

Proposed Natural Resource Survey of Entergy Property Preliminary Draft Scope of Work

Background to the Project:

The Pilgrim Nuclear Plant in Plymouth MA will cease power production in May of 2019 after more than forty years of operation and begin decommissioning, a process expected to last for years. The plant's owner, Entergy Corporation, owns 1,675 contiguous acres of land, of which the plant itself occupies 134 acres. The remaining acreage, minus an expected buffer zone around the plant site, is expected to become available for development and/or preservation as open space, presenting the Town of Plymouth with an opportunity of historic significance. Creation of a master site development plan is already underway. However, effective development planning requires that the property be fully investigated and understood so that valuable environmental assets and special natural resources found to be present can be protected throughout the redevelopment process and preserved for successive generations of Plymouth residents.

Objective:

Conduct a natural resource survey to comprehensively describe the existing biological environment—natural features and environmental resources— that would be recommended for protection and/or preservation prior to development decisions being taken regarding the 1540-acre Entergy property (plant site excluded—see project location and land use map on page 3). A natural resource survey is a critical prerequisite for achieving the optimal balance of economic development and environmental protection on this large and strategically situated land parcel—it includes one of the highest points of coastal elevation between Maine and North Carolina.

Survey Concept:

A planning-level, natural resource survey of the property is to be undertaken, beginning with a review of existing biomaps and third-party data resources, followed by aerial remote sensing and complemented by on-the-ground, field survey work.

Deliverables:

Deliverables will include Interim and Final Reports and GIS-referenced maps of the property, delineating areas of ecological communities and special resource features, e.g., old growth forest, vernal ponds, rare and endangered species habitat, etc. The scope of work is not expected to include specific population counts of wildlife and vegetation, or counts of threatened and endangered species. The focus of this survey is to uncover the potential environmental impacts of piecemeal development, and not to identify features that support potential recreational uses of the land.

Anticipated Scope of Work:

1. Kick-off meeting to confirm scope of work and performance schedule, discuss seasonality of survey work and deliverables and review potential site information, history, and/or potential development concepts and locations.
2. File MESA Information Request to determine what state-listed rare species have been observed on or proximate to the project site, or may have potential/likely occurrence due to habitat, referencing mapped Priority/Estimated Habitat according to the 14th edition of the *Massachusetts Natural Heritage Atlas* (effective August 1, 2017).

Request records from the MA Historical Commission to enable a review of land use and fire history.

3. Conduct remote data assessment and mapping of community types using publicly available, third-party data. Review pertinent resource maps including, but not limited to, USGS Topographic Map, Town of Plymouth aerial imagery/orthophotos, NRCS Web Soil Survey Map, MassGIS Oliver, BioMap2, USFWS Critical Habitat mapper, etc. Compile and present Interim Report reflecting all available third-party data.
4. Conduct aerial remote data acquisition using color infrared, digital imagery (or other applicable, remote sensing technologies) to identify vegetation communities of special interest and fill in gaps inherent in third-party data sources. This task is seasonally dependent.
5. Prior to conducting field surveys, compile lists of potential sensitive resources as well as other biological considerations, such as invasive species, likely to occur within the vicinity of the study area due to habitat and other factors.
6. Conduct site reconnaissance to field-verify remote data and adjust community type boundaries for greater accuracy (GPS-locate key boundaries). Map natural communities, wetland resource areas (including potential vernal pools), hydrology, topography, soils, etc. Conduct limited wildlife observation to document typical wildlife use and use by common migratory species and identify presence of rare and protected species. Conduct limited plant observation to identify presence of rare and protected plant species as well as invasive plants. This task is also seasonally dependent.
7. Conducting a limited, daytime only assessment will miss nocturnal species such as bats, owls, bobcat, etc. This may necessitate placement of wildlife cameras along identified wildlife trails and sound recording devices near ponds/pools to evaluate frog calling, e.g., to investigate possibility of endangered/threatened species habitat on this property.
8. Summarize quantity and locations of habitat that would be potentially impacted by development; summarize quality and locations of special-status species that would be potentially impacted. Provide an evaluation of the habitats and natural communities in their regional context.
9. Prepare Natural Resource Inventory (NRI) Report that contains the findings from tasks 1-8 above with an expanded discussion of potential wildlife habitat utilization, focusing on federal and/or state-listed rare species, complementing direct wildlife observations. The Report may include a potential development impact analysis, while providing recommendations (mitigating measures) to protect and/or enhance important rare and general wildlife/plant habitat. Relevant maps will be created to document the approximate extent of protectable wetland resource areas, important wildlife/plant habitat, etc.
10. Meet with client team to review NRI Report.
11. (Optional) Participate in public presentations of the survey process and results.

Expected Cost Range:

The survey is expected to cost between \$50,000 and \$100,000 (not including task #11) subject to final scope of work put out to bid via RFP.

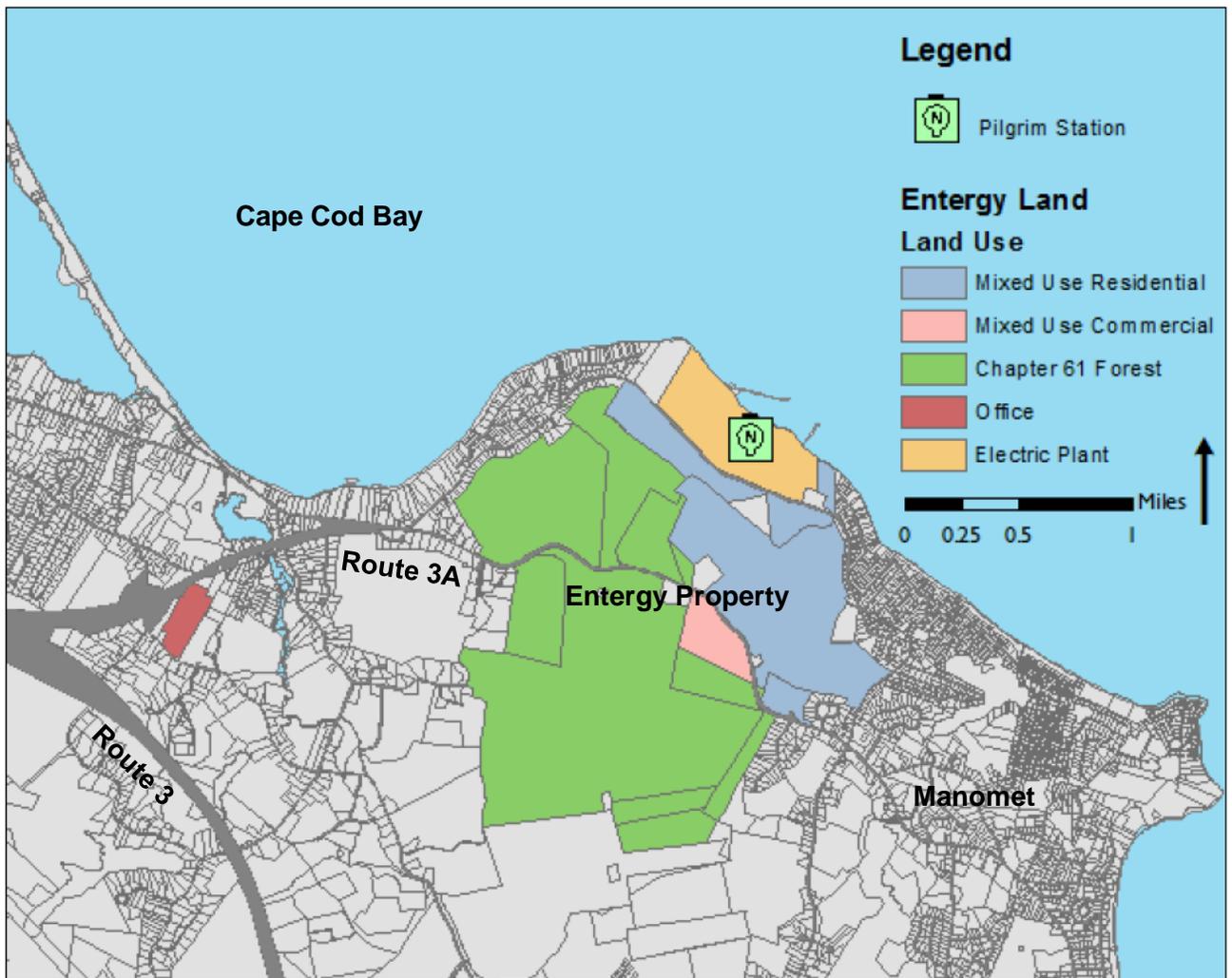
Anticipated Schedule:

It is expected that this survey project will be completed within 3-6 months of contract award.

Note: several of the listed tasks are seasonally dependent.

Project Location and Land Use Map

FIGURE 3. 3: ENTERGY-OWNED PROPERTIES IN PLYMOUTH WITH LAND USE DESIGNATION



Source: Plymouth Assessor's Database; MassGIS

From: The Pilgrim Nuclear Power Station Study: A Socioeconomic Analysis and Closure Transition Guide Book, Jonathan G. Cooper, University of Massachusetts Amherst (April 2015), p. 23. https://www.plymouth-ma.gov/sites/plymouthma/files/uploads/umassced_pilgrimstation.pdf