



To: VT Real Estate Holdings 1 LLC - Shaftsbury
Solar Project File

Date: April 28, 2023

Memorandum

Project #: 58071.01

From: Patti B. Kallfelz-Werts; Adam Crary, PWS, PWD;
Re: Pollinator Habitat Management Plan

Introduction / Overview

At the request of the Petitioner VT Real Estate Holdings 1 LLC (to be referred to as "Shaftsbury Solar"), VHB has prepared a Pollinator Habitat Management Plan ("Pollinator Plan") proposed for the Shaftsbury Solar Project ("Project"). The Project is a proposed 20 MW (AC) solar electric generation facility to be sited on approximately 83 acres across four parcels of land that total approximately 182 acres, located off Holy Smoke Road and U.S. Route 7 ("U.S.-7") in Shaftsbury, Vermont. The purpose of this Pollinator Plan is to describe the mix of pollinator-attracting species that will be used to enhance habitat within the Project area, as well as to describe the measures that Shaftsbury Solar will implement to establish, enhance, and maintain the pollinator habitat within the fenced array area, as well as appropriate areas outside of the fenceline (together, the Pollinator Plan areas).

Project Description

The proposed Shaftsbury Solar Project is further described in the pre-filed testimony of Mr. Reed Wills. In summary, the proposed 20 MW (AC) solar electric generation facility will consist of ground-mounted, fixed-tilt solar modules mounted on metal racks arranged in rows running east to west in three distinct areas, or "sub-arrays." The Project also includes new onsite graveled access roads, temporary laydown yards, operational stormwater treatment systems, landscape berms and plantings, and will be enclosed by perimeter fencing, among other elements.

Pollinator Plan

The purpose of the Pollinator Plan is to provide habitat and food resources to pollinators through low-growth vegetation within the fenced footprints of the Project arrays and will be maintained at a level that will not adversely affect power production of the solar array. The proposed seed mix, the *Short Solar Pollinator Seed Mix* (Table 1, below), was developed with Ernst Conservation Seeds, Inc. for use on solar projects in the region, and is a mixture of low-growing, native species appropriate for pollinator habitat. The *Short Solar Pollinator Seed Mix* is intended to be sown at a rate of 3 lbs./acre with a "nurse crop" of grain oats or grain rye at 30 lbs./acre.

Table 1. Short Solar Pollinator Seed Mix

% of Mix	Latin Name	Common Name	Maximum Height (ft)	Bloom Period
15	<i>Chamaecrista fasciculata</i>	Partridge Pea	2.9	July - September
1	<i>Eragrostis spectabilis</i>	Purple Lovegrass	2	July - September
79	<i>Diachanthium acuminatum</i>	Tapered Rosette Grass	2	June - September
5	<i>Oenothera perennis</i>	Small Sundrops	2.9	June - August
100	Total	--	--	--

Details referencing where the Pollinator Plan will be implemented, and information to support a contractor's site preparation and seeding materials are also included in the Project Site Plans, Sheets C5.00–5.12, and C7.11, that is included as Exhibit SS-SW-2 in the Project's section 248 petition.

Once the seed material has been planted and established, the Pollinator Plan includes specific maintenance mowing timing and height for the first five (5) years (the establishment period) in order to help the pollinator-attracting species become established, and to prevent the proliferation of non-desirable plants such as ruderal weeds, tall vegetation, and non-native species. Haying or other mowing will not occur during typical ground bird nesting season (approximately May through August). During maintenance mowing, non-desirable woody plants will be removed at the ground surface to the maximum extent feasible to prevent competition to the pollinator species.

- Year 1 maintenance (year of seeding): At the end of the growing season in late-October/November, high mow the Pollinator Plan areas to a height of 8 - 10".
- Years 2 and 3 maintenance (following seeding): Outside of flowering season in November through March, high-mow the Pollinator Plan areas to a height of >5".
- Years 4 and 5 maintenance (following seeding): Maintenance mowing will consist of a high mowing (5"+) after October 15th.
- Post-establishment maintenance (after Year 5, for the duration of the Project): every two to three years mow high (5"+) after October 15th.

Resources Used

Ernst Conservation Seeds. 2023. (<https://www.ernstseed.com/>)

Pollinator-Friendly Solar Initiatives of Vermont. 2018. Solar Site Pollinator Habitat Scorecard (https://www.uvm.edu/sites/default/files/Agriculture/Pollinator_Solar_Scorecard_FORM.pdf)

USDA, NRCS. 2023. The PLANTS Database (<http://plants.usda.gov>, 04/25/2023). National Plant Data Team, Greensboro, NC USA.