



May 13, 2021

Honorable Chair Zachary Bergeron
And Members of the Planning Board
36 Bartlet Street
Andover, MA 01810

Re: 1320 South Street Energy Storage Facility – Site Details and Safety Memo

Dear Zachary Bergeron and Members of the Planning Board,

By this letter we are providing written responses to all of AVIS – Andover Village Improvement Society's comments.

1. What will be the impact of taking the property out of Chap. 61A? How does the Town's right of first refusal affect approval of this non-agricultural use?

Response: *Borrego is still looking into this, but we do expect to take the project area out of 61A. This would not impact the Town's first right of refusal. We will defer to the town of Andover on how they wish to proceed.*

2. AVIS understands there have been historical changes in the Town Line. The plan states "Town line per MASSDOT coordinates". Who owns the portion of Moonlight drive that is between the old and new town line? Does the cul de sac actually end at the current Andover/Tewksbury Town line? And, can a street in Tewksbury be used to access Andover land without first going onto an Andover Town street?

Response: *The town line has not had historical changes, rather it has been displayed incorrectly on many plans due to a misidentification of the physical bounds nearby. The line shown on the Borrego plans came from our surveyor after quite a bit of research so is correct. The town line is independent of the property lines, so it does not affect ownership. The cul-de-sac does not end on the Andover/Tewksbury town line, it ends at the parcel line, which is technically in Tewksbury. Borrego is aware of no such restriction that would disallow a parcel to be accessed via a neighboring town road. A physical alteration permit would be filed with the town of Tewksbury prior to construction. Borrego has had an informal meeting with Tewksbury and plans to keep them updated during the permitting process.*

3. One plan we saw shows the cul de sac being partially in Andover. Please see the plan recorded at the registry when 1320 South St. was subdivided, attached. Is this cul de sac an approved Andover Street? And, does 1320 South Street own to the old town line or the new town line?

Response: *The cul-de-sac is completely in Tewksbury, there was historical confusion about the location of the town line in this area but the correct line is shown on our plan.*

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4. The plan lists endangered species and species of special concern, but does not list the two types of turtles, which have been observed on the site and are on the NHESP list of species of special concern. NHESP has placed transmitters on three of those turtles and can track their movements.

Response: *Borrego requested NHESP in February of 2022 requesting a list of state listed rare species in the vicinity of our outlined project. Based on that review NHESP informed us of 4 species Butterflies and Moths listed below.*

- a. *Twilight Moth (Endangered)*
- b. *Frosted Elfin (Special Concern)*
- c. *New Jersey Tea Inchworm (Endangered)*
- d. *Scrub Euchlaena (Special Concern)*

There has been no mention of turtles on site by NHESP at this time. Since then, Borrego has hired a certified Ecologist to perform habitat assessments to assess the potential habitat conditions at this site for the four species listed above. The report came back showing no habitat present on site and no to very low potential to support these species. Please see attached report with findings.

5. Although the land in Andover is zoned industrial, the land in Tewksbury is a dense residential neighborhood. (Please see figure 4-1) Have the Tewksbury neighbors been notified about this hearing?

Response: *Yes, the residents were notified in Tewksbury and Andover. Borrego has also talked to the town of Tewksbury about the project so they are aware and provided comments during the design phase.*

6. The Town of Tewksbury Fire and Police already have concerns about responding to activity on the Sanborn and Lighting Tree Reservations because the reservations are several miles by road from Andover and therefore far from Andover Police and Fire vehicles. Have Tewksbury Police and Fire been notified and invited to comment on this proposal?

Response: *Yes, when we met with the town of Tewksbury, the Tewksbury fire department was present. Part of our project plans will also include a fire safety plan which will be given to the fire department so that everyone is aware of what to do. We incorporated feedback from them into our plans (addition of a dry pipe and water source).*

7. If there were to be a fire, what is used to put out the fire? Can water be used or does it have to be some chemical or foam? Where is the source of that substance? And, where would the runoff from the process of extinguishing the fire go? It appears that any runoff will go into the Vernal pool and the Shawsheen River.

Response:

- a. *There are several measures of prevention to avoid a fire event such as climate controlling the units, 24/7 monitoring of them, and a fire suppression agent within the units which is gaseous clean agent that can be released to ensure any incipient event is mitigated at its source.*
 - b. *If those measures do not avoid a fire and there is a thermal runaway event, water can be used to put out the fire. Both Tewksbury and Andover Fire Departments have been involved in the design and based on their feedback, we have added a dry pipe and we will also update our plans to include a fire hydrant at the end of Moonlight Drive so there is sufficient water available if needed during an emergency.*
 - c. *Runoff will only be about water that is used on top of it. The substance stays inside the container. It is a compressed gas so there will be no runoff. Stormwater basin would stop it from going into the vernal pool, wetlands, river, etc.*
8. When AVIS was conducting its 21E Environmental Assessment before obtaining the abutting property at 1322 South Street there were a number of red flags raised about potential contamination in the western portion of 1320 South Street. Has a new 21E been conducted? What are the plans for cleaning up this site if contamination is found?

Response: *A Phase 1 ESA was performed on December 21, 2021 by EBI Consulting for this proposed project. There was no evidence found of contaminants on site and based on the findings of this investigation, no further action is required. A Geotechnical study will be performed prior to construction.*

8.0 FINDINGS, OPINIONS AND CONCLUSIONS

EBI has performed this Phase I Environmental Site Assessment of the property located at 1320 South Street in Andover, Massachusetts (the Subject Property) in conformance with the scope and limitations of ASTM Standard E 1527-13. Any exceptions to, or deletions from, this practice are described in Section I of this Report.

This assessment has identified no evidence of *recognized environmental conditions (RECs)*, *historical recognized environmental conditions (HRECs)*, *controlled recognized environmental conditions (CRECs)*, *de minimis conditions*, or *considerations outside the scope of ASTM Practice E 1527-13* in connection with the Subject Property.

9.0 RECOMMENDATIONS

Based upon the findings of this investigation, no further action is recommended.

9. There is no mention of the source of the energy to be stored in the proposed batteries. If from the solar farm at 1350 South St., how will the energy cross the AVIS Sanborn Reservation? Can the battery storage company use the National Grid ROW to access the proposed land at 1320 South Street? To-date, no one has approached AVIS for permission to cross the reservation with poles or lines or underground pipes, which could impact the endangered species and species of concern.

Response: *The project will interconnect at an existing pole at the corner of the property of 1320 S St. so there will be no need to disturb the AVIS property for this project. The batteries are charged by any sources of power injecting energy onto the grid at that time. When energy is needed, batteries discharge their stored energy back onto the grid to be used by homes, business, industries. The energy supply and demand doesn't always match up, therefore batteries help even out this fluctuation by providing consistent and stable electricity for homes and business. This allows batteries to be used primarily during high energy demand periods to reduce the strain on the local energy infrastructure.*

10. The batteries are within the FEMA 500-year flood zone. We are concerned about the certified vernal pool as well as the turtles and butterflies.

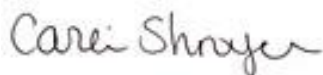
Response: *The batteries are located in an area determined to be outside of the 0.2% annual chance floodplain. A small (less than 1,000SF) area of the proposed gravel road is located within the FEMA 500-year flood zone as well as 3 proposed utility poles and a small bit of tree clearing. The entire project limits will remain outside of FEMA Zone AE which is called out on the plans. The project remains outside the 100' vernal pool buffer. All endangered species listed by NHESP have had appropriate habitat studies performed. Please see attached Habitat Study performed by Boghunter Ecological Services.*

11. This would be a direct access to the property through a Tewksbury address. Can the end of the cul de sac be used in this manner? If so, does that mean that a separate house lot could be subdivided and accessed from the end of the cul de sac?

Response: *Yes and Yes.*

Thank you for your attention.

Sincerely,



Carli Shroyer

Civil Engineer

Borrego

HABITAT STUDY



BOGHUNTER
ECOLOGICAL SERVICES, LLC.

April 18, 2022
BES File No. 22.007-A

Borrego Solar Systems, Inc.
Attn: Carli Shroyer
55 Technology Drive, Suite 102
Lowell, MA 01851

RE: 1320 South Street, Andover, MA – Rare Lepidoptera Habitat Assessment

Dear Carli,

Boghunter Ecological Services, LLC. (BES) is pleased to provide this habitat assessment report for the above referenced site. The purpose of this study was to assess the potential habitat conditions at this site for four species of State and protected lepidoptera in support of your proposed battery storage facility. MA NHESP has indicated in their 2/1/22 letter that the following species are known proximal to the site:

- Twilight Moth (*Lycia rachelae*) – State Endangered
- Frosted Elfin (*Callophrys irus*) – State Special Concern
- New Jersey Tea Inchworm (*Apodrepanulatrix liberaria*) – State Endangered
- Scrub Euchlaena (*Euchlaena madusaria*) – State Special Concern

Due to this proximity, BES surveyed the site to document habitat conditions within, and to assess if potential or actual habitat is present on site for and of these four species. Based upon this review, it is BES’s professional opinion that the potential project site located at 1320 South Street, Andover, MA has a no to very low potential to support these species, nor were any reported by MA NHESP on site. Therefore, it is our opinion that there is no habitat is present on site and therefore no take is likely of this species from the proposed project and full study of the site by MA NHESP will not be required. The following is a summary of this due diligence review and on-site documentation.

Site Description

The study area is located off the South Street and bordered by residential development to the south and a transmission line ROW and Highway (Rt-93) to the north. The site is a relatively small and isolated from other natural areas and bordered by development in three sides. There are no water sources within the project areas however the site is bordered by a large forested wetland system to the west. One natural community type covers the study area as described below:

Mixed Coniferous/Deciduous Forest: The study area is comprised of a mix of mature to semi-mature trees with some sapling trees also present. Tree species composition is a mix of coniferous trees (white pine) and deciduous trees (red oak, red maple, big tooth aspen). Canopy heights range from 70-80 feet for the white pine and 60 feet for the deciduous trees. The sub canopy is complex and shrub layers are moderate to dense creating a semi-cluttered understory/sub-canopy layer with common species such as Oriental bittersweet, multiflora rose, river birch. The groundcover was somewhat sparse and consisted of princess pine, Canada mayflower, garlic mustard, bedstraw, hay scented fern and Pennsylvania sedge. Throughout the site, standing dead trees are relatively absent, comprising well less than 1% present of trees present. Approximately 5% of the trees having some form of potential roosting habitat features, mainly peeling bark on dead limbs. Perennial water sources are absent within this community.

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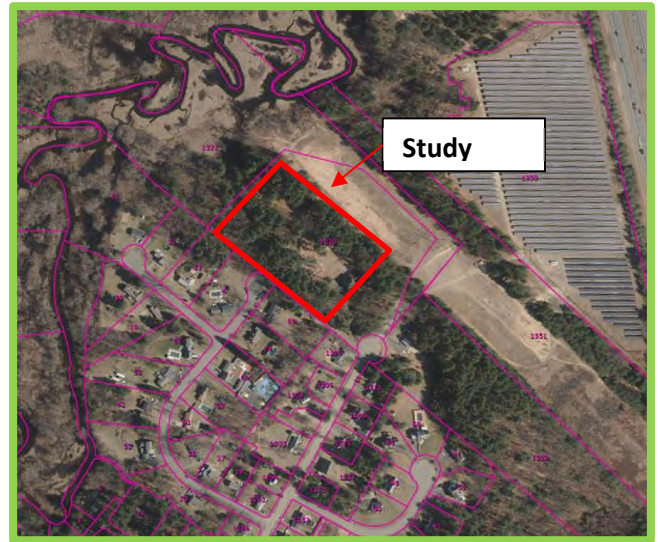
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Wetland Permitting
Rare Species Permitting
Rare Species / Wildlife Surveys
Mitigation Design
Compliance Monitoring



Rare Lepidoptera Habitat Assessment

Frosted Elfin: The frosted elfin butterfly is a day flying butterfly often found in xeric and open habitats. This species uses wild indigo (*Baptisia tinctoria*) or wild lupine (*Lupinus perennis*) as their host plant and always found on or near substantial patches of these species. Research suggests that sub-populations of this species only use either host plant, never both, and wild lupine is the host plant associated with most occurrences of this species in the eastern part of the state. Therefore, to assess the quality of the potential habitat for this species, the health and extent of the host plants was examined. On site, there were no wild indigo or lupine stems found. The potential for wild lupine or indigo within the study area is very low due to the density of the overstory canopy and edge effect of invasive species and disturbance from local residential properties. Overall, in its current condition, the study area does not appear to be viable habitat for the frosted elfin butterfly.



New Jersey Tea Inchworm: Similar to frosted elfin butterfly, the New Jersey Tea Inchworm also inhabits xeric and open habitats, often found in and near pitch pine and scrub oak barren communities. This species host plant is the New Jersey tea (*Ceanothus americanus*) which it is required to sustain this lepidopteran species. On site, no New Jersey tea was found during the assessment. Further, the dense canopy and disturbed and invasive dominated edge habitats, likely out competes this species across most of the site. New Jersey tea does not compete well with denser, taller, species. Overall, in its current condition, the study area does not appear to be viable habitat for the New Jersey tea inchworm.

Sandplain Euchlaena: The sandplain euchlaena inhabits similar open and xeric habitats as the other two lepidoptera species. However, this species also inhabits pitch pine scrub-oak barrens, heathlands and warm season grasslands, which contain lowbush blueberries (*Vaccinium angustifolium* and *V. pallidum*) and possibly other heath species (huckleberry). On site, the forested upland is dominated by a white pine/red oak canopy. The understory is sparse with many invasive and non-native species present. Some lowbush blueberry is present, generally uncommon, sparse and sporadically distributed across the site. No discrete patches were found. Therefore, in its current condition, the study area does not appear to be viable habitat for the sandplain euchlaena.

Twilight Moth: This species inhabits sandplain, pitch-pine and scrub-oak barrens, in addition to other woodlands and shrublands dominated by sandy soils. Host plants for this species are more generalized, with preferences for poplars and willows (typically early successional habitat species) as well as birches, elms and hazelnuts. On site, the study area is sand dominated; however, not sandplain-type habitat. No pitch pine or scrub oak were found on site. The site is a small patch of white pine forest, with a moderate to high degree of disturbance. It is unlikely that this species utilizes this site.

Summary

Based on this assessment, no habitat was present for these four species of rare lepidoptera and therefore the project as proposed is not likely to result in a take to these species. Based on this assessment it is our opinion that formal surveys for these lepidoptera species are not warranted as no host plant habitat is present on site. Further, the MA NHESP has not identified the site as priority habitat at this time.

Should you have any questions regarding this letter report, do not hesitate to contact this office.

Very truly yours,

Steven Riberdy, MS, PWS, CWB, CERP, CE, PSS
Senior Ecologist



SITE PHOTOS



Forested Upland



Forested Upland



Forested Upland



Forested Upland



Garlic Mustard patch



Edge of Forested Wetland