



## Memorandum

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To: C. Elizabeth Gibson, Town Manager; Town of Nantucket  
CC: Mark Willett, Director; Wannacomet Water Company  
Lauren Sinatra, Energy Coordinator; Town of Nantucket  
From: Seth Sakamoto; TotalEnergies Distributed Generation USA, LLC  
Subject: Wannacomet Water Solar Project Environmental Permit Status Memo  
Date: September 19<sup>th</sup>, 2022

The purpose of this memorandum is to articulate the status of the environmental permitting efforts for the Town of Nantucket's proposed 3.8MW ground mounted solar PV project planned at the Wannacomet Water Company property on 1 Milestone Rd. ("The Project").

### Project Overview

In 2019, the Town of Nantucket ("The Town") solicited proposals from various solar developers for development of municipal solar projects on Nantucket, with the stated goal of increasing the island's energy resiliency and sustainability.

SunPower<sup>1</sup> responded to this solicitation and was awarded the opportunity to develop the Projects at the Wannacomet Water Company ("WWCo.") property at 1 Milestone Rd, which is the primary site of the island's public water supply and pumping operations. Over the course of 2020, the Parties collaborated to refine the Project design to achieve a better balance between key project benefits and identified impacts, including those to critical WWCo. operations, visual impacts to the surrounding areas as evaluated by the Nantucket Historic District Commission (HDC), and environmental impacts to state-listed flora and fauna as determined by the Massachusetts Division of Fisheries and Wildlife ("MassWildlife") Natural Heritage and Endangered Species Program ("NHESP").

In a letter dated December 29, 2020, NHESP determined that the Project ([Figure 1](#)) and disturbance of existing vegetative cover ([Figure 2](#)):

*"will result in a Take (321 CMR 10.18 (2)(b)) of the six (6) state-listed Lepidoptera species referenced above due to the harming or killing of individuals, permanent loss and fragmentation*

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<sup>1</sup> May 31<sup>st</sup> 2022 -TotalEnergies acquires SunPower CIS

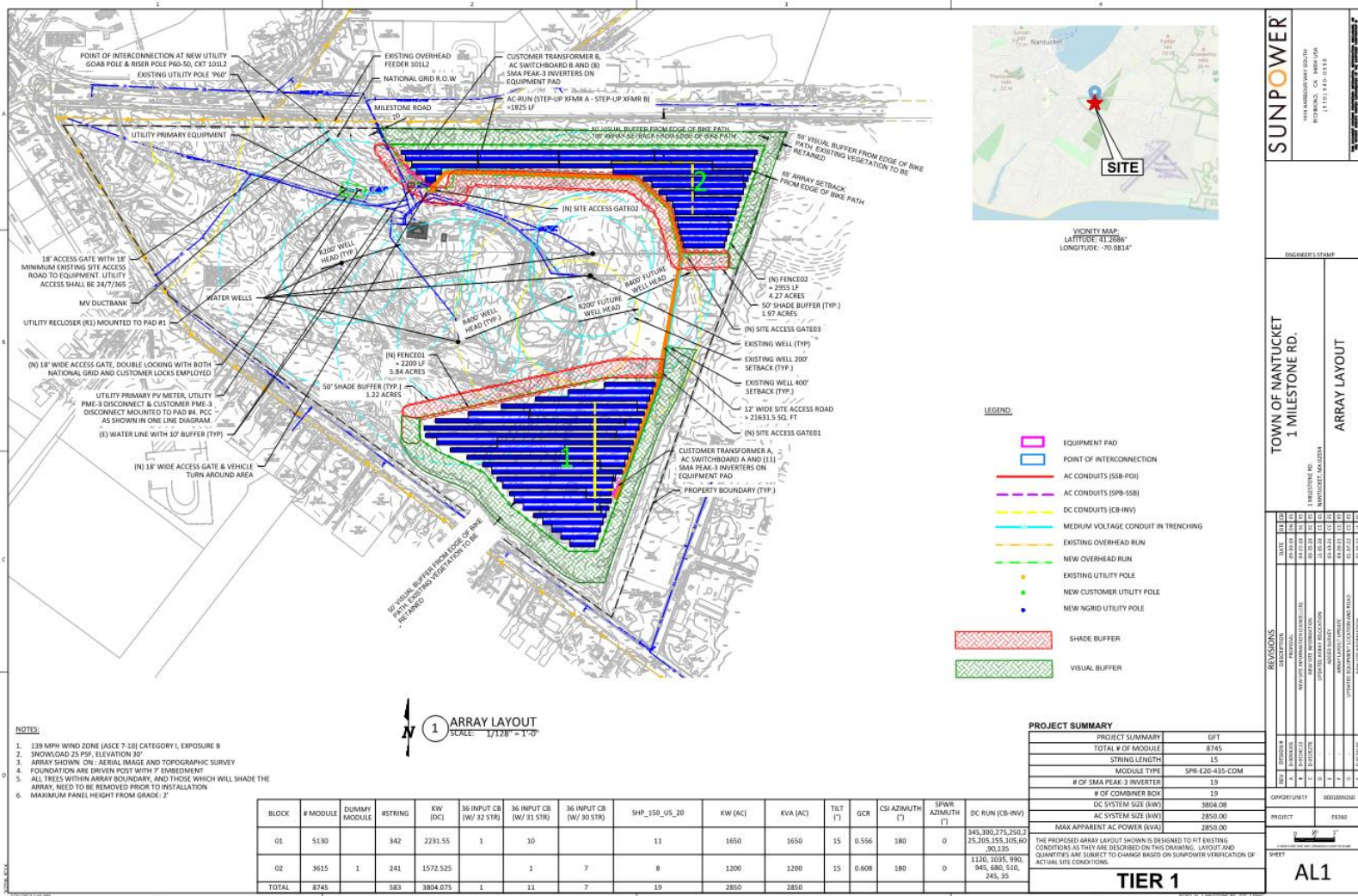


*of suitable habitat, and interference with the feeding, breeding, over-wintering and migratory activities of these species”.*

Therefore, for the Project to proceed, the Parties must agree to the development and implementation of a Conservation Management Permit (“CMP”) to mitigate the impacts of the Project and provide a long-term net benefit to the conservation of the affected species.



Figure 1



**SUNPOWER**  
SUNPOWER CORPORATION  
1000 W. BROADWAY  
IRVING, CA 94038  
(817) 410-8510

**TOWN OF NANTUCKET  
1 MILESTONE RD.  
ARRAY LAYOUT**

**REVISIONS**

NO.	DATE	DESCRIPTION
1	08/21/24	ISSUED FOR PERMITTING
2	08/21/24	REVISED PER PERMITTING COMMENTS
3	08/21/24	REVISED PER PERMITTING COMMENTS
4	08/21/24	REVISED PER PERMITTING COMMENTS
5	08/21/24	REVISED PER PERMITTING COMMENTS
6	08/21/24	REVISED PER PERMITTING COMMENTS
7	08/21/24	REVISED PER PERMITTING COMMENTS
8	08/21/24	REVISED PER PERMITTING COMMENTS
9	08/21/24	REVISED PER PERMITTING COMMENTS
10	08/21/24	REVISED PER PERMITTING COMMENTS

**PROJECT SUMMARY**

PROJECT SUMMARY	UNIT
TOTAL # OF MODULE	8745
STRING LENGTH	15
MODULE TYPE	SPR-E20-435-COM
# OF SMA PEAK-3 INVERTER	19
# OF COMBINER BOX	19
DC SYSTEM SIZE (KW)	3804.08
AC SYSTEM SIZE (KW)	2850.00
MAX APPARENT AC POWER (KVA)	2850.00

THE PROPOSED ARRAY LAYOUT SHOWN IS DESIGNED TO FIT EXISTING CONDITIONS AS THEY ARE DESCRIBED ON THIS DRAWING. LAYOUT AND QUANTITIES ARE SUBJECT TO CHANGE BASED ON SUNPOWER VERIFICATION OF ACTUAL SITE CONDITIONS.

**TIER 1**

**AL1**



Figure 2





## Project Impacts at 1 Milestone Rd.

In NHESP’s review of the Project, it was determined that based on a mapping of existing vegetation cover types and the Project’s limit of disturbance affecting 13.6 acres, 20.5\* acres of mitigation will be required assuming a “full credit” from NHESP. To calculate the required 20.5 acres of mitigation, NHESP provided a guidance table (Figure 33), which assigns varying levels of credit based on mitigation approach, as well as distance relative to the WWCO. wellhead protection zone.

Figure 3

Wellhead Protection Zone	Mitigation Approach	Credit Given (per acre of mitigation)
0-200ft	Protect & Manage	0.25 credit
0-200ft	Enhance & Manage	0.5 credit
200-400ft	Protect & Manage	0.5 credit
200-400ft	Enhance & Manage	0.5 credit
200-400ft	Protect + Enhance & Manage	full credit
400ft+	Protect & Manage	full credit
400ft+	Protect + Enhance & Manage	1.5 credit

*\*Mitigation is calculated at 20.5 acres when “full credit” is received, including by placing new, unrestricted acreage under the protection of a Declaration of Restriction on the deed of a subject property. The Preferred Mitigation approach, as described below, is to enhance and manage DCR land that is already protected by the Commonwealth as State Forest. As such, a 0.5 credit per-acre would be given, necessitating 41 acres of land for Project mitigation.*

## Alternative Mitigations Considered

Throughout the course of 2021, SunPower, the Town and WWCo.—in close consultation with NHESP—evaluated numerous strategies to accomplish the necessary environmental mitigation for the Project. These included:

1. **Siting the array to minimize Priority Habitat impact.** The location, design and size Project was modified multiple times prior to receiving approval by various Nantucket stakeholders. The final design of the Project incorporates multiple stakeholder requirements, such as: ensuring no onsite disturbance to current and future WWCO. operational needs, minimizing visual impacts by increasing and enhancing at least 50’ of natural buffer as required by the Nantucket HDC, and meeting the Town’s goals for enhancing the island’s energy resiliency and sustainability. The resulting design has minimized the impacted footprint of the Project to 13.3 acres of priority habitat.
2. **Onsite mitigation.** The remaining acreage at the 1 Milestone Rd. property cannot be used for mitigation because the land must remain available for the WWCo. to meet its primary mission—

providing high-quality drinking water supply and services for the island. This onsite limitation is the ultimate constraint as to why the Project cannot achieve the 20.5 acres of mitigation at 1 Milestone Rd. Minimal credit may be achieved onsite by protecting, managing, and enhancing the shade buffer and natural screening buffers to be preserved at the property, as required by the Nantucket HDC's conditional approval for the Project. However, any onsite mitigation must be supplemented with mitigation from another property on the island, with similar environmental attributes, for the Project to achieve its mitigation requirements.

3. **Evaluation of all WWCo.-owned property.** All of the properties under the care and management of the WWCo. were evaluated. This included an 18.4-acre parcel located at 211 Cliff Rd, which was disqualified lacking the appropriate existing habitat necessary for mitigation of the affected species; furthermore, to create such habitat onsite would be impracticable. The 32.9-acre "Polpis Water Tower" property located on 43 Polpis Rd. was also disqualified due to current onsite operational requirements and future capital improvement plans.
4. **Evaluation of all Town-owned property.** After the various WWCo. properties were deemed unsuitable, over 150 Town-owned parcels were reviewed and considered by a team of Town staff, including the Natural Resources Director, Planning Director, Airport Assistant Manager, and Municipal Real Estate Specialist. After a thorough review, it was determined that very few parcels in the municipal real estate inventory would meet the required acreage necessary for the Project's offsite mitigation requirements, and all sufficiently large parcels were unavailable either due to active Town development needs, or because the parcels are already under MESA conservation management plans. Furthermore, it is cost prohibitive for the Town to purchase new property on the island specifically to address the mitigation needs of this Project.
5. **Partnerships with local conservation organizations.** Outreach was conducted with on-island conservation organizations, including the Nantucket Land Bank and Nantucket Conservation Foundation, to identify protected parcels of land hosting scrub oak for enhancement activities for the contracted term of the solar Project. Unfortunately, these organizations have mitigation and CMP requirements of their own and could not offer additional parcels of land to use for the solar Project mitigation. However, while the Nantucket Land Bank cannot provide land for the purpose of mitigation, they have been actively engaged in discussions of the Project and are the leading candidate to conduct any land enhancement mitigation activities given their on-island expertise and dedicated land-management staff and resources.
6. **Partnership with the Commonwealth of Massachusetts Department of Conservation & Recreation (DCR).** In December 2021, the WWCo. engaged contacts at the Massachusetts Department of Conservation and Recreation ("DCR") to suggest a creative "win-win" proposal: For the Town/WWCo. to help improve and enhance state forest land adjacent to the Project property, while fulfilling the solar Project's environmental mitigation obligations. This unique approach sought to accomplish several key objectives:

- **Development and execution of maintenance plan.** It was the Town and SunPower’s understanding that the adjacent DCR parcels (5 & 24 Milestone Rd.) are presently unmanaged, overgrown and generally inaccessible and unusable by the public. If included in the Project CMP as the target location for priority habitat enhancement, the subject DCR parcels would have benefitted from having a third-party prepare and execute the maintenance plan, minimizing DCR resources otherwise needed to maintain these parcels.
- **Manage fuel to reduce forest fire risk.** The CMP would have involved thinning of the DCR parcel overstory, resulting in a reduction in fuel and potential forest fire risk—including to the adjacent Island Lumber yard located on 1 Polpis Rd.
- **Accessibility to the public.** Thinning of the vegetation on the DCR parcels would also have increased accessibility of these parcels to the public for education<sup>2</sup>, recreation and other goals as outlined in the Massachusetts Forest Action Plan.
- **Enhancement of Priority Habitat.** The quality of the habitat on these parcels is currently compromised from a rare species / native resource perspective due to lack of active management. These habitats require ongoing, active management (via mowing, prescribed fire, etc.) to replicate the natural disturbance regime on which these species depend. Without this level of care and attention, these habitats senesce. This partnership would have assisted DCR to facilitate meaningful conservation action on land they own and are responsible for managing.
- **In April of 2022, Eric Seaborn (*Urban Forester*) and Tom LaRosa (*Lead Counsel*) of DCR verbally communicated that DCR would not participate in the partnered proposal and CMP.**

### **Preferred Mitigation**

**NHESP Fee In Lieu.** In July of 2022, after recognizing that all other viable options for local mitigation had been exhausted, NHESP presented SunPower an option of providing funding for off-site conservation in the amount of **\$246,034** (one-time compliance fee). Funding could be used for species habitat improvement both on and off-island. And since one of six species is unique to Nantucket, *at least* 1/6 of funding would remain on island.

This fee assumes a 25-year lease period followed by restoration to suitable native habitat per a Division-approved plan (~10 years). If the Town proposes to extend the lease period or proposes any other use that would extend (temporarily or permanently) the duration of habitat loss at the site, the Town would have to apply for and receive a new or amended Conservation and Management Permit (CMP) and

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<sup>2</sup> Previous collaborations with DCR resulted in summer internship opportunities for Forestry students from a number of regional colleges and universities. These collaborations resulted in creation of the [Nantucket Disc Golf Course](#).



provide additional, long-term net benefit mitigation to the impacted species. This also assumes that the 3.19 acres of shade buffer will be managed as a high-quality habitat for the life of the array, the details of which will be included in a shade buffer management plan to be attached to the CMP.

### **MEPA Review**

The Project will be subject to the review process stipulated under 301 CMR 11.00: MEPA Regulations for compliance with the Massachusetts Environmental Policy Act (“MEPA”). The Project exceeds the Review Threshold articulated, which requires a filing of an Environmental Notification Form (“ENF”) but does not require a mandatory Environmental Impact Report (“EIR”). This process is administered by the Executive Office of the Massachusetts Secretary of Energy and Environmental Affairs.

### **Project Timeline**

In parallel with environmental permitting efforts, development activities have been proceeding positively with additional Project discretionary approvals. Key milestones have been reached with National Grid related to the project electrical interconnection, including execution of an Interconnection Services Agreement. These milestones create definitive timelines for advancing project maturity over the next 18 months.