploring local history. Two respondents noted their participation in stewardship (trail maintenance) and citizen science (FrogWatch USA observation) related activities.

Recreational Activity	Number of Responses
Backpacking / long distance hiking	2
Badminton	1
Outdoor / nature photography	6
Dirt biking	1
Dog walking	2
Exploring local history	1
Stewardship / Citizen Science	2
Golf	1
Marching band on football fields	1
Paddle boarding	3
Rowing (crew)	2
Quiet Enjoyment	2
Reading	1
Skiing	1
Sledding	1
Target shooting	1
Trapping	1
Walk on beach	1
Yoga classes occasionally	1

## **Question 6 Representative Long Form Quotes**

I like areas where I can drive my car into, park and sit in my car and look at the water and or nature.

I perform stewardship activities (trail maintenance, bridge building, boundary walks, etc.) on a number of open spaces

*Photography- landscape, native plants, educational opportunities for grandchildren.* 

Question 7: Out of the activities above, are there any that you think you would do more often, or that you do not do but think you would start, if there were more opportunities available or they were more accessible in our region? Where or how do you think opportunities could be improved?

Type: Open ended

**Purpose:** To understand participants' preferences for recreational activities and assess the barriers preventing increased engagement in Southeastern Connecticut. The question seeks to identify interests, gauge potential for new opportunities, and gather feedback on how to enhance accessibility.

**Big Picture Results:** A total of 79 respondents answered this open-ended question. Because the survey question was asked in two separate parts, the first graph depicts the actual named activities that respondents would participate in if more opportunities were available, or if they were more accessible in our region. Note that some responses contained multiple activities, hence the reason that the number of responses in the graph, if totaled, would exceed 79. The top three activities that respondents would engage in more with increased opportunity and accessibility are hiking/backpacking, biking, and walking.

The second part of the survey question asks where or how do you think opportunities could be improved. This question is more difficult to quantify, as it is an opportunity for respondents to voice their opinion regarding improvements in our region. The four most prominent themes of this aspect of the survey question were facilities diversity & accessibility, water & outdoor activities, open spaces & conservation, and safety & infrastructure. These themes were chosen based on the prevalence of specific topics in the responses and the overarching patterns in participants' expressed preferences and concerns. The quantification provides a breakdown of the number of responses within each theme, highlighting the diversity of perspectives among survey participants. Note that some responses contained multiple themes, hence the reason that the number of responses in the table, if totaled, would exceed 79.

## **Detailed Results:**



Number Of Responses	Examples of Responses	Common Theme	Representative Quote	
	Recreational An	nenity Diversity &	Accessibility	
33	Disc golf, ATV-ing, horseback riding, dog park, backpacking, biking on paved trails, biking spaces separate from walking places, Frisbee Golf, Bocce, Pickle Ball, basketball, ice hockey, ice skating.	Desire for diverse recreational facilities and improved accessibility.	"A disc golf course would be incredible! There are only 2 free courses in the area. It is an incredible recreational sport that all ages could enjoy." "Stonington just added two pickleball courts however I do not think it will keep up with demand."	
	Water	& Outdoor Activit	ies	
25	Fishing, boating, kayaking, going to the beach, biking/cycling on multi-use paths, hiking, hiking and birding, trail and off-road biking, walking on trails, rock climbing, walking/biking around with bike lanes, swimming, Car Top Boat Accesses.	Interest in water-related and outdoor activities.	"Fishing, boating, kayaking, going to the beach, biking / cycling on multi- use paths." "Many of our watercourses have dams with no portages, or stretches of dozens of miles where you can canoe but there is no camping opportunities, limiting trips"	
23	Providing more open spaces, preserving space, hiking groups, yoga/wood walking classes, drive- through areas to enjoy nature, limiting development in environmentally sensitive areas, dams with no portages, more money for trail maintenance, preserving open space, community events in open spaces, open space preservation.	Emphasis on open spaces, conservation, and nature preservation.	"I think we all benefit from preserving space more regular hiking groups or yoga/wood walking classes I'd definitely go." "I would bike, walk, and run more often if there were areas that were more conducive to this (especially biking)" "It would be nice to have more community oriented events in open spaces similar to how Niantic has food trucks/vendors on their green" "I would do more trail and off road biking if these were more available trails that would connect me to business or recreational sites. (picnic areas, food stops)"	
Safety & Infrastructure Concerns				

	Safe biking and walking conditions, safe off-road biking paths, safe routes for longer walks and bicycle rides, better-maintained trails, safer roads, road	Concerns about safety, improved infrastructure, and accessibility.	"Absolutely would love to start riding my bike and walking more to the grocery store/post office/coffee but only if I felt safe and protected. Current bicycle lane paint lines on the pavement do not feel sufficient enough for me."
35	bike lanes, cleaner roads, less debris, less potholes, handicap accessible access, better parking, better signage, better publicized sites, more or easier access to trail maps, improved crosswalk lights, well-cared- for playgrounds, better infrastructure for biking.		"I would definitely do more hiking if the trails were better maintained." "My neighborhood has sidewalks but intersections are dangerous and prevent me from walking/jogging locally." "Some sites need better parking, some better signage and publicity"

## Question 8: How important is it to you to preserve these resources?

Type: Assign level of importance to each option

**Purpose:** Understand the types of places and resources that respondents think are most important to preserve.

**Big Picture Results:** Overall, the data reflects high importance placed on preserving rivers, streams, lakes, ponds, groundwater/aquifers, and forests. Urban parks, undeveloped land, coastlines, historic/cultural resources, and farmland also received notable consideration, with varying degrees of importance. Very few respondents found any of these categories of land and resources "unimportant" for preservation.

**Detailed Results:** An overwhelming 89.0% prioritize the conservation of rivers, streams, lakes, and ponds as very important, underscoring widespread recognition of the critical role played by freshwater ecosystems. Groundwater and aquifers also command substantial attention, with 83.1% expressing a strong commitment to their preservation. Forests emerge as a focal point, with 78.8% considering them very important. Urban parks garner high importance from 57.6% of respondents, while undeveloped land is deemed very important by 61.0%. Coastlines receive considerable attention, with 75.4% considering them very important. Historic and cultural resources are deemed very important by 50.8% and had the highest relative "neutral" responses among categories. Farmland has 50.8% of respondents deeming it very important, with 34.7% considering it important.



# Question 9: In general, on a scale of 1-10 with 10 being Most Important and 1 being Least Important, how important do you feel it is to preserve land?

## Type: Ranking

Purpose: To gauge respondents' perceptions and values regarding the importance of land preservation.

**Big Picture Results:** The overall distribution of responses underscores a strong consensus on the significance of land preservation, with a final average ranking of 9.2.

**Detailed Results:** The majority, comprising 56% of respondents, assigned the highest rating of 10. An additional 19% and 11% of respondents rated it as 9 and 8, respectively. Ratings of 6, 7, and 8 were given by 3%, 7%, and 11% of respondents, respectively. Only 4% of participants assigned a rating of 5 of below.



# Question 10: When you consider open space and recreation, how important are the following issues to your thinking?

Type: Assign level of importance to each option

**Purpose:** Understand the level of community concern over environmental issues that impact Southeastern CT's open spaces. Supporting text was provided to ensure respondents were starting from a similar baseline of context, as follows:

The next question asks you about specific issues related to open space and recreation planning. These issues are described below.

*Climate resilience*: The ability of a community and its facilities (such as roads, buildings, parks, water, food, & electrical supplies) to survive and thrive in the face of climate change. Examples: Protection of floodplains and forests can reduce neighborhood flooding and temper the effects of rising temperatures.

**Food security**: The accessibility to healthy, affordable food for all community members, and the capacity of a community's food supply to recover quickly in the face of disruptive local or outside events. Example: Preserving and enhancing local farming and farmland can enhance food security.

**Environmental equity**: The even distribution of environmental benefits (access to parks, clean air, playing fields) and environmental risks (exposure to pollution, toxic substances, unhealthy buildings) among a community's racial, ethnic, gender, and economic groups. Example: People who live within walking distance of parks are more likely to meet recommended levels of physical activity than those

who live beyond walking distance. Trails which extend into all neighborhoods support the physical health and wellbeing of all residents.

**Big Picture Results:** The majority of respondents attribute a "very important" status to each category, underlining a shared recognition of their paramount significance in the broader context of environmental stewardship. In combining the "positive regard" categories of "very important" and "important," climate resilience is the most important issue (90.7%), though food security is almost tied (89.9%). Protection from development comes next at 85.6%, followed by environmental equity (78%).

**Detailed Results:** At a rate of 61.9%, respondents emphasize the significance of climate resilience, attributing it "very important" status. Food security closely follows, with 58.5% considering it very important. Environmental equity elicits varied responses, with 51.7% expressing a strong commitment, while 16.9% remain neutral. The protection of open space from development resonates strongly, as 60.2% regard it as very important. The majority of respondents consistently prioritize all of these open space related issues, with subtle distinctions in emphasis.



# Question 11: How would you rank the following priorities for undeveloped land in our region? Drag & drop the categories so the most important is on top and the least important is on the bottom.

## Type: Ranking

Purpose: To determine, in general, what the priorities are for undeveloped land in Southeastern CT.

**Big Picture Results:** The overarching trend in respondents' priorities for undeveloped land in the region demonstrates a strong emphasis on "Land Conservation," with 57.6% ranking it as their 1st choice use. This trend indicates a collective desire to preserve natural spaces, reflecting a broad commitment to environmental conservation. "Agriculture" emerges as the second-highest priority, with 30.5% ranking it as their 2nd choice and 33.9% as their 3rd choice. The big picture reveals a community preference for maintaining the natural and agricultural character of the region, with additional opportunities for recreation.

**Detailed Results:** "Land Conservation" emerges as the unequivocal top choice, with 57.6% ranking it as their 1st choice, underscoring a prevalent desire to preserve natural spaces. "Agriculture" follows closely, garnering attention as the 2nd or 3rd choice for a significant portion of respondents (30.5% and 33.9%, respectively), indicating a pronounced interest in sustaining agricultural activities. The distribution of preferences for "Recreational Opportunities" and "Housing" appears relatively balanced, suggesting a community with diverse views on the balance between recreational spaces and residential development. Notably, "Economic Development" is a lower priority, with only 4.2% selecting it as their 1st choice and a substantial 50.0% ranking it as their 5th choice.



## Question 12: What types of trail connections do you think should be most prioritized?

## Type: Open ended

**Purpose:** To understand how residents of the region prioritize different types of trail connections. Supporting text was provided to ensure respondents were starting from a similar baseline of context, as follows:

Trails (unpaved, such as blue blaze hiking trails) and Multi-Use Paths (paved, such as the Hop River and Airline Trails) can make valuable connections within and between communities. What types of connections do you think should be most prioritized? Examples may include but are not limited to: Open Space, Schools, Commercial Areas, Civic Buildings, Downtowns, Between Towns, Water Bodies.

**Big Picture Results:** Respondents most often want to see additional trail connections that link up open spaces, presumably into larger off-road "greenways," or connected areas that extend the maximum range for activities like cycling and hiking. Respondents also favor trail connections between schools. General comments were focused around four main themes: (1) trails as alternatives to cars; (2) trails as Economic Development; (3) trails as elements of open space and recreation access equity; and (4) trails for safe, non-vehicular circulation routes.

**Detailed Results:** There were 90 responses to this question. Respondents approached this question with the types of example trail connections mentioned in the supportive text in mind. As this was an openended question, respondents could list multiple types of connections. While most residents focused on specific types of locations that they would like to see connected via trails (e.g. "schools"), others provided more general or thematic feedback. The chart below represents the tallies of various specifically named facilities. There is a lingering and open question with regard to the "residential areas" category. This category was the only one in the chart that was not also provided in the text lead-in, and as a result, responses may have been inadvertently biased against it in favor of other place types. Other place type with lower numbers of response entries include: riparian corridors, wetlands and floodplain, wildlife corridors, large forest blocks, pollinator pathways, coasts, shelters, community gardens, play areas, and picnic areas.



More generalized comments are listed below, according to major theme. Some have been edited slightly for length. Some have also been taken from responses to Question 13 below, when responses focused on more general themes, as opposed to the specific connections requested in Question 13.

## **1.** Trails as alternatives to cars:

- I would LOVE to have some bike paths to connect all areas so transportation was not so heavily reliant on cars.
- Between town center areas and areas that people live and work to allow for people access work and social opportunities without driving.
- Connections between residential and commercial areas. Reduce the need for driving cars to community resources.
- I think it is important to have better commuting for all.

## 2. Trails as Economic Development:

- Between towns would be great, so people can explore and spend money in different towns.
- There needs to be more scenic, walkable downtown mixed-use areas that connect to neighborhoods to increase economic vitality.

## 3. Trails as elements of open space and recreation access equity:

- Connect major centers of population to each other to give access to lots of people.
- Schools are most important to encourage younger students to bike and walk.

- Schools, open spaces, low-income housing.
- Handicap accessible prioritized.
- No fees.
- Picking up trash on the paths and recycling.
- Concerns about Groton Reservoir access and environmental impact.

## 4. Trails for safe, non-vehicular circulation routes:

- Connect up existing sidewalks and trails along major roads. Often there is a dangerous and annoying gap between sidewalk segments.
- Trails and multi-use paths should provide connections to all public destinations. They should be built like roads, with the intent to make all connections.
- We should be able to get to anything we need with multiuse trails throughout the state. Farmington canal is best example so far.
- Safe crossings would be great.
- More sidewalks.

## Question 13: Are there any specific connections you'd like to see made with a trail or multi-use path?

## Type: Open ended

**Purpose:** To gather feedback and preferences from individuals regarding the potential development of a trail or multi-use path in Southeastern Connecticut.

**Big Picture Results:** There were 70 responses to this survey question. Respondents emphasize completing existing trails like the Tri Town Trail (mentioned frequently), as well as connecting specific locations within towns and between towns, and forging connections between larger trail networks and easting parks and preserves. The detailed results section groups specific trail connection suggestions.

#### **Detailed Results:**

## **Community-Specific Connections**

- Multi-use trail connecting East Lyme schools.
- East-west trail across southern Groton.
- Groton Reservoir access for walking/hiking.
- Eastern Ledyard to Gales Ferry, perhaps utilizing some of the utility roads around the reservoir.
- Trail along the length of Route 1 through Stonington, connecting Mystic and Pawcatuck.
- Better connection from Fort Trumbull to the Downtown New London riverfront path.
#### **Muti-Town Trail Connections**

- Tri Town Trail completion. [Groton, Ledyard, Preston see description below.] Could include Groton Utilities controlled lands.
- Between Groton and New London.
- Connections of the Goodwin Trail [East Haddam, Lyme, Salem, East Lyme] with other regional trails. Possible use of a multi-purpose trail along the existing Route 11 corridor (finished and unfinished), and extending it to the south to Waterford. Multiple connections with adjacent existing preserves and trail systems would then be available.
- The Fitch/Groton Middle/Grasso campus connected with both downtown Mystic and downtown Groton.
- A connection between downtown Mystic and Stonington Borough.
- Mystic to Pawcatuck and N. Stonington to Pawcatuck, Borough, and Old Mystic/Mystic.
- A coastal trail for Southeastern Connecticut.
- Old Lyme to Stonington.
- Connections off the Air Line Trail [see description below SCCOG communities of Colchester, Lebanon, and Windham]
- Connection between the Air Line Trail and Goodwin Nature Preserve Trail.
- Use of the Trolley trail between Norwich, CT and Westerly, RI for a multitude trail. Opportunity to connect Ledyard and North Stonington, between White Hall Preserve to places like Tri Town Preserve and Wyassup Lake region.
- Trails from the Franklin Swamp WMA connecting to Ayers Gap, which could connect to the Sprague Land Preserve. [Franklin, Sprague], then crossing over the Shetucket River and connect to Talbot Wildlife Area in Scotland.

#### From the Tri Town Trail Association website:

The Tri Town Trail will be Southeastern Connecticut's first regional recreation trail. When complete, it will be a 14-mile recreational trail through a natural, scenic valley that connects Bluff Point State Park in Groton through Ledyard to Preston. The trail will connect 4,000 acres of state and local open space, have only three major road crossings, and impact fewer than ten private properties. It will start at sea level – climb 400' – and nearly return to sea level. Completing the Tri Town Trail will require partnerships or easements with private, corporate, open space, and utility landowners. The Tri Town Trail Association is progressing toward acquiring permission to develop the trail.

#### From CT Parks on the Air Line State Park Trail

Stretching fifty miles across eastern Connecticut from Thompson to Portland, this multi-use trail draws walkers, hikers, bikers, horseback riders, roller bladers, skaters, and more from across the region. Traversing through state parks and forests, town parks, wildlife preserves, and more, the trail includes a segment of the East Coast Greenway and connects to the Hop River Trail in Columbia and the Southern New England Trunkline Trail at the Massachusetts state line.

# *Question 14: Do you have anything else to tell us about your thoughts on open spaces and/or recreational opportunities?*

Type: Open ended

**Purpose:** To gather more insights and opinions about open spaces and recreational opportunities by inviting individuals to share any additional thoughts they may have on the subject.

**Big Picture Results:** The responses to the survey reflect a diverse range of perspectives on open spaces and recreational opportunities. While some emphasize the importance of land conservation and the creation of public trails, others express concerns about open space preservation at the expense of other significant community goals, such as affordable housing development. Several participants highlight the need for coordinated efforts among stakeholders, including local government, utilities, and conservation committees. Suggestions also show how respondents view open space as connected and integral to other community goals, such as GHG reduction and energy efficiency (solar panels on buildings), implementing public transportation options, and multi-modal transportation options. There is also a call for responsible mixed-use development, emphasizing the economic and environmental value of open spaces. The importance of maintaining and increasing forested areas for carbon storage to address climate change is underscored. Overall, the responses reveal a balance between the desire to preserve natural spaces, where preservation overlaps with other community goals, and the recognition of the need for affordable housing and recreational amenities.

**Detailed Results:** A total of 60 respondents answered this open-ended question. The following categories encompass themes of the survey responses, providing a comprehensive overview of the various perspectives and concerns expressed by participants regarding open spaces and recreational opportunities.

#### Land and Water Conservation Prioritization:

- Conservation of high-quality open space should be a priority.
- Emphasis on protecting wildlife and habitats.
- Promotion of specific watershed protection plans (ex: advocacy for Whitford Brook Watershed protection).

• Recognition of the economic value of open spaces for towns.

# Affordable Housing Needs:

- Cautions and concerns about using land conservation to block affordable housing.
- Balancing the needs of affordable housing and open space.
- Support for responsible mixed-use development.

#### Infrastructure and Sustainable Practices:

- Incorporating solar panels on large buildings and shade covers.
- Implementing public transport and phasing out cars.
- Recognition of the importance of forests in mitigating climate change.
- Maintenance of roads and responsibility of developers during construction.
- Concern for the impact of urbanization and pesticide use on biodiversity.

#### Community Engagement, Education, and Coordination:

- Encouraging municipalities to submit grant applications for open space acquisitions.
- Coordinated efforts among town conservation committees.
- Interest in coordinated regional planning efforts.
- Gaining public support for the preservation of open space.
- Calls for education campaigns on protecting open space.
- Advocacy for more accessible and well-communicated trail information.
- Importance of coordinating efforts among partners for conservation.

#### Accessible and Safe Recreational Facilities and Activities:

- Creation of more public trails and biking paths.
- Advocacy for more rail trails and trails along active rail lines.
- Desire for more recreational amenities like skateboarding parks and public pools.
- Recognition of the need for safe and fenced-in parks.
- Request for more disc golf courses.
- Advocacy for combined outdoor park/dining areas for a European atmosphere.
- Concerns about unsafe roads limiting outdoor activities for children.

Question 15: Would you like to be contacted about future Open Space Plan updates, meetings, or other project milestones? If so, please provide your email address below.

A total of 24 people left their email address to be contacted for future meetings and information related to the Open Space Plan.

# SECTION 3: PUBLIC WORKSHOP RESULTS

# A. Public Workshops Overview

During the plan's development, SCCOG held four live public workshops that provided an opportunity for public comment and group discussion. In three workshops that occurred in February 2023, participants received a presentation on the plan, its goals, and the planning process. A group mapping exercise then asked participants to specify locations as either positive examples of open space or as areas that could be improved in some way. A fourth, similar workshop was conducted at the Niantic Earthfest event on May 13<sup>th</sup>, 2023 where members of the public were able to receive information about and provide feedback on the planning effort as well as participate in the mapping exercise.

Workshop times and locations were chosen to maximize opportunity for participation from a representative sample of the community, particularly those from traditionally underserved communities. Notices for the meeting were posted on the SCCOG website and social media, through direct email to towns and the plan's contact list, and the posting of flyers across the region including but not limited to town halls, post offices, community centers, public libraries, fish and game club facilities, private businesses with community boards, and public parks and trailheads with informational kiosks. A press alert was sent to The Day, The Norwich Bulletin, The Windham Chronicle, ECSU Lantern, Mitchell College Magazine, and The College Voice.

Location	Date	Time
Public Library of New London	Saturday, February 11, 2023	10:00 - 11:00 AM
Zoom (virtual)	Monday, February 13, 2023	7:00 – 8:00 PM
Otis Library, Norwich	Wednesday, February 15, 2023	5:30-6:30 PM
Tabling at Niantic Earthfest	Saturday, May 13, 2023	11:00 AM - 4:00 PM

# The Schedule of Public Workshop Sessions

# **B. Public Input Results**

SCOOG captured and digitized the points raised in the public workshop group mapping exercises, and combined those with locationally-specific action items that were provided in the survey. A regional view of this public comment summary map is included below. Participants in the Open Space Plan provided input that both highlighted beloved community open space assets, and provided insight into where improvements are needed or where there are opportunities for additional open space and recreation

facilities. The map below shows the location of comments. See the municipal annexes in Section 10 of the main Open Space Plan document for an enumeration of each comment.



# SECTION 4: STAKEHOLDER ENGAGEMENT RESULTS

# A. Non-Profit Partners

To best understanding existing conservation and recreation work going on in the region as well as the barriers to this work and potential opportunities, SCCOG reached out to land trusts and other non-profits in the region to discuss their organization and open space objectives. The organizations that provided comment are summarized below by area of focus.

#### Land and Habitat Conservation

<u>Avalonia Land Trust</u> – "Mission: We preserve natural habitats in Southeastern Connecticut by acquiring and protecting lands and communicating the value of these irreplaceable resources."

<u>Colchester Land Trust</u> – "The purpose of the Colchester Land Trust is to protect the beauty and natural diversity of our area by preserving significant land and scenic areas for present and future generations. We are dedicated to maintaining Colchester's rural character and stand for clean air and water, wildlife habitat, outdoor recreation, and local agriculture."

<u>Groton Open Space Association</u> – "GOSA is a member supported, all volunteer, 501©3 non-profit organization, incorporated in 1996, which endeavors to balance the continuing need for protection of land, water, wildlife, and passive outdoor recreation with the growing interest in development."

<u>Connecticut Forest & Parks Association</u> – "The Connecticut Forest & Park Association (CFPA) connects people to Connecticut's forests, parks, and Blue-Blazed Hiking Trails, and ensures these special places are protected and well-managed for future generations."

<u>Connecticut Land Conservation Council</u> – "CLCC's mission is to elevate and strengthen land conservation in Connecticut."

<u>Joshua's Trust</u> – "Joshua's Tract Conservation and Historic Trust, Inc. is a nonprofit and largely volunteer regional conservation organization protecting more than 5,000 acres in Northeastern Connecticut. Some properties are owned by the Trust and others are protected by conservation easements, methods that assure that those lands will remain open space and protected from development, forever."

<u>The Last Green Valley</u> – "The Last Green Valley is green by day and dark by night. We are a National Heritage Corridor with a rich history in a surprisingly rural landscape. With 84% forest and farm, we are the last swath of dark night sky in the coastal sprawl between Boston and Washington DC."

<u>New London Trees</u> – "The mission of New London Trees is to restore New London's tree population through community planting and care, education, and advocacy."

# **Conversation Highlights**

The main themes discussed by land and habitat conservation-oriented organizations revolved around the activities and considerations of land trusts, government, and other similar entities.

- Planning and Prioritization: Conservation groups desire a consistent and shared definition of Open Space across different entities like the state, municipalities, and land trusts. Locally, Plans of Conservation and Development (POCDs) can be particularly helpful when they lay out planned greenways/green belt areas to pursue, and when they create criteria or priority land types for preservation prioritization.
- Wildlife Corridors: Conversations emphasized the importance of habitat and wildlife corridor conservation, including the importance of utility rights-of-way in serving as wildlife corridors. With climate change there is even more concentration on habitat connectivity and species flow across many kinds of species and landscapes, from aquatic to terrestrial to avian needs.
- Ecological/Environmental Qualities and Continuity: Groups value the preservation of particularly intact and productive natural landscapes, including core forests, riparian zones, and meadows. Preservation that ensures contiguity between open space tracts is also important for ecological continuity, placing particular value on filling in gaps and extending greenway networks from exiting protected lands.
- Proximity to Communities: Open Space should be connected to neighborhoods and school commuting routes, allowing for ready and safe access between activity centers and residences.
- Pricing and Funding: Land prices and availability of funding for acquiring and maintaining Open Space are perennial issues.
- Cultural and Archaeological Considerations: The inclusion of Native American and other archaeological points of interest into the planning process is important. Also, characteristic historical landscape features such as stone walls can be locally significant.

These themes collectively highlight a comprehensive approach to Open Space management, and support for integrating ecological, cultural, and community considerations in decision-making processes.

#### Watershed Protection

<u>Alewife Cove Conservancy</u> – "The Alewife Cove Conservancy (ACC) is a 501(c)(3) non-profit, communitybased organization that is dedicated to protecting and improving the health of Alewife Cove which is bordered by Waterford and New London, CT."

<u>Alliance for the Mystic River Watershed</u> – "Working Together to Keep Life in Connecticut's Mystic River Watershed Safe and Flourishing."

<u>Eightmile River Wild & Scenic Coordinating Committee</u> – "The purpose of the Eightmile River Wild & Scenic Coordinating Committee is to coordinate and champion implementation of the Watershed Management Plan."

<u>Niantic River Watershed Committee</u> – "The Niantic River Watershed Committee, a local grassroots organization, is working hard to protect and improve the Niantic River and its surrounding watershed."

Long Island Sound Study – "As a result, EPA, New York, and Connecticut formed the Long Island Sound Study (LISS) in 1985, a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to restoring and protecting the Sound. In 1994, the

LISS developed a Comprehensive Conservation and Management Plan to protect and restore Long Island Sound."

<u>Save the River Save the Hills</u> – "SAVE THE RIVER-SAVE THE HILLS, Inc. is a non-profit 501(c)(3) grassroots environmental organization based on the Niantic River Estuary in Connecticut. Our organization is dedicated to preserving the health of the Niantic River Estuary, its Watershed in the towns of East Lyme, Montville, Salem and Waterford, and the natural beauty of the Oswegatchie Hills."

<u>Save the Sound</u> – "The mission of Save the Sound is to protect and improve the land, air, and water of Connecticut and Long Island Sound. We use legal and scientific expertise and bring people together to achieve results that benefit our environment for current and future generations."

<u>Friends of the Shetucket River Valley</u> – "Because municipalities and other land preservation organizations may not be able to act swiftly enough to acquire property, the Friends of the Shetucket River Valley was created to assist them in their efforts, primarily through fundraising and public awareness/ education campaigns."

<u>Thames River Basin Partnership</u> – "The Partnership is a voluntary, cooperative effort to share resources and to develop a regional approach to resource protection."

#### **Conversation Highlights**

The main themes discussed by watershed protection-oriented organizations centered around the health benefits of connecting people to natural physical activity spaces, and in the importance of watershed-scale planning for preserving water quality.

- Watershed-based Planning: Watershed-based planning that includes both waterbodies and their upland areas, is required for a holistic approach to environmental planning and water quality management.
- Habitat and Invasive Species: Consideration of habitat preservation and the management of invasive species is important for maintaining balanced and healthy aquatic, riverine, and estuarine ecosystems.
- Health Benefits of Physical Activity: Water-based recreation has a role to play in achieving positive effects of physical activity, including better sleep, reduced anxiety, improved blood pressure, brain health, heart health, cancer prevention, maintenance of a healthy weight, bone strength, and enhanced balance.

The overall themes highlight the intersection between healthy waterbodies, resilient watershed uplands, and the physical and recreational value of watershed-based environmental planning and conservation at both local and broader levels.

# Food Access

<u>FRESH New London</u> – "FRESH New London is a small food justice non-profit located in New London, CT. Our mission is to build momentum for food system change through local agriculture, community, and

youth, in order to dismantle systemic oppression and ensure everyone has access to food with dignity. We grow food in the city, develop youth leaders, and connect with our community to build lasting and local change."

<u>GROW Windham</u> – "GROW Windham cultivates relationships and creates space for youth, community members, and food system partners to work together to build a stronger community and local food system."

<u>Windham Community Food Network</u> – "The Windham Community Food Network's mission is to "create opportunities for the community by building a healthy food network." The health of each one of us affects the health and well-being of our entire community. Today, citizens of Windham County have a unique opportunity to take action to improve food access and health in our community."

#### **Conversation Highlights**

The main themes discussed by food access-oriented organizations revolved around community gardening initiatives, addressing various aspects such as land use, environmental concerns, access to resources, and the intersectionality of these factors.

- Community Gardening Intersectionality: Community gardening involves various dimensions, including land use, environmental contamination, and access to resources. It intersects with broader issues related to health, food security, culturally relevant crops, and community empowerment.
- Expansion Challenges and Geographic Disparities: Despite having plots across urban areas, demand exceeds supply. Community garden locations are often chosen through ad-hoc connections with sponsors such as churches, non-profits, or the town. Available land is often at the fringes, creating access difficulties for those living closer to the city center. Conversely for other programs, expansion is limited by the dispersed nature of some urban communities, which limits access and garden engagement. Due to soil contamination issues from historic industrial pollutants, the use of raised gardening beds is exclusively adopted.
- Empowerment and Education: The community gardening program aims not only to grow food but also to empower youth, teaching them about influence, power, and control over their environment. The focus is on fostering a sense of community and personal agency.
- Food Redistribution and Waste Reduction: Organizations are working toward mapping food resources and increasing access for low-income consumers. These efforts involve redistributing food surplus, connecting those with excess food to those in need. Efforts include supporting SNAP match programs at farmers markets and organizing composting and recycling initiatives to reduce overall waste. Collaboration with various entities such as municipalities, schools, restaurants, farmers markets, and food pantries bolsters these efforts.
- Challenges in Outreach and Transportation: Outreach challenges include understaffing and a lack of dedicated resources for social media and marketing. Transportation barriers affect both accessing food systems and getting community members to participate in events or volunteer.

In summary, food access organizations are multifaceted, addressing environmental, social, and educational elements while navigating challenges like access, contamination, and outreach. The focus extends beyond growing food to empowering communities and fostering sustainable local food systems.

#### Bicycle and Pedestrian Infrastructure

<u>Bike Groton</u> – "Bike Groton is a volunteer nonprofit advocacy organization re-formed from Mystic Community Bikes in 2020. It supports improved conditions for bicyclists and pedestrians in Groton and southeast CT."

<u>Connecticut Bike & Pedestrian Advisory Board</u> – "The CT Bicycle and Pedestrian Advisory Board seeks to achieve full integration of walking, bicycling, and transit use into Connecticut's transportation system consistent with principles of public safety, convenience, connectivity, human health, context-sensitivity, equity, aesthetics, and a sustainable environment that make our communities vibrant places to live and enjoy."

<u>Tri Town Trail Association</u> – "Our mission: To advocate for a regional recreation trail through Preston, Ledyard, and Groton, and to coordinate the efforts of three towns and several civic and recreational organizations."

<u>Connecticut Greenways Council</u> – "Their (CGC Members) duties include advising and assisting in the coordination of state agencies, municipalities, regional planning organizations and private citizens in voluntarily planning and implementing a system of greenways; providing assistance to state agencies, municipalities, regional planning organizations and private citizens in the technical aspects of planning, designing and implementing greenways, including advice on securing state, federal and nongovernmental grants; advising DEEP on selection of CT Recreational Trails Program grants; and establishing criteria for designation of greenways."

#### **Conversation Highlights**

The main themes discussed by bicycle and pedestrian-oriented organizations include:

- Stakeholder Dynamics: Stakeholders express a perceived weak position relative to rail operators in developing Rail-with-Trail projects, highlighting a need for improved collaboration.
- Cooperative Trail Maintenance Agreements and Stewardship Plans: The Department of Energy and Environmental Protection (DEEP) is formalizing cooperative trail maintenance agreements, indicating efforts to streamline and formalize responsibilities among stakeholders. Local parks and recreation officials can also develop property stewardship plans, and work toward officially designated trails.
- Trail Funding: Greenway license plate funds are allocated for micro-grants. The Tri-Town Trail is seeking funding.
- Interest in State Green Infrastructure Plan: There is an expressed interest in a state green infrastructure plan, emphasizing the importance of integrating multi-use trails and active transport to improve resilience.

- Trails Census Team and Data Portal: The Trails Census Team is working on a more accessible data portal, indicating a commitment to improving data accessibility and management within trail projects.
- Concerns with Electronic Bikes: Concerns are raised about electronic bikes on trails, particularly Class III's operating at high speeds. There may be need for responsible operation and potential regulations, along with signage and education.

In summary, trails advocacy groups are working to address issues related to stakeholder dynamics, funding strategies, infrastructure planning, data management, safe usage, and the development of trail systems and stewardship plans for specific properties.

# Sustainability and Climate

<u>Connecticut Institute for Resilience and Climate Adaptation</u> – "The mission of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is to increase the resilience and sustainability of communities vulnerable to the growing impacts of climate change on the natural, built, and human environments."

<u>Sustainable CT</u> – "Sustainable CT is a voluntary certification program to recognize thriving and resilient Connecticut municipalities. An independently funded, grassroots, municipal effort, Sustainable CT provides a wide-ranging menu of best practices. Municipalities choose Sustainable CT actions, implement them, and earn points toward certification."

#### **Conversation Highlights**

The main themes discussed by climate resilience-oriented organizations centered around climate resilience initiatives, funding sources, and projects aimed at addressing environmental concerns and cobenefits.

- Major Institutions and Tools: Originally funded by the Department of Energy and Environmental Protection (DEEP), CIRCA (Connecticut Institute for Resilience and Climate Adaptation) is now supported by various sources, including federal and state funds, FEMA, HUD, and general state funding. It provides technical resources to towns for climate resilience. One such powerful tool is CIRCA's Climate Change Vulnerability Index, which maps and explains climate change impacts and vulnerabilities.
- Climate Adaptation and Hazard Mitigation: Organization goals often focus on finding programs and projects that improve resilience, with a focus on climate adaptation and hazard mitigation, especially in the areas of flooding and intense heat.
- Environmental Justice (EJ) Initiatives: DEEP is working on an Environmental Justice index following a model from California. A climate and equity grant program has been launched, supporting projects addressing flooding, extreme heat, and connecting residents to information and education.

Open Space Utilization: Open space is highlighted as one of the best tools for resilience, especially for reducing flood impacts, mitigating extreme heat, and allowing for natural community changes, such as marsh advancement.

In summary, efforts in climate resilience are currently directed toward developing funding mechanisms and municipal grants, the intersection of environmental justice with climate adaptation initiatives, and on practical projects, education, and strategic use of resources to enhance community resilience.

#### Umbrella Organizations

<u>Boy Scouts of America, CT Rivers Council, Leaders of the Revolution District</u> – "The Connecticut Rivers Council proudly serves over 8,000 boys and girls throughout Connecticut with the time-tested leadership training program of Scouting. The Connecticut Rivers Council will enthusiastically meet new challenges head-on and continue to offer quality programming and services to the communities we serve."

<u>Boy Scouts of America, CT Rivers Council, Southeastern District</u> - "The Connecticut Rivers Council proudly serves over 8,000 boys and girls throughout Connecticut with the time-tested leadership training program of Scouting. The Connecticut Rivers Council will enthusiastically meet new challenges head-on and continue to offer quality programming and services to the communities we serve."

<u>Connecticut Department of Energy & Environmental Protection</u> – "The Connecticut Department of Energy and Environmental Protection (DEEP) is charged with conserving, improving and protecting the natural resources and the environment of the state of Connecticut as well as making cheaper, cleaner and more reliable energy available for the people and businesses of the state. The agency is also committed to playing a positive role in rebuilding Connecticut's economy and creating jobs – and to fostering a sustainable and prosperous economic future for the state."

<u>Regional Planning Commission</u> – "The RPC meets quarterly and reviews and comments on pertinent plans developed by the COG as needed. The Commission aids in the preparation of the Regional Plan of Conservation and Development every ten years. In addition, the RPC provides members the opportunity to learn from their counterparts in neighboring municipalities and become aware of projects that are occurring throughout the region."

<u>Connecticut Resource Conservation & Development Area</u> – "CT RC&D helps people protect and develop their economic, natural, and social resources in ways that improve Connecticut and local economy, environment, and quality of life. Currently, CT RC&D members represent sponsoring organizations that includes regional governments, soil and water conservation districts, towns, other nonprofit groups and at-large citizens."

# **B.** Municipalities

For local government perspectives, SCCOG engaged with municipal staff, commission members, and elected officials from each of its municipalities to assist in the development of this plan. SCCOG provided two potential means of engagement: one-on-one meetings (selected by seven jurisdictions) or response to a written questionnaire (selected by 10 jurisdictions).

In either case, each municipal briefing covered: a review of open space plan goals and process, verification of open space parcel data, a review of public open space feedback specific to the municipality, review of the status of items included in municipal plans, discussion of local attitudes towards open space and use of open space, and municipal policy towards the preservation or expansion of open space. The summary below discusses generalized questions and trends in municipal response.

1. Is there a dedicated open space acquisition fund for the town? If so, is it regularly funded as a budget line item? Does the town accept fee-in-lieu payments into this fund? Municipalities are still fairly split on these open space acquisition mechanisms. Some do not have an open space acquisition fund and do not have an established regulation for accepting fee-in-lieu payments for the required provision of open space in development applications. In other communities, a fund exists, but consistency of funding through the annual municipal budget varies. Open space funds have more (over \$50,000) and less (under \$100) meaningful active balances. One community reported that funds can be used for open space, but also for the acquisition of land for other municipal purposes.

At least one community was considering innovative approaches for capitalizing the fund, such as having the town provide "match" when a fee-in-lieu open space payment is provided by a developer. In municipalities without a dedicated open space fund, specific facility upgrades are made via capital improvement line items. At least one town felt that the local subdivision regulation section governing the provision for fee-in-lieu of open space is vague and could be improved. Fee-in-lieu is often preferable to subdivision-based open space tracts, as the public purpose served by these regulations can often be better achieved in the aggregate by preserving land with more value to the community; subdivision-based open space is often fragmented and not actively managed.

#### 2. Does the town have a methodology for ranking or prioritizing parcels for conservation?

Municipalities are also fairly split on local prioritization mechanisms for open space conservation. Three municipalities indicate that they have no such criteria. Others have criteria or threshold metrics related to parcel size, wetland and slope characteristics, and connectivity with surrounding landscapes. Many towns prefer tracts that connect lands along designated corridors identified in the local POCD or other planning documents, lands that can function as wildlife corridors and habitat, and lands that protected river corridors waterbodies, and aquifers. Preferences tend toward large vacant parcels, and away from small parcels, unless they serve a specific community purpose. Some towns observed that there are already many preserved lands in their jurisdiction, leaving very few parcels of land for necessary and desired future development.

# 3. Does the town do any education or outreach with land owners to communicate the benefits of programs such as PA-490 or in having a conservation or agricultural easement places on their property?

Responses to this question were highly context dependent. Some municipalities do not do specific outreach, but provide information to residents on request. In all municipalities, Assessors are key

partners in tracking program uptake. One Assessor noted very high participation, with approximately 121 properties listed under Public Act 490 Farmland, and 109 Parcels listed under 490 Forest Land. At least one community takes a proactive outreach approach on the specific issue of PA-490, and has sent letters to specific landowners identifying ways they might consider to preserve their land. In other municipalities, the local land trust takes provides outreach to private property owners on these conservation options.

In very rural communities, some towns feel that owners of relevant properties are already aware of these programs, and put their energies into other policies that support agricultural uses, like enacting regulations that support agribusiness, adopting Right-to-Farm policies, and convening meetings with the agricultural community to discuss how the town can support these uses.

- 4. How does the municipality balance open space with other priority needs? In come cases, municipal officials noted that "conservation" themes can be used disingenuously as a cause to block housing and economic development. While all municipalities are sensitive to the need to provide for adequate open space and environmental regulation, there are also intense needs to diversify local tax bases with additional economic development, and to build more homes to address the housing crisis.
- 5. Is there any public recreational access along the transmission line corridors in town?

The strong trend in responses was toward noting no official access, and a limited desire of utility companies to discuss this option. It is more frequent that other trail routes might cross utility corridors; there seems to be more receptivity to this limited interaction between trails and utility corridors.

- 6. In many communities, SCCOG staff asked about the existence of public access to specific waterbodies. Without listing all responses here, the information that we received has informed local recommendations in the regional Open Space Plan (see plan Section 10), and would also serve as the basis for further recreational water access planning.
- 7. In many communities, SCCOG staff asked about local support for developing specific greenways or multi use paths along particular water courses or rights-of-way, such as the former Rt 11 Greenway alignment and the New England Central Railroad corridor, among others. Without listing all responses here, the information that we received has informed local recommendations in the regional Open Space Plan (see plan Section 10).
- 8. The 2019 SCCOG Bike/Ped Plan made the following recommendations, is there any update to provide on these? There are numerous success stories from throughout the region where recommendations in the 2019 Bike/Ped plan are being implemented, including, but not limited to:
  - The completion of sidewalks on Rope Ferry Rd (Rt 156) from Rt 1 to Jordan Village, and the installation of flashing cross walks and new lights at Rt 1/Clark Lane and Willets Ave/Rt 1 in Waterford.

- DEEP Rec trails grant funding for implementing pedestrian safety measures including sidewalks, crossings, lighting, and landscaping along Route 2A within the Poquetanuck Village historic district and connection to Milton Green Park and the future Tri-Town Trail northern terminus in Preston.
- Local requests to the state for additional crosswalks along Main Street and additional ADA access points along existing sidewalks on State Roads in Griswold / Jewett City.

The responses to this question also provided details on existing barriers to project completion, such as costs and instances where regional goals have come up against push back at other levels.

# SECTION 5: CONCLUSION

In summary, the Southeastern Connecticut Council of Governments (SCCOG) embarked on a comprehensive Regional Open Space Plan initiative from 2021-2024, with the goal of considering where regional efforts and perspective can assist in preserving and enhancing the regional open space network. As described in this Public Engagement Report, extensive engagement with member municipalities, stakeholders, and the public illuminated the region's appreciation for open spaces and the diverse recreational interests of its residents.

Recreational activities like walking, hiking, cycling, and water-based pursuits have seen increased popularity, heightened by the shift in behavior during the COVID-19 pandemic. The public identified key areas for improvement, including the desire for diverse recreational facilities, enhanced accessibility, water-related activities, conservation efforts, and improved safety infrastructure.

The engagement results underscore a widespread belief in the importance of land preservation. While acknowledging the value of open spaces, stakeholders also recognize the need to strike a balance with other priorities, and to tailor open space preservation priorities that accomplish specific community goals, which can and will vary depending on the exact landscape context under consideration. Plan input demonstrates the interconnectedness of open space with broader community goals such as environmental sustainability, achievable housing, community resilience, and multi-modal transportation options.

The expressed vision and desires from public engagement sessions form the foundation of the regional Open Space Plan alongside SCCOG research and data analysis, which combine to achieve a more comprehensive understanding of the current state of regional open space and open space access. We invite all those following the regional Open Space Plan process to continue this engagement as we partner to accomplish the plan's goals, objectives, and actionable items for the enhancement of Southeastern Connecticut's open space network in the years to come.

# Appendix 4. Windham FEMA FIRMs

As described on Map 17 in Plan Section 4E – Climate Change, FEMA flood risk maps are not digitized for the entire SCCOG region. New London County maps are digitized, but Windham County maps are not. We provide copies of the physical maps for the Town of Windham here as a supplement to the digitized FEMA flood risk information available and shown on Map 17.



Town of Windham FEMA Flood Insurance Rate Maps Index Page

#### Panel 0901190001D



#### Panel 0901190002D



# Panel 0901190003D



#### Panel 0901190004D



# Panel 0901190005D



# Panel 0901190006D



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