

Exhibit CS-BW-52

Docket 8302

Exhibit CS-DB-2

Arrowwood Environmental Assessment

**Environmental Assessment for:
2.0 MW Solar Photovoltaic Generation Facility
Chelsea Solar Farm Project
500 Apple Hill Road
Bennington, Vermont**

*Prepared by:
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Chelsea Solar Farm Project
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Bennington, Vermont**

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I. Summary Findings

Arrowwood Environmental, LLC (AE) conducted an environmental assessment for the proposed Chelsea Solar Farm Project (“Project”) during the winter and spring of 2014. AE concludes that the Project has been sited and designed to avoid adverse impacts to the following environmental resources: shorelines, outstanding resource waters, perennial streams, wetlands, necessary wildlife habitat, and rare, threatened and endangered animal species. AE will be completing assessments of rare and irreplaceable natural areas and rare, threatened, and endangered (RTE) plant species in the summer of 2014.

In summary, there are no shorelines, outstanding resource waters, wetlands, necessary wildlife habitat, or perennial streams in the Project Area. Thus, there will be no adverse impact on these resources.

AE is currently communicating with ANR regarding an isolated ephemeral drainage channel on the Site. It is likely that a site visit will be conducted to clarify the regulatory status of this feature.

There are no known records or occurrences of RTE plant species at the site. An RTE plant survey shall be conducted in the summer of 2014. At that time, AE will finalize the RINA assessment of the Mesic-Maple-Ash-Hickory-Oak forest within the southeastern Project Area.

II. Introduction and Project Description

Arrowwood Environmental, LLC (AE) was retained to perform an environmental assessment for the proposed Chelsea Solar Farm Project, a 2 MW solar electric generation facility located at 500 Apple Hill Road in Bennington, Vermont.

The Chelsea Solar Farm Project is a 2 MW solar electric generation system. The Project will use 72 cell 305-watt solar modules. The modules will be attached to a fixed mounting system composed of steel and aluminum support pieces. The mounting structure will be arranged in east to west rows with panels placed two high in landscape on each row. The panels will be tilted at 30 degrees and will face solar south (195 degrees magnetic).

This report outlines AE's findings related to environmental criteria incorporated by the Public Service Board into the review of solar projects, including: streams, outstanding resource waters, shorelines, wetlands, rare and irreplaceable natural areas, necessary wildlife habitat, and rare, threatened and endangered plant and animal species.

The environmental assessment involved both a remote review of available digital databases as well as field investigations in the Project Area and vicinity. The field assessments of the Project Area were conducted in January and June 2014.

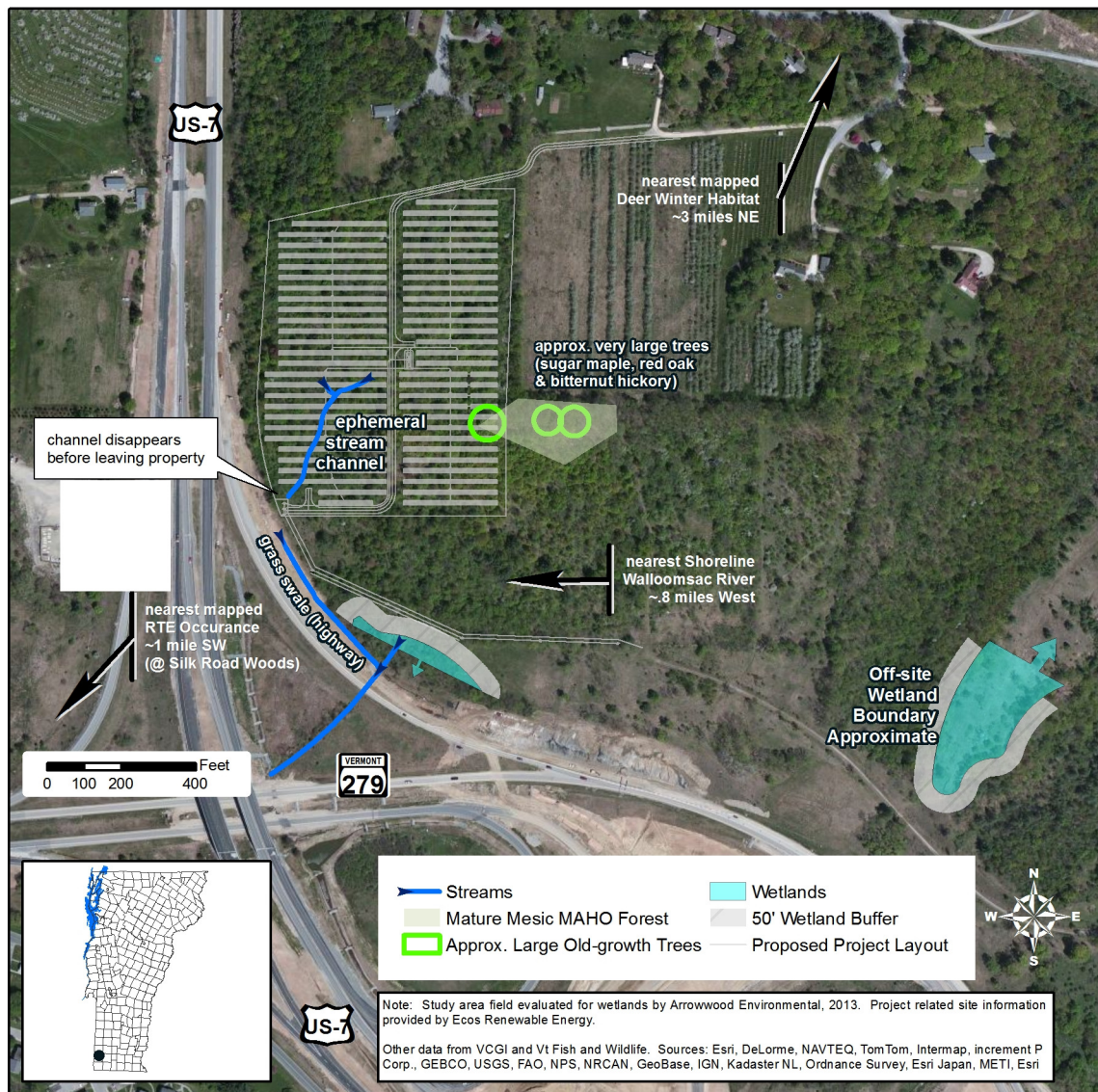


Figure 1: Resource Assessment Area Map

III. Site Characterization

The Project area is located in the town of Bennington, Vermont off of Apple Hill Road. Ecologically the Site is within the Vermont Valley biophysical region of the state (Thompson and Sorenson, 2000). The Site is located at approximately 700' in elevation and slopes generally southwestward toward the Rte 7 and Rte 279 interchange. The bedrock geology of the Site is mapped as the Dunham Dolostone formation with dolostone rock types (Bedrock Geologic Map, 2011). The soils are primarily mapped as Georgia (8-15%) and Stockbridge (8-15%) soil series (8-15% slopes) (NRCS Bennington County Soil Survey), which are loams. The Site is primarily

forested and generally characterized by a young overstory of pignut hickory, red oak, red maple, and staghorn sumac. There is a dense understory of honeysuckle and buckthorn throughout much of the Site. AE preliminarily identified an area of Mesic-Maple-Ash-Hickory-Oak forest within the southeastern Project Area which is relatively free of the dense understory of invasive species. Within this forest community, large old growth trees were identified.

IV. Criterion 1(F) Shorelines

AE reviewed USGS topographic maps, the Vermont Hydrography Dataset (streams, rivers, and waterbodies), and digital orthophotography. The Site of the proposed Project is not located near a shoreline of a river, pond or lake. The closest shoreline is that of the Walloomsac River, approximately 0.8 miles to the west of the Project Area. The proposed Project will result in no adverse impact to shorelines.

V. Criterion 1(E) Streams and Outstanding Resource Waters

The stream assessment involved both a remote review of the USGS topographic map and Vermont Hydrography Dataset (streams, rivers, and waterbodies) and a field investigation on May 30, 2014. There are no perennial streams in the Project Area. The closest mapped stream is an unnamed tributary to the Walloomsac River, located approximately 1600' to the west of the Project Area. The Project will result in no clearing on the banks of this stream. For these reasons, there will be no adverse impacts on perennial streams.

There is an isolated ephemeral drainage channel within the Site. AE is in the process of working with ANR to clarify the regulatory status of this feature. It is anticipated that a site visit will be conducted with ANR to review the feature.

The Water Resources Panel has listed four waterways as Outstanding Resource Waters: Batten Kill River in towns of East Dorset and Arlington; Pike's Falls/Ball Mountain in the town of Jamaica; Poultney River in the towns of Poultney and Fair Haven; and Great Falls, Ompompanoosuc in the town of Thetford. There are no Outstanding Resources in the Project Area.

VI. Criterion 1(G) Wetlands

The wetland assessment involved both a remote review of available maps (including Vermont Significant Wetland Inventory Maps (VSWI 2010) and the NRCS Soil Survey) and a field inventory component conducted on May 30, 2014. Remote review of the VSWI maps for the area indicates that there are no mapped Class II wetlands within the Project Area. The closest mapped Class II wetland is approximately 1500' to the east of the Project Area. AE identified and mapped a wetland to the south of the Site. The Project as proposed will have no impact on the identified wetlands resources or associated 50' buffer zones. For these reasons, there will be no adverse impacts on wetlands.

VII. Criterion 8 Rare or Irreplaceable Natural Areas

The Rare or Irreplaceable Natural Areas (RINA) assessment involved both a remote review of available digital maps for the Project area and a field review. AE reviewed digital orthophotography, the Bennington County Soil Survey, the 2011 Bedrock Geologic Map of Vermont and the Wildlife Nongame and Natural Project (NNHP) Rare, Threatened and Endangered Species digital database.

AE preliminarily identified an area of Mesic-Maple-Ash-Hickory-Oak forest within the southeastern Project Area. It is likely that the entire site was this natural community prior to logging activities and colonization by invasive species of buckthorn and honeysuckle. Given its size and condition, it is our preliminary opinion that this forest would not qualify as a significant natural community or a Rare and Irreplaceable Natural Area. AE will finalize the RINA assessment concurrently with the RTE plant survey in the summer of 2014.

VIII. Criterion 8(A) Wildlife Habitat and Rare, Threatened and Endangered Species

The wildlife habitat assessment involved both a remote review of available digital maps for the Project area and a field inventory component. A remote review of available digital databases was conducted to identify and map necessary wildlife habitat within the Project Area and within the vicinity of the Project Area.

A Site visit was conducted on May 30, 2014 to assess wildlife, wildlife habitats, and rare, threatened, and endangered animal species.

A. Necessary Wildlife Habitats

1. White-Tailed Deer Wintering Habitats

There are no mapped VT Fish and Wildlife Department white-tailed deer (*Odocoileus virginianus*) winter habitats in the area. The closest State mapped deer wintering area is approximately 3 miles to the northeast of the Project site. Field investigation confirmed that there are no deer wintering habitats in the Project Area.

2. Black Bear Habitat

The forest comprising the Project area does not provide habitat for the black bear (*Ursus americanus*) and no sign of black bear was found at the Project site. The nearest “productive” black bear habitat mapped by the Vermont Fish and Wildlife Department is approximately 9,500’ to the east of the Project and separated from the Site by well-traveled paved roads.

B. Rare, Threatened and Endangered Species

The RTE species review involved a remote review of available digital maps for the Project area. AE reviewed digital orthophotography, the Bennington County Soil Survey, the 2011 Bedrock Geologic Map of Vermont and the Wildlife Nongame and Natural Project (NNHP) Rare, Threatened and Endangered Species digital database.

In reviewing the NNHP digital database, there are no records or occurrences on the Project site. The closest mapped RTE occurrence is approximately 1 mile to the south west of the Project Site. Mr. Scott Darling from the Vermont Fish and Wildlife Department has indicated that the Project is not located within the range of the Indiana Bat. An RTE plant survey shall be conducted in the summer of 2014.

IX. References

Argentine, Cindy Corlett. Vermont Act 250 Handbook. Putney Press. 2008.

Natural Resources Board. Vermont Wetland Rules. Effective August 1, 2010.

Natural Resources Conservation Service. Soil Survey Maps. Bennington County

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US Army Corps of Engineers. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, October 2009