Exhibit CS-DB-3

RTE Species Mitigation Report

Rare, Threatened and Endangered Plant Mitigation Report: 2.0 MW Solar Photovoltaic Generation Facility Chelsea Solar Project Bennington, Vermont

Prepared by:
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Mitigation Report:
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Chelsea Solar Project
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Introduction

As part of the environmental assessment for the proposed Chelsea Solar Project, Arrowwood Environmental (AE) assessed the proposed impacts on rare, threatened and endangered (RTE) plant species. An RTE plant inventory of the Project site was conducted on August 14th, 2014 and subsequently updated on October 11-12, 2017. In 2014, a population of arrow-leaved American aster (*Symphyotrichum urophyllum*) was discovered in the Project area. This plant is not listed as Threatened or Endangered in Vermont, but it is ranked as S1-very rare. During the 2014 inventory, six locations within the proposed Project area were identified. During the 2017 inventory, an additional 11 locations were discovered. A mitigation plan was developed, a conservation area identified, transplant plots identified, and transplantation of plants undertaken. The first part of this report discusses the overall mitigation strategy, and maintenance and monitoring of the transplantation plots and the conservation area. The second part of this report discusses the pre-construction transplantation measures that have been undertaken and that will be undertaken to mitigate Project impacts to the arrow-leaved American aster.

1. Mitigation Strategy

AE worked with Vermont Agency of Natural Resources (ANR) and Chelsea Solar to develop a mitigation strategy that would minimize impacts from the proposed Project to the arrow-leaved American aster on the site. At all stages of the development of the mitigation strategy, Mr. Bob Popp from ANR was consulted. A record of this email consultation is attached. This strategy involved the establishment of a Conservation Area (CA) in the southwestern corner of the property. The layout of this CA in relation to the proposed Project is shown in Figure 1 below.

During the 2014 RTE plant survey, six locations containing arrow-leaved American aster were mapped within the area of proposed Project development. Since these plants would be impacted by the development, they were transplanted into the CA in 2014. The 2017 plant species

inventory documented an additional 11 locations of this species. Transplantation of these individuals into plots within the CA will occur during the fall of 2017.

1a. Establishment of Conservation Area

The goal of the Conservation Area (CA) is to provide appropriate habitat for the survival and reproduction of the arrow-leaved American aster. In order to achieve this, a number of modifications to the CA will be required.

1. Remove the few trees located in the CA. These trees should be felled to the outside of the CA and skidded out. Stumps should be cut flush to ground level.
2. Cut shrub vegetation at ground level and remove from the CA by hand.
3. Flag CA boundaries this vegetation management work is complete and prior to commencement of site construction work on the Chelsea Solar Project development.
4. Install a temporary perimeter fence such as an orange snow fence around the border of the CA. The purpose of the fence is to ensure that no heavy equipment enters the CA.
5. Conduct no earth work with in the CA. Avoid any activity that would create soil disturbance.
6. Remove perimeter fence when construction is complete.

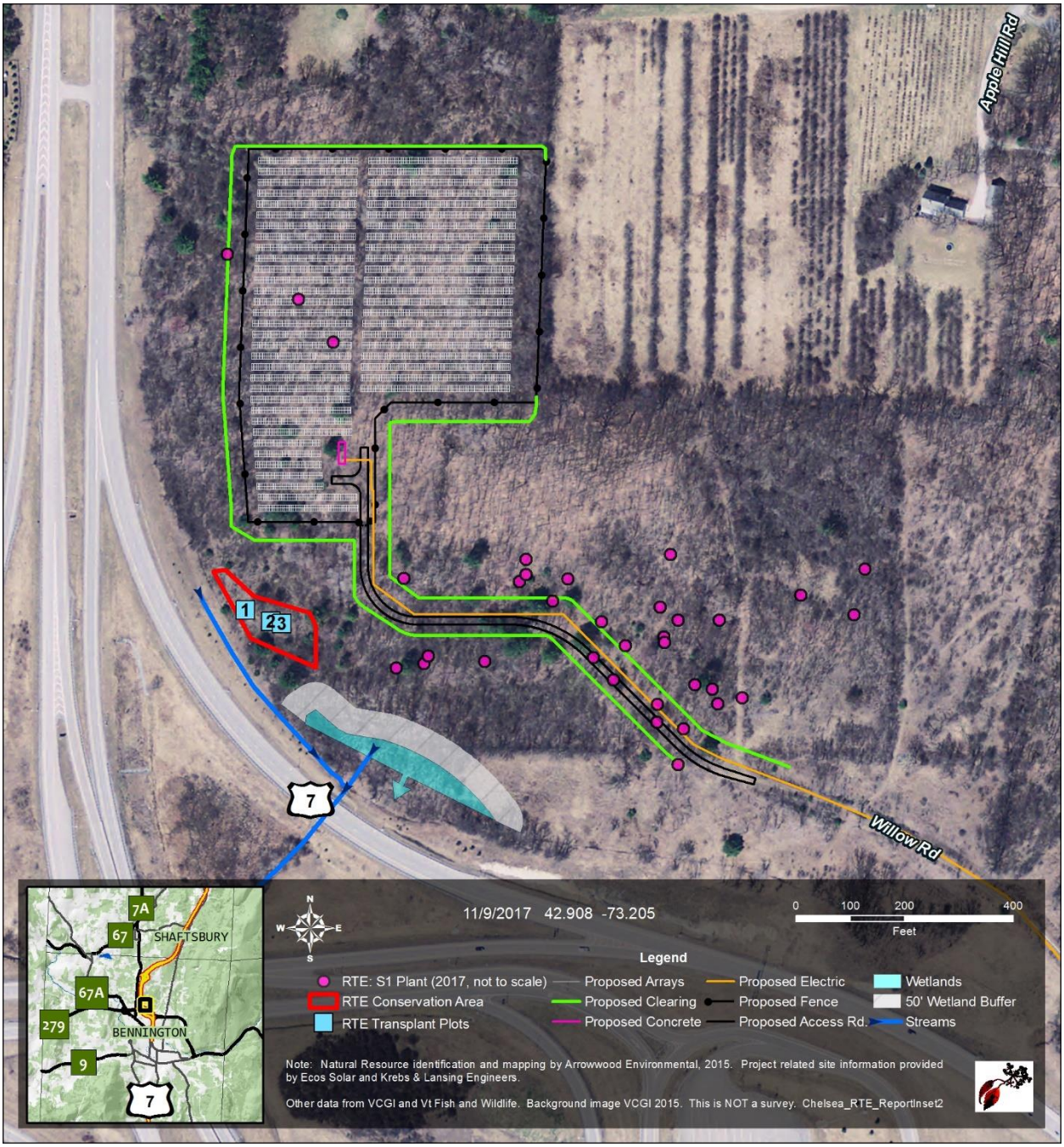

Figure 1. Map of site showing Conservation Area, proposed solar arrays and rare plant general locations

1b. Maintenance and Monitoring

In order to prevent trees and tall shrub vegetation from dominating the CA, it is recommended that the site be mowed once every 3-5 years. Mowing should occur between October 31st- May 15th to decrease impacts to the arrow-leaved American aster plants. The purpose of the mowing is to decrease competition from native and non-native woody species. If possible, mowing

should be conducted at a height of >4" to decrease impacts to the arrow-leaved American aster plants.

Survivorship of the transplanted individuals should be monitored once per year for a period of 3 years post-construction. Monitoring will include assessing number of flowering stems and basal rosettes in each plot. In addition, the Project development area will be inventoried to determine if any "volunteer" arrow-leaved American aster plants become established. Monitoring should occur prior to mowing.

This property currently has large infestations of many non-native invasive species (NNIS). This includes dense infestations of honeysuckle and buckthorn. The CA is mostly colonized by native species, though some honeysuckle does exist along its border with the Project area. In addition to monitoring survivorship of the transplanted individuals, an inventory of NNIS within the CA should also be conducted. If it appears that NNIS are threatening the transplanted plants, control of the NNIS may be warranted. Specific control measures will be dependent upon the species of concern and the nature of the infestation.

An annual report should be submitted detailing the findings of the monitoring.

2. Transplantation Work and Monitoring

2.1 Transplantation

Permission from ANR was obtained to transplant the arrow-leaved American aster plants in the fall of 2014 (see attached email correspondence). On 10/15/14, two botanists (Matt Peters and Michael Lew-Smith) visited the site to conduct the transplanting. In re-locating the populations, more arrow-leaved American aster plants were discovered than initially reported on. The discovery of more aster plants was due to the increase in visibility during the 10/12/14 site visit from the lack of leaves on the surrounding trees and shrubs. The vegetation at this site is very dense, making complete counts of individuals during the growing season difficult. The area with appropriate habitat was searched, and the total number of plants transplanted is outlined in Table 1 below.

In addition to a larger number of plants to be transplanted, a larger number of plants were also discovered within the CA. While 10 plants were initially reported in the CA, approximately 30 individuals were counted during the 10/12/14 site visit. Numerous plants were also seen off property, mainly in the opening along the road to the south and southwest of the property.

Three permanent 2' x 2' plots were established within the CA to receive transplanted individuals. Plots were located randomly in the CA but avoided impact to existing arrow-leaved American aster individuals. These plots were prepared by removing existing vegetation and digging out an area deep enough to receive the transplants. Soil removed from these plots was placed aside to be used during transplanting. The establishment of plots for the transplanted individuals was undertaken to better facilitate maintenance and monitoring of the transplants.

Plants located for transplanting comprised two different types: those with only a basal rosette and those with a fruiting stalk. At the time of the transplanting, nearly all of the stalks had ripened fruit which was dispersing during the transplanting process. In these cases, the fruiting stalk was left on the plant after transplanting in the hope that most of the seeds would disperse in the CA. Upon locating an individual, a hole was dug around the base of the plant 12" to 18" in diameter in order to obtain a sufficient-sized root ball for transplanting. The sandy nature of the soils, however, sometimes resulted in much of this root ball falling away. Nevertheless, in most cases, it appeared that sufficient root material was obtained for successful transplanting. After digging, plants were placed in buckets and carried to the CA. Individuals were planted in one of the plots and native soil was used to fill in areas in between the plants. Table 1 shows the number of plants of each type that were transplanted into each plot.

Table 1. Number of arrow-leaved American aster plants transplanted into each plot

	Plot 1	Plot 2	Plot 3	Total
Fruiting Culms	14	25	26	65
Basal Rosettes	8	11	5	24
Total	22	36	31	89

After transplanting, each plot was watered with approximately 8 gallons of water. At the time of the transplanting, the soil was quite dry. The day after transplanting, however, a period of rain

continued for approximately 10 days. For this reason, no further watering was deemed necessary.

2b. Monitoring

Monitoring of the transplant plots has occurred yearly since transplanting occurred in 2014. During each monitoring period, the number of basal rosettes and flowering stems in each plot was documented. In addition, the presence and abundance of other species colonizing the plots was recorded. Since the abundance has increased steadily, the plots were "weeded" during the 2017 monitoring event. The focus of the weeding process was to decrease competition on the arrow-leaved American aster plants. While most species other than the aster were removed, in order to minimize disturbance to the aster plants, some species were left untouched. Table 2 summarizes the plot data from the three transplant plots.

Table 2. Summary data of *Symphyotrichum urophyllum* transplant plots

	2014		2015		2016		2017	
	Flower Culms	Basal Rosettes	Flower Culms	Basal Rosettes	Flower Culms	Basal Rosettes	Flower Culms	Basal Rosettes
Plot 1	14	8	18	12	18	15	28	23
Plot 2	25	11	5	37	20	23	12	33
Plot 3	26	5	8	36	18	25	8	40
Sub-total	65	24	31	85	56	63	48	96
TOTAL	89		116		119		114	

As can be seen from this data, the total number of plants in the transplant plots increased after the first year of transplanting. As mentioned above, the plants were in seed when transplanted. It is likely that some seeds germinated and became established within the plots. Since that time, the total number of plants has stayed relatively stable. Overall, the health of the plants appears to be good, with each plot showing some reproduction. Deer appear to preferentially browse this arrow-leaved American aster. Some damage from browsing is apparent in most plots during most monitoring events.

A photographic record of each plot during each monitoring event is attached.

Attachment:
Email correspondence with ANR regarding transplantation

From: Michael Lew-Smith [mailto:michael@arrowwoodvt.com]
Sent: Monday, September 08, 2014 9:59 AM
To: Popp, Bob; dori@arrowwoodvt.com
Subject: Bennington Solar

Hi Bob,

I wanted to discuss with you the plan for the solar arrays at the Bennington Solar site (Apple Hill) where we found the Symphyotrichum urophyllum, Muhlenbergia schreberii, Carex laxiculmis and Solidago patula.

Given the presence of these populations, the developer has rearranged the plan for the site and would like to get your input. I have attached a proposed layout which includes two conservation areas around the largest populations of the aster and sedge. I have also attached our map of the site showing the species and population numbers at each location. This is a two-phase project, with the arrays in the north being applied for now. The arrays in the south (near the conservation areas) are the second phase to be submitted at some later date. The second phase is not shown on the map produced by Arrowwood.

I assume that some transplanting of individuals that would be directly impacted by the development would occur. Plants would be moved into the conservation area.

Let me know what you think. Thanks.

-Michael

Michael Lew-Smith
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From: Popp, Bob [mailto:Bob.Popp@state.vt.us]
Sent: Tuesday, September 09, 2014 3:08 PM
To: 'Michael Lew-Smith'; dori@arrowwoodvt.com
Subject: RE: Bennington Solar

Hi Michael, thanks for checking in about the Bennington Solar project. In reviewing the plans, it appears that phase I is reasonable. I base this on the criteria of impacting no
more than 20% of any population of rare plant (S1, S2, or S2/S3). However, there is potentially a problem with Phase II as presently proposed. Below I calculated the cumulative impact of bot phases on the four plants at the site.

Arrow-Leaved American-Aster (Symphyotrichum urophyllum) S1: Impact to 30 of 195 plants = 15.4% of population impacted

Nimblewill Muhly (Muhlenbergia schreberi) S2: Impact to 29 of 59 plants = 49.2% of population impacted

Rough-Leaved Goldenrod (Solidago patula) S3: Impact to 0 of 100+ plants = 0 % of population impacted

Loose Sedge (Carex laxiculmis) S3: Impact to 0 of 100+ plants = 0 % of population impacted.

So the concern is the impact to the Muhly. I assume that not all of the 29 plants located within the arrays would be directly impacted, and that only a subset would be taken by the posts. However, I am concerned about the long term shading cast by the arrays proposed for the NE corner in the vicinity of the Muhly polygons.

We'll also need to discuss ongoing management at the site, mowing regime and invasive species monitoring.
Give me a call if you want to discuss further.
Bob
P.S. I note in your email message that you say that the conservation area is around the largest population of aster and sedge whereas the plans depict the conservation area around the Solidago. Did you mean to say Solidago in your email or is the legend on the plan incorrect?
Bob Popp
Department Botanist
VT. Dept of Fish and Wildlife
Natural Heritage Inventory
(802) 476-0127

From: Michael Lew-Smith [mailto:michael@arrowwoodvt.com]
Sent: Wednesday, September 10, 2014 8:55 PM
To: Popp, Bob; dori@arrowwoodvt.com
Subject: RE: Bennington Solar
Hi Bob,
Quick question about phase 1. Would you recommend/require transplanting the individuals of aster that will be destroyed by the development? If so, would you recommend a late fall transplanting, or early spring (if the locations are flagged now).
Thanks.
-Michael
Michael Lew-Smith
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From: Popp, Bob [mailto:Bob.Popp@state.vt.us]
Sent: Tuesday, September 16, 2014 12:00 PM
To: 'Michael Lew-Smith'
Subject: RE: Bennington Solar
Hi Michael. Yes because of its rarity we certainly would recommend if not require transplanting the Arrow-Leaved American-Aster (Symphyotrichum urophyllum). Fall would be fine, if it is not too late. The concern would be frost heaving if the ground begins to freeze before the plants have time to extend their roots and get well established. Spring would be ok too, but you would need to be certain that the plants are identifiable early in the year and there would be a longer period of watering.
(Additional text unrelated to the project redacted)
Bob
Bob Popp
Department Botanist
VT. Dept of Fish and Wildlife
Natural Heritage Inventory

(802) 476-0127

From: Michael Lew-Smith [mailto:michael@arrowwoodvt.com]
Sent: Wednesday, September 24, 2014 9:16 PM
To: Popp, Bob
Subject: RE: Bennington Solar

Hi Bob,
I just wanted to check in with you about this. I heard that we got the go ahead to transplant from your agency/lawyers. I assume they consulted you as well about this and you are ok with us commencing even though the permit is still pending.
Also, what is your sense of timing for this? You expressed concern about getting them transplanted sooner because of the frost. I was thinking to wait a few weeks because they are in bloom right now.
Thanks for your input.
-Michael
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From: Popp, Bob <Bob.Popp@state.vt.us>
Sent: Friday, September 26, 2014 10:50 AM
To: 'Michael Lew-Smith'
Subject: RE: Bennington Solar

Hi Michael, thanks for checking back. Yes, I was consulted re. the transplanting, and approved of it. I don' t generally like moving plants prior to a permit being issued just to avoid moving them unnecessarily if something were to change, but it sounds like they want to break ground next spring probably before the plants are recognizable so this may be our best opportunity. Also the plants are not listed so they are afforded less protection. I am concerned about doing it too late, but your concern about them still being in flower is an equal concern. I think that we should wait a couple of weeks, but I'm not sure that we'd want to go beyond the middle of Oct. My thought would be to cut any flowers remaining at that time, and move them. Being that far south the ground probably won't freeze much for another couple of months. Since it is not state listed you would not need a permit to remove flowers.
Bob Popp
Department Botanist
VT. Dept of Fish and Wildlife
Natural Heritage Inventory
(802) 476-0127

Attachment:

Photo Documentation of *Symphyotrichum urophyllum* transplant plots

	
Plot 1 2014	**Plot 1 2015**
	
Plot 1 2016	**Plot 1 2017**

Plot 2 2014

Plot 2 2015

Plot 2 2016

Plot 2 2017

Plot 3 2014	Plot 3 2015
	
Plot 3 2016	**Plot 3 2017**