Department of
ENERGY & ENVIRONMENTAL PROTECTION

Comprehensive Open Space Acquisition Strategy

2016-2020 Green Plan

Section VI. Identifying High Priority Lands for Conservation

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VI. Identifying High Priority Lands for Conservation

Connecticut has a statutory responsibility of protecting 21 percent of the state's land area by year 2023. Cumulatively, the State and its land conservation partners hold an estimated total 501,330 acres as open space, or about 15 percent of Connecticut's land area. To advance the acquisition of high quality lands and waters for environmental conservation and public recreation, the Green Plan recommends a two-step process for identifying and prioritizing lands for open space:

1. Evaluate subject property relative to existing open space using geo-spatial map layers available at Connecticut Environmental Conditions Online and the pilot Public Use and Benefit Land Registry; and

2. Assess site-specific characteristics relative to environmental and recreational open space needs and goals using the Green Plan and state and regional decision support tools.

Lands of high conservation value include parcels containing, protecting, or enhancing environmental and recreational resources identified as priorities for conservation in this Green Plan. Municipalities, non-profit land conservation groups, and water companies interested in applying for a State open space grant should utilize the following sub-sections and refer to the 5-year Action Strategy of this plan to determine if lands they are interested in conserving have, or are capable of having, features that align with the state's open space priorities.

When evaluating a property relative to a specific open space goal or priority identified in this Green Plan, DEEP encourages its partners to seek and evaluate appropriate data sources in relation to their subject parcel. Depending on the priorities sought to be met, the data examples below are some resources that may be useful for evaluating the value of properties for open space protection.

1. Evaluate Existing Open Space using Geo-spatial Data

Like most natural resource conservation groups, DEEP analyzes the spatial relationship of natural features such as topography, habitat, wildlife, water resources, and man-made characteristics such as zoning and land use with the aid of geographic information systems (GIS). Equipped with such information, DEEP can more quickly understand the importance of a particular property for conservation and can proactively seek to protect parcels of significant value.

DEEP uses tools and maps that show the location of statewide public open space, such as the Public Open Space Mapping datalayer on Connecticut Environmental Conditions Online, to assess what extent a parcel(s) of land could help to connect existing open spaces and conserve environmental or recreational resources. These tools are also available to municipalities and the public for viewing or downloading at DEEP's GIS Data download webpage.

The Protected Open Space Mapping Project (POSM) was designed to identify and catalog all dedicated open space in Connecticut by researching records at town halls and completing a geodatabase encompassing all 169 municipalities. The open space parcels identified consist of state, federal, municipal, and privately-held open space holdings and includes land or an interest in land acquired to support natural resource-based passive outdoor recreation, forestry and fisheries activities, or other natural resource conservation activities.

Because they do not support natural ecosystems or passive outdoor recreation, parcels that were not mapped under this project include: administrative buildings; athletic fields; cemeteries; country clubs; golf courses; historic homes; housing authorities; landfills; libraries; marinas; museums; parking facilities; post offices; public safety departments; pump house stations; schools; tennis courts; town garages; town halls; and transfer stations. Following data

gathering, the information collected at town halls was quality checked prior to being released for public use.

At present, 143 or 85 percent of municipalities in the state have been researched under POSM. Unfortunately, the data collected by staff from town halls did not include conservation easements, was quickly outdated, and DEEP is left unaware of future lands that become acquired or protected for protection by its partners.

To help meet this challenge, DEEP established the Public Use and Benefit Land Registry (Land Registry)[34], a new pilot mapping system that will inventory and eventually show all existing protected open space in Connecticut. The POSM project was an important and substantial undertaking that set a foundation for the Land Registry's construction.

I. The Public Use and Benefit Land Registry

With the passage of Public Act 14-169, DEEP was authorized to develop a new component to the State's open space strategy, a GIS database and map viewer system that constitutes the State's Public Use and Benefit Land Registry (Land Registry). DEEP launched the Land Registry in early 2015 with a pilot map layer consisting of three State Parks: Hammonasset Beach, Bluff Point, and Haystack Mountain State Parks.

Modeled after similar initiatives such as the National Conservation Easement Database, the Land Registry's database will be capable of providing information for lands owned by DEEP, other state agencies, municipalities, land conservation organizations, and state-owned water supply lands. Developed in relation with other statewide geographic data, the Land

[34] (CGS) Sec. 23-8e

Registry gathers data to assist in planning for what areas DEEP would like to conserve in the future.

The Land Registry is a publicly-available tool for use in evaluating property relative to existing open spaces and to ensure that the public is informed of what lands have been protected and why those lands have been acquired. The mapping system allows users to query the Land Registry's map layer attribute tables to learn more about protected open space in the state, including purposes of open space, levels of legal protection, specific easements or easements tied to specified locations, acquisition funding sources, right-of-ways, land management plans, and more.

Following uniform standards and practices, documents related to DEEP's ownership of property within the state are recorded in the agency's unit of Land Acquisition and Management and are then scanned into the Land Registry's computer database. To help make this process more efficient and to improve this dataset for users, DEEP should consider requesting applicants to the State's open space grant program to submit digital versions of property surveys.

Depending on the scale at which users view the pilot data layer, varying levels of parcel information will appear. For example, from the largest visible scale open spaces will be shown as unbroken, large polygons, and become delineated into parcels as users zoom into the map (Figure 2).

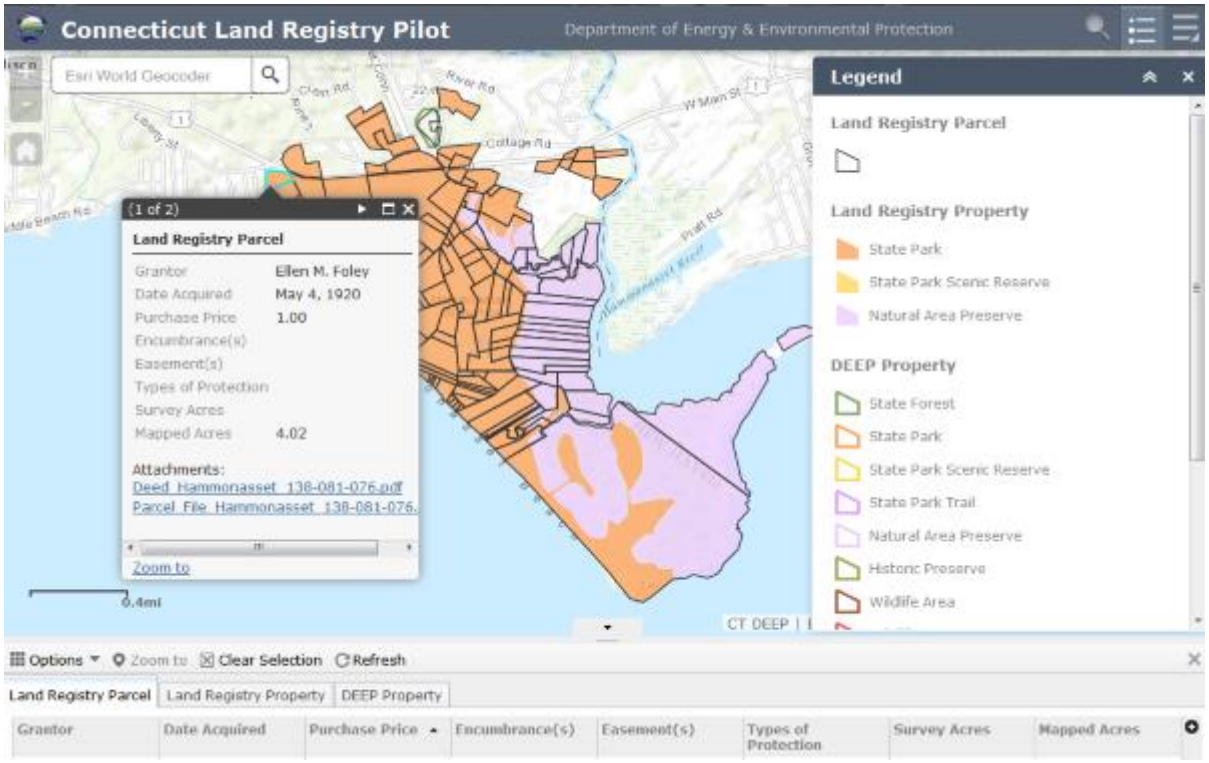

Figure 2. Hammonasset State Park as viewed in the Public Use and Benefit Land Registry pilot portal. The Land Registry allows users to browse state lands, determine property ownership, and research, view, and download copies of parcel information, including deeds, surveys, and management plans. Greater levels of detail are available as the map zoom level is increased.

As DEEP continues to populate the Land Registry, additional DEEP lands will be added. Facility by facility, the parcel data collected through the Protected Open Space Mapping Project will be added until the data layer is replaced by the Land Registry. The Land Registry will then be expanded to include lands protected under the State Open Space and Watershed Land Acquisition Grant Program and other lands held by DEEP's land conservation partners. Populating the Land Registry with open space data will be a great task and requires the cooperation of many parties.

For the Land Registry to be effective, DEEP will be relying on its partners to help keep statewide open space data up-to-date and accurate. To populate the geodatabase and increase the accuracy of the estimated area of statewide open space, DEEP will evaluate establishing a system that encourages the voluntary submittal of information regarding new acquisitions by its partners[35]. An example of such a system could include a standardized form that can be filled out by Towns and returned to DEEP for input into the Land Registry.

The completion of the Land Registry will have an immediate impact on protecting Connecticut's natural and cultural resources, defending the importance of DEEP's most highly valued properties, and providing a more comprehensive and transparent open space database for all users. The Land Registry will be a public-private partnership that brings together state agencies, municipalities, and private land conservation groups around a common goal to significantly increase the future amount of open space protected in Connecticut.

Ultimately, acquiring land for open space purposes cannot be accomplished using a rigid approach based strictly on an inventory of high-priority properties. Though multiple conservation priorities generally increase the value of a parcel of interest, parcels need not be contiguous with existing open space or lay within a priority acquisition focus area to be equally important for open space acquisition.

Such parcels may have value if they serve to connect protected areas in the future, or are found to have rare or endangered species or other landscape features that DEEP was unaware existed beforehand. While the Green Plan recommends DEEP and its partners seek to be more proactive in identifying and protecting parcels that may be of high conservation value, it also recognizes the need to remain flexible and acquire lands opportunistically.

[35] (CGS) Sec. 23-8b(2)

2. Apply State and Regional Decision Support Tools

The Green Plan refers to existing State plans[36] and other related research and spatial datasets for guidance in prioritizing land cover types and public use needs for open space conservation in Connecticut. These documents represent the conservation values of the Green Plan by having identified unmet or underserved open space needs and focus areas with a high likelihood to support certain environmental or recreational resources in Connecticut.

When State plans with relation to open space are used together with the spatial datalayers hosted on Connecticut Environmental Conditions Online, DEEP and its land conservation partners can strategize the protection of the state's most at-risk resources and unmet recreational needs. Generally, higher conservation value is placed on acquiring parcels that can meet multiple state conservation priorities, on parcels that are located within or close to population centers, and parcels capable of providing universal outdoor recreational opportunities in areas underserved by existing activities.

In addition to State planning documents, there is an abundance of recently developed regional conservation planning resources. Besides funding availability and other constraints, a major impediment to effective State land acquisition has been the lack of a single comprehensive evaluation of the most significant potential land acquisition opportunities based on specific open space needs and goals. Currently, a comprehensive tool to help state and regional decision makers identify and prioritize lands to acquire for protection does not exist.

In order to quickly identify potential statewide land acquisition opportunities that best address Connecticut's open space goals, a more focused analysis is needed than that which can be accomplished using available planning resources independently. For example, the Office of

[36] See Appendix E for a list of State plans used to identify priority lands of high value for conservation.

Long Island Sound Programs used a weighted-sum overlay based on several ecological criteria to identify acquisition focal areas in the development of the DEEP's Coastal and Estuarine Land Conservation Program Plan.

Through conducting a similar geo-spatial analysis, DEEP's unit of Land Acquisition and Management could produce the first statewide and regional maps of high-priority opportunities for land acquisition. Such maps could be used by DEEP and its partners to proactively target limited time and financial resources to the most important or at-risk lands for conservation or recreation.

Connecticut Key Lands for Conservation
Using a Multi-criteria System to Identify Coastal Areas for Conservation

DEEP's updated Coastal and Estuarine Land Conservation Program (CELCP) Plan was approved in early 2016 by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management, which allows the Department of Office of Long Island Sound Programs to administer a highly-selective grant program for which federal funding is allocated.

The CELCP Plan's purpose is to protect important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses, giving priority to lands which can be effectively managed and protected and that have significant ecological value.

In order to better identify potential coastal land acquisition opportunities that address Connecticut's CELCP Plan conservation goals, DEEP will implement two conservation planning sub-areas. The first, referred to as the "Project Area," is an area that contains Connecticut's priority coastal conservation values identified in the CELCP Plan, defined by areas not already developed or held as protected open space in 42 coastal and estuarine municipalities.

Using a geographic information systems (GIS) weighted-sum overlay, the CELCP Project Area was further distilled to 'focus areas' that identified unprotected coastal lands with features indicative of the CELCP Plan targeted coastal conservation values. Resulting ranking scores created "hotspots," or areas with significant levels of conservation value (Figure 3). This refining process aimed to target limited resources to high-priority land acquisition opportunities likely to successfully compete in the competitive national CELCP funding process.

DEEP's Office of Long Island Sound Programs launched the CELCP Plan Focus Area Viewer, an online map viewer, to aid in locating coastal land acquisition 'focus areas' most likely to contain priority coastal land conservation values (e.g., core coastal forests). Information provided by the Focus Area Viewer, other DEEP geo-spatial data, and local coastal area land conservation knowledge can be used by DEEP and its partners to identify potential coastal land acquisition priorities.

Figure 3.

DEEP's CELCP Plan 'focus area' map developed for the Town of Westbrook. Based on several ecological criteria, areas in red indicate priority land acquisition for conservation "hotspots."

More detailed views can be explored at the CELCP Plan Focus Area Viewer.