

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Petition of Otter Creek Solar LLC, pursuant)
to 30 V.S.A. § 248, for a certificate of public)
good authorizing the installation and)
operation of the “Warner Solar Project,” a)
2.2 MW solar electric generation facility)
located off Rice Lane in Bennington,)
Vermont)

Case No. 19-0516-PET

THIRD SUPPLEMENTAL PREFILED DIRECT TESTIMONY
OF JIM MCCLAMMER
ON BEHALF OF PETITIONER

October 20, 2020

EXHIBITS

Exhibit WS-JM-17

Second Supplemental Aster Survey Report

1 **Q1. Please state your name, occupation, and business address.**

2 A1. My name is Jim McClammer. I am an Environmental Consultant and President of
3 Connecticut Valley Environmental Services, Inc. (“CVES”). My business address is 391 River
4 Road, Charlestown, New Hampshire 03603.

6 **Q2. Have you previously testified in this proceeding?**

7 A2. Yes, I submitted pre-filed direct testimony on behalf of Otter Creek Solar LLC concerning
8 the Warner Solar Project (the “Project”) as well as a first and second supplemental pre-filed
9 testimony.

11 **Q3. What is the purpose of your testimony?**

12 A3. Connecticut Valley Environmental Services, Inc. (CVES) was requested by Otter Creek
13 Solar LLC to quantify the distribution and abundance of the local population of *Symphyotrichum*
14 *urophyllum* (Lindl.) G.L. Nesom, white arrow-leaved aster (the “Aster”), on and near the
15 proposed Warner Solar Project site. The purpose of the request is to collect data on this species
16 in order to assess the impact of the Project on the “local population” of this species¹. **Exhibit**
17 **WS-JM-17** is a report of those findings

¹ Population definition from “Guidance for Conducting Rare, Threatened, and Endangered Plant Inventories in Connection with Section 248 Projects” dated October 5, 2016.
<https://anr.vermont.gov/sites/anr/files/co/planning/documents/guidance/Guidance%20for%20Conducting%20RTE%20Plant%20Inventories%20248%20Projects.pdf>

1 **Q4. Can you summarize your findings?**

2 A4. A total of 967 individual Asters were identified in the expanded study area. The greatest
3 number of individuals occurs on the Warner Project site (551) with fewer on the Battle Creek site
4 (220) and even fewer within the railroad right-of-way (196) because of recent brush-hogging (as
5 described further in **Exhibit WS-JM-17**). If the population is defined “as all of the individuals of
6 a given species that occur within one kilometer unless separated by an isolating barrier”; then, by
7 extrapolation, the total number of individuals in the local population may be estimated to be 9,013
8 ($247^2/26.5 \times 967$). Conservatively, if Route 7A, Route 279, Rice Lane and Route 67A are
9 ‘isolating barriers’; then the local population area is the approximately 140 undeveloped acres
10 bounded by these roads and the population may be projected to contain 5,109 individuals (140
11 $/26.5 \times 967$). Therefore, the number of individuals in the local population may range from roughly
12 5,000 to 9,000.

13
14 **Q5. Do ANR guidance documents indicate that taking less than 10% of a very rare plant**
15 **population does not result in a significant impact?**

16 A5. Yes.

17
18 **Q6. Based on these guidelines, how many Aster plants can the Petitioner take for the Warner**
19 **Project before the 10% threshold is reached?**

20 A6. Based on projections we made in Q4, the Petitioner would be able to take at least 500
21 individuals.

² A square kilometer contains 247 acres.

1 **Q7. Should the Aster species you identified in your study be considered “very rare” in**
2 **Vermont due to its purported limited distribution?**

3 A7. No. I think it is more common on limestone soils throughout the State than documented
4 occurrences indicate. Our study shows the Aster “tolerates a wide range of soil types, from poorly-
5 drained to well-drained, (*Photographs 5 & 6, Appendix A*) and habitats, from old field to early
6 successional woodland”. It is clearly not very rare on this site, where we have identified more than
7 a thousand individuals, nor in the Bennington area where it is now known from three localities.

8
9 I think it has been overlooked because it flowers in late Fall and is similar to several other aster
10 species; and, when it is found, it is simply misidentified. For example, at one of two known
11 Bennington localities it was previously identified as *S. sagittifolius*, and Arthur Haines³ states
12 “[t]he name *Aster sagittifolius* has been misapplied to this plant for some time”. ANR has one
13 person assigned to rare plants—Bob Popp. As Mr. Popp explained, he needs to rely on reports
14 from others.

15
16 Mr. Popp also explained, an ordinary person would not know whether the Aster existed on her
17 property. So, no one knows with any certainty how many exist in Vermont. At the end of the day,
18 the ANR’s basis for determining whether a plant is rare is based upon the absence of evidence
19 (scientific or otherwise), which in my mind is not evidence. Therefore, the Aster is likely to occur
20 at more than five locations within the State, in which case, it cannot be classified as “very rare”

³From Haines, 2011, p. 442. “The name *Aster sagittifolius* has been misapplied to this plant for some time. The type collection of *A. sagittifolius* proved to be *S. cordifolium* therefore, another name needed to be chosen for this species (Semple et al., 2002).”

(S1) under Vermont’s current guidelines.

Q8. Will the Project result in an undue adverse effect on the local population of Aster?

A8. Even if the Aster is purported to be “very rare”, the Project will not have an undue adverse effect on the local population. As mentioned in Q6 above, the Project may take at least 500 individuals without having a significant impact on the local population. Also, the Aster is widespread across the eastern half of North America⁴ where it is reported to inhabit fields and open spaces on high-pH soils⁵. In our September 12, 2019-report we wrote that our observations are consistent with these findings, the species is “well-adapted for dispersal to, and growth in, disturbed open habitats of the railroad corridor” and “we believe that the construction of the [Warner] solar array will not have a significant adverse effect on the aster species but may, in fact, create habitat that is beneficial to its survival.” The results of the survey of the Battle Creek Project site support this hypothesis. At least 220 individuals of the species have been recruited to, and thrive in, disturbed areas around the perimeter of the Battle Creek project (Photographs 9, 10, & 11, Appendix A). It is also possible that, in time, the species will find suitable habitat under the racks of solar panels. For these reasons, it is my opinion the Project will not have an undue adverse effect on the local population.

Q9. In your opinion, is it the intent of 30 V.S.A. § 248(b)(5) to specifically protect very rare species?

⁴ <https://plants.usda.gov/core/profile?symbol=SYUR>

⁵ <https://gobotany.nativeplanttrust.org/species/symphyotrichum/urophyllum/>

1 A9. No. 30 V.S.A. § 248 states a solar facility “will not have an undue adverse effect on ...
2 the natural environment ... with due consideration having been given to the criteria specified in
3 10 V.S.A. §§ 1424a(d) and 6086(a)(1) through (8) and (9)(K) ... and greenhouse gas impacts.” 30
4 V.S.A. § 248(b)(5). The only criterion to deal with plant species is 10 V.S.A. §6086(a)(8), which
5 only addresses *endangered* species. It does not relate to rare plant species. However, rare plants
6 have been interpreted by ANR to be part of the natural environment and worthy of protection.
7 Although a separate takings permit is not required for rare species, ANR believes the applicant
8 must still demonstrate that reasonable steps have been taken to avoid and/or minimize impact. In
9 this instance, the Project complies with this standard as there will be no undue adverse effect on
10 the Aster’s local population, and the Project is designed to avoid and reduce impact on the species
11 to the maximum extent practicable.

12
13 **Q10. Does this conclude your testimony?**

14 A10. Yes.
15
16