APPENDIX 13

DNR Wildlife and Heritage Response Letter

H&B Solutions, LLC

37534 Oliver Drive
Selbyville, DE 19975

Tel: 410.292.4385

May 16, 2024

Department of Natural Resources
Wildlife & Heritage Service
580 Taylor Ave. | Tawes Office Bldg E-1
Annapolis, MD 21401

Attn: Ms. Lori Byrne

Re: Jade Meadow III Solar Project
Garrett County, MD
Project No: 23005.00

Dear Ms. Byrne:

H&B Solutions, LLC ("H&B") is acting as the local consultant for Jade Meadow III LLC for the State and Local environmental/regulatory reviews and permitting associated with this project.

Enclosed is a preliminary concept solar array layout as well as a table with project parcel details for your information and use. The Project is located primarily in Garrett County on various properties in proximity to Westernport and Barton along Route 36/Route 135. A small segment (approximately 3,500') of the overhead collector line will be located in Allegany County. The Project will consist of twenty-six (26) parcels, many of which are contiguous. Portions of six (6) parcels will be needed for easements to accommodate the various collector lines. As proposed by the Applicant, the Project will be approximately three hundred (300.0) MW AC fixed-tilt solar photovoltaic with a limit of disturbance of approximately two thousand one hundred (2,100) acres.

Based on our preliminary desktop reviews this site is not within the Critical Area, not within 1,000 feet of any Tier II streams or catchment areas, and wetlands onsite will be buffered and avoided as part of the design. The United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) tool was used to determine potential species of concern within the project area under federal jurisdiction. The IPaC identified the following:

Group	Name	Status
Insects	Monarch Butterfly (*Danaus Plexippus*)	Candidate
Mammals	Indiana Bat (*Myotis Sodalis)*	Endangered
Mammals	Northern Long-Eared Bat (*Myotis Septentrionalis*)	Endangered

The IPaC species list is included as Attachment A: IPaC Project Code 2024-0057478 for your reference and includes the most recent project area of investigation (AOI).

The purpose of this letter is to introduce you to the project and request your input related to Rare, Threatened, and Endangered Species. The Project parcels are not located within a zoned district of the County according to the Garrett County Zoning Map. The underlying zoning for the Project in

Allegany County is C. The parcels consist primarily of previously mined areas, reclaimed areas, wooded and/or previously timbered areas, and open fields.

It should be noted that the Applicant's environmental consultant, ECS Mid-Atlantic, Inc. did observe a state endangered plant (American gromwell) onsite while performing environmental field work; however, the observation occurred outside of the proposed LOD (coordinates 39.49265, -79.07334).

We would appreciate DNR's written confirmation that the proposed project does not pose any impact to Rare, Threatened, and Endangered Species so that we may provide documentation to the Public Service Commission in these regards as part of the CPCN process.

Thank you for your consideration in these regards.

Sincerely,
H&B Solutions, LLC

Melissa S. Hall
Managing Member

Dane S. Bauer
Member

Enclosures

Jade Meadow 3 Property Tables

The Project parcels are shown in ***Table 1*** below and comprise approximately four thousand four hundred ninety-one (4,507.60) acres.

Table 1 – Parcels

Property #	County	Tax Map	Grid	Parcel
1	Garrett	0062	0004	0002
2	Garrett	0062	0010	0029
3	Garrett	0062	0009	0010
4	Garrett	0062	0013	0030
5	Garrett	0062	0022	0033
6	Garrett	0062	0006	0006
7	Garrett	0062	0008	0007
8	Garrett	0062	0010	0011
9	Garrett	0062	0011	0012
10	Garrett	0062	0014	0013
11	Garrett	0062	0003	0028
12	Garrett	0062	0020	0014
13	Garrett	0062	0022	0015

Property #	County	Tax Map	Grid	Parcel
14	Garrett	0062	0016	0017
15	Garrett	0062	0007	0022
16	Garrett	0070	0010	0031
17	Garrett	0062	0018	0040
18	Garrett	0062	0016	0016
19	Garrett	0062	0017	0018
20	Garrett	0055	0001	0014
21	Garrett	0054	0012	0018
22	Garrett	0054	0006	0012
23	Garrett	0046	0024	0042
24	Garrett	0055	0001	0015
25	Garrett	0055	0007	0003
26	Garrett	0062	0022	0032

The Easement Only parcels are shown in ***Table 2*** below and comprise approximately one thousand seventy (1,322.59) acres.

Table 2 – Easement Only Parcels

Property #	County	Tax Map	Grid	Parcel
27	Garrett	0062	0006	0031
28	Garrett	0054	0018	0006
29	Garrett	0054	0024	0007
30	Garrett	0047	0019	0010
31	Allegany	0068	0007	0209
32	Allegany	0068	0001	0226

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To:
Project Code: 2024-0057478
Project Name: Jade Meadow III

March 04, 2024

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

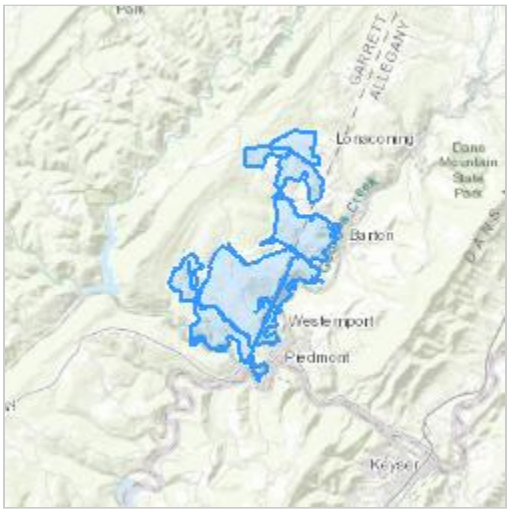
This species list is provided by:

Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
(410) 573-4599

PROJECT SUMMARY

Project Code: 2024-0057478
Project Name: Jade Meadow III
Project Type: Power Gen - Solar
Project Description: Solar
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.51768865,-79.06613473131593,14z



Counties: Allegany and Garrett counties, Maryland

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: ▪ Consultation in this area is only required for wind power projects. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Mia Lenzenweger
Address:	1340 Charwood Rd
Address Line 2:	Suite B
City:	Hanover
State:	MD
Zip:	21076
Email	mlenzenweger@ecslimited.com
Phone:	4108594300

June 20, 2024

Ms. Melissa S. Hall
H&B Solutions, LLC
37534 Oliver Drive
Selbyville, DE 19975

RE: Environmental Review for Jade Meadow III Solar Project, 4491 Acres Along MD 36/MD 135 in Westernport/Barton area, Garrett and Allegany County, Maryland.

Dear Ms. Hall:

For **Property #4** (GA Tax Map 62 Parcel 30), **Property #7** (GA Tax Map 62 Parcel 7), **Property #13** (GA Tax Map 62 Parcel 15), **Property #15** (GA Tax Map 62 Parcel 22), **Property #17** (GA Tax Map 62 Parcel 40), **Property #20** (GA Tax Map 55 Parcel 14), **Property #21** (GA Tax Map 54 Parcel 18), **Property #22** (GA Tax Map 54 Parcel 12), **Property #23** (GA Tax Map 46 Parcel 42), **Property #24** (GA Tax Map 55 Parcel 15), **Property #25** (GA Tax Map 55 Parcel 3), **Property #26** (GA Tax Map 62 Parcel 32), **Property #27** (GA Tax Map 62 Parcel 31), **Property #28** (GA Tax Map 54 Parcel 6), and **Property #29** (GA Tax Map 54 Parcel 7), the Wildlife and Heritage Service has no official records for State or Federal listed, candidate, proposed, or rare plant or animal species within the project area shown on the map provided. As a result, we have no specific concerns regarding potential impacts to such species or recommendations for protection measures at this time.

For **Property #1** (GA Tax Map 62 Parcel 2), **Property #2** (GA Tax Map 62 Parcel 29), **Property #3** (GA Tax Map 62 Parcel 10), **Property #5** (GA Tax Map 62 Parcel 33), **Property #6** (GA Tax Map 62 Parcel 6), **Property #8** (GA Tax Map 62 Parcel 11), **Property #9** (GA Tax Map 62 Parcel 12), **Property #10** (GA Tax Map 62 Parcel 13), **Property #11** (GA Tax Map 62 Parcel 28), **Property #12** (GA Tax Map 62 Parcel 14), **Property #18** (GA Tax Map 62 Parcel 16), **Property #19** (GA Tax Map 62 Parcel 18), **Property #31** (AL Tax Map 68 Parcel 209) and **Property #32** (AL Tax Map 68 Parcel 226), there is overlap with the Aaron Run Fields site which is known to support the Henslow's Sparrow (*Centronyx henslowii*), a species with In Need of Conservation status in Maryland. It is a rare breeding bird in Maryland, and is known to nest in weedy areas or wet meadows (often reclaimed mine grasslands). This species has been documented on several of these parcels.

For **Property #14** (GA Tax Map 62 Parcel 17), there is an historical record of the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and an occurrence of the state-listed endangered Allegheny Woodrat (*Neotoma magister*) documented on the site. These species may still occur on the project site and be impacted by the proposed project. In Maryland, habitat for the Virginia Mallow is generally described as: Frequently scoured gravel bars and river island shorelines. The Allegheny Woodrat requires complex talus/scree habitat with deep crevices.

For **Property #16** (GA Tax Map 70 Parcel 31), there is overlap with part of the Savage River at Bloomington site, which is known to support the Appalachian Cottontail (*Sylvilagus obscurus*), a species with In Need of Conservation status in Maryland.

For **Property #30** (GA Tax Map 47 Parcel 10), there is overlap with Russell Road Bog which supports rare species including the state-listed endangered Low Rough Aster (*Eurybia radula*) as well as rare species of plants and animals considered vulnerable to collection. There is potential for such rare species to occur on this site where they may be directly impacted by the proposed project. The habitat for Low Rough Aster in Maryland is generally described as: Acidic seepage wetlands.

Also, our remote analysis suggests that the forested area on this property contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices. The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the Wildlife and Heritage Service.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.0866.ga/al
Cc: M. Zagorski, DNR
F. Kelley, DNR

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Secretary
David Goshorn, Deputy Secretary

July 18, 2024

Ms. Melissa S. Hall
H&B Solutions, LLC
37534 Oliver Drive
Selbyville, DE 19975

RE: Follow-Up to Environmental Review for Jade Meadow III Solar Project, 4491 Acres Along MD 36/MD 135 in Westernport/Barton area, Garrett and Allegany County, Maryland.

Dear Ms. Hall:

The purpose of this letter is to clarify some of the rare species information provided in our original response dated June 20, 2024, for guidance regarding the need for surveys of rare species. The updated information is in blue font.

For **Property #4** (GA Tax Map 62 Parcel 30), **Property #7** (GA Tax Map 62 Parcel 7), **Property #13** (GA Tax Map 62 Parcel 15), **Property #15** (GA Tax Map 62 Parcel 22), **Property #17** (GA Tax Map 62 Parcel 40), **Property #20** (GA Tax Map 55 Parcel 14), **Property #21** (GA Tax Map 54 Parcel 18), **Property #22** (GA Tax Map 54 Parcel 12), **Property #23** (GA Tax Map 46 Parcel 42), **Property #24** (GA Tax Map 55 Parcel 15), **Property #25** (GA Tax Map 55 Parcel 3), **Property #26** (GA Tax Map 62 Parcel 32), **Property #27** (GA Tax Map 62 Parcel 31), **Property #28** (GA Tax Map 54 Parcel 6), and **Property #29** (GA Tax Map 54 Parcel 7), the Wildlife and Heritage Service has no official records for State or Federal listed, candidate, proposed, or rare plant or animal species within the project area shown on the map provided. As a result, we have no specific concerns regarding potential impacts to such species or recommendations for protection measures at this time.

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For **Property #14** (GA Tax Map 62 Parcel 17), there is an historical record of the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and an occurrence of the state-listed endangered Allegheny Woodrat (*Neotoma magister*) documented on the site. In Maryland, habitat for the Virginia Mallow is generally described as: Frequently scoured gravel bars and river island shorelines. The Virginia Mallow is classified as a facultative species in the Eastern Mountains/Piedmont Region of Maryland, so it is not restricted to wetland habitats. It does require open habitat. Late July is an appropriate time of year to survey for this species, following our protocol. The Allegheny Woodrat requires complex talus/scree habitat with deep crevices. The presence of the Allegheny Woodrat should be assumed, given that it has been documented on this site and that it is difficult to confirm presence/absence. The original record was located on the parcel northeast of Parcel 17 (no number available). If the appropriate habitat of either of these species occurs within the project's limits-of-disturbance, then we would request project details for these parcels, so that protection measures can be developed.

For **Property #16** (GA Tax Map 70 Parcel 31), there is overlap with part of the Savage River at Bloomington site, which is known to support the Appalachian Cottontail (*Sylvilagus obscurus*), a species with In Need of Conservation status in Maryland. The presence of the Appalachian Cottontail should be assumed, given that it has been documented on site and that it is difficult to confirm presence/absence. If the appropriate habitat for this species occurs within the project's limits-of-disturbance, then we would request project details for these parcels, so that protection measures can be developed. Habitat for the Appalachian Cottontail has been described as forested or cut over forest with rhododendron, laurel, or other dense understory in steep terrain, often with field or grass nearby, and burrows in rock crevices.

For **Property #30** (GA Tax Map 47 Parcel 10), there is overlap with Russell Road Bog which supports rare species including the state-listed endangered Low Rough Aster (*Eurybia radula*) as well as rare species of plants and animals considered vulnerable to collection. There is potential for such rare species to occur on this site where they may be directly impacted by the proposed project. The habitat for Low Rough Aster in Maryland is generally described as: Acidic seepage wetlands, and it is considered a wetland obligate. We would recommend determining if suitable habitat is present on site, and if suitable habitat is identified we recommend surveying for the Low Rough Aster during the time of year when it is most readily identifiable, during flowering and fruiting in mid-September. In addition, there is a record for a population of state-listed endangered Stiff Gentian (*Gentianella quinquefolia*) in the immediate vicinity, and it could potentially occur on the nearby parcels included in the project's study area. We would encourage the applicant to have a survey conducted for this species in all areas of suitable habitat on this parcel, during the time of year when it is most readily identifiable. This species is considered to be falcultative and is found in open habitats such as field, meadows, and roadbanks. Stiff Gentian flowers in September, so surveys for Stiff Gentian and for Low Rough Aster could be conducted at the same time. The state-listed endangered Frosted Elfin (*Callophrys irus*) is also documented at this site. If there is disturbance proposed for any areas of potential Frosted Elfin habitat by the proposed project, then a survey for this species should be conducted by an observer familiar with the species, prior to any disturbance. Habitat suitable for Frosted Elfin is meadows and sparse woodlands with the larval host plants wild indigo (*Baptisia* spp.) and sundial lupine (*Lupinus perennis*). Please note that the Stiff Gentian and Frosted Elfin are considered to be highly vulnerable to collection in Maryland, and any information regarding their locations in this vicinity should not be made available outside of the group involved in the review and survey/results.

Also, our remote analysis suggests that the forested area on this property contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices.

The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the Wildlife and Heritage Service.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.0866x.ga/al
Cc: M. Zagorski, DNR
C. Frye, DNR
K. McCarthy, DNR
L. Davidson, DNR
F. Kelley, DNR

From:	Melissa Hall
To:	Lori Byrne -DNR-
Cc:	Megan Zagorski -DNR-; Katharine McCarthy -DNR-; Chris Frye -DNR-; Dane Bauer; Hunter Maret; Michael Svedeman; Lynn M. Davidson; max.ferlauto@maryland.gov; MICHAEL E BACON (MBacon@ecslimited.com)
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Friday, August 9, 2024 6:47:00 AM
Attachments:	MDNR_Revised_Response_Letter_JMIII_Comments_20240808.pdf image001.png Henslows Sparrow DNR Response_Jade Meadow III_VHB_MEMO.pdf

Lori:

Please see the attached comment response letter to your July 18th update as well as supporting memo from VHB. We will follow up with the interim T&E survey report from ECS next week.

Thanks.

Melissa Schmid Hall
410.292.4385

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Thursday, July 18, 2024 4:00 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
Please see attached for an update to our original response letter, with answers to your questions and additional information relating to RT&E species followup. This may eliminate the need to meet on Wednesday, but I will leave that to those on this list.
Thank you.
Lori

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401

	410-260-8573 (office) 410-260-8596 (FAX) lori.byrne@maryland.gov

On Thu, Jul 18, 2024 at 3:27 PM Melissa Hall <mhall@hallandbauer.com> wrote:

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 212 581 992 948

Passcode: Us78gx

For organizers: Meeting options

July 18, 2024

Ms. Melissa S. Hall
H&B Solutions, LLC
37534 Oliver Drive
Selbyville, DE 19975

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The purpose of this letter is to clarify some of the rare species information provided in our original response dated June 20, 2024, for guidance regarding the need for surveys of rare species. The updated information is in blue font.

For **Property #4** (GA Tax Map 62 Parcel 30), **Property #7** (GA Tax Map 62 Parcel 7), **Property #13** (GA Tax Map 62 Parcel 15), **Property #15** (GA Tax Map 62 Parcel 22), **Property #17** (GA Tax Map 62 Parcel 40), **Property #20** (GA Tax Map 55 Parcel 14), **Property #21** (GA Tax Map 54 Parcel 18), **Property #22** (GA Tax Map 54 Parcel 12), **Property #23** (GA Tax Map 46 Parcel 42), **Property #24** (GA Tax Map 55 Parcel 15), **Property #25** (GA Tax Map 55 Parcel 3), **Property #26** (GA Tax Map 62 Parcel 32), **Property #27** (GA Tax Map 62 Parcel 31), **Property #28** (GA Tax Map 54 Parcel 6), and **Property #29** (GA Tax Map 54 Parcel 7), the Wildlife and Heritage Service has no official records for State or Federal listed, candidate, proposed, or rare plant or animal species within the project area shown on the map provided. As a result, we have no specific concerns regarding potential impacts to such species or recommendations for protection measures at this time.

For **Property #1** (GA Tax Map 62 Parcel 2), **Property #2** (GA Tax Map 62 Parcel 29), **Property #3** (GA Tax Map 62 Parcel 10), **Property #5** (GA Tax Map 62 Parcel 33), **Property #6** (GA Tax Map 62 Parcel 6), **Property #8** (GA Tax Map 62 Parcel 11), **Property #9** (GA Tax Map 62 Parcel 12), **Property #10** (GA Tax Map 62 Parcel 13), **Property #11** (GA Tax Map 62 Parcel 28), **Property #12** (GA Tax Map 62 Parcel 14), **Property #18** (GA Tax Map 62 Parcel 16), **Property #19** (GA Tax Map 62 Parcel 18), **Property #31** (AL Tax Map 68 Parcel 209) and **Property #32** (AL Tax Map 68 Parcel 226), there is overlap with the Aaron Run Fields site which is known to support the Henslow's Sparrow (*Centronyx henslowii*), a species with In Need of Conservation status in Maryland. It is a rare breeding bird in Maryland, and is known to nest in weedy areas or wet meadows (often reclaimed mine grasslands). Henslow's Sparrow is thought to be a grassland breeding bird species that requires large areas of habitat to successfully nest. This species has been documented on several of these parcels. The presence of the Henslow's Sparrow should be assumed, given the difficulty in confirming its absence in an area where it was previously documented. If suitable habitat occurs within the project's limits-of-disturbance, then we would request project details for these parcels, so that protection measures can be developed. While species listed as In Need of Conservation do not require a permit for incidental take, the Department works with state permitting agencies through the permit review process to conserve these species with the goal of preventing further decline and future listing as Threatened.

- ***Jade Meadow III response:*** We have attached a response from our subject matter expert, Dr. Douglas DeBerry of VHB, inc. to this transmittal. Jade Meadow III will utilize native grasses and forbs as part of its vegetation reseeding, and a mowing program based on time of year and frequency to maintain appropriate vegetative cover for the Henslow's sparrow.

For **Property #14** (GA Tax Map 62 Parcel 17), there is an historical record of the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and an occurrence of the state-listed endangered Allegheny Woodrat (*Neotoma magister*) documented on the site. In Maryland, habitat for the Virginia Mallow is generally described as: Frequently scoured gravel bars and river island shorelines.

- The Virginia Mallow is classified as a facultative species in the Eastern Mountains/Piedmont Region of Maryland, so it is not restricted to wetland habitats. It does require open habitat. Late July is an appropriate time of year to survey for this species, following our protocol.

    - ***Jade Meadow III response:*** A survey for the Virginia Mallow was conducted on 7/25/2024 on an expanded survey area including portions of Property #8, #9, #14, #18, and #19 encompassing the east edge (prop. #8, #14, #18) and south edge (prop. #9, #19) of the limit of disturbance. No presence of the Virginia Mallow was observed by ECS Mid-Atlantic during the survey, however potential habitat may exist, as exhibited by the prevalence of Japanese Knotweed. Jade Meadow III proposes to avoid any potential habitat by means of a 50-foot setback from any potential habitat identified by ECS Mid-Atlantic's future report, to the LOD.

- The Allegheny Woodrat requires complex talus/scree habitat with deep crevices. The presence of the Allegheny Woodrat should be assumed, given that it has been documented on this site and that it is difficult to confirm presence/absence. The original record was located on the parcel northeast of Parcel 17 (no number available). If the appropriate habitat of either of these species occurs within the project's limits-of-disturbance, then we would request project details for these parcels, so that protection measures can be developed.

    - ***Jade Meadow III response:*** A survey for the Allegheny Woodrat was conducted on 7/25/2024 on an expanded survey area including portions of Property #8, #9, #14, #18, and #19 encompassing the east edge (prop. #8, #14, #18) and south edge (prop. #9, #19) of the limit of disturbance. No presence of the Allegheny Woodrat was observed by ECS Mid-Atlantic during the survey, however potential habitat may exist, exhibited by the prevalence of rocky outcroppings. Jade Meadow III proposes to avoid any potential habitat by means of a 50-foot setback from any potential habitat identified by ECS Mid-Atlantic's future report, to the LOD.

For **Property #16** (GA Tax Map 70 Parcel 31), there is overlap with part of the Savage River at Bloomington site, which is known to support the Appalachian Cottontail (*Sylvilagus obscurus*), a species with In Need of Conservation status in Maryland. The presence of the Appalachian Cottontail should be assumed, given that it has been documented on site and that it is difficult to confirm presence/absence. If the appropriate habitat for this species occurs within the project's limits-of-disturbance, then we would request project details for these parcels, so that protection measures can be developed. Habitat for the Appalachian Cottontail has been described as forested or cut over forest with rhododendron, laurel, or other dense understory in steep terrain, often with field or grass nearby, and burrows in rock crevices.

- ***Jade Meadow III response:*** All areas within Property 16 will be removed from the project LOD in addition to two acres of LOD located in the southern-most portion of Property #10 and two acres of LOD in the eastern-most portion of Property #12.

For **Property #30** (GA Tax Map 47 Parcel 10), there is overlap with Russell Road Bog which supports rare species including the state-listed endangered Low Rough Aster (*Eurybia radula*) as well as rare species of plants and animals considered vulnerable to collection. There is potential for such rare species to occur on this site where they may be directly impacted by the proposed project. The habitat for Low Rough Aster in Maryland is generally described as: Acidic seepage wetlands, and it is considered a wetland obligate. We would recommend determining if suitable habitat is present on site, and if suitable habitat is identified we recommend surveying for the Low Rough Aster during the time of year when it is most readily identifiable, during flowering and fruiting in mid-September. In addition, there is a record for a population of state-listed endangered Stiff Gentian (*Gentianella quinquefolia*) in the immediate vicinity, and it could potentially occur on the nearby parcels included in the project's study area. We would encourage the applicant to have a survey conducted for this species in all areas of suitable habitat on this parcel, during the time of year when it is most readily identifiable. This species is considered to be falcultative and is found in open habitats such as field, meadows, and roadbanks. Stiff Gentian flowers in September, so surveys for Stiff Gentian and for Low Rough Aster could be conducted at the same time. The state-listed endangered Frosted Elfin (*Callophrys irus*) is also documented at this site. If there is disturbance proposed for any areas of potential Frosted Elfin habitat by the proposed project, then a survey for this species should be conducted by an observer familiar with the species, prior to any disturbance. Habitat suitable for Frosted Elfin is meadows and sparse woodlands with the larval host plants wild indigo (*Baptisia* spp.) and sundial lupine (*Lupinus perennis*). Please note that the Stiff Gentian and Frosted Elfin are considered to be highly vulnerable to collection in Maryland, and any information regarding their locations in this vicinity should not be made available outside of the group involved in the review and survey/results.

- ***Jade Meadow III response:*** The area available to the project for interconnection via a transmission easement is a ~30 acre portion of land in the southeast portion of Property #30. A survey for Low Rough Aster habitat, Stiff Gentian habitat and Yellow Wild Indigo was conducted on 7/24/2024. During this survey, no yellow wild indigo was observed within the LOD. Potential habitat for Low Rough Aster was observed in the wetland within the existing transmission corridor and the LOD. This wetland will be removed from the LOD and a 35' buffer will be imposed. Potential habitat exists for Stiff Gentian in portions of the LOD in Property #30 and a follow-up survey will be conducted on September 11, 2024 to survey areas of potential habitat within portions of the project LOD.

Also, our remote analysis suggests that the forested area on this property contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices.

The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the Wildlife and Heritage Service.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.0866x.ga/al
Cc: M. Zagorski, DNR
C. Frye, DNR
K. McCarthy, DNR
L. Davidson, DNR
F. Kelley, DNR

To: REV Renewables
Attn: Hunter Maret, Project Manager

Date: August 2, 2024

Cc: Click here to enter text.

Project #: 35840.01

Memorandum

From: Douglas A. DeBerry, PhD, PWS, PWD

Re: Jade Meadow III, Allegany County, MD
Henslow's Sparrow Habitat – DNR Comment-response

Henslow's Sparrow Habitat Comment-Response: Jade Meadow III

In response to Maryland DNR's comments on habitat for Henslow's sparrow (*Centronyx henslowii*) on the Jade Meadow III site, we agree that given the proximity to known habitat (Aaron Run Fields), the parcels listed in DNR's response letter could represent *future* areas of habitat expansion for Henslow's sparrow. However, based on our review of aerial imagery, it seems clear that *current* land use on these parcels is preclusive: the majority of the landscape is managed for hay production as well as annual winter wheat and planted crops (see Figures 1-3), which is not a sustainable land use scenario for this species (Herkert 2002). This owes mostly to the fact that annual cutting and harvesting interrupts the structural integrity of the meadow and reduces viability of the habitat (Walk and Warner 2000, Roth et al. 2005), which in turn results in a lack of persistent dead standing vegetation – a habitat factor that is linked to successful nesting and breeding in this species (Herkert 1994, Skipper 1998).

The site does not represent suitable habitat for Henslow's sparrow as it is currently maintained. The project may ultimately improve site conditions for Henslow's sparrow by introducing prairie-like meadows using native grasses and forbs as part of a seed mix. Site conditions may be further improved by a mowing program based on the time of year, and at a frequency that will best maintain appropriate vegetative cover for this species (Ingold et al. 2009). Jade Meadow III, being a solar facility, may allow for habitat for the Henslow's sparrow to be established within the site's extent.



Figure 1: Representative aerial image of the Jade Meadow III project area, showing close-cropped condition of open fields managed for hay production.

It bears mentioning that one of the most significant threats to Henslow's sparrow habitat in this region is normal ecological succession: the Mid-Atlantic states are centered on the Eastern Deciduous Forest Floristic Province (Gleason and Cronquist 1964), which is characterized by eventual transition from herbaceous communities to deciduous forest. Incursion of woody plants into open fields and prairies has been shown to reduce Henslow's sparrow utilization of known habitats (Herkert 2002). For any active solar facility, woody species management is a priority to ensure proper system functionality in and around the panels. Thus, the normal operation and maintenance of this facility will include woody species control, which we expect will provide an ancillary benefit to Henslow's sparrow habitat maintenance over time.



Figure 2: Evidence of the ~115 acre area of Property #9 planted in winter wheat.



Figure 3: Aerial imagery of hay cut, baled and dispersed substantially within Property #2, #3, #8, #9

References Cited:

Gleason, H.A. & Cronquist, A. 1964. *The Natural Geography of Plants*. Columbia Univ. Press, New York.

Herkert, J.R. 1994. Status and habitat selection of the Henslow's Sparrow in Illinois. The Wilson Bulletin 106:35-45.

Herkert, J.R. 2002. Effects of management practices on grassland birds: Henslow's sparrow. Grasslands Ecosystem Initiative, Northern Prairie Wildlife Research Center, U.S. Geological Survey.

Ingold, D.J., Dooley, J.L. and Cavender, N. 2009. Return rates of breeding Henslow's Sparrows on mowed versus unmowed areas on a reclaimed surface mine. The Wilson Journal of Ornithology, 121:194-197.

Roth, A.M., Sample, D.W., Ribic, C.A., Paine, L., Undersander, D.J. and Bartelt, G.A. 2005. Grassland bird response to harvesting switchgrass as a biomass energy crop. Biomass and Bioenergy, 28(5), pp.490-498.

Skipper, C.S. 1998. Henslow's sparrows return to previous nest site in western Maryland. North American Bird Bander 23:36-41.

Walk, J.W. and Warner, R.E. 2000. Grassland management for the conservation of songbirds in the Midwestern USA. Biological Conservation, 94(2), pp.165-172.

From: Melissa Hall
To: Lori Byrne -DNR-
Cc: Dane Bauer; Lynn M. Davidson
Subject: RE: Jade III - DNR RTE Follow-Up
Date: Thursday, August 15, 2024 11:09:00 AM
Attachments: MDNR_LOD_Parcels_20240815.zip
image001.png
MDNR Species_V3.pdf

Lori:

See the attached shapefiles that include:

- ERD Project Parcels
  - Separate attribute table field for "DNR Species of Concern" for each parcel as documented in DNR's revised letter dated July 18 2024.
- Project Limit of Disturbance (LOD) as of May 15 2024

A reference exhibit is also attached for quick viewing if that is helpful as well.

Thanks.

Melissa Schmid Hall
410.292.4385

HB SOLUTIONS

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Friday, August 9, 2024 3:13 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Dane Bauer <dbauer@hallandbauer.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
Would it be possible to get shapefiles from you? I believe this was discussed at the 7/24 meeting but I have not received anything yet. Thank you.
Lori Byrne

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

On Fri, Aug 9, 2024 at 6:47 AM Melissa Hall <mhall@hallandbauer.com> wrote:

> Lori:
>
> Please see the attached comment response letter to your July 18th update as well as supporting memo from VHB. We will follow up with the interim T&E survey report from ECS next week.
>
> Thanks.
>
> Melissa Schmid Hall
> 410.292.4385
>
> HB SOLUTIONS
>
> **From:** Lori Byrne -DNR- <lori.byrne@maryland.gov>
> **Sent:** Thursday, July 18, 2024 4:00 PM
> **To:** Melissa Hall <mhall@hallandbauer.com>
> **Cc:** Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
> **Subject:** Re: Jade III - DNR RTE Follow-Up
>
> Dear Ms. Hall,
> Please see attached for an update to our original response letter, with answers to your questions and additional information relating to RT&E species followup. This may eliminate the need to meet on Wednesday, but I will leave that to those on this list.
> Thank you.
> Lori
>
>
> dnr.maryland.gov
>
> Lori A. Byrne
> Environmental Review Coordinator
> Wildlife and Heritage Service
> Department of Natural Resources
> 580 Taylor Avenue, E-1
> Annapolis, MD 21401
> 410-260-8573 (office)
> 410-260-8596 (FAX)
> lori.byrne@maryland.gov
>

On Thu, Jul 18, 2024 at 3:27 PM Melissa Hall <mhall@hallandbauer.com> wrote:

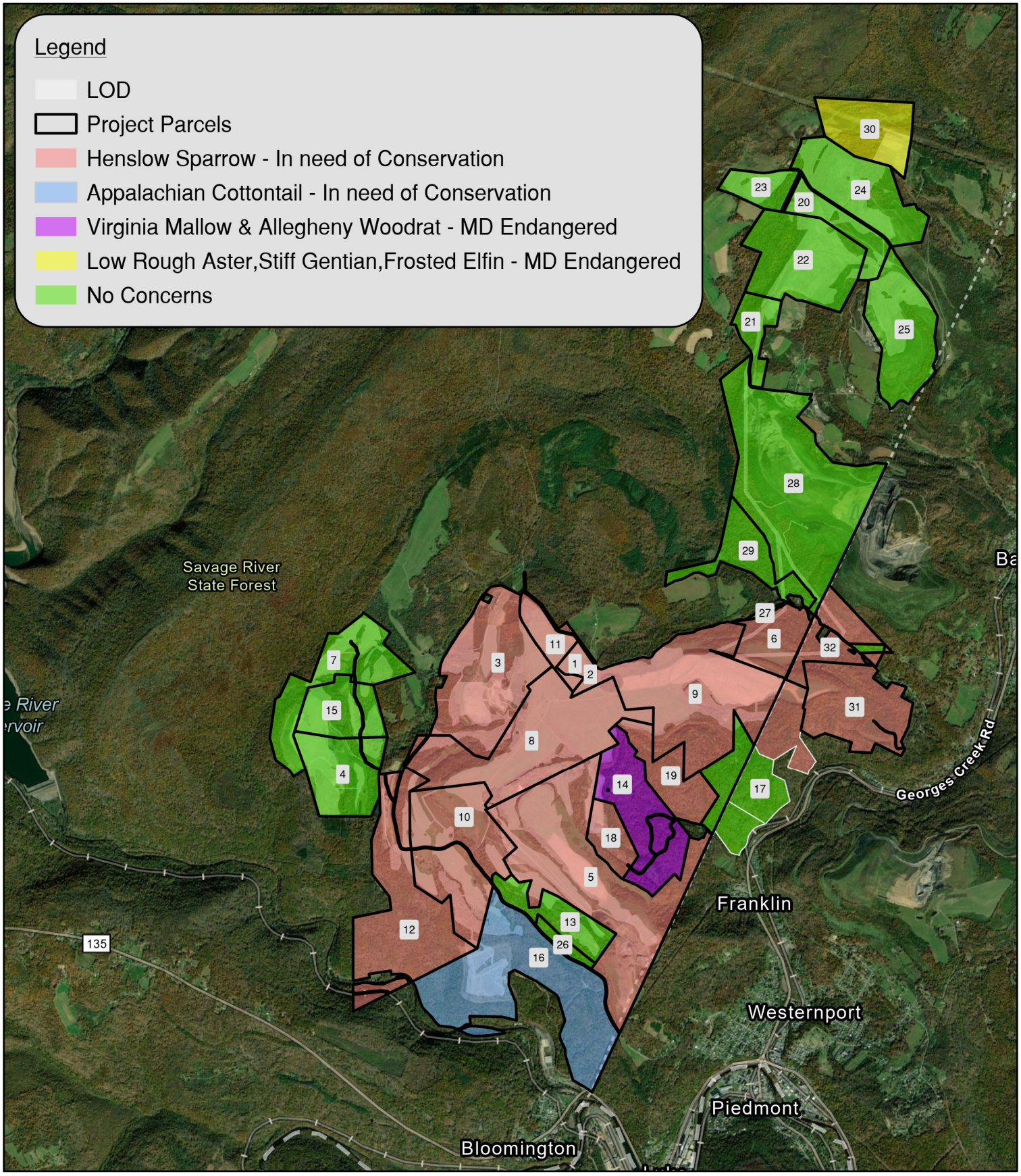
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Passcode: Us78gx

For organizers: Meeting options



REV RENEWABLES

N

1 inch equals 1 miles

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Jade Meadow 3
MDNR Species

Maryland

From:	Melissa Hall
To:	"Lori Byrne -DNR-"
Cc:	"Megan Zagorski -DNR-"; "Katharine McCarthy -DNR-"; "Chris Frye -DNR-"; Dane Bauer; "Hunter Maret"; "Michael Svedeman"; "Lynn M. Davidson"; "max.ferlauto@maryland.gov"; MICHAEL E BACON (MBacon@ecslimited.com)
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Thursday, August 22, 2024 10:03:00 AM
Attachments:	17729-A_Jade 3 Property 30 Habitat Assessment.pdf image001.png 17729-A Jade 3 Property 14 Habitat Assessment_FINAL.pdf
Importance:	High

Lori:

Attached are the interim RTE surveys completed by ECS for your review. As discussed on our call with Shawn Seaman on July 31st, we would like to schedule a follow-up meeting with this group to discuss the results and associated next steps. Could you please let us know availability on your end for Aug 28th, 29th or Sept 4th.

Thanks.

Melissa Schmid Hall
410.292.4385

HB SOLUTIONS

From: Melissa Hall
Sent: Friday, August 9, 2024 6:47 AM
To: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Cc: Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>; max.ferlauto@maryland.gov; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>
Subject: RE: Jade III - DNR RTE Follow-Up

Lori:

Please see the attached comment response letter to your July 18th update as well as supporting memo from VHB. We will follow up with the interim T&E survey report from ECS next week.

Thanks.

Melissa Schmid Hall
410.292.4385

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Sent: Thursday, July 18, 2024 4:00 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
Please see attached for an update to our original response letter, with answers to your questions and additional information relating to RT&E species followup. This may eliminate the need to meet on Wednesday, but I will leave that to those on this list. Thank you.
Lori

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
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410-260-8573 (office)
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lori.byrne@maryland.gov

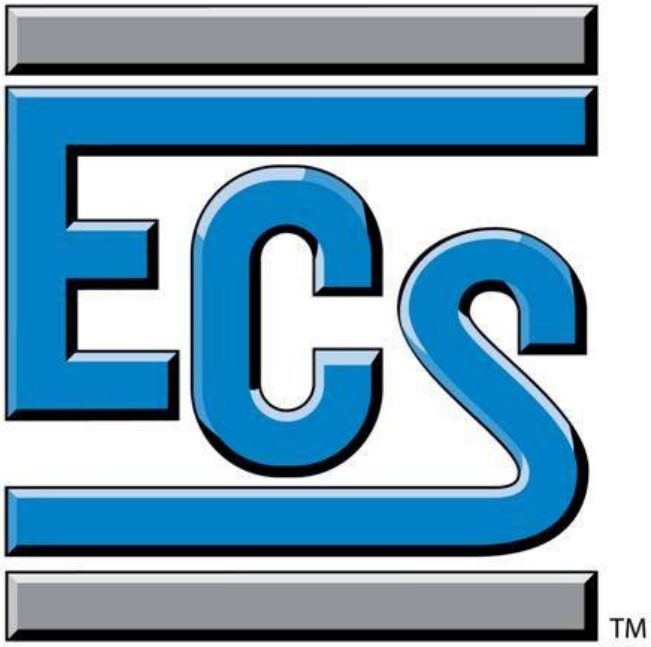
On Thu, Jul 18, 2024 at 3:27 PM Melissa Hall <mhall@hallandbauer.com> wrote:

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Passcode: Us78gx

For organizers: Meeting options



PROPERTY #30 HABITAT ASSESSMENT
JADE MEADOW III PROPERTY
GARRETT COUNTY, MARYLAND

ECS PROJECT NO. 47:17729-A

FOR

JADE MEADOW III LLC

AUGUST 21, 2024

August 21, 2024

Mr. Hunter Maret
Jade Meadow III LLC
520 Maryville Centre, Suite 400
St. Louis, Missouri 63141

ECS Project No. 47:17729-A

Reference: Habitat Assessment, Jade Meadow III Property – Property #30, Barton, Garrett County, Maryland

Dear Mr. Maret:

ECS Mid-Atlantic (ECS) is pleased to present the preliminary findings of the habitat assessment survey for the subject site in general accordance with ECS Proposal No. 47:34385-EP, authorized on July 17, 2024. ECS conducted a survey of Property #30 for potential habitat of the state-endangered low rough aster (*Eurybia radula*), stiff gentian (*Gentianella quinquefolia*), and the frosted elfin (*Callophrys irus*), following the Maryland Department of Natural Resources (DNR) Wildlife and Heritage Service protocols for conducting a survey for rare plants and animals. As part of a natural resource assessment process, H&B Solutions contacted the Maryland DNR regarding the potential for any threatened or endangered species within the property boundaries of the subject site. In a response letter received from the DNR dated June 20, 2024, DNR indicated for Property #30 that "potential for the state-listed endangered low rough aster to occur on this site". An updated response letter received from the DNR dated July 18, 2024, indicated additional species for Property #30 including "a record for a population of the state-listed endangered stiff gentian in the immediate vicinity and could potentially occur on the nearby parcels included in the project's study area" and for "the state-listed frosted elfin is also documented on this site".

PROPERTY DESCRIPTION

The property referred to as the "subject site" is located north of Russell Road and to the north and south of an existing transmission right-of-way (ROW) in Barton, Garrett County, Maryland (**Attachment B**). The subject site is further identified by the Maryland Department of Assessments and Taxation (MDAT) online database as Parcel Number 11-003125 and is approximately 133 acres in size. The study area consists of the entirety of the proposed limits of disturbance (LOD) within the subject site plus a 300-foot buffer and survey area directly adjacent and beyond the LOD. The study area is comprised of wooded land, mixed-vegetated land, active hayfields, and a transmission ROW.

LOW ROUGH ASTER BACKGROUND

The low rough aster (*E. radula*) is included on the List of Rare, Threatened, and Endangered Plants of Maryland (March 2021) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *E. radula* is a one to three-foot herbaceous, perennial plant that

flowers in the late summer to early fall and shows pale blue-violet rays with yellow centers. The species range in Maryland includes the central and western regions of Maryland (Cecil, Frederick, Garrett, Harford, Montgomery, and Prince George's Counties). Low rough aster is found in wet soils in a wide variety of habitats from acidic seepage wetlands to creek shores and ditches. The Rare, Threatened, and Endangered Plants of Maryland Report, prepared by the Maryland DNR Wildlife and Heritage Service and dated March 2021, states that *E. radula* populations in Maryland are endangered due to habitat loss, woody succession of bog-like habitat. Few Maryland populations are found on protected lands. The flowering and fruiting period of *E. radula* is in mid-September.

STIFF GENTIAN BACKGROUND

The stiff gentian (*G. quinquefolia*) is included on the List of Rare, Threatened, and Endangered Plants of Maryland (March 2021) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *G. quinquefolia* is a one to two-foot herbaceous, annual plant that flowers in the late summer to early fall and shows light blue to violet or sometimes yellowish ½ to nearly 1-inch long, tubular with five triangular lobes that fold in. The species is only found in Garrett County, Maryland. Stiff gentian is a facultative species and is found in a wide variety of habitats from fields, meadows, clearings, and road banks at high elevations. The Rare, Threatened, and Endangered Plants of Maryland Report, prepared by the Maryland DNR Wildlife and Heritage Service and dated March 2021, states that *G. quinquefolia* populations in Maryland are endangered due to habitat loss and woody succession of meadow/field habitats. The flowering and fruiting period of *G. quinquefolia* is in mid-September.

FROSTED ELFIN BACKGROUND

The frosted elfin (*C. irus*) is included on the List of Rare, Threatened, and Endangered Animals of Maryland (November 2023) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *C. irus* is a small, non-migratory butterfly that flies early in spring, and is often rather localized and rare. This species depends upon pine barrens, a rare habitat type characterized by fire-dependent conifers, dense thickets of scrub oak, and grassy openings that support specialized plants like wild indigo (*Baptisia sp*.) and wild blue lupine (*Lupinus perennis*), which are host plants that frosted elfin larvae need to survive. It lays its eggs singly on the leaves of the host plants and the caterpillars hatch a few weeks later and feast upon the flowers and fruits of the host plant species. Each caterpillar then burrows into the duff and soil and pupates for the rest of the year, overwintering in the soil. Adult frosted elfins are not strong fliers and will not stray too far from the host plants. The species range in Maryland includes the coastal, central, and western regions of Maryland (Charles, Dorchester, Garrett, Wicomico, and Worcester Counties).

The wild blue lupine prefers open sunny areas of dry woodland glades, grasslands, and roadsides. The plant is approximately 7-24 inches tall and opens its blue, white or pink flowers in May and June. Two types of wild indigo species are found in Maryland, the blue wild indigo (*Baptisia australis*) and the yellow wild indigo (*Baptisia tinctoria*). The wild blue indigo may be found in Maryland along the Potomac, in river washed areas and scoured areas. It prefers moist open woods and prairies with sandy gravelly soil. The blue wild indigo is considered threatened

in Maryland. The yellow wild indigo is found throughout Maryland and prefers open areas in full sun. The plant stands approximately 2-4 feet tall and flowers in May and June.

FIELD VISIT FINDINGS

Prior to the field visit, ECS and Jade Meadow III LLC attended a call on July 24, 2024, with the Maryland DNR discussing survey protocols for both plant species and the frosted elfin. During the call, DNR stated that a survey needs to be conducted in mid-September for the low rough aster and stiff gentian, when the plant species flowers. In addition, DNR stated that a population of wild yellow indigo is known on the west adjacent parcel and that ECS should conduct a survey for this plant to determine if potential habitat exists for the frosted elfin.

A field evaluation for Property #30 was conducted on July 24, 2024. ECS spent approximately 5.5 hours investigating Property #30 searching for potential habitats for the low rough aster and stiff gentian and searching for certain plants, particularly focusing on the presence or absence of the yellow wild indigo. Prior to the site visit, ECS prepared a field observation guidance document including images and known characteristics of each identified species and their potential habitat. ECS traversed the property via transects to systematically observe for the plant species and its habitats during the survey. Additionally, ECS assessed the vegetative community by collecting data and grouping habitats present onsite based on their vegetation including species observed within the tree, shrub, and herbaceous layers.

The wetland area located within the transmission easement that was previously identified by ECS during a 2023 wetland determination has the potential for the low rough aster and stiff gentian. Two additional wetland areas were observed within the central portion of the transmission ROW that has the potential for the low rough aster and stiff gentian. In addition, based on the observations within the transmission easement, hillslopes and forest edges, it appears to be suitable for the stiff gentain.

A hayfield located on the eastern portion of the parcel and south of the easement area was recently harvested. In addition, an area south of this hayfield, separated by autumn olive shrubs and black locust trees, was also recently harvested for hay. ECS did not observe potential habitat for the low rough aster within this portion of the subject property. Habitat for the stiff gentian are typically fields, meadows, and road banks. Based on these specific habitat requirements of *G. quinquefolia*, the most suitable habitat for this species is found within fielded areas. However, most of the fielded areas appeared to be recently harvested with some undisturbed areas. As such, the potential habitat of the stiff gentian may be located within these undisturbed areas. ECS did not observe any populations of the yellow wild indigo within this portion of the study area.

ECS will update this letter once the follow-up assessment is completed during the second week of September. ECS recommends submitting this information to the Maryland DNR for review to obtain concurrence.

ECS would like to thank Jade Meadow III LLC for the opportunity to provide you with this Property #30 habitat assessment. We look forward to assisting you further with this project. If you have any questions, please feel free to contact us at any time at 410-859-4300.

Sincerely,

ECS MID-ATLANTIC, LLC

Michael Bacon
Environmental Senior Project Manager
MBacon@ecslimited.com

Justin M. Hughes, PWS
Associate Principal
JHughes@ecslimited.com

HABITAT DESCRIPTION

HABITAT DESCRIPTION

Survey for *Eurybia radula, Gentianella quinquefolia, and Callophrys irus* 24 July 2024

Jade Meadow III Property, Garrett County, MD

Michael Bacon and Lilly Szamski / ECS

Transmission ROW Scrub/Shrub Point #1

Scientific Name	Common Name
Trees	
Robinia pseudoacacia	Black locust
Prunus serotina	Black cherry
Shrubs/Woody Vines	
Robinia pseudoacacia	Black locust
Prunus serotina	Black cherry
Elaegnus umbellata	Autumn olive
Herbs	
Rubus allegheniensis	Allegheny blackberry
Rubus flagellaris	Common dewberry
Agrostis capillaris	Common bent
Spiraea japonica	Japanese spirea
Achillea millefolium	Common yarrow
Euthamia graminifolia	Flat-top goldenrod

Southeast Scrub/Shrub Point #2

Scientific Name	Common Name
Trees	
N/A	
Shrubs/Woody Vines	
Robinia pseudoacacia	Black locust
Prunus serotina	Black cherry
Elaegnus umbellata	Autumn olive
Herbs	
Achillea millefolium	Common yarrow
Centaurea stoebe	Spotted knapweed
Rosa multiflora	Multiflora rose
Solidago gigantea	Giant goldenrod
Lotus corniculatus	Bird’s-foot trefoil

Survey Notes: These data points are representative of most areas of the transmission ROW corridor and the southeastern field area. Potential habitat for the low rough aster and stiff gentian were observed within the study area. A follow-up visit will be conducted during the second week of September when both plants are known to bloom. Yellow wild indigo was not observed within the boundaries of the study area.

SITE LOCATION MAP

N

MAP 0047
PARCEL 0010

MAP 0055
PARCEL 0015

MAP 0046
PARCEL 0042

MAP 0055
PARCEL 0014

0 250 500 750 1,000 Feet

LEGEND

- Proposed Limits of Disturbance (LOD)
- 300-ft LOD Buffer
- Project Parcel Boundaries
- Determined Stream (R3)
- Determined Stream (R4)
- Determined Stream (R6)
- Non-Jurisdictional Wetland
- Determined Wetland (PEM)
- Determined Wetland (PFO)
- Low Rough Aster (Potential Habitat Area)
- Stiff Gentian (Potential Habitat Area)

ECS Mid-Atlantic, LLC
1340 Charwood Road, Suite B
Hanover, MD 21076
Phone: (410) 859-4300
www.ecslimited.com

ECS Project No. 47:17729

Field Verified Habitat Assessment
Property #30
Field Assessment Date: July 24, 2024
Jade Meadow III
New Georges Creek Road
Allegany and Garrett Counties, MD

Service Layer Credits:
World Imagery: Maxar

PHOTOGRAPHIC LOG



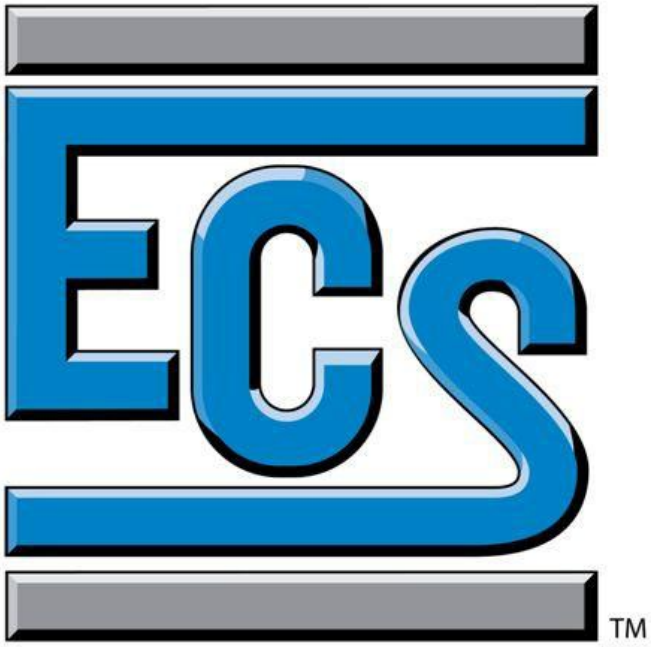
Photograph 1: Looking east along the existing transmission ROW



Photograph 2: Vegetated area on the southeast portion of the parcel



Photograph 3: Harvest hayfield on the southeastern portion of the parcel



PROPERTY #14 HABITAT ASSESSMENT
JADE MEADOW III PROPERTY
GARRETT COUNTY, MARYLAND

ECS PROJECT NO. 47:17729-A

FOR

JADE MEADOW III LLC

AUGUST 21, 2024

August 21, 2024

Mr. Hunter Maret
Jade Meadow III LLC
520 Maryville Centre, Suite 400
St. Louis, Missouri 63141

ECS Project No. 47:17729-A

Reference: Habitat Assessment, Jade Meadow III Property – Property #14, Barton, Garrett County, Maryland

Dear Mr. Maret:

ECS Mid-Atlantic (ECS) is pleased to present the preliminary findings of the habitat assessment survey for the subject site in general accordance with ECS Proposal No. 47:34385-EP, authorized on July 17, 2024. ECS conducted a survey of Property #14 (Parcel Number 04-004175) for the potential habitat of the state-listed endangered Virginia mallow (*Ripariosida hermaphrodita*), and the Allegheny woodrat (*Neotoma magister*), following the Maryland Department of Natural Resources (DNR) Wildlife and Heritage Service protocols for conducting a survey for rare plants and animals. As part of a natural resource assessment process, H&B Solutions contacted the Maryland DNR regarding the potential for any threatened or endangered species within the property boundaries of the subject site. In a response letter received from the DNR dated June 20, 2024, the DNR indicated for Property #14 that "there is a historical record of the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and an occurrence of the state-listed endangered Allegheny Woodrat (*Neotoma magister*) documented on the site." An updated response letter received from the DNR dated July 18, 2024, indicated additional information regarding the two species.

PROPERTY DESCRIPTION

The property referred to as the "subject site" is located north of New George's Creek Road SW in Barton, Garrett County, Maryland (Attachment B). The Maryland Department of Assessments and Taxation (MDAT) online database further identifies the subject site as a portion of Property #14 (Parcel Number 04-004175). After review of the characteristics of property #14 and the characteristics of the surrounding project parcels, Jade Meadow III LLC directed ECS to expand the study area to gain an abundance of certainty on any habitat for species DNR had expressed concern. The expanded survey area consisted of portions of Properties #8, #9, #18, and #19 encompassing the east edge (Property #8, #14, and #18) and the south edge (Property #9 and #19), since these properties are within the proposed limits of disturbance (LOD). The total survey area consists of the entirety of the proposed LOD within the subject site and the expanded survey area, plus a 300 foot buffer beyond the LOD. The subject site currently consists of agricultural, grassy fields and undeveloped wooded land.

VIRGINIA MALLOW BACKGROUND

The Virginia mallow (*R. hermaphrodita)* is included on the List of Rare, Threatened, and Endangered Plants of Maryland (March 2021) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *R. hermaphrodita* is a three to ten-foot herbaceous, perennial plant that flowers in July through September and shows five white petals approximately 8 millimeters long that grow in a clustered formation. The stems of the Virginia mallow are hairy when young and become smooth with age. The leaves grow alternately on the stem and resemble long pointed maple leaves, which usually have three to seven irregularly toothed lobes, with the middle lobe being the longest. In Maryland, this species is extremely rare and is found in a few locations along the Potomac River and along the Susquehanna River in Cecil County. However, this species habitat in Maryland includes frequently scoured gravel bars and river island shorelines. Virginia mallow is found in loose, unstable, sandy, or rocky soils of scoured riversides and floodplains, and disturbed areas along roadsides and railroad banks. The species prefers sandy, moist, and open riparian habitats with sunny or partial shade. The Rare, Threatened, and Endangered Plants of Maryland Report, prepared by the Maryland DNR Wildlife and Heritage Service and dated March 2021, states that *R. hermaphrodita* populations in Maryland are endangered due to the species' restrictive range. Anything that will alter or interfere with a river's flow will reduce the amount of disturbance the species needs to thrive in its natural habitat. Competition is another reason for the endangered status of this species. Virginia mallows like to grow in the same disturbed habitats as invasive and toxic species such as Japanese Knotweed (*Polygonum cuspidatum*), Purple loosestrife (*Lythrum salicaria*), and Multiflora Rose (*Rosa multiflora*).

ALLEGHENY WOODRAT BACKGROUND

The Allegheny woodrat (*N. magister*) is included on the List of Rare, Threatened, and Endangered Animals of Maryland (November 2023) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *N. magister* is a medium-sized rodent that is almost indistinguishable from the closely related eastern woodrat. The Allegheny woodrat is slightly larger and often has longer whiskers, typically over 2 inches in length and about 50 whiskers per side. Adults typically range from 12 to 18 inches in total length, including a tail measuring 5.9 to 8.3 inches. Males typically weigh 12.6 oz on average, while females weigh an average of 11.9 oz. This species prefers rocky outcrops associated with mountain ridges and high places such as cliffs, caves, talus slopes, and mines within the Appalachian Mountains. The Allegheny woodrat rarely travels more than a few hundred feet from its home ranges and likes to store non-food items such as bottle caps, snail shells, coins, gun cartridges, feathers, and bones. *N. magister* lives in rocky areas along the Appalachian Mountain range in Maryland, including the central and western regions of Maryland (Allegany, Frederick, Garrett, and Washington Counties).

FIELD VISIT FINDINGS

Prior to the field visit, ECS and the Client attended a call on July 24, 2024, with the Maryland DNR discussing survey protocols for the Virginia mallow and the Allegheny woodrat. During the call, DNR stated that a survey needed to be conducted within areas located at higher elevations directly adjacent to the southern ravine and within the area of the proposed LOD. DNR further stated that assumed suitable habitat for the Virginia mallow and the Allegheny woodrat, as well as populations of the species themselves, to be in the adjacent southern ravine. ECS did not

survey the adjacent southern ravine as habitat and species presence is assumed to be present in that area for both species.

Prior to the site visit, ECS prepared a field observation guidance document including images and known characteristics of each identified species and their potential habitat. ECS traversed the property via transects to systematically observe for the plant species and its habitats during the survey. Additionally, ECS assessed the vegetative community by collecting data and grouping habitats present onsite based on their vegetation including species observed within the tree, shrub, and herbaceous layers.

Field evaluations for Properties #8, #9, #14, #18, and #19 were conducted on July 24 and July 25, 2024. ECS spent approximately 6 hours and 25 minutes investigating Properties #8, #9, #14, #18, and #19 searching for potential habitats of the Virginia mallow and searching certain plants, particularly focusing on the presence or absence of potential habitat. ECS began the survey on the western portion of Property #8 and continued through the western, northwestern, and northern fielded and wooded portions of the remaining Properties. The open field areas are periodically mowed and harvested for hay. ECS began surveying the fields and observed potential habitat for the Virginia mallow along the woodland edge and within the southeastern isolated shrubland habitats within the open fields. ECS GPS-located the potential habitat of the Virginia mallow (6.64 acres / 289,285 square footage). These areas of potential habitat for the Virginia mallow appeared to be man-made berms that were built around the open fields, which created a disturbed habitat for the Japanese knotweed to thrive in. ECS then used the Japanese knotweed as an indicator for the Virginia mallow since this species prefers the same habitat type as the Virginia mallow and both plants are known to grow together. Many other plants were observed to have been choked out within these Japanese knotweed patches; however, ECS did observe white snakeroot (*Ageratine altissima*), garlic mustard (*Alliaria petiolata*), and common yarrow (*Achillea millefolium*) within the Japanese knotweed patches. In addition, the vegetation was heavily impacted due to deer using the knotweed patches for cover as large areas of trampled plants were observed within these knotweed patches. Based on the disturbed nature of the man-made berms and the presence of the Japanese knotweed, potential habitat for the Virginia mallow is present along the disturbed woodland edge of the parcels and within the southeastern isolated shrubland habitats within the open fields.

Additionally, ECS spent approximately 6 hours and 25 minutes hours investigating Properties #8, #9, #14, #18, and #19 searching for potential habitats of the Allegheny woodrat, particularly focusing on the presence or absence of potential habitat. ECS began the survey on the western portion of Property #8 and combed through the forested areas along the edges of the adjacent southern ravine. The dominant species within the forested areas included sugar maple (*Acer saccharum*), black cherry (*Prunus serotina*), northern red oak (*Quercus rubra*), and black locust (*Robinia pseudoacacia*). ECS observed areas of potential habitat for the Allegheny woodrat beyond the woodland edges, adjacent to the southern ravine. ECS also observed one rocky potential habitat for the Allegheny woodrat extending from the southwestern woodland edge and onto a portion of the open field on Property #14. ECS GPS-located the potential habitats of the Allegheny woodrat (0.29 acres / 12,740 square footage). Beyond the agricultural berms were areas of rocky outcrops, which serve as potential habitat for the Allegheny woodrat. Based on the rocky outcrop habitat, potential habitat for the Allegheny woodrat is present beyond the woodland edge, adjacent to the southern ravine.

ECS did not observe the presence of any populations of the state-listed endangered Virginia mallow or the state-listed endangered Allegheny woodrat within the subject site boundaries. Habitats for *Ripariosida hermaphrodita* are typically loose, unstable, sandy, or rocky soils of frequently scoured gravel bars and river island shorelines in sandy, moist, and open riparian habitats with sunny or partial shade. Based on these specific habitat requirements of *R. hermaphrodita*, the most suitable habitat for the species within the subject site boundaries is found along the woodland edges and within the isolated shrubland habitats within the open fields. Habitats for *Neotoma magister* are typically rocky outcrops associated with mountain ridges and high places such as cliffs, caves, talus slopes, and mines within the Appalachian Mountains. Based on the specific habitat requirements of *N. Magister*, the most suitable habitat for the species within the subject site boundaries is found beyond the woodland edges that consist of rocky outcrops, adjacent to the southern ravine.

An on-site habitat description is included in Attachment A and photographs of the subject site are included in Attachment C.

ECS recommends submitting this information to the Maryland DNR for review to obtain concurrence that the Virginia mallow and the Allegheny woodrat are not present onsite.

ECS would like to thank Jade Meadow III for the opportunity to provide you with this Virginia mallow and Allegheny woodrat survey. We look forward to assisting you further with this project. If you have any questions, please feel free to contact us at any time at 410-859-4300.

Sincerely,

ECS MID-ATLANTIC, LLC

Michael Bacon
Environmental Senior Project Manager
MBacon@ecslimited.com

Justin M. Hughes, PWS
Associate Principal
JHughes@ecslimited.com

HABITAT DESCRIPTION

HABITAT DESCRIPTION

Survey for *Ripariosida hermaphrodita* and *Neotoma magister*

24 and 25 July 2024

Jade Meadow III Property, Garrett County, MD

Michael Bacon and Lilly Szamski/ECS

Fielded portions of the properties

Scientific Name	Common Name
Trees	
Robinia pseudoacacia	Black locust
Ailanthus altissima	Tree of heaven
Pinus rigida	Pitch pine
Shrubs/Woody Vines	
Robinia pseudoacacia	Black locust
Pinus rigida	Pitch pine
Herbs	
Robinia pseudoacacia	Black locust
Asclepias syriaca L.	Common milkweed
Dichanthelium clandestinum	Deertongue
Agrostis stonlonifera	Bentgrass
Lotus corniculatus	Bird's-foot trefoil
Eupatorium altissimum	Tall boneset
Solanum carolinense	Carolina horsenettle
Securigera varia	Crownvetch
Reynoutria japonica	Japanese knotweed*
Phalaris arundinacea	Reed canary grass
Carduus acanthoides	Broad-winged thistle

*Areas within the vicinity of the Japanese knotweed are potential habitat for the Virginia Mallow

Woodland edges/ Man-made berms of the properties

Scientific Name	Common Name
Trees	
Robinia pseudoacacia	Black locust
Ailanthus altissima	Tree of heaven
Prunus serotina	Black cherry
Pinus rigida	Pitch pine

Shrubs/Woody Vines	
Robinia pseudoacacia	Black locust
Pinus rigida	Pitch pine
Herbs	
Robinia pseudoacacia	Black locust
Solanum carolinense	Carolina horsenettle
Reynoutria japonica	Japanese knotweed
Solidago sp.	Goldenrod species
Ageratina altissima	White snakeroot
Rosa multiflora	Multiflora rose
Rubus allegheniensis	Allegheny blackberry
Berberis thunbergii	Japanese barberry
Alliaria petiolata	Garlic mustard
Achillea millefolium	Common yarrow

Forested portions of the properties

Scientific Name	Common Name
Trees	
Robinia pseudoacacia	Black locust
Acer saccharum	Sugar maple
Quercus alba	White oak
Quercus rubra	Northern red oak
Prunus serotina	Black cherry
Carya tomentosa	Mockernut hickory
Celtis occidentialis	Hackberry
Magnolia acuminata	Cucumber tree
Shrubs/Woody Vines	
Quercus alba	White oak
Quercus rubra	Northern red oak
Prunus serotina	Black cherry
Carya tomentosa	Mockernut hickory
Herbs	
Reynoutria japonica	Japanese knotweed
Rosa multiflora	Multiflora rose
Ageratina altissima	White snakeroot
Parthenocissus quinquefolia	Virginia creeper

Survey Notes: These data points are representative of most areas of the fielded portions, the wooded portions, and the woodland edges and open, grassy portions of Properties #8, #9, #14, #18, and #19. Black Locust, Japanese Knotweed, White

Snakeroot, Black Cherry, and oaks are ubiquitous in many areas of the subject site. No RTE species, including *Ripariosida hermaphrodita* or *Neotoma magister*, were observed on or near the site. Potential habitat of *Ripariosida hermaphrodita* and *Neotoma magister* were observed on and near the subject site.

SITE LOCATION MAP

N

MAP 0062
PARCEL 0011

MAP 0062
PARCEL 0012

MAP 0062
PARCEL 0018

MAP 0062
PARCEL 0040

MAP 0062
PARCEL 0017

MAP 0062
PARCEL 0033

MAP 0062
PARCEL 0016

0 300 600 900 1,200 Feet

LEGEND

- Proposed Limits of Disturbance (LOD)
- 300-ft LOD Buffer
- Project Parcel Boundaries
- Determined Wetland (POW)
- Determined Stream (R3)
- Determined Stream (R4)
- Determined Stream (R6)
- Non-Jurisdictional Wetland
- Determined Wetland (PEM)
- Determined Wetland (PFO)
- Allegheny Woodrat (Potential Habitat Area)
- Virginia Mallow (Potential Habitat Area)

ECS Mid-Atlantic, LLC
1340 Charwood Road, Suite B
Hanover, MD 21076
Phone: (410) 859-4300
www.ecslimited.com

ECS Project No. 47:17729

Field Verified Habitat Assessment
Property #14
Field Assessment Date: July 24, 2024
Jade Meadow III
Allegany and Garrett Counties, MD

Service Layer Credits:
World Imagery: Maxar

PHOTOGRAPHIC LOG



Photograph 1: Potential Virginia mallow habitat located on the southern portion of the study area



Photograph 2: Grass-covered field located adjacent to Virginia mallow about on the southern portion of the study area



Photograph 3: Potential Virginia mallow habitat located directly adjacent to mine road



Photograph 4: Looking within a patch of Japanese knotweed on the central portion of the study area



Photograph 5: Looking within a patch of Japanese knotweed on the northern portion of the study area



Photograph 6: Potential Virginia mallow habitat located on the northern portion of the study area



Photograph 7: Potential Allegheny woodrat habitat within the southern portion of the study area



Photograph 8: Potential Allegheny woodrat habitat on the central portion of the study area



Photograph 9: Potential Allegheny woodrat habitat within the northern portion of the study area



Photograph 10: Potential Allegheny woodrat habitat within the northern portion of the study area

September 6, 2024

Ms. Melissa S. Hall
H&B Solutions, LLC
37534 Oliver Drive
Selbyville, DE 19975

RE: Interim Comments for Environmental Review for Jade Meadow III Solar Project, 4491 Acres Along MD 36/MD 135 in Westernport/Barton area, Garrett and Allegany County, Maryland.

Dear Ms. Hall:

Thank you for providing us with the shapefiles of this project's limits-of-disturbance and habitat assessments for Property #14 and Property #30 dated August 21, 2024. Based on these documents and our recent conference call of August 28, 2024, the Wildlife and Heritage Service (WHS)has the following comments:

For **Property #4** (Garrett County Tax Map 62 Parcel 30),
Property #13 (Garrett County Tax Map 62 Parcel 15),
Property #14 (Garrett County Tax Map 62 Parcel 17),
Property #15 (Garrett County Tax Map 62 Parcel 22),
Property #17 (Garrett County Tax Map 62 Parcel 40),
Property #21 (Garrett County Tax Map 54 Parcel 18),
Property #22 (Garrett County Tax Map 54 Parcel12),
Property #25 (Garrett County Tax Map 55 Parcel 3),
Property #26 (Garrett County Tax Map 62 Parcel 32),
Property #27 (Garrett County Tax Map 62 Parcel 31),
Property #28 (Garrett County Tax Map 54 Parcel 6), and
Property #29 (Garrett County Tax Map 54 Parcel 7), the WHS has no official records for State or Federal listed, candidate, proposed, or rare plant or animal species within the project area shown on the map provided. As a result, we have no specific concerns regarding potential impacts to such species or recommendations for protection measures at this time.

For **Property #1** (Garrett County Tax Map 62 Parcel 2),
Property #2 (Garrett County Tax Map 62 Parcel 29),
Property #3 (Garrett County Tax Map 62 Parcel 10),
Property #5 (Garrett County Tax Map 62 Parcel 33),
Property #6 (Garrett County Tax Map 62 Parcel 6),
Property #8 (Garrett County Tax Map 62 Parcel 11),
Property #9 (Garrett County Tax Map 62 Parcel 12),
Property #10 (Garrett County Tax Map 62 Parcel 13),
Property #11 (Garrett County Tax Map 62 Parcel 28),
Property #12 (Garrett County Tax Map 62 Parcel 14),

Property #18 (Garrett County Tax Map 62 Parcel 16),
Property #19 (Garrett County Tax Map 62 Parcel 18),
Property #31 (Allegany County Tax Map 68 Parcel 209) and
Property #32 (Allegany County Tax Map 68 Parcel 226), there is overlap with the Aaron Run Fields site which is known to support the Henslow's Sparrow (*Centronyx henslowii*), a species which is currently state-listed as In Need of Conservation in Maryland. The Henslow's Sparrow is a rare breeding bird in Maryland, is known to nest in weedy areas or wet meadows (often reclaimed mine grasslands) and requires large expanses of habitat to successfully breed. Formerly breeding in all physiographic regions of the state, this species is now only known to breed in western Maryland. In addition, recent MD/DC Breeding Bird Atlas data include confirmed breeding records for the highly rare Long-eared Owl (*Asio otus*), and for the state-listed Endangered Sedge Wren (*Cistothorus platensis*) in this same area. All of these species require extensive grassland habitat for successful breeding. The Long-eared Owl utilizes the dense pine stands within and adjacent to these grasslands as nesting habitat, and the fields as feeding habitat. Large managed grassland areas such as this provide potential breeding areas for Northern Harrier (*Circus hudsonius*), listed as In Need of Conservation, and Short-eared Owl (*Asio flammeus*), state-listed as Endangered. There is a recent potential breeding record for Northern Harrier in this area, as well as multiple winter records for both species over a number of years.

Based on recent MD/DC Breeding Bird Atlas observations along Russell Road,
Property #20 (Garrett County Tax Map 55 Parcel 14),
Property #23 (Garrett County Tax Map 46 Parcel 42),
Property #24 (Garrett County Tax Map 55 Parcel 15), and
Property #25 (Garrett County Tax Map 55 Parcel 3) should also be considered breeding habitat for the Henslow's Sparrow due to the Atlas records in this area. The presence of the Henslow's Sparrow, and potentially Long-eared Owl and Sedge Wren, on these properties should be assumed, given the difficulty in confirming their absence in an area where they were previously documented. Multiple winter records for Northern Harrier and Short-eared Owl are also known for this area.

Protection measures should be developed in coordination with WHS for those properties where suitable grassland habitat occurs or recently occurred. While species listed as In Need of Conservation do not require a permit for incidental take, the Department works with state permitting agencies through the permit review process to conserve these species with the goal of preventing further decline and future listing as Threatened or Endangered.

For **Property #14** (Garrett County Tax Map 62 Parcel 17), there were potential concerns for the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and the state-listed endangered Allegheny Woodrat (*Neotoma magister*). The shapefiles indicate that the known records do not occur in close proximity to the limits-of-disturbance. Based on the current information, the WHS has no further concerns for impacts to either of these species from the proposed project on Property #14.

Conversely, the shapefiles also indicate that **Property #7** (Garrett County Tax Map 62 Parcel 7), which was formerly in the "no comments" section of our response, abuts State Land where there is a significant population of the Allegheny Woodrat. WHS would ask that the applicant maintain a 650-foot forested buffer from the western edge of the parcel boundary. There appears to already be a strip-mine or field in much of that part of the parcel, so additional forest removal in that zone would degrade the buffer. In this case, the presence of the Allegheny Woodrat should be assumed, and these protection measures implemented.

For **Property #16** (Garrett County Tax Map 70 Parcel 31), there is overlap with part of the Savage River at Bloomington site, which is known to support the Appalachian Cottontail (*Sylvilagus obscurus*), a species with In Need of Conservation status in Maryland. The presence of the Appalachian Cottontail should be assumed, given that it has been documented on site and that it is difficult to confirm presence/absence.

Based on your recent response of August 9, 2024, all of the potential habitat for this species has been removed from the limits-of-disturbance on the appropriate parcels. WHS have no further concerns for impacts to this species from the proposed project at Property #16.

For **Property #30** (Garrett County Tax Map 47 Parcel 10), there is overlap with Russell Road Bog which supports rare species. We are in receipt of the habitat assessment report for this property, and understand that surveys are proposed here in mid-September for the species: Low Rough Aster (*Eurybia radula*), Stiff Gentian (*Gentianella quinquefolia*) and Wild Indigo *(Baptisia* spp.) – host plant for the Frosted Elfin, which is state-listed as Endangered. Based on the wetlands observed on Property #30, it is important to note that WHS generally asks for a minimum 100-foot buffer around wetlands that are found to support rare, threatened or endangered species.

For the overall project site, our remote analysis suggests that the forested area contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices. The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the WHS.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.JadeIIISolar.interim
Cc: M. Zagorski, DNR
C. Frye, DNR
M. Ferlauto, DNR
K. McCarthy, DNR
L. Davidson, DNR
F. Kelley, DNR
S. Seaman, DNR
G. Brewer, DNR

From:	Melissa Hall
To:	Lori Byrne -DNR-; Dane Bauer; Hunter Maret; MICHAEL E BACON (MBacon@ecslimited.com); Michael Svedeman
Cc:	Shawn Seaman -DNR-; Max Ferlauto -DNR-; Megan Zagorski -DNR-; Katharine McCarthy -DNR-; Chris Frye -DNR-; Lynn M. Davidson; Gwenda Brewer -DNR-; Frederick Kelley -DNR-
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Monday, September 30, 2024 8:11:00 AM
Attachments:	image001.png

Lori:

We just wanted to provide you with a quick update on field work/report preparation. The reports to document and address DNR's RTE items identified are being finalized and should be ready for submittal within the next 10 days.

Thanks.

Melissa Schmid Hall
410.292.4385

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Sent: Friday, September 13, 2024 9:29 AM
To: Melissa Hall <mhall@hallandbauer.com>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <mbacon@ecslimited.com>; Michael Svedeman <msvedeman@revrenewables.com>
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Department of Natural Resources
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Annapolis, MD 21401

	410-260-8573 (office) 410-260-8596 (FAX) lori.byrne@maryland.gov

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HB SOLUTIONS

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> ---
>
> # Microsoft Teams Need help?
>
> ## Join the meeting now
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> Meeting ID: 212 581 992 948
>
> Passcode: Us78gx
>
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> For organizers: Meeting options
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Cc:	Dane Bauer; Hunter Maret; MICHAEL E BACON (MBacon@ecslimited.com); Michael Svedeman; Shawn Seaman -DNR-; Max Ferlauto -DNR-; Megan Zagorski -DNR-; Katharine McCarthy -DNR-; Chris Frye -DNR-; Lynn M. Davidson; Gwenda Brewer -DNR-; Frederick Kelley -DNR-
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Tuesday, October 22, 2024 4:49:00 PM
Attachments:	Jade III Cover Letter DNR Final_20241022.pdf image001.png Jade III Avian Review VHB ECS Final_20241022.pdf

Lori:

Please see the attached response from the Applicant as well as supporting documentation by VHB and ECS associated with results from the various field studies conducted.

Please let us know if you have any questions or if you need anything further at this time.

Thanks.

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Sent: Tuesday, October 1, 2024 12:14 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <mbacon@ecslimited.com>; Michael Svedeman <msvedeman@revrenewables.com>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Max Ferlauto -DNR- <max.ferlauto@maryland.gov>; Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Lynn M. Davidson <lynn.davidson@maryland.gov>; Gwenda Brewer -DNR- <gwenda.brewer@maryland.gov>; Frederick Kelley -DNR- <frederick.kelley@maryland.gov>
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Website | Facebook | Twitter

Jade Meadow III LLC
520 Maryville Centre Drive, Suite 400
St. Louis, MO 63141
www.revrenewables.com

October 22, 2024

RE: 2024 Jade III solar interim comments, dated September 6, 2024, for Jade Meadow III Solar Project in Garrett and Allegany Counties, Maryland.

Dear Ms. Byrne et. al.,

Jade Meadow III represents a significant opportunity to repurpose land that was historically mined for coal and help meet Maryland's renewable energy goals. The 300-megawatt Jade Meadow III solar project is located primarily on reclaimed coal mine land near the town of Westernport in Garrett County, and will be the largest solar facility in the state once constructed. Construction is targeted to commence in late 2025, pending necessary approvals, and begin operations in the latter half of 2027. Jade Meadow III is a dual purpose and significant opportunity for the state of Maryland: generating clean, local energy while further preserving and protecting environmentally impacted areas.

As a result of extensive disturbances during the previous decades of mining, the project has the opportunity to responsibly manage significant spans of privately-owned land. Historical mining activity between the 1940s and 2001 transitioned the site from deciduous forest to managed open land. Without active and ongoing management, these areas will likely continue their reversion to low-quality forest dominated by invasive species. The development of Jade Meadow III incorporates feedback from DNR, USFWS, and other agencies to enhance habitat value and minimize environmental impacts.

Jade Meadow III will promote biodiversity and provide improved habitat for wildlife by converting managed, low-quality habitats into a solar farm with lower management intensity than agricultural land. The project aims to establish native grasses and herbaceous vegetation that encourage plant diversity and support bird species such as the Northern Harrier, Short-eared Owl, Long-eared Owl, Sedge Wren, and Henslow's Sparrow.

Jade Meadow III has worked with its consultants Vanasse Hangen Brustlin (VHB) and ECS Mid-Atlantic (ECS) to adequately address the comments raised by DNR. As you will see in the enclosed *Avian Review, Habitat Assessment, and Mitigation Report,* Jade Meadow III has committed to the following minimization and mitigation measures:

- **Vegetation Management Plan**: Reestablishing high-quality habitat within the Limits of Disturbance for ground-nesting birds through thoughtful, active management.
- **Temporal Mowing and Clearing Restrictions**: Implementing time-based restrictions on mowing and tree clearing to minimize disturbances during critical breeding seasons

- **Erosion and Sediment Control**: Adhering to erosion and sediment control plans and limiting disturbed acreage to protect and improve soil and water quality.
- **Establishing Buffers**: Creating buffer areas to sensitive features and habitat, including a 50-foot buffer for streams, and a 35-foot buffer from existing wetlands.
- **Wildlife Permeable Fencing**: Creating corridors for small mammals and birds to traverse safely through the array.
- **Bat/Bird Nesting Boxes and Perches**: Collaborating with local organizations to implement boxes and/or perches for nesting habitats for birds and bats, including state and federally listed species.
- **Dedicated Wildlife and Pollinator Habitats**: Establishing more than 50 acres within the project for wildlife and pollinator habitats, specifically tailored to the species described herein and in prior memo's from DNR.

In addition to the above measures, Jade Meadow III has agreed to curtail its Limit of Disturbance (LOD) over 58 acres from its original submittal through consultation with MD DNR in the following ways:

- Virginia Mallow: Curtailed LOD equating to a 50-foot buffer to the edges of the identified habitat in certain properties to avoid impact to this state endangered species.
- Allegheny Woodrat: Curtailed 5 acres of LOD to create a 250' buffer to identified habitat in Savage River State Forest and avoid impact to this state endangered species.
- Appalachian Cottontail: Curtailed 45 acres of LOD across certain properties to avoid impact to this species in need of conservation.
- Low Rough Aster: Curtailed 1 acre of LOD to preserve potential habitat and avoid impact to this state endangered species.
- Stiff Gentian: Curtailed 7 acres of LOD to preserve potential habitat and avoid impact to this state endangered species.
- Frosted Elfin: Provide dedicated wildlife and pollinator habitats to support the species' host flora and prey habitat to improve habitat quality for this state endangered species.

Jade Meadow III is dedicated to reestablishing and replanting native seed compositions tailored to the local environment, and habitat requirements of species of concern. The above efforts will sustain scrub and pasture habitats, preventing regression to deciduous forests where invasive species thrive. Establishing dedicated wildlife and pollinator habitats, as well as reseeding and actively managing the project with native grasses will benefit pollinators, in addition to improving soil health, and water quality. Additionally, the proposed facility's fences will allow for improved habitats for ground-nesting birds, small mammals, and their insect prey.

Jade Meadow III LLC
520 Maryville Centre Drive, Suite 400
St. Louis, MO 63141
www.revrenewables.com

By transforming previously mined and disturbed lands into a managed solar facility, Jade Meadow III pushes forward Maryland's renewable energy future, advances environmental stewardship, and carries it into the future. This project demonstrates how sustainable energy development can coexist with and enhance biodiversity conservation efforts. In summary, through comprehensive planning, community collaboration, and dedicated efforts, Jade Meadow III can deliver a range of economic, ecological, and social benefits to the region.

Sincerely,

Michael Svedeman
Senior Director, Project Development
Jade Meadow III LLC

Cc: M. Zagorski, DNR
C. Frye, DNR
M. Ferlauto, DNR
K. McCarthy, DNR
L. Davidson, DNR
F. Kelley, DNR
S. Seaman, DNR
G. Brewer, DNR

Jade Meadow III
300 MWAC Solar Project
Avian Review, Habitat Assessment, and Mitigation Report

Garrett and Allegany Counties, Maryland

PREPARED FOR

Hunter Maret
520 Maryville Centre, Suite 400
St. Louis, Missouri 63141

PREPARED BY

351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500

1340 Charwood Road
#A
Hanover, MD 21076
410.859.4300

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Table of Contents

1 **Introduction 3**

1.1 Project Purpose and Site Overview 3
1.2 Maryland DNR Memo 4

2 **Habitat Assessment and Species Information 5**

2.1 Species Background Information 5
2.1.1 Northern Harrier (*Circus hudsonius*) 5
2.1.2 Short-eared owl (*Asio flammeus*) 6
2.1.3 Long-eared owl (*Asio otus*) 6
2.1.4 Sedge Wren (*Cistothorus stellaris*) 7
2.1.5 Henslow's Sparrow (*Centornyx henslowii*) 7
2.2 Onsite Habitat Assessment 7
2.3 Avian Habitat Use 9
2.3.1 Northern Harrier 9
2.3.2 Short-eared Owl 9
2.3.3 Long-eared Owl 9
2.3.4 Sedge Wren 10
2.3.5 Henslow's Sparrow 10

3 **Minimization and Mitigation 11**

3.1 Vegetation Management Plan 11
3.1.1 Vegetation Stabilization 11
3.1.2 Vegetative Grounds Management Plan (VGMP) 12
3.1.3 Temporal Tree Clearing Restrictions 12
3.1.4 Buffer Guidelines/Setbacks 12
3.2 Mitigation & Impact Minimization Strategies 13
3.2.1 Dedicated Wildlife and Pollinator Habitat 13
3.2.2 Habitat Structures: Bird boxes and perches, bat boxes 13
3.2.3 Erosion & Sediment Control and Construction Phasing 14
3.2.4 Wildlife Permeable Fencing 14

4 **References 15**

Appendices .....

Appendix A – Project Existing Land Use Map

Appendix B – September 6 2024 MD DNR Memo

1

Introduction

This report was prepared at the request of REV Renewables (REV) by consultants Vanasse Hangen Brustlin (VHB) and ECS Mid-Atlantic (ECS) in response to the Maryland Department of Natural Resources (MD DNR) memo dated September 6, 2024, which identified avian species potentially inhabiting or utilizing habitat within the proposed Jade Meadow III Solar Project property. REV is committed to developing a sustainable project that not only meets energy needs but also enhances the ecological value of the landscape.

Solar energy facilities can have both direct and indirect impacts on avian species during both construction and operation phases. These impacts include habitat loss and degradation as well as species displacement. These effects are regulated by several federal laws:

- The Migratory Bird Treaty Act (MBTA; 1918)
- The Bald and Golden Eagle Protection Act (BGEPA; 1940)
- The Endangered Species Act (ESA; 1973)

The MD DNR identified the Northern Harrier (*Circus hudsonius*), Short-eared Owl (*Asio flammeus*), Long-eared Owl (*Asio otus*), Sedge Wren (*Cistothorus stellaris*), and Henslow's Sparrow (*Centronyx henslowii*) as utilizing habitat for the proposed Jade Meadow III project. REV is dedicated to identifying measures that, when implemented, will avoid and/or minimize impacts to the listed species as well as other avian species and wildlife. Through careful planning, REV has avoided hundreds of acres of unmanaged scrub and mowed lands from the project footprint, thereby preserving existing natural habitats. Additional minimization and mitigation measures will also be discussed within this report. A comprehensive onsite and desktop assessment was carried out to thoroughly document field conditions, land use (Appendix A) across the property, and potential species' use of different habitat types.

1.1 Project Purpose and Site Overview

Jade Meadow III is a 300-megawatt solar project planned primarily in Garrett County, MD, near the town of Westernport, and is located on reclaimed coal mine land. The project is expected to begin construction in late 2025 and achieve commercial operations in the second half of 2027. Jade Meadow III will be the largest solar project proposed in the State of Maryland once constructed and promises to deliver significant benefits including local tax revenue, economic development, and payments to landowners. It is important to note, that REV has chosen this site based on its history of mining and reclamation in order to avoid development on a virgin site that has never been disturbed. This is consistent with the State's efforts for direct development on brownfields sites.

Although the total acreage evaluated is five thousand nine hundred thirty-three (5,933.07) acres, not all will be used for Project facilities as appropriate areas have been excluded based on environmental constraints mapping and construction feasibility. As currently proposed, the Project would include a Limit of Disturbance (LOD) of approximately one thousand eight hundred and seventy-nine (1,879) acres. Approximately one thousand seven hundred and seventy-nine (1,779) acres located in Garrett County

will be associated with the solar array layout and easement areas for Project interconnection purposes. Approximately one hundred (100) acres located in Allegany County would be strictly for overhead collector line purposes.

According to the Maryland Department of Environment (MDE) Bureau of Mines, and to the best of MDE's knowledge, most parcels associated with the proposed Project were permitted and mined (both deep and surface) for coal from the 1970s to approximately 2001. However, mining activities also took place earlier, notably surface mining between the 1940s and the 1950s, before state permitting laws and regulations were in place. Available Bureau of Mines records indicate that these mines were generally reclaimed, permits closed, and bonds released from approximately 1976 to 2023. However, comprehensive documentation associated with permit closure, reclamation, and bond releases are not entirely available.

Historically, as noted above, the Project site was a deciduous forest that has undergone extensive mining operations. The proposed Project is now predominantly open land subjected to various types of vegetation management and mining development. Without persistent management, these lands are likely to regress back to deciduous forest where invasive species could thrive. The proposed development of the Project is an opportunity to actively manage and enhance habitat value across the property.

1.2 Maryland DNR Memo

The MD DNR memo from September 6, 2024, in response to REV's request for comment on the Project, identified potential habitat on the property to support the state-listed Henslow's Sparrow, a species In Need of Conservation in Maryland. According to the state agency, this rare sparrow is known to nest in weedy areas including reclaimed mine grasslands and requires large expanses of habitat to successfully breed. Both the rare Long-eared Owl, and state- Endangered Sedge Wren have been documented breeding in similar habitat nearby according to recent MD/DC Breeding Bird Atlas. The Henslow's Sparrow and the Sedge Wren are known to require extensive grassland habitat for successful breeding. The Long-eared Owl utilizes dense pine stands adjacent to grasslands as nesting habitat, and forage in adjacent fields. Large grassland areas also provide breeding areas for Northern Harriers, listed as In Need of Conservation, and the state- Endangered Short-eared Owls. The agency noted a recent potential breeding record for Northern Harrier in the area as well as historic winter records for both species.

The agency noted that protection measures should be developed in coordination with MD DNR Wildlife and Heritage Service (WHS) for those properties where suitable grassland habitat occurs or recently occurred. While species listed as In Need of Conservation do not require a permit for incidental take, the Department works with state permitting agencies through the permit review process to conserve these species with the goal of preventing further decline and future listing as Threatened or Endangered (Appendix B).

2

Habitat Assessment and Species Information

VHB and ECS reviewed literature on the avian species noted by the MD DNR. A Natural Resources Assessment, documenting habitat types and plant species across the property was conducted, and these habitat types were mapped to further identify potential avian species' uses (Appendix A).

2.1 Species Background Information

To describe baseline bird habitats and potential occupancy within the Project and vicinity, the research team reviewed several sources including:

- Peterson's Field Guide to North American Bird Nests (2021)
- National Audubon Society online resource (accessed 2024)
- Maryland Department of Natural Resources (accessed 2024)
- Maryland Biodiversity Project online resource (accessed 2024)
- Maryland Bird Conservation Partnership online resource (accessed 2024)
- Maryland & DC Breeding Bird Atlas 1 (1983–1987)
- Maryland & DC Breeding Bird Atlas 2 (2002-2006)
- eBird/Cornell Lab of Ornithology (accessed 2024)
- MD DNR Memo (September 2024)
- Maryland & DC Breeding Bird Atlas 3 – 2023 (AGOL mapping)

2.1.1 Northern Harrier (*Circus hudsonius*)

The Northern Harrier is a slender, owl-like hawk notable for its long tail and unique V-shaped wing posture during flight. This raptor is typically grey to brownish and features a distinctive white patch at the base of its tail. It resides in extensive grasslands, wetlands, and upland habitats with dense vegetation. The species is often seen gliding low over these areas in search of small mammals, birds, and herpetofauna. Its preferred breeding habitats include freshwater and brackish marshes, meadows, fields, tundra, dry prairies, high-desert shrublands, and riverside woodlands.

2.1.1.1 Nesting Behavior and Habitat

This ground-nesting species builds its nests with reeds, small sticks, and water plants, varying in thickness based on habitat wetness. Their breeding season spans from April to late August, as noted in the Maryland and DC Breeding Bird Atlas. They breed in various open habitats including marshes, meadows,

fields, and prairies. The Maryland Bird Conservation Partnership notes that this species is known to breed in reclaimed strip mines and wetland areas with fewer trees in the state, however, fewer than 100 Northern Harriers breed in the state, with up to 90% in the lower Eastern Shore. Pesticides and herbicides in their habitats may impact breeding success. They are commonly observed in Maryland from fall through spring, with most sightings reported between November and May. Recent surveys have recorded observations but no confirmed nesting.

2.1.2 Short-eared owl (*Asio flammeus*)

The Short-eared Owl is a slender, mottled brown owl observed primarily during late afternoon, early evening, and dawn. Recognizable by its black-rimmed yellow eyes and pale facial disk, it glides over extensive grasslands and marshlands, similar to Northern Harriers. These owls primarily hunt small rodents but will also prey on birds and herpetofauna. They can be found in large, undisturbed grasslands, emergent wetlands, forest clearings, shrub steppe, and large agricultural fields.

2.1.2.1 Nesting Behavior and Habitat

Short-eared Owls are ground-nesters that build shallow scrapes lined with grasses, forbs, and down feathers, often on dry, slightly elevated areas like berms and mounds. They nest from March to June, as noted in the Maryland and DC Breeding Bird Atlas, although breeding timing can vary with prey availability. The Maryland Bird Conservation Partnership noted they can adapt their breeding habitats to include wintering grounds. The Short-eared Owl is listed as endangered in Maryland, with only one possible nest reported in the second breeding bird atlas. Most recent observations, including a confirmed sighting in February 2024, indicate they are mainly seen during fall and winter (Maryland Department of Natural Resources, Creating a Wild Backyard - Owls of Maryland. Online resource). They are often associated with grasslands from reclaimed strip mines. Recent Maryland & DC Breeding Bird Atlas (BBA3) data show observations primarily from November to April in the northern portion of the subject property.

2.1.3 Long-eared owl (*Asio otus*)

The Long-eared Owl is a slender, mottled brown owl, smaller than the Great Horned Owl, with distinctive upright ear tufts. This nocturnal species primarily forages for small mammals and roosts in dense coniferous and deciduous forests near open grasslands or shrublands. They also forage in open grassland areas and forests.

2.1.3.1 Nesting Behavior and Habitat

Long-eared Owls nest in abandoned nests built by other birds, such as magpies, crows, and hawks, usually at a height of 4-30 feet above the ground. Their breeding season spans from late winter to early summer, typically March through July, as noted in the Maryland and DC Breeding Bird Atlas. Though once known to nest in Maryland, the Long-eared Owl is now seen mainly as an occasional migrant and winter visitor. No breeding records exist in the Maryland & DC Breeding Bird Atlas 1 (1983-1987) or Atlas 2 (2002-2006). However, recent data indicate reported breeding activity within portions of the subject property, as per a memo from the Maryland DNR. No year-round sightings were reported in the Maryland & DC Breeding Bird Atlas 3, but the most recent 2023 update provides an overview of their range.

2.1.4 Sedge Wren (*Cistothorus stellaris*)

The Sedge Wren is a nomadic, well-camouflaged bird with a tiny, sharp, curved bill and a medium tail accompanied by a light brown eyebrow. Preferring to stay hidden while foraging for insects, this species inhabits open areas with tall sedges and grasses, such as abandoned croplands, regenerating hayfields, upland pond margins, marshes, tallgrass prairies, coastal marshes, and shrub-interspersed sphagnum bogs. Unlike marsh wrens, they avoid sparsely vegetated wetlands lacking shrubs.

2.1.4.1 Nesting Behavior and Habitat

Sedge Wrens construct globular, enclosed nests well-hidden within dense vegetation, typically in shrubs, near the ground, or slightly over water. The nests have side openings and are lined with grasses, hair, plant down, and feathers. They nest from late spring (June to August), according to the latest Maryland and DC Breeding Bird Atlas. The Sedge Wren is listed as endangered in Maryland, requiring extensive grassland habitats for successful breeding. Recent data from the Maryland Biodiversity Project and a memo from the Maryland DNR underline this need. Breeding reports from the Maryland & DC Breeding Bird Atlas 1 (1983-1987) and Atlas 2 (2002-2006) indicate their presence but without specific locations. Most recent observations from 2023 confirm encounters primarily in the northern and western grids of the property, documented between March and July.

2.1.5 Henslow's Sparrow (*Centornyx henslowii*)

Henslow's Sparrow is an inconspicuous, secretive bird with a distinctive two-syllable song. Identified by its olive-colored head, dark stripes, streaked chest, and rufous-tinged wings, this species tends to inhabit and stay hidden in tall reeds, foraging for insects and seeds. They prefer open, uncultivated grasslands, fields with mature vegetation, wet meadows, pastures, and lowland prairies.

2.1.5.1 Nesting Behavior and Habitat

Henslow's Sparrows construct deep, loosely woven cup nests of coarse grasses and weeds, typically on elevated ground near the base of grass tufts in dense litter. Their breeding season spans from May to July, as noted in the most recent Maryland and DC Breeding Bird Atlas. Listed as a species in need of conservation in Maryland, Henslow's Sparrows require extensive grassland habitats for successful breeding, as stated by the Maryland Biodiversity Project and a recent memo from the Maryland DNR. Data from the Maryland & DC Breeding Bird Atlas 1 (1983-1987) and Atlas 2 (2002-2006) show confirmed breeding reports without specific locations. The most recent 2023 atlas update confirms encounters in the northern and western property grids between April and August.

2.2 Onsite Habitat Assessment

An onsite habitat Assessment was conducted by Senior Environmental Scientists from VHB and ESC on September 11, 2024, to categorize habitat types (Appendix A, Table 1) and identify dominant plant species. The land use categories included Forested, Hayfield, Row Crop, Scrub, Mowed, Developed, and Pasture. Acreage has been identified within and outside of the LOD for the Project. These are described in further detail below.

In total 1,879 acres of land (33%) across the property evaluated is located within the LOD, the remaining 67% is outside of the LOD and will not be impacted. During the most recent site visit, the majority of the

acreage on the property appeared to be in a close-cropped condition due to recent hay harvesting. These habitat types are categorized within the land use map as Hayfield, Mowed, and Row Crop. Approximately 850 acres of these habitat types are located with the LOD, and 220 acres of these habitat types are present outside of the LOD.

Perimeter fields categorized as Pasture and Scrub that remained uncut for more than one growing season, presented a meadow-like condition primarily vegetated with grasses such as annual rye (*Lolium perenne* var. *aristatum*), tall fescue (*Lolium arundinaceum*), timothy (*Phleum pratense*), orchard grass (*Dactylis glomerata*), creeping bentgrass (*Agrostis stolonifera*), and awnless brome (*Bromus inermis*). These areas were also frequented by forbs such as Queen Anne's lace (*Daucus carota*), spotted knapweed (*Centaurea stoebe* ssp. *micranthos*), smooth bedstraw (*Galium mollugo*), bird's-foot trefoil (*Lotus corniculatus*), yellow sweet clover (*Melilotus officinalis*), wild basil (*Clinopodium vulgare*), oxeye daisy (*Leucanthemum vulgare*), and various goldenrod species (*Solidago* spp.). The Pasture within the LOD encompasses approximately 20 acres, with 3 acres present outside of the LOD. The Scrub habitat within the LOD includes approximately 450 acres (44%) of habitat. Over half (57%) of this habitat type is present outside of the LOD.

Within a portion of the Scrub habitats where secondary succession has progressed longer (i.e., fields uncut for several years), invasive shrubs like autumn olive (*Elaeagnus umbellata*), bush honeysuckles (*Lonicera* spp.), callery pear (*Pyrus calleryana*), and multiflora rose (*Rosa multiflora*) dominated, with regenerating trees aggressively encroaching. Several early successional deciduous species were observed within some open habitats, similar to those along access roads and powerline rights of way. These areas would not serve as suitable nesting habitats but could provide general flyways and foraging grounds for migrating species.

The majority of open areas appeared fragmented due to developed land, access roads, powerline rights of way, and forest stands. The land use identified as developed included approximately 60 acres within the LOD, with 242 acres present outside of the LOD. The Forest, primarily mixed deciduous with interspersed pine, varied in age and provided ideal perching habitats for raptors scouting for prey. Approximately 499 acres (15%) of Forest Habitat are present in the LOD, with most of forested land (85%, 2,791 acres) present outside of the LOD. Table 1 shows that significant efforts were made by REV to site the Project in a way to minimize impacts to forested areas, as well as focus their development efforts on lower quality habitat.

Table 1. Land Use Acreage

Land Use Type	Acres within LOD	% within LOD	Acres not within LOD	% not within LOD	Total Acres
Forested	499	15%	2791	85%	3290
Hayfield	499	93%	37	7%	536
Developed	60	20%	242	80%	302
Mowed	202	54%	170	46%	371
Pasture	20	88%	3	12%	23
Row Crop	150	92%	12	8%	162
Scrub	450	44%	586	57%	1036
Total	1879	-	3842	-	5721

2.3 Avian Habitat Use

The identified avian species can utilize a variety of habitat types for foraging, but generally require more specific habitats for breeding and year-round use. These habitats are described in further detail in regard to quality and species utilization.

2.3.1 Northern Harrier

Open maintained areas within the property identified as Row Crop, Hayfields, and Mowed provide lower quality foraging habitats for Northern Harriers due to ongoing human activities. These maintained open areas that are routinely cultivated up to twice a year would not provide ideal nesting or breeding habitats for this species. Approximately 850 acres of these land use types are located within the LOD, and 220 acres of these land use types are outside of the LOD. Higher quality foraging habitats including Pasture, and Scrub are broken up by mined and developed areas as well as forested habitat.

Based on the information gathered throughout this assessment, the Northern Harrier is an unlikely candidate to nest in the Project area. Documented observations near the subject property provided no context on confirmed nesting activities, or if the species was observed passing through or foraging within the Scrub or Pasture habitat within the LOD of the subject property which encompasses about 470.7 acres. Aerial photographs of the surrounding areas within the identified BBA surveyed grid depict similar large areas of Scrub and Pasture outside of the LOD. Over half (588.7 acres) of Scrub and Pasture habitats are present outside of the LOD within the subject property (Appendix A).

2.3.2 Short-eared Owl

Open maintained areas within the property identified as Row Crop, Hayfields, and Mowed provide lower quality foraging habitats for Short-eared Owls due to ongoing human activities. These maintained open areas that are routinely cultivated up to twice a year would not provide ideal nesting or breeding habitats for this species. Approximately 850 acres of these land use types are located within the LOD, and 220 acres of these land use types are outside of the LOD.

Based on our assessment, the state-endangered Short-eared Owl is an unlikely candidate to nest in the Project area. According to the MD DNR's "Creating a Wild Backyard - Owls of Maryland," only one record of possible nesting was noted during the second Breeding Bird Atlas (BBA). Another observation within a grid that included the northern portion of the subject property provided no confirmation of nesting activities. Neither documented encounter provided information on confirmed nesting activities, or if the species was observed foraging or passing through the Pasture, and Scrub within the LOD which encompasses about 471 acres. Aerial photographs of the surrounding areas within the identified BBA surveyed grid depict similar large areas of Pasture and Scrub outside of the LOD. Over half (589 acres) of Pasture and Scrub habitats are present outside of the LOD within the subject property (Appendix A).

2.3.3 Long-eared Owl

Long-eared Owls favor unbroken forests, particularly coniferous, along the edges of open areas. The subject property, fragmented by grasslands and development, does not appear to offer ideal breeding habitats. Approximately 15.2% (499 acres) of Forest habitat on the property is present within the LOD, while 84.8% (2,791 acres) of forest habitat is present outside of the LOD. During breeding seasons these owls tend to breed within forested habitats adjacent to grasslands, and during the non-breeding seasons, they tend to roost communally along forest/edge habitats (Holt, D. 1997). The most recent MD DNR’s memo noted that their most recent breeding bird atlas data suggested that several areas were

identified to be used as breeding areas for the Long-eared Owl. However, as previously noted, no breeding Long-eared Owls were identified within the subject site or the state of Maryland within the most recent BBA3 or when taking year-round BBA3 reports into account.

2.3.4 Sedge Wren

As noted within the habitat assessment, a portion of the Scrub habitats were observed to be composed of encroaching trees and shrubs, most of which were invasive. The maintained open habitats including Hayfields, Row Crop, and Mowed do not provide suitable nesting habitat for the state-endangered Sedge Wren. However, Pasture and Scrub habitats apart from the areas overtaken by invasive woody vegetation may provide suitable nesting habitat. These habitat types appear to overlap with the BBA3 occurrences (Appendix A). There are approximately 1,059 acres of Scrub and Pasture, of which only 471 acres are planned as part of the project's LOD. Over half (589 acres, 57%) of this habitat type on the property is located outside of the LOD.

2.3.5 Henslow's Sparrow

Breeding Bird Atlas and eBird reports document the presence of Henslow's Sparrow within or adjacent to subject property. The majority of the documented occurrences were specific to the breeding season suggesting that nesting may occur within the area. These occurrences appear to be specific to the Pasture and Scrub habitats that are uncultivated/undisturbed and unfragmented densely vegetated open habitats that lack early successional frontier shrubs. A memo was submitted to the MD DNR in August 2, 2024 denoting the low likelihood of suitable nesting habitat onsite for this sparrow species. Several occurrences of these sparrows had been reported during breeding season, however, they appear to be within the smaller side territories (i.e. between 1 and 2.5 acres) of Scrub or Pasture habitats and some proximal to the onsite roadways. Over half (57%) of these habitat types are located outside of the LOD.

3

Minimization and Mitigation

The MD DNR and the U.S. Fish and Wildlife Service (USFWS) have reviewed and provided feedback on the Project's strategies to avoid and minimize environmental impacts. REV is constructing a renewable energy facility on previously mined and disturbed land, which is currently subjected to various forms of vegetation management and development activities outside the MD DNR's jurisdiction. As most of the parcels associated with the Project were permitted and mined (deep and surface) for coal, the proposed improvements will benefit the environment by reclaiming portions of mined parcels which have not already been reclaimed.

Agriculture is the primary cause of terrestrial biodiversity loss, driven by management intensification, cropland expansion, and habitat loss. Ground-nesting bird species have seen a more significant decline compared to those nesting in woody vegetation. In contrast, solar farms have lower management intensity than cropland, leading to increased plant diversity and serving as a refuge for various species. The structural complexity of solar farms, including the construction and panels, offers birds nesting and perching sites while protecting them from aerial predators (B. Jarˇcuˇska et al, 2024). In addition, the permanent vegetative cover under and around the solar panels will result in less water quality impacts due to improved erosion and sediment controls. The various buffers and setbacks proposed are more than adequate to protect adjacent resources including wetlands, streams, flood plains, and woodlands. These areas which will be protected by the applicant are some of the highest quality habitats for birds and other wildlife. The project site primarily consists of managed land that serves as lower quality habitat for the species identified by the MD DNR. To mitigate the effects on the species highlighted and other Rare, Threatened, and Endangered (RTE) species, the Project will employ a range of minimization and mitigation measures.

3.1 Vegetation Management Plan

Vegetation within the LOD will be targeted for invasive species removal and replanted with seed compositions that benefit the species of concern, thereby improving habitat quality. Key habitats will be preserved by managing Scrub and Pasture habitats as applicable outside of the LOD. The comprehensive vegetation management plan will be implemented to manage invasive species and establish favorable habitats within the LOD for ground-nesting bird species.

3.1.1 Vegetation Stabilization

The project will employ turf-style grasses suited to growing in partial shade, facilitating vegetation maintenance beneath and around the solar arrays. The grass species selected will be native to the region and recommended by the Garrett Soil Conservation District (SCD) Office, aimed at providing low growth and low maintenance. REV also plans to integrate vegetation that supports pollinators, such as white clover, which benefits honeybees and other pollinators. Solar energy facilities have the potential to create healthy habitats for pollinators. Construction activities will protect and avoid impacts to delineated wetlands/streams and their associated buffers. These buffers and wetlands exist outside of the LOD, and

native trees and shrubs may be incorporated where necessary in these areas to obtain a robust and substantial vegetation community.

3.1.2 Vegetative Grounds Management Plan (VGMP)

The VGMP outlines how the project's vegetation will be established, maintained, and monitored. Regarding the avian species, the plan benefits include:

- Site preparation activities, sequencing of construction, planting, and management protocols will be aligned with specific growing periods and schedules.
- Seed mixes comprising indigenous and naturalized grasses, as well as selected native pollinator friendly species, with appropriate application rates to benefit all listed avian species.
- Application of EPA-registered herbicides and pesticides for invasive species prevention and removal, benefiting wildlife and native vegetation. This will improve habitat for Sedge Wren, Henslow's Sparrow, Long-eared Owl, Short-eared Owl, and Northern Harrier.
- Creation of suitable ground cover for nesting and perching opportunities around and beneath the solar arrays within the LOD will directly benefit the Sedge Wren and Henslow's Sparrow.
- Temporal restrictions on Mowing - Scheduled mowing will be avoided and minimized during the nesting season (May through August) of most ground-cover nesting birds. This will reduce impacts to Sedge Wren, Henslow's Sparrow, Northern Harrier, and Short-eared Owl.
- Tree and shrub implementation and impact avoidance within established wetland/stream buffer zones and along roadways: Described in further detail in Section 3.1.4

3.1.3 Temporal Tree Clearing Restrictions

To further support avian species and bats, the project will implement temporal tree clearing restrictions. Tree clearing activities will be scheduled outside critical breeding and roosting periods to minimize disturbances to wildlife. Specifically, tree clearing will occur outside of these times and focused through fall and winter months, thereby avoiding the breeding season for birds and the maternity roosting season for bats. This timing helps mitigate the potential negative impacts on Long-eared Owls and roosting bats, ensuring their habitats are preserved during the most vulnerable times of their life cycles. By observing these temporal restrictions, the Project will contribute to the long-term conservation of local avian and bat populations.

3.1.4 Buffer Guidelines/Setbacks

Buffers will be implemented to adhere to identified and protected environmental resources in the Project area through the Project's design including wetland/stream avoidance, habitat preservation, and RTE species protection. Protection and enhancement of riparian areas will benefit Sedge Wren, Henslow's Sparrow, Northern Harrier, Short-eared Owl, and Long-eared Owls.

The established buffers and setbacks will utilize both existing vegetation and new native and naturalized vegetation plantings, and are as follows:

- Wetlands – Minimum 35-foot buffers will be established around ECS field identified wetlands across the property.

- Streams – Minimum 50-foot buffers will be established for ECS field and GIS identified blue line (perennial) streams, intermittent streams, and ephemeral streams.
- County Road – Minimum 50-foot vegetation buffers will be established along county roads to preserve habitat. Installing grass roads instead of gravel roads around the perimeter of the LOD will reduce habitat fragmentation impacts to avian species.
- Solar Array Edges – Minimum 25-foot vegetation buffer between most solar array edges and the adjacent fence line and facility limits.

3.2 Mitigation & Impact Minimization Strategies

3.2.1 Dedicated Wildlife and Pollinator Habitat

REV is committed to enhancing wildlife habitat through strategic vegetation management, invasive species removal, and habitat creation efforts. The initiatives will prioritize the avian species of concern, as identified by the MD DNR, to improve overall habitat quality for these and other species. The dedicated wildlife and pollinator habitat plan for Jade Meadow III will represent contiguous and non-contiguous areas of quality, managed habitat. The specific areas of dedicated wildlife and pollinator habitats will be detailed in future plans to provide a comprehensive overview of our ongoing efforts.

While many maintained areas currently remain open and provide low-quality foraging habitat, sections of the LOD that have not yet been reclaimed from past mining operations, will be revegetated with pollinator-friendly seed mixes. This will create valuable foraging opportunities include an increase in insect and prey items for the MD DNR identified species, (Henslow's Sparrow, Sedge Wren, Short-eared Owl, Long-eared Owl, and Northern Harrier) further improving the ecological integrity of the property and surrounding habitats.

The transmission and collection line corridors and easements will be particularly beneficial in enhancing foraging habitats and prey populations for raptors and owls, including the Northern Harrier, Short-eared Owl, and Long-eared Owl. The transmission line development will adhere to avian safe design standards identified in Reducing Avian Collisions with Power Lines (APLIC, 2012). The incorporation of the pollinator friendly seed mixes within the transmission line corridors will also create valuable foraging habitat and potential nesting areas for Sedge Wren and Henslow's Sparrow.

3.2.2 Habitat Structures: Bird boxes and perches, bat boxes

To further enhance habitat quality and provide additional nesting opportunities for avian species and bats, the project aims to collaborate with local or regional non-profits and community organizations, , ornithological organizations, and other environmental and habitat focused organizations. These partnerships will focus on establishing and increasing nesting and foraging habitat quality by installing bird nesting boxes, perches and bat boxes within the project area.

- Bird Nesting Boxes: Appropriate bird nesting boxes will be designed and strategically placed to support cavity-nesting bird species. These boxes can be installed on fence support poles, spread out proximal to Scrub and Pasture habitats surrounding the fenced array, facing both inside and outside of the array. These boxes can attract primarily cavity-nesting passerines but have also been known to host flying squirrels, snakes, small mammals, and tree frogs.

- Bird Perches: Fence posts and other stationary structures incorporated into the fencing design where appropriate can provide perches for smaller passerines such as Henslow's Sparrow and Sedge Wren near foraging or nesting habitats. The addition of larger structures can also support foraging for raptors such as Short-eared Owls, Long-eared Owls, and Northern Harriers.
- Bat Houses: Multiple bat houses may be installed to provide roosting opportunities, which can be particularly beneficial during the maternity season. These houses will follow Bat Conservation International's guidelines and will be positioned in scrub or pasture habitats (existing or restored) outside of the fenced array and close to a water source. This placement will provide easy access to foraging bats on insects near and around the array field area and additional flyways.

By working with local non-profits and community organizations, the project can leverage local expertise and resources to maximize the ecological benefits. These efforts will contribute to the overall biodiversity and sustainability of the project site, ensuring a positive environmental impact.

3.2.3 Erosion & Sediment Control and Construction Phasing

The project will also implement erosion and sediment control measures (E&S), alongside phased construction, to minimize impacts on water quality and avian species. Effective erosion and sediment control practices will be tailored to the site's specific conditions and will include:

- Silt Fencing and Sediment Barriers: Installation of silt fencing and other sediment barriers around disturbed areas to prevent erosion and sediment runoff into nearby water bodies.
- Stabilized Construction Entrances/Exits: To minimize off-site sediment transport.
- Temporary Seeding and Mulching: To provide immediate ground cover on disturbed soils, thereby reducing erosion.
- Phasing and sequencing: To minimize disturbances within the LOD at any one time. This approach allows for timely stabilization of completed sections, thereby reducing erosion and sedimentation impacts.

By incorporating these measures and utilizing phased construction, the project aims to protect water quality and reduce habitat disturbances for the identified bird species (Sedge Wren, Henslow's sparrow, Northern Harrier, Long-eared Owl, Short-eared owl) as well as other RTE species. These practices support the overall goal of minimizing environmental impacts while ensuring the successful implementation of the renewable energy project.

3.2.4 Wildlife Permeable Fencing

The use of wildlife permeable/graduated fencing is a relatively new concept compared to traditional chain-linked fences. These types of fences have graduated weaving that allow easier access closer to the surface for up to medium-sized animals to pass through while maintaining structural integrity for perching birds. Installing this type of fencing and the practice of leaving a grass buffer between the array edges and the fence line will reduce the risk of injury and stress to species entering the area. For sections using chain-linked fences, small holes or openings will be installed along the base to permit smaller mammal and bird species including Sedge Wren and Henslow's Sparrow to access or vacate the fenced areas.

4

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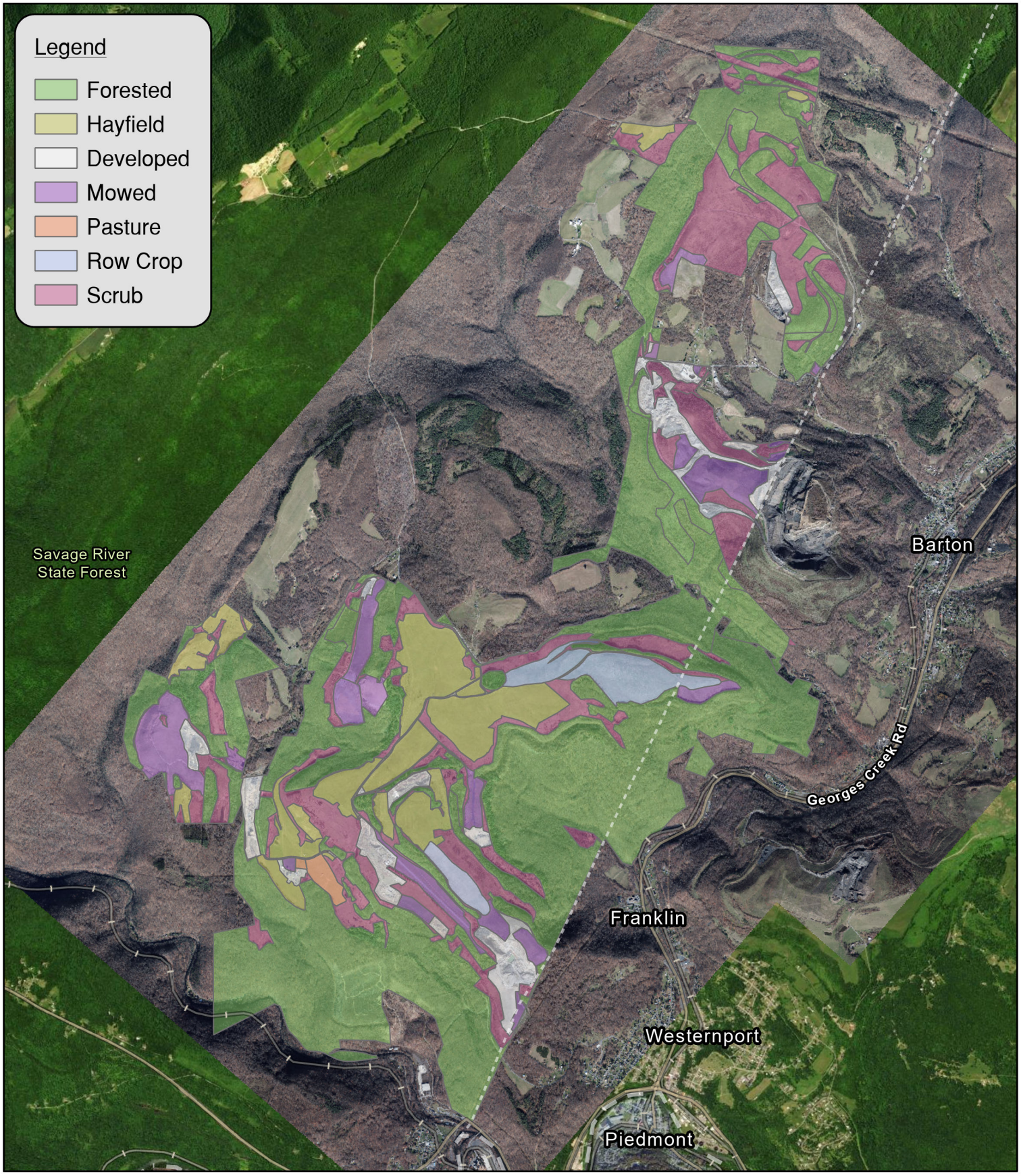
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Appendix A – Land Use Map



REV RENEWABLES

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JM3 Land Use

Exhibit A
Maryland

Appendix B – Maryland DNR Memo

September 6, 2024

Ms. Melissa S. Hall
H&B Solutions, LLC
37534 Oliver Drive
Selbyville, DE 19975

RE: Interim Comments for Environmental Review for Jade Meadow III Solar Project, 4491 Acres Along MD 36/MD 135 in Westernport/Barton area, Garrett and Allegany County, Maryland.

Dear Ms. Hall:

Thank you for providing us with the shapefiles of this project's limits-of-disturbance and habitat assessments for Property #14 and Property #30 dated August 21, 2024. Based on these documents and our recent conference call of August 28, 2024, the Wildlife and Heritage Service (WHS)has the following comments:

For **Property #4** (Garrett County Tax Map 62 Parcel 30),
Property #13 (Garrett County Tax Map 62 Parcel 15),
Property #14 (Garrett County Tax Map 62 Parcel 17),
Property #15 (Garrett County Tax Map 62 Parcel 22),
Property #17 (Garrett County Tax Map 62 Parcel 40),
Property #21 (Garrett County Tax Map 54 Parcel 18),
Property #22 (Garrett County Tax Map 54 Parcel12),
Property #25 (Garrett County Tax Map 55 Parcel 3),
Property #26 (Garrett County Tax Map 62 Parcel 32),
Property #27 (Garrett County Tax Map 62 Parcel 31),
Property #28 (Garrett County Tax Map 54 Parcel 6), and
Property #29 (Garrett County Tax Map 54 Parcel 7), the WHS has no official records for State or Federal listed, candidate, proposed, or rare plant or animal species within the project area shown on the map provided. As a result, we have no specific concerns regarding potential impacts to such species or recommendations for protection measures at this time.

For **Property #1** (Garrett County Tax Map 62 Parcel 2),
Property #2 (Garrett County Tax Map 62 Parcel 29),
Property #3 (Garrett County Tax Map 62 Parcel 10),
Property #5 (Garrett County Tax Map 62 Parcel 33),
Property #6 (Garrett County Tax Map 62 Parcel 6),
Property #8 (Garrett County Tax Map 62 Parcel 11),
Property #9 (Garrett County Tax Map 62 Parcel 12),
Property #10 (Garrett County Tax Map 62 Parcel 13),
Property #11 (Garrett County Tax Map 62 Parcel 28),
Property #12 (Garrett County Tax Map 62 Parcel 14),

Property #18 (Garrett County Tax Map 62 Parcel 16),
Property #19 (Garrett County Tax Map 62 Parcel 18),
Property #31 (Allegany County Tax Map 68 Parcel 209) and
Property #32 (Allegany County Tax Map 68 Parcel 226), there is overlap with the Aaron Run Fields site which is known to support the Henslow's Sparrow (*Centronyx henslowii*), a species which is currently state-listed as In Need of Conservation in Maryland. The Henslow's Sparrow is a rare breeding bird in Maryland, is known to nest in weedy areas or wet meadows (often reclaimed mine grasslands) and requires large expanses of habitat to successfully breed. Formerly breeding in all physiographic regions of the state, this species is now only known to breed in western Maryland. In addition, recent MD/DC Breeding Bird Atlas data include confirmed breeding records for the highly rare Long-eared Owl (*Asio otus*), and for the state-listed Endangered Sedge Wren (*Cistothorus platensis*) in this same area. All of these species require extensive grassland habitat for successful breeding. The Long-eared Owl utilizes the dense pine stands within and adjacent to these grasslands as nesting habitat, and the fields as feeding habitat. Large managed grassland areas such as this provide potential breeding areas for Northern Harrier (*Circus hudsonius*), listed as In Need of Conservation, and Short-eared Owl (*Asio flammeus*), state-listed as Endangered. There is a recent potential breeding record for Northern Harrier in this area, as well as multiple winter records for both species over a number of years.

Based on recent MD/DC Breeding Bird Atlas observations along Russell Road,
Property #20 (Garrett County Tax Map 55 Parcel 14),
Property #23 (Garrett County Tax Map 46 Parcel 42),
Property #24 (Garrett County Tax Map 55 Parcel 15), and
Property #25 (Garrett County Tax Map 55 Parcel 3) should also be considered breeding habitat for the Henslow's Sparrow due to the Atlas records in this area. The presence of the Henslow's Sparrow, and potentially Long-eared Owl and Sedge Wren, on these properties should be assumed, given the difficulty in confirming their absence in an area where they were previously documented. Multiple winter records for Northern Harrier and Short-eared Owl are also known for this area.

Protection measures should be developed in coordination with WHS for those properties where suitable grassland habitat occurs or recently occurred. While species listed as In Need of Conservation do not require a permit for incidental take, the Department works with state permitting agencies through the permit review process to conserve these species with the goal of preventing further decline and future listing as Threatened or Endangered.

For **Property #14** (Garrett County Tax Map 62 Parcel 17), there were potential concerns for the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and the state-listed endangered Allegheny Woodrat (*Neotoma magister*). The shapefiles indicate that the known records do not occur in close proximity to the limits-of-disturbance. Based on the current information, the WHS has no further concerns for impacts to either of these species from the proposed project on Property #14.

Conversely, the shapefiles also indicate that **Property #7** (Garrett County Tax Map 62 Parcel 7), which was formerly in the "no comments" section of our response, abuts State Land where there is a significant population of the Allegheny Woodrat. WHS would ask that the applicant maintain a 650-foot forested buffer from the western edge of the parcel boundary. There appears to already be a strip-mine or field in much of that part of the parcel, so additional forest removal in that zone would degrade the buffer. In this case, the presence of the Allegheny Woodrat should be assumed, and these protection measures implemented.

For **Property #16** (Garrett County Tax Map 70 Parcel 31), there is overlap with part of the Savage River at Bloomington site, which is known to support the Appalachian Cottontail (*Sylvilagus obscurus*), a species with In Need of Conservation status in Maryland. The presence of the Appalachian Cottontail should be assumed, given that it has been documented on site and that it is difficult to confirm presence/absence.

Based on your recent response of August 9, 2024, all of the potential habitat for this species has been removed from the limits-of-disturbance on the appropriate parcels. WHS have no further concerns for impacts to this species from the proposed project at Property #16.

For **Property #30** (Garrett County Tax Map 47 Parcel 10), there is overlap with Russell Road Bog which supports rare species. We are in receipt of the habitat assessment report for this property, and understand that surveys are proposed here in mid-September for the species: Low Rough Aster (*Eurybia radula*), Stiff Gentian (*Gentianella quinquefolia*) and Wild Indigo *(Baptisia* spp.) – host plant for the Frosted Elfin, which is state-listed as Endangered. Based on the wetlands observed on Property #30, it is important to note that WHS generally asks for a minimum 100-foot buffer around wetlands that are found to support rare, threatened or endangered species.

For the overall project site, our remote analysis suggests that the forested area contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices. The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the WHS.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.JadeIIISolar.interim
Cc: M. Zagorski, DNR
C. Frye, DNR
M. Ferlauto, DNR
K. McCarthy, DNR
L. Davidson, DNR
F. Kelley, DNR
S. Seaman, DNR
G. Brewer, DNR

From:	Cooke, Maxwell
To:	Lori Byrne -DNR-
Cc:	Dane Bauer; Melissa Hall; Hunter Maret; MICHAEL E BACON (MBacon@ecslimited.com); Michael Svedeman; Shawn Seaman -DNR-; Max Ferlauto -DNR-; Megan Zagorski -DNR-; Katharine McCarthy -DNR-; Chris Frye -DNR-; Lynn M. Davidson; Gwenda Brewer -DNR-; Frederick Kelley -DNR-; Chason, Todd R.
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Friday, October 25, 2024 9:55:07 AM
Attachments:	image002.png image003.png Jade Meadow III - Additional Information.pdf

Lori:

Good morning. Please see the attached letter to serve as a supplement to the documentation Melissa sent over earlier this week.

Best,
Max

MAXWELL T. COOKE
Gordon Feinblatt LLC
1001 Fleet Street, Suite 700
Baltimore, MD 21202

410-576-4141 (direct)
mcooke@gfrlaw.com | www.gfrlaw.com
LinkedIn | Twitter

GORDON·FEINBLATT LLC
ATTORNEYS AT LAW

From: Melissa Hall <mhall@hallandbauer.com>
Sent: Tuesday, October 22, 2024 4:50 PM
To: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Cc: Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <mbacon@ecslimited.com>; Michael Svedeman <msvedeman@revrenewables.com>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Max Ferlauto -DNR- <max.ferlauto@maryland.gov>; Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Lynn M. Davidson <lynn.davidson@maryland.gov>; Gwenda Brewer -DNR- <gwenda.brewer@maryland.gov>; Frederick Kelley -DNR- <frederick.kelley@maryland.gov>
Subject: RE: Jade III - DNR RTE Follow-Up

Lori:

Please see the attached response from the Applicant as well as supporting documentation by VHB and ECS associated with results from the various field studies conducted.

Please let us know if you have any questions or if you need anything further at this time.

Thanks.

Melissa Schmid Hall
410.292.4385

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Tuesday, October 1, 2024 12:14 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <mbacon@ecslimited.com>; Michael Svedeman <msvedeman@revrenewables.com>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Max Ferlauto -DNR- <max.ferlauto@maryland.gov>; Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Lynn M. Davidson <lynn.davidson@maryland.gov>; Gwenda Brewer -DNR- <gwenda.brewer@maryland.gov>; Frederick Kelley -DNR- <frederick.kelley@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Thank you!
Lori

The information supplied in this message may be legally privileged. If you are the intended recipient of this message, the sender does not intend delivery to you to waive any privilege or right pertaining to this message. If you have received this message in error, please immediately notify the sender by return e-mail, and delete the errant message. Thank you.

GORDON·FEINBLATT LLC
ATTORNEYS AT LAW

MAXWELL T. COOKE
PHONE/FAX 410.576.4141
mcooke@gfrlaw.com

1001 FLEET STREET
SUITE 700
BALTIMORE, MD 21202-4346
410.576.4000
www.gfrlaw.com

October 25, 2024

VIA E-MAIL

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
lori.byrne@maryland.gov

Re: Jade Meadow III – DNR Additional Information

Dear Ms. Byrne:

This letter on behalf of Jade Meadow III is to provide additional information regarding the Rare, Threatened and Endangered species issues covered in the October 22, 2024 letter and report provided by Melissa Hall.

Please note that reclaimed mine areas and other parcels that have not been mined on these sites are eligible to apply for mining permits at any point in the future. If necessary this could be confirmed by the Maryland Bureau of Mines Coal Division. By implementing the Jade Meadow III solar project here, future mining would not be possible on these properties. Consequently, the environmental impacts could be significantly greater if the solar project were not pursued. Accordingly, implementation of this project is expected to mitigate potential adverse environmental effects that might arise from alternative uses of the land.

Please let us know if you have any questions or would like to discuss this matter further.

Very truly yours,

/s/

Maxwell T. Cooke

From:	Melissa Hall
To:	Lori Byrne -DNR-
Cc:	Dane Bauer; Katharine McCarthy -DNR-; Shawn Seaman -DNR-; Bob Sadzinski -DNR-
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Friday, November 8, 2024 3:44:00 PM
Attachments:	17729-A_Jade 3 Property 30 Habitat Assessment 2024.09.30_final.pdf image001.png

Lori:

Please see attached. We apologize for the oversight/delay on this. Also, we should have the additional information you requested yesterday over to you next week.

As always, we appreciate your help. Have a nice weekend!

Thanks.

Melissa Schmid Hall
410.292.4385

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Friday, November 8, 2024 12:15 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Dane Bauer <dbauer@hallandbauer.com>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Bob Sadzinski -DNR- <bob.sadzinski@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
I have to ask for one more item to try and wrap up our rare species review on this project. I realized that we never received the survey results from the September plant surveys for Low Rough Aster, Stiff Gentian and Wild Indigo. At least not that I can find…could you let me know if this was sent to DNR? Thanks again.
Lori

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)

	lori.byrne@maryland.gov

On Thu, Nov 7, 2024 at 3:35 PM Lori Byrne -DNR- <lori.byrne@maryland.gov> wrote:

> Dear Ms. Hall,
> We are trying to wrap up rare species comments related to this project, and appreciate the information you have provided so far in the process. I need to ask for a few more items that should allow us to send our final review response.
> 1) Your report **Jade III Cover Letter DNR Final** dated 10/22/24 indicates that there will be areas of potential habitat retained for the RT&E species: Virginia Mallow, Allegheny Woodrat, Appalachian Cottontail, Low Rough Aster, Stiff Gentian, and Frosted Elfin. Can you provide mapping to show where the areas of retained habitat are located within the project?
> 2) The **Jade III Avian Review VHB ECS Final** report dated 10/22/24 indicates that there is acreage being retained for the species of grassland breeding birds mentioned in our response. Is it possible to show those areas of retained habitat (as shown in the Table1: Land Use Acreage) on the JM3 Land Use Map? Or a similar map that shows the habitat on the project site? It would also be helpful to know the acreages of the retained polygons of habitat on this map.
> Thank you.
> Lori Byrne

dnr.maryland.gov	Lori A. Byrne Environmental Review Coordinator Wildlife and Heritage Service Department of Natural Resources 580 Taylor Avenue, E-1 Annapolis, MD 21401 410-260-8573 (office) 410-260-8596 (FAX) lori.byrne@maryland.gov

On Fri, Aug 9, 2024 at 6:47 AM Melissa Hall <mhall@hallandbauer.com> wrote:

> Lori:

Please see the attached comment response letter to your July 18th update as well as supporting memo from VHB. We will follow up with the interim T&E survey report from ECS next week.

Thanks.

Melissa Schmid Hall
410.292.4385

HB SOLUTIONS

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Thursday, July 18, 2024 4:00 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
Please see attached for an update to our original response letter, with answers to your questions and additional information relating to RT&E species followup. This may eliminate the need to meet on Wednesday, but I will leave that to those on this list. Thank you.
Lori

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

On Thu, Jul 18, 2024 at 3:27 PM Melissa Hall <mhall@hallandbauer.com> wrote:

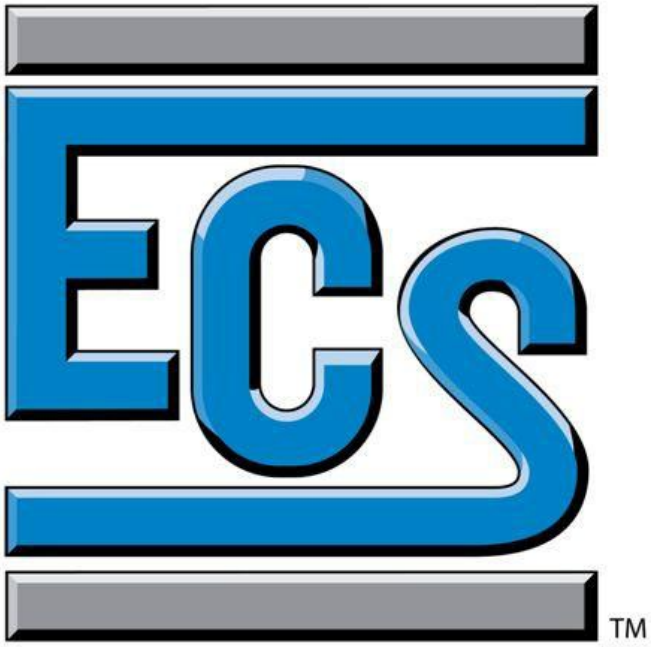
Microsoft Teams [Need help?]

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Passcode: Us78gx

For organizers: Meeting options



PROPERTY #30 HABITAT ASSESSMENT
JADE MEADOW III PROPERTY
GARRETT COUNTY, MARYLAND

ECS PROJECT NO. 47:17729-A

FOR

JADE MEADOW III LLC

AUGUST 21, 2024; REVISED SEPTEMBER 30, 2024

August 21, 2024; Revised September 30, 2024

Mr. Hunter Maret
Jade Meadow III LLC
520 Maryville Centre, Suite 400
St. Louis, Missouri 63141

ECS Project No. 47:17729-A

Reference: Habitat Assessment, Jade Meadow III Property – Property #30, Barton, Garrett County, Maryland

Dear Mr. Maret:

ECS Mid-Atlantic (ECS) is pleased to present the preliminary findings of the habitat assessment survey for the subject site in general accordance with ECS Proposal No. 47:34385-EP, authorized on July 17, 2024. ECS conducted a survey of Property #30 for potential habitat of the state-endangered low rough aster (*Eurybia radula*), stiff gentian (*Gentianella quinquefolia*), and the frosted elfin (*Callophrys irus*), following the Maryland Department of Natural Resources (DNR) Wildlife and Heritage Service protocols for conducting a survey for rare plants and animals. As part of a natural resource assessment process, H&B Solutions contacted the Maryland DNR regarding the potential for any threatened or endangered species within the property boundaries of the subject site. In a response letter received from the DNR dated June 20, 2024, DNR indicated for Property #30 that "potential for the state-listed endangered low rough aster to occur on this site". An updated response letter received from the DNR dated July 18, 2024, indicated additional species for Property #30 including "a record for a population of the state-listed endangered stiff gentian in the immediate vicinity and could potentially occur on the nearby parcels included in the project's study area" and for "the state-listed frosted elfin is also documented on this site".

PROPERTY DESCRIPTION

The property referred to as the "subject site" is located north of Russell Road and to the north and south of an existing transmission right-of-way (ROW) in Barton, Garrett County, Maryland (**Attachment B**). The subject site is further identified by the Maryland Department of Assessments and Taxation (MDAT) online database as Parcel Number 11-003125 and is approximately 133 acres in size. The study area consists of the entirety of the proposed limits of disturbance (LOD) within the subject site plus a 300-foot buffer and survey area directly adjacent and beyond the LOD. The study area is comprised of wooded land, mixed-vegetated land, active hayfields, and a transmission ROW.

LOW ROUGH ASTER BACKGROUND

The low rough aster (*E. radula*) is included on the List of Rare, Threatened, and Endangered Plants of Maryland (March 2021) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *E. radula* is a one to three-foot herbaceous, perennial plant that

flowers in the late summer to early fall and shows pale blue-violet rays with yellow centers. The species range in Maryland includes the central and western regions of Maryland (Cecil, Frederick, Garrett, Harford, Montgomery, and Prince George's Counties). Low rough aster is found in wet soils in a wide variety of habitats from acidic seepage wetlands to creek shores and ditches. The Rare, Threatened, and Endangered Plants of Maryland Report, prepared by the Maryland DNR Wildlife and Heritage Service and dated March 2021, states that *E. radula* populations in Maryland are endangered due to habitat loss, woody succession of bog-like habitat. Few Maryland populations are found on protected lands. The flowering and fruiting period of *E. radula* is in mid-September.

STIFF GENTIAN BACKGROUND

The stiff gentian (*G. quinquefolia*) is included on the List of Rare, Threatened, and Endangered Plants of Maryland (March 2021) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *G. quinquefolia* is a one to two-foot herbaceous, annual plant that flowers in the late summer to early fall and shows light blue to violet or sometimes yellowish ½ to nearly 1-inch long, tubular with five triangular lobes that fold in. The species is only found in Garrett County, Maryland. Stiff gentian is a facultative species and is found in a wide variety of habitats from fields, meadows, clearings, and road banks at high elevations. The Rare, Threatened, and Endangered Plants of Maryland Report, prepared by the Maryland DNR Wildlife and Heritage Service and dated March 2021, states that *G. quinquefolia* populations in Maryland are endangered due to habitat loss and woody succession of meadow/field habitats. The flowering and fruiting period of *G. quinquefolia* is in mid-September.

FROSTED ELFIN BACKGROUND

The frosted elfin (*C. irus*) is included on the List of Rare, Threatened, and Endangered Animals of Maryland (November 2023) as State Rank S1 (critically imperiled/highly state rare) and State Status E (endangered). *C. irus* is a small, non-migratory butterfly that flies early in spring, and is often rather localized and rare. This species depends upon pine barrens, a rare habitat type characterized by fire-dependent conifers, dense thickets of scrub oak, and grassy openings that support specialized plants like wild indigo (*Baptisia sp*.) and wild blue lupine (*Lupinus perennis*), which are host plants that frosted elfin larvae need to survive. It lays its eggs singly on the leaves of the host plants and the caterpillars hatch a few weeks later and feast upon the flowers and fruits of the host plant species. Each caterpillar then burrows into the duff and soil and pupates for the rest of the year, overwintering in the soil. Adult frosted elfins are not strong fliers and will not stray too far from the host plants. The species range in Maryland includes the coastal, central, and western regions of Maryland (Charles, Dorchester, Garrett, Wicomico, and Worcester Counties).

The wild blue lupine prefers open sunny areas of dry woodland glades, grasslands, and roadsides. The plant is approximately 7-24 inches tall and opens its blue, white or pink flowers in May and June. Two types of wild indigo species are found in Maryland, the blue wild indigo (*Baptisia australis*) and the yellow wild indigo (*Baptisia tinctoria*). The wild blue indigo may be found in Maryland along the Potomac, in river washed areas and scoured areas. It prefers moist open woods and prairies with sandy gravelly soil. The blue wild indigo is considered threatened

in Maryland. The yellow wild indigo is found throughout Maryland and prefers open areas in full sun. The plant stands approximately 2-4 feet tall and flowers in May and June.

JULY 24, 2024 FIELD VISIT FINDINGS

Prior to the field visit, ECS and Jade Meadow III LLC attended a call on July 24, 2024, with the Maryland DNR discussing survey protocols for both plant species and the frosted elfin. During the call, DNR stated that a survey needs to be conducted in mid-September for the low rough aster and stiff gentian, when the plant species flowers. In addition, DNR stated that a population of wild yellow indigo is known on the west adjacent parcel and that ECS should conduct a survey for this plant to determine if potential habitat exists for the frosted elfin.

A field evaluation for Property #30 was conducted on July 24, 2024. ECS spent approximately 5.5 hours investigating Property #30 searching for potential habitats for the low rough aster and stiff gentian and searching for certain plants, particularly focusing on the presence or absence of the yellow wild indigo. Prior to the site visit, ECS prepared a field observation guidance document including images and known characteristics of each identified species and their potential habitat. ECS traversed the property via transects to systematically observe for the plant species and its habitats during the survey. Additionally, ECS assessed the vegetative community by collecting data and grouping habitats present onsite based on their vegetation including species observed within the tree, shrub, and herbaceous layers.

The wetland area located within the transmission easement that was previously identified by ECS during a 2023 wetland determination has the potential for the low rough aster and stiff gentian. Two additional wetland areas were observed within the central portion of the transmission ROW that has the potential for the low rough aster and stiff gentian. In addition, based on the observations within the transmission easement, hillslopes and forest edges, it appears to be suitable for the stiff gentain.

A hayfield located on the eastern portion of the parcel and south of the easement area was recently harvested. In addition, an area south of this hayfield, separated by autumn olive shrubs and black locust trees, was also recently harvested for hay. ECS did not observe potential habitat for the low rough aster within this portion of the subject site. Habitat for the stiff gentian are typically fields, meadows, and road banks. Based on these specific habitat requirements of *G. quinquefolia*, the most suitable habitat for this species is found within fielded areas. However, most of the fielded areas appeared to be recently harvested with some undisturbed areas. As such, the potential habitat of the stiff gentian may be located within these undisturbed areas. ECS did not observe any populations of the yellow wild indigo within this portion of the study area.

SEPTEMBER 11, 2024 FIELD VISIT FINDINGS

A presence/absence survey for Property #30 was conducted on September 11, 2024, within the flowering period of the low rough aster and stiff gentian. ECS representatives and Dr. Doug DeBerry observed Property #30 to determine if the low rough aster and stiff gentian were present within the areas of potential habitat that were identified during the July 24, 2024, field investigation. ECS traversed the transmission easement and the areas of potential habitat via

transects to systematically observe for low rough aster and stiff gentian individuals. Additionally, ECS and Dr. DeBerry assessed the vegetative community by collecting data and grouping habitats present onsite based on their vegetation including species observed within the tree, shrub, and herbaceous layers.

ECS and Dr. DeBerry began the assessment within the transmission easement traversing from west to east. *G. quinquefolia* was not observed within the easement. In addition, the wetland areas within the easement were also assessed for *E. radula* but the species was not observed. Based on the lack of observations, ECS and Dr. DeBerry can confirm the absence of both species within the transmission easement.

ECS and Dr. DeBerry then assessed the field areas on the southeastern portion of the study area and the areas along the southeastern hillslope. The vegetation that was previously harvested for hay just before the July 24th site visit had not grown back by the September 11th site visit. ECS previously identified this area as potential habitat for the stiff gentian; however, after conducting the most recent site reconnaissance, both ECS and Dr. DeBerry have considered this area as not suitable habitat, and it has been removed from the attached site location map. In addition, within the undisturbed area, the flowering stiff gentian was not observed. Based on the disturbed nature of the fields and the lack of observed populations or individuals, ECS and Dr. DeBerry can also confirm the absence of stiff gentian within the southeastern portion of the study area. A species checklist of plants identified during the assessment is included in Appendix I.

ECS recommends submitting this information to the Maryland DNR for review to obtain concurrence.

ECS would like to thank Jade Meadow III, LLC for the opportunity to provide you with this Property #30 habitat assessment. We look forward to assisting you further with this project. If you have any questions, please feel free to contact us at any time at 410-859-4300.

Sincerely,

ECS MID-ATLANTIC, LLC

Michael Bacon
Environmental Senior Project Manager
MBacon@ecslimited.com

Justin M. Hughes, PWS
Associate Principal
JHughes@ecslimited.com

Dana Spontak, CWB, CE
Environmental Senior Project Manager
dspontak@ecslimited.com

PLANT SPECIES CHECKLIST

Checklist of Plant Species Encountered During Site Visit

Jade Meadow III - Property 30 Rough-leaved Aster and Stiff Gentian Survey

Date: September 11, 2024

Douglas A. DeBerry, PhD, PWS, PWD

[NOTE: Invasive species in red type]

Scientific Name	Common Name	Family	Non-Native*
Acer rubrum	Red Maple	Sapindaceae	
Acer saccharum	Sugar Maple	Sapindaceae	
Achillea millefolium	Common Yarrow	Asteraceae	
Agrostis altissima	Coastal Bog Bentgrass	Poaceae	
Agrostis stolonifera	Creeping Bentgrass	Poaceae	*
Ambrosia artemisiifolia	Common Ragweed	Asteraceae	
Andropogon ternarius	Splitbeard Bluestem	Poaceae	
Anthoxanthum odoratum	Sweet Vernal Grass	Poaceae	*
Arctium minus	Common Burdock	Asteraceae	*
Asclepias syriaca	Common Milkweed	Apocynaceae	
Bromus inermis	Awnless Brome Grass	Poaceae	*
Calystegia sepium	Hedge Bindweed	Convolvulaceae	
Carex cephalophora	Oval-leaved Sedge	Cyperaceae	
Carex typhina	Cattail Sedge	Cyperaceae	
Centaurea stoebe ssp. *micranthos*	Spotted Knapweed	Asteraceae	*
Cichorium intybus	Chicory	Asteraceae	*
Cirsium arvense	Canada Thistle	Asteraceae	*
Cirsium vulgare	Bull Thistle	Asteraceae	*
Clinopodium vulgare	Wild Basil	Lamiaceae	
Crataegus pruinosa	Frosted Hawthorn	Rosaceae	
Crataegus uniflora	One-flowered Hawthorn	Rosaceae	
Dactylis glomerata	Orchard Grass	Poaceae	*
Daucus carota	Queen-Anne's Lace	Apiaceae	*
Dichanthelium clandestinum	Deer-Tongue Grass	Poaceae	
Dipsacus fullonum	Common Teasel	Caprifoliaceae	*
Doellingeria umbellata	Tall Flat-topped White Aster	Asteraceae	
Dryopteris marginalis	Marginal Wood Fern	Dryopteridaceae	
Elaeagnus umbellata	Autumn Olive	Elaeagnaceae	*
Euthamia graminifolia	Grass-leaved Goldenrod	Asteraceae	
Fallopia scandens	Climbing False Buckwheat	Polygonaceae	
Fraxinus americana	White Ash	Oleaceae	
Galium mollugo	Smooth Bedstraw	Rubiaceae	*
Galium tinctorium	Three-lobed Bedstraw	Rubiaceae	
Hamamelis virginiana	Witch Hazel	Hamamelidaceae	
Hypericum densiflorum	Bushy St. John's-wort	Hypericaceae	
Juncus dichotomus	Forked Rush	Juncaceae	
Juncus effusus	Soft Rush	Juncaceae	
Juniperus virginiana	Eastern Redcedar	Cupressaceae	
Leersia oryzoides	Rice Cutgrass	Poaceae	
Leucanthemum vulgare	Oxeye Daisy	Asteraceae	*
Linaria vulgaris	Butter-and-eggs	Plantaginaceae	*
Lonicera japonica	Japanese Honeysuckle	Caprifoliaceae	*
Lonicera morrowii	Morrow's Honeysuckle	Caprifoliaceae	*
Lotus corniculatus	Bird's-foot Trefoil	Fabaceae	*
Lycopus virginicus	Virginia Bugleweed	Lamiaceae	
Lysimachia ciliata	Fringed Loosestrife	Primulaceae	
Lysimachia quadriflora	Four-flowered Loosestrife	Primulaceae	
Melilotus officinalis	Yellow Sweet-clover	Fabaceae	*
Microstegium vimineum	Japanese Stiltgrass	Poaceae	*
Murdannia kiesak	Marsh Dewflower	Commelinaceae	*
Oxalis dillenii	Southern Yellow Wood-sorrel	Oxalidaceae	
Panicum virgatum	Switchgrass	Poaceae	
Parthenocissus quinquefolia	Virginia-creeper	Vitaceae	
Persicaria longiseta	Bristly Lady's-Thumb	Polygonaceae	*
Persicaria sagittata	Arrow-leaf Tearthumb	Polygonaceae	
Phalaris arundinacea	Reed Canary Grass	Poaceae	
Phleum pratense	Timothy	Poaceae	*

Checklist of Plant Species Encountered During Site Visit

Jade Meadow III - Property 30 Rough-leaved Aster and Stiff Gentian Survey

Date: September 11, 2024

Douglas A. DeBerry, PhD, PWS, PWD

[NOTE: Invasive species in red type]

Scientific Name	Common Name	Family	Non-Native*
Phytolacca americana	Common Pokeweed	Phytolaccaceae	
Plantago lanceolata	English Plantain, Rib-grass	Plantaginaceae	*
Prunella vulgaris	Self-heal, Heal-all	Lamiaceae	* (in part)
Prunus serotina	Black Cherry	Rosaceae	
Pteridium aquilinum ssp. latiusculum	Eastern Bracken Fern	Dennstaedtiaceae	
Quercus rubra	Northern Red Oak	Fagaceae	
Robinia pseudoacacia	Black Locust	Fabaceae	
Rosa multiflora	Multiflora Rose	Rosaceae	*
Rubus occidentalis	Black Raspberry	Rosaceae	
Rubus pensilvanicus	Pennsylvania Blackberry	Rosaceae	
Rumex crispus	Curly Dock	Polygonaceae	*
Schedonorus arundinaceus	Tall Fescue	Poaceae	*
Scirpus cyperinus	Woolgrass	Cyperaceae	
Solanum carolinense	Horse-nettle	Solanaceae	
Solidago altissima	Tall Goldenrod	Asteraceae	
Solidago bicolor	Silverrod	Asteraceae	
Solidago juncea	Early Goldenrod	Asteraceae	
Solidago rugosa	Wrinkle-leaf Goldenrod	Asteraceae	
Spiraea japonica	Japanese Spiraea	Rosaceae	*
Symphoricarpos orbiculatus	Coralberry	Caprifoliaceae	*?
Symphyotrichum pilosum	Frost Aster	Asteraceae	
Typha latifolia	Broadleaf Cattail	Typhaceae	
Verbascum thapsus	Common Mullein	Scrophulariaceae	*
Woodwardia virginica	Virginia Chain Fern	Blechnaceae	

* Status codes: * = non-native; *? = nativity uncertain; * (in part) = non-native in part of its range

References:

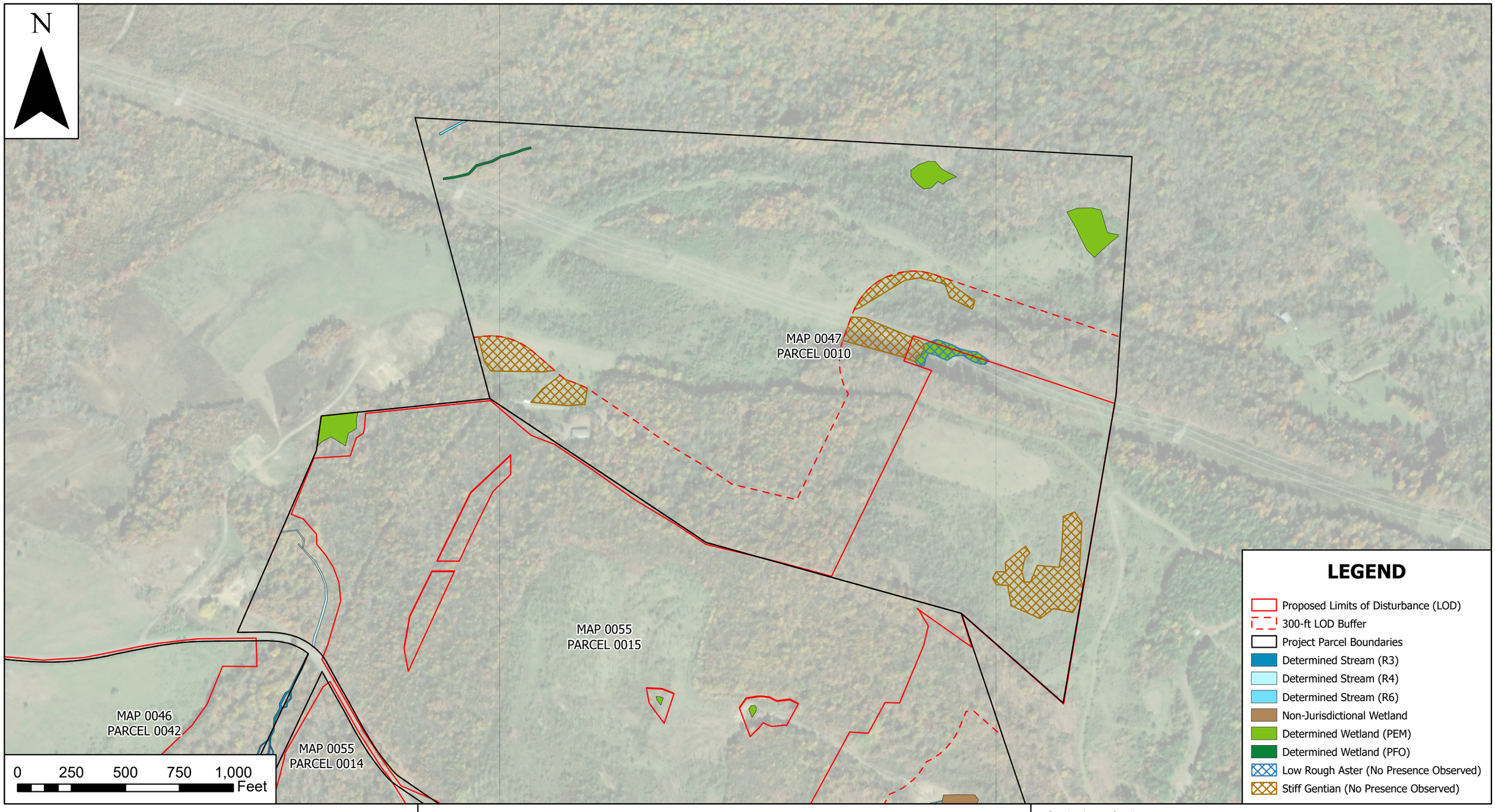
Heffernan, K., E. Engle, C. Richardson. 2014. Virginia Invasive Plant Species List. Virginia Department of Conservation and Recreation Division of Natural Heritage. Technical Document 14-11.

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Swearingen, J., B. Slattery, K. Reshetiloff, and S. Zwicker. 2010. Plant Invaders of Mid-Atlantic Natural Areas, 4th ed. National Park Service and U.S. Fish and Wildlife Service. Washington, DC.

Weakley, A.S. and the Southeastern Flora Team. 2023. Flora of the Southeastern United States: FloraQuest, Northern Tier. UNC Herbarium, NC Botanical Garden, Chapel Hill.

SITE LOCATION MAP



ECS Mid-Atlantic, LLC
1340 Charwood Road, Suite B
Hanover, MD 21076
Phone: (410) 859-4300
www.ecslimited.com

ECS Project No. 47:17729

Field Verified Habitat Assessment
Property #30
Field Assessment Dates: July 24, 2024 and September 11, 2024
Jade Meadow III
New Georges Creek Road
Allegany and Garrett Counties, MD

Service Layer Credits:
World Imagery: Maxar

JULY PHOTOGRAPHIC LOG



Photograph 1: Looking east along the existing transmission ROW



Photograph 2: Vegetated area on the southeast portion of the parcel



Photograph 3: Harvest hayfield on the southeastern portion of the parcel

SEPTEMBER PHOTOGRAPHIC LOG



Photograph 1: Looking east along the existing transmission ROW



Photograph 2: Looking north along the existing transmission ROW



Photograph 3: View of the wetland area within the transmission ROW



Photograph 4: Looking south along existing access easement within ROW



Photograph 5: Looking west along the transmission ROW



Photograph 6: Manicured area located on the southeast portion of the site



Photograph 7: Looking south within the southeastern portion of the site



Photograph 8: Looking north within the southeastern portion of the site



Photograph 9: Looking northeast within the harvested field on the southeastern portion of the site



Photograph 10: Looking west within the forested area on the southeast portion of the site

From:	Melissa Hall
To:	Lori Byrne -DNR-
Cc:	Dane Bauer; Katharine McCarthy -DNR-; Shawn Seaman -DNR-; Bob Sadzinski -DNR-
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Wednesday, November 13, 2024 4:12:00 PM
Attachments:	JM3_MDNR_50ac_Habitat_Area_20241113.pdf image001.png JM3_MDNR_Species_Buffers_20241113.pdf

---

Lori:

Jade Meadow III has created the attached maps to answer DNR's two remaining questions for the project during the pre-application consultation period. Responses to both questions are below in blue:

1) Your report Jade III Cover Letter DNR Final dated 10/22/24 indicates that there will be areas of potential habitat retained for the RT&E species: Virginia Mallow, Allegheny Woodrat, Appalachian Cottontail, Low Rough Aster, Stiff Gentian, and Frosted Elfin. Can you provide mapping to show where the areas of retained habitat are located within the project?

Jade Meadow III Response: The provided Species Buffers maps depict all areas curtailed from the May 15 2024 Limit of Disturbance (LOD) to the current LOD and identify the species that each curtailment addresses. Note: host flora of the Frosted Elfin were not found within the LOD or 300' outside the LOD and are not depicted.

2) The Jade III Avian Review VHB ECS Final report dated 10/22/24 indicates that there is acreage being retained for the species of grassland breeding birds mentioned in our response. Is it possible to show those areas of retained habitat (as shown in the Table1: Land Use Acreage) on the JM3 Land Use Map? Or a similar map that shows the habitat on the project site? It would also be helpful to know the acreages of the retained polygons of habitat on this map.

Jade Meadow III Response: The provided 50ac Habitat Area maps depict possible habitat areas which can provide up to 50 acres of total wildlife habitat across two locations within the project boundary. These two areas are proposed due to the fact that they are near previous sitings of the concerned avian species along Aaron Run Road and/or Russel Road, and present suitable existing habitat/land use to improve upon.

Thank you for the continued consultation and we look forward to DNR's response.

Melissa Schmid Hall
410.292.4385

HB SOLUTIONS

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Thursday, November 7, 2024 3:36 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Dane Bauer <dbauer@hallandbauer.com>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Bob Sadzinski -DNR- <bob.sadzinski@maryland.gov>

Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
We are trying to wrap up rare species comments related to this project, and appreciate the information you have provided so far in the process. I need to ask for a few more items that should allow us to send our final review response.
1) Your report **Jade III Cover Letter DNR Final** dated 10/22/24 indicates that there will be areas of potential habitat retained for the RT&E species: Virginia Mallow, Allegheny Woodrat, Appalachian Cottontail, Low Rough Aster, Stiff Gentian, and Frosted Elfin. Can you provide mapping to show where the areas of retained habitat are located within the project?
2) The **Jade III Avian Review VHB ECS Final** report dated 10/22/24 indicates that there is acreage being retained for the species of grassland breeding birds mentioned in our response. Is it possible to show those areas of retained habitat (as shown in the Table1: Land Use Acreage) on the JM3 Land Use Map? Or a similar map that shows the habitat on the project site? It would also be helpful to know the acreages of the retained polygons of habitat on this map.
Thank you.
Lori Byrne

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

On Fri, Aug 9, 2024 at 6:47 AM Melissa Hall <mhall@hallandbauer.com> wrote:

> Lori:
>
> Please see the attached comment response letter to your July 18th update as well as supporting memo from VHB. We will follow up with the interim T&E survey report from ECS next week.

Thanks.

Melissa Schmid Hall
410.292.4385

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Thursday, July 18, 2024 4:00 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
Please see attached for an update to our original response letter, with answers to your questions and additional information relating to RT&E species followup. This may eliminate the need to meet on Wednesday, but I will leave that to those on this list.
Thank you.
Lori

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

On Thu, Jul 18, 2024 at 3:27 PM Melissa Hall <mhall@hallandbauer.com> wrote:

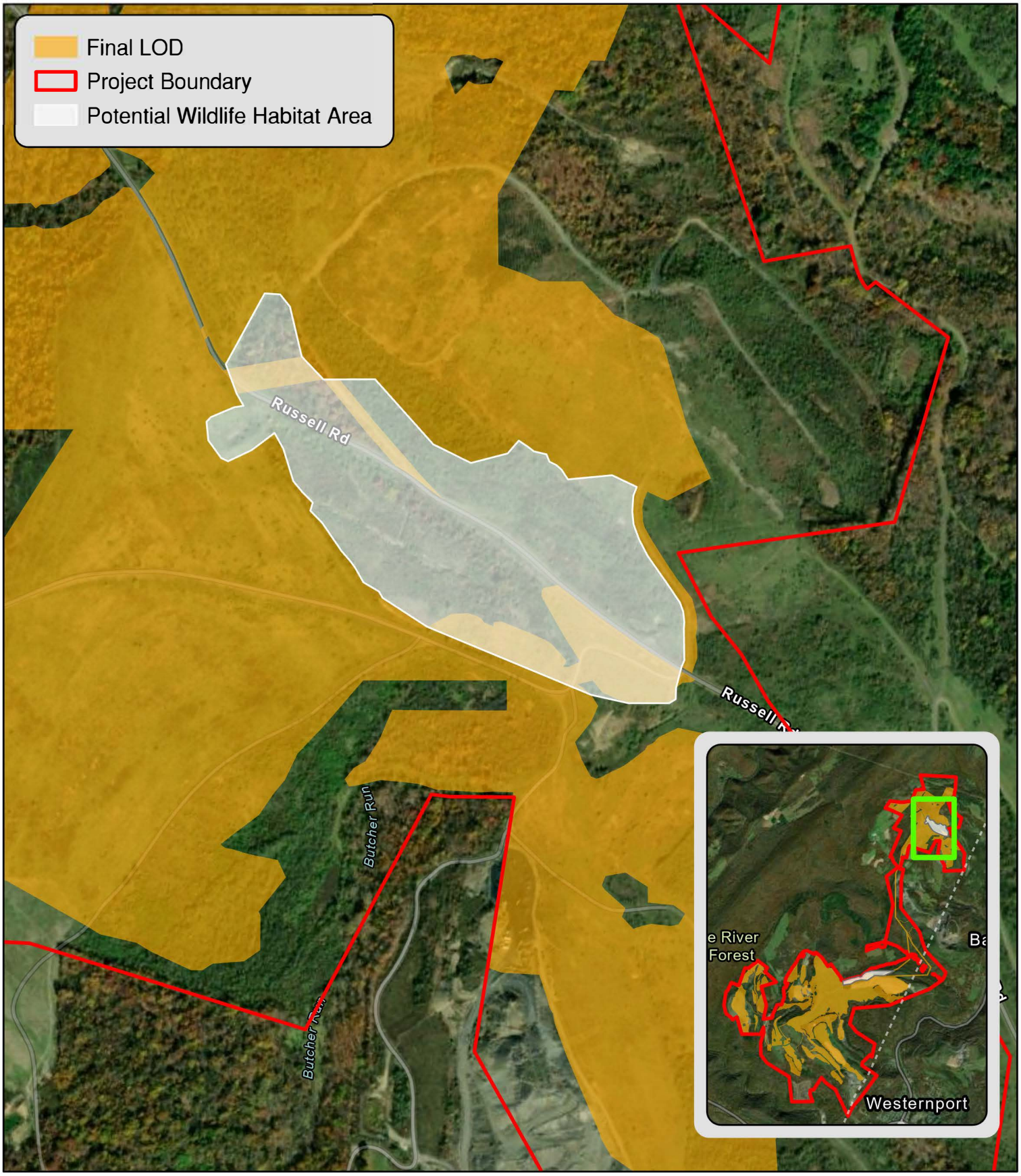
Microsoft Teams Need help?

Join the meeting now

Meeting ID: 212 581 992 948

Passcode: Us78gx

For organizers: Meeting options



REV RENEWABLES

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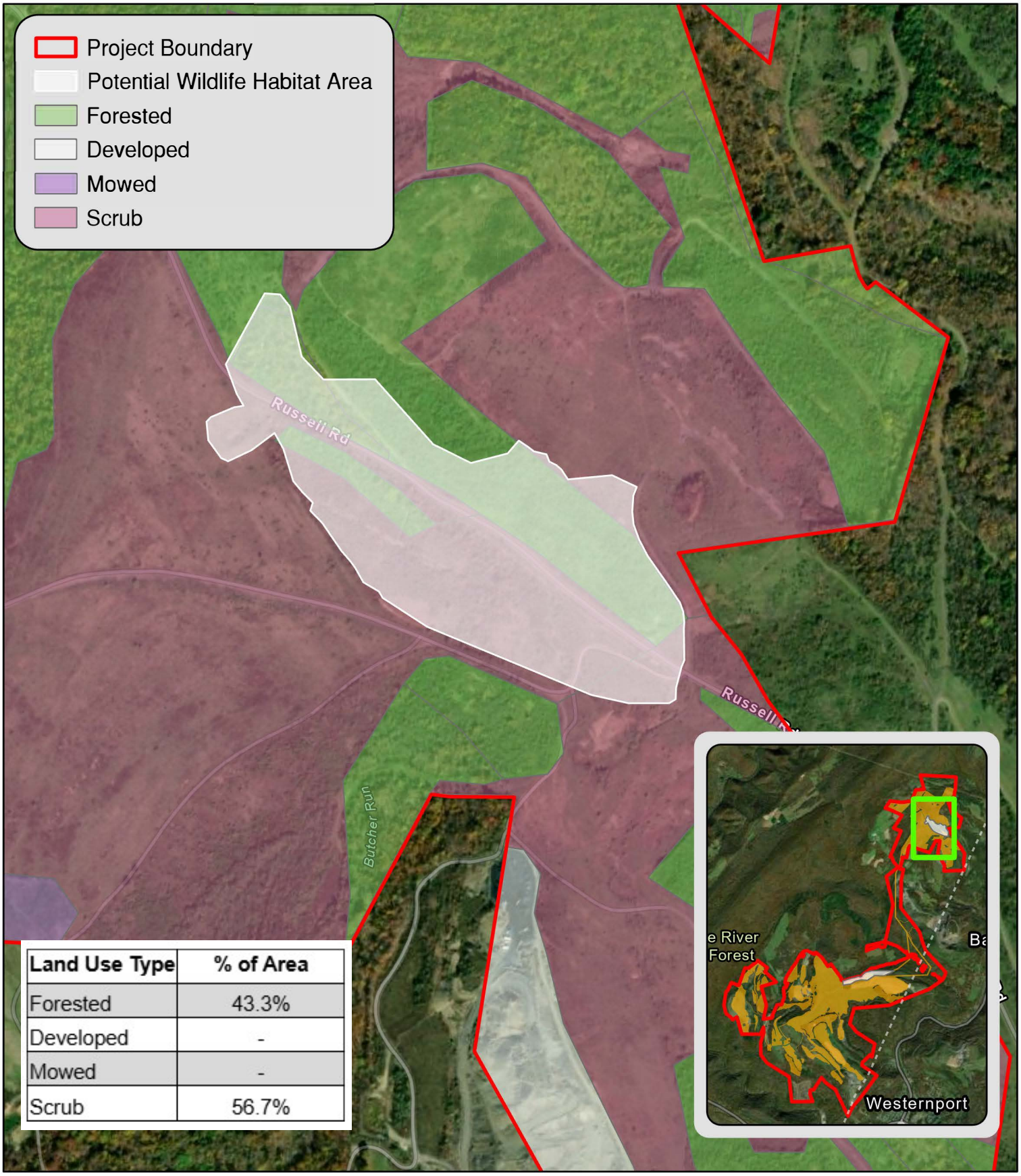
1in equals 600ft

0 .5 1 2

Jade Meadow III

Potential 25ac Wildlife Habitat

Maryland



Land Use Type	% of Area
Forested	43.3%
Developed	-
Mowed	-
Scrub	56.7%

REV RENEWABLES

N

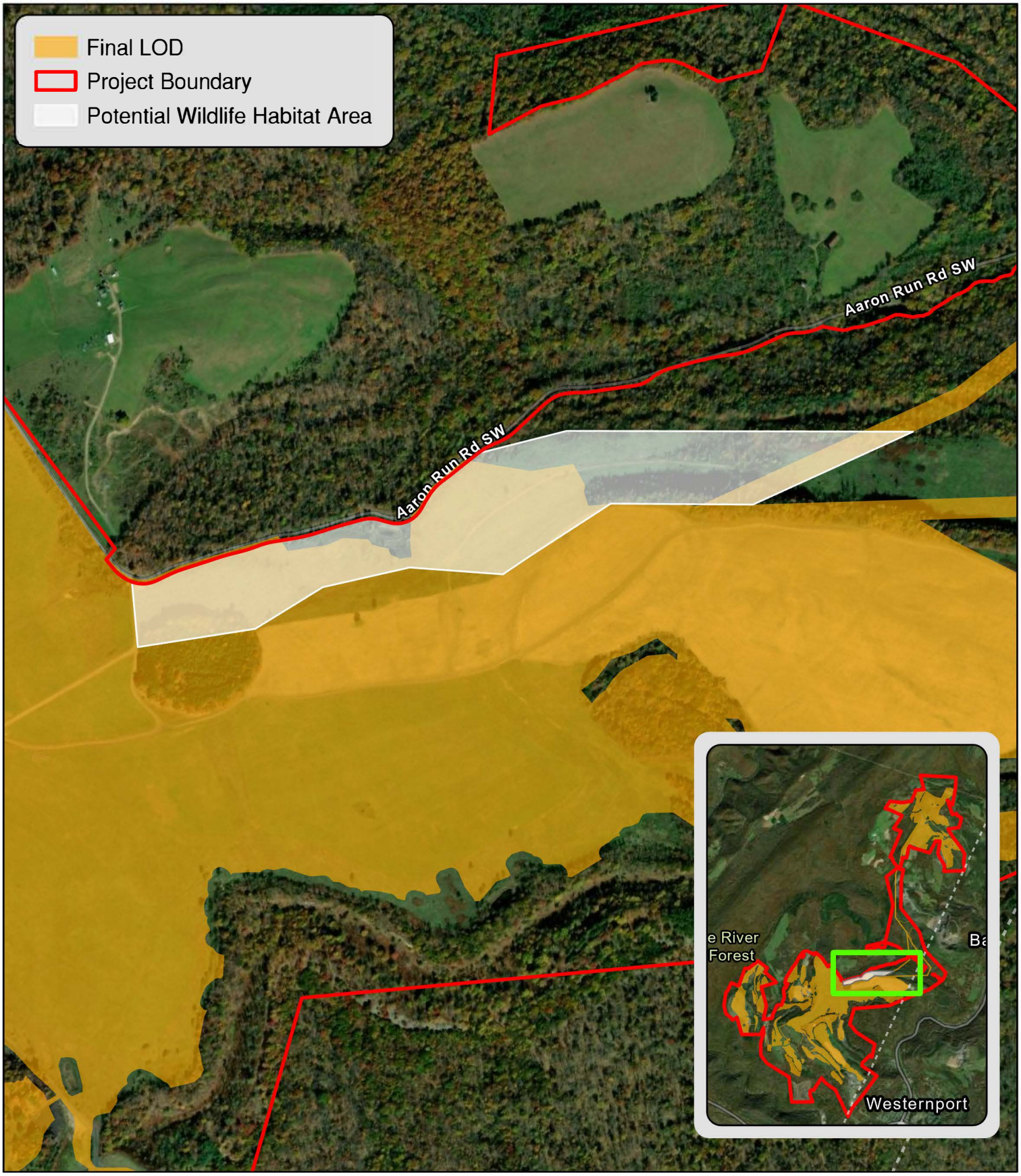
1in equals 600ft

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Jade Meadow III

Potential 25ac Wildlife Habitat

Maryland



REV RENEWABLES

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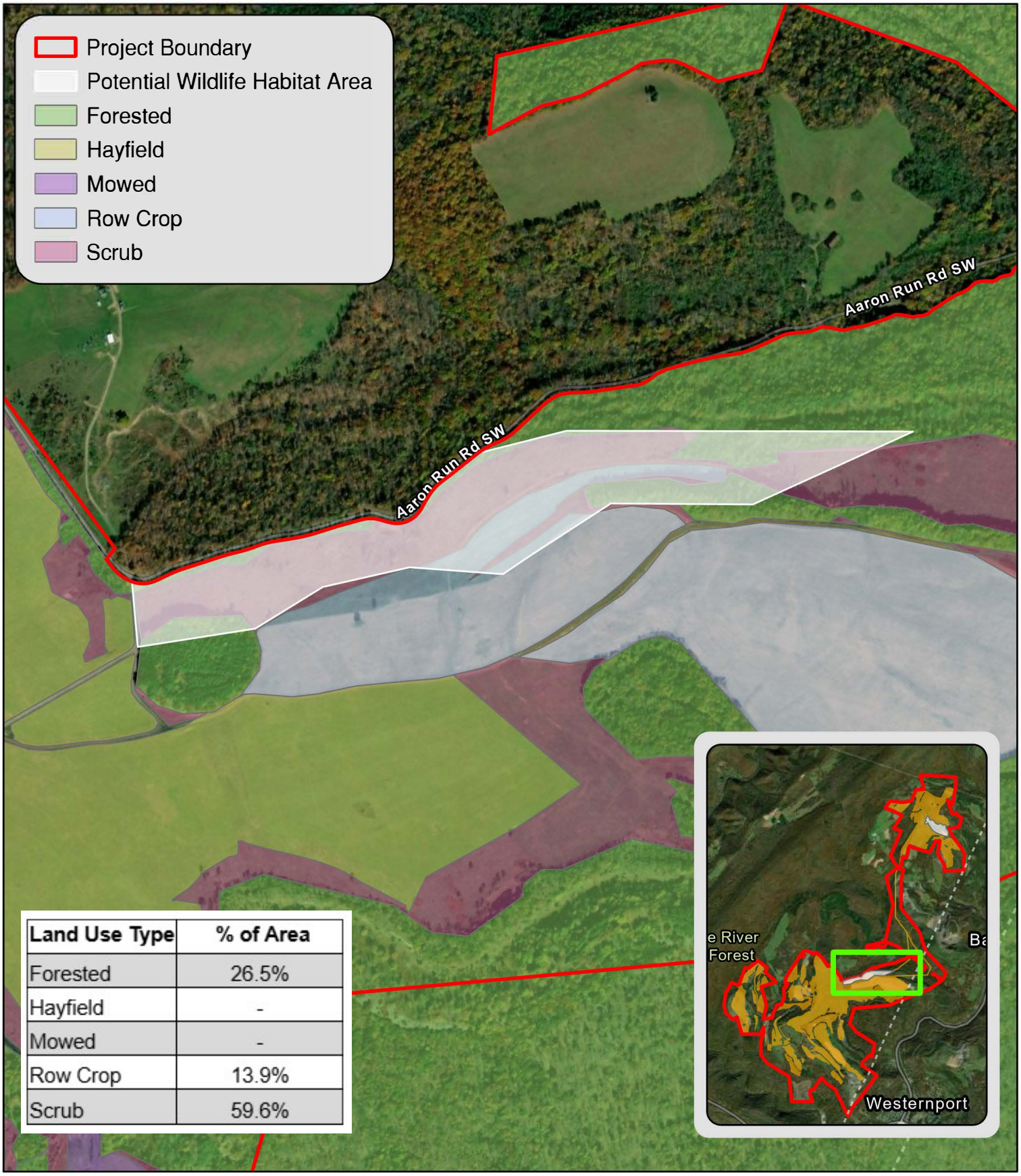
1in equals 800ft

0 .5 1 2

Jade Meadow III

Potential 25ac Wildlife Habitat

Maryland



Land Use Type	% of Area
Forested	26.5%
Hayfield	-
Mowed	-
Row Crop	13.9%
Scrub	59.6%

REV RENEWABLES

N

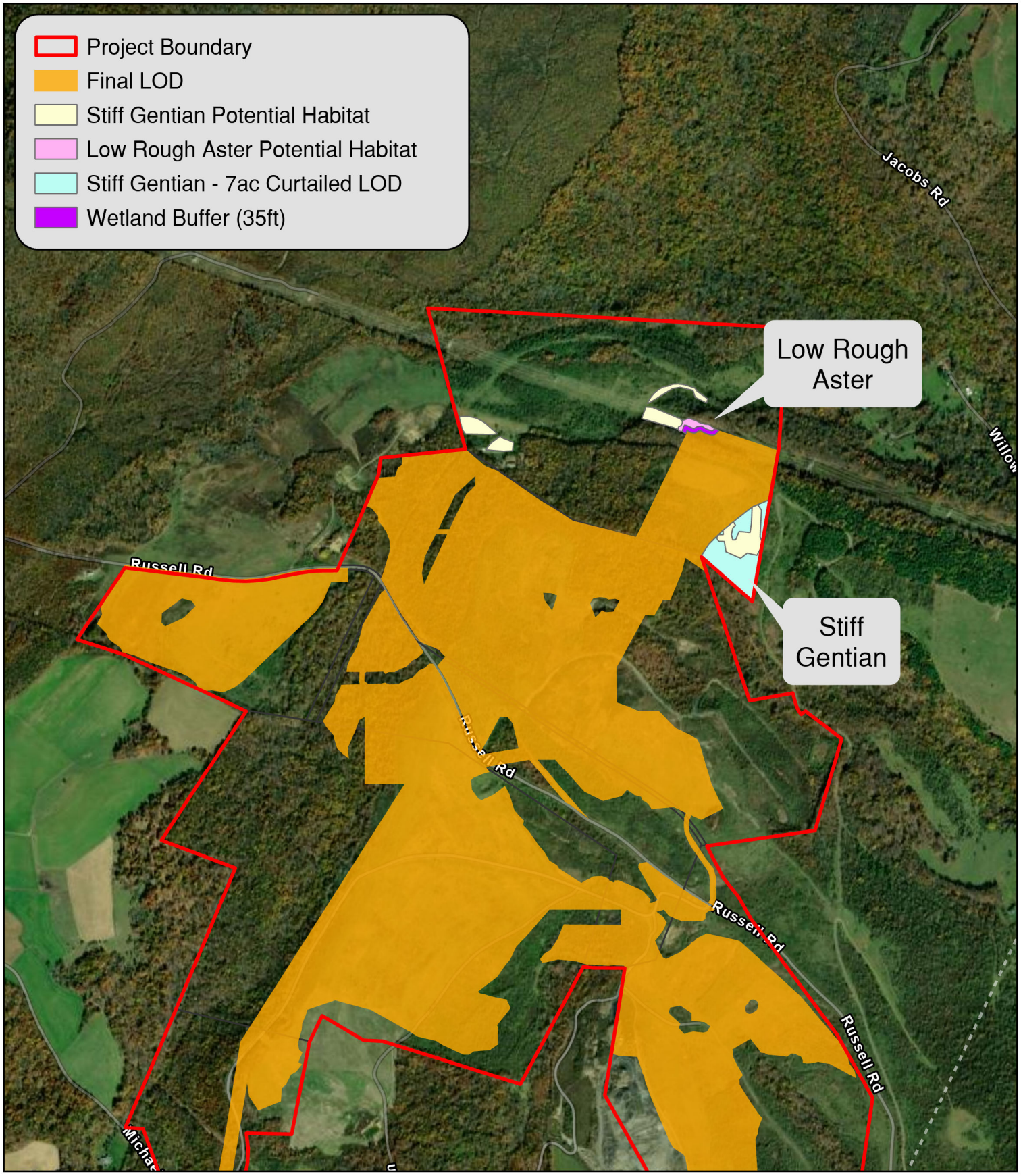
1in equals 800ft

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Jade Meadow III

Potential 25ac Wildlife Habitat

Maryland



REV RENEWABLES

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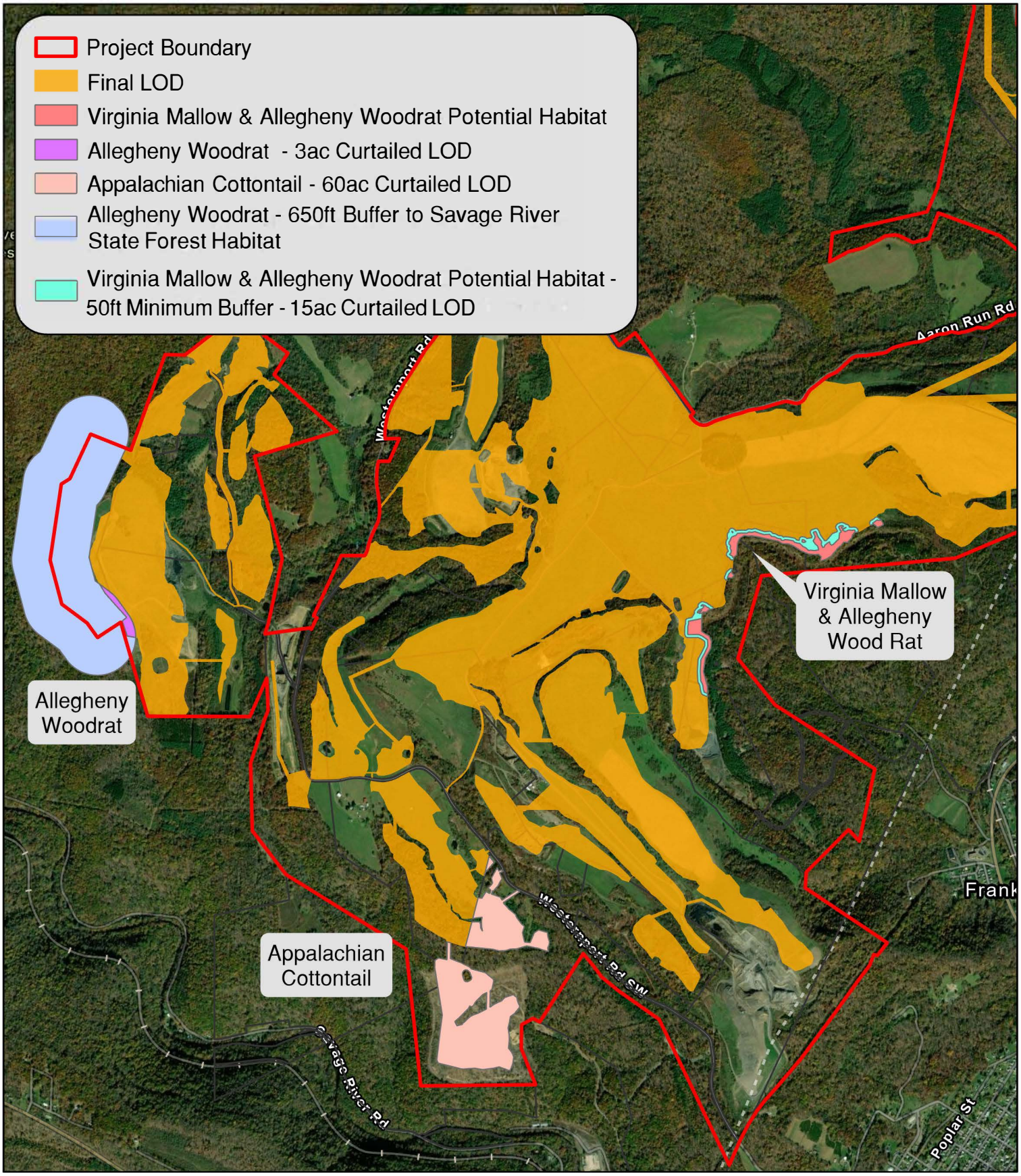
1in equals 1,200ft

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Jade Meadow 3

MDNR Species Review

Maryland



REV RENEWABLES

N

1in equals 2,200ft

0 .5 1 2

Jade Meadow 3

MDNR Species Review

Maryland

From:	Melissa Hall
To:	Katharine McCarthy -DNR-
Cc:	Lori Byrne -DNR-; Dane Bauer; Shawn Seaman -DNR-; Bob Sadzinski -DNR-
Bcc:	Hunter Maret; Michael Svedeman; Mike Vogt; Cooke, Maxwell; Todd R. Chason (tchason@gfrlaw.com)
Subject:	RE: Jade III - DNR RTE Follow-Up
Date:	Tuesday, December 3, 2024 10:11:00 AM
Attachments:	image001.png

Katherine:

Jade Meadow III Response: In an email response dated November 13, 2024, the included maps identified a 60 acre curtailed LOD in the southern portion of the Project to address MDNR identified potential habitat of the Appalachian Cottontail in the area. In the October 2024 Avian Review, Habitat Assessment and Mitigation Report, Appendix A included a Land Use Map. On this map, 57.5 out of the 60 acres of this curtailed LOD were shown as forested habitat, and 2.5 acres were shown as scrub habitat.

A portion of the area previously identified as forested, is under an active mining permit, and was timbered by the landowner. Jade Meadow III does not own this property and is no longer proposing to permit it for solar development. With this recent change, the curtailed LOD area due to the Appalachian Cottontail should be recharacterized as 21 acres of forested land, and 39 acres of scrub land.

Thanks.

Melissa Schmid Hall
410.292.4385

HB SOLUTIONS

From: Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>
Sent: Friday, November 22, 2024 3:39 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Lori Byrne -DNR- <lori.byrne@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Bob Sadzinski -DNR- <bob.sadzinski@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Melissa,
Quick question…can you characterize the 60 acre habitat area identified as set aside for App cottontail? The document from October titled Avian Review, Habitat Assessment and Mitigation Report labels that area as forested, but in the maps attached to this email it looks like it is not forested but instead recently cleared and now grassland or shrubland.
Thank you,
Katharine McCarthy

On Wed, Nov 13, 2024 at 4:12 PM Melissa Hall <mhall@hallandbauer.com> wrote:

> Lori:
>
> Jade Meadow III has created the attached maps to answer DNR's two remaining questions for the project during the pre-application consultation period. Responses to both questions are below in blue:
>
> 1) Your report Jade III Cover Letter DNR Final dated 10/22/24 indicates that there will be areas of potential habitat retained for the RT&E species: Virginia Mallow, Allegheny Woodrat, Appalachian Cottontail, Low Rough Aster, Stiff Gentian, and Frosted Elfin. Can you provide mapping to show where the areas of retained habitat are located within the project?
>
> Jade Meadow III Response: The provided Species Buffers maps depict all areas curtailed from the May 15 2024 Limit of Disturbance (LOD) to the current LOD and identify the species that each curtailment addresses. Note: host flora of the Frosted Elfin were not found within the LOD or 300' outside the LOD and are not depicted.
>
> 2) The Jade III Avian Review VHB ECS Final report dated 10/22/24 indicates that there is acreage being retained for the species of grassland breeding birds mentioned in our response. Is it possible to show those areas of retained habitat (as shown in the Table1: Land Use Acreage) on the JM3 Land Use Map? Or a similar map that shows the habitat on the project site? It would also be helpful to know the acreages of the retained polygons of habitat on this map.
>
> Jade Meadow III Response: The provided 50ac Habitat Area maps depict possible habitat areas which can provide up to 50 acres of total wildlife habitat across two locations within the project boundary. These two areas are proposed due to the fact that they are near previous sitings of the concerned avian species along Aaron Run Road and/or Russel Road, and present suitable existing habitat/land use to improve upon.
>
> Thank you for the continued consultation and we look forward to DNR's response.
>
> Melissa Schmid Hall
> 410.292.4385
>
> HB SOLUTIONS
>
> ---
>
> **From:** Lori Byrne -DNR- <lori.byrne@maryland.gov>
> **Sent:** Thursday, November 7, 2024 3:36 PM
> **To:** Melissa Hall <mhall@hallandbauer.com>
> **Cc:** Dane Bauer <dbauer@hallandbauer.com>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Bob Sadzinski -DNR- <bob.sadzinski@maryland.gov>
> **Subject:** Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
We are trying to wrap up rare species comments related to this project, and appreciate the information you have provided so far in the process. I need to ask for a few more items that should allow us to send our final review response.
1) Your report **Jade III Cover Letter DNR Final** dated 10/22/24 indicates that there will be areas of potential habitat retained for the RT&E species: Virginia Mallow, Allegheny Woodrat, Appalachian Cottontail, Low Rough Aster, Stiff Gentian, and Frosted Elfin. Can you provide mapping to show where the areas of retained habitat are located within the project?
2) The **Jade III Avian Review VHB ECS Final** report dated 10/22/24 indicates that there is acreage being retained for the species of grassland breeding birds mentioned in our response. Is it possible to show those areas of retained habitat (as shown in the Table1: Land Use Acreage) on the JM3 Land Use Map? Or a similar map that shows the habitat on the project site? It would also be helpful to know the acreages of the retained polygons of habitat on this map.
Thank you.
Lori Byrne

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

On Fri, Aug 9, 2024 at 6:47 AM Melissa Hall <mhall@hallandbauer.com> wrote:

> Lori:
>
> Please see the attached comment response letter to your July 18th update as well as supporting memo from VHB. We will follow up with the interim T&E survey report from ECS next week.
>
> Thanks.
>
> Melissa Schmid Hall

410.292.4385

From: Lori Byrne -DNR- <lori.byrne@maryland.gov>
Sent: Thursday, July 18, 2024 4:00 PM
To: Melissa Hall <mhall@hallandbauer.com>
Cc: Megan Zagorski -DNR- <megan.zagorski@maryland.gov>; Katharine McCarthy -DNR- <katharine.mccarthy@maryland.gov>; Chris Frye -DNR- <chris.frye@maryland.gov>; Dane Bauer <dbauer@hallandbauer.com>; Hunter Maret <hmaret@revrenewables.com>; Michael Svedeman <msvedeman@revrenewables.com>; MICHAEL E BACON (MBacon@ecslimited.com) <MBacon@ecslimited.com>; Lynn M. Davidson <lynn.davidson@maryland.gov>
Subject: Re: Jade III - DNR RTE Follow-Up

Dear Ms. Hall,
Please see attached for an update to our original response letter, with answers to your questions and additional information relating to RT&E species followup. This may eliminate the need to meet on Wednesday, but I will leave that to those on this list. Thank you.
Lori

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

On Thu, Jul 18, 2024 at 3:27 PM Melissa Hall <mhall@hallandbauer.com> wrote:

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 212 581 992 948

Passcode: Us78gx

For organizers: Meeting options

--

dnr.maryland.gov

Katharine A. McCarthy
Southern Region Ecologist
Natural Heritage Program
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8569 (office)
410-260-8596 (fax)
katharine.mccarthy@maryland.gov

Website | Facebook | Twitter

From:	Lori Byrne -DNR-
To:	Melissa Hall; Dane Bauer
Cc:	Shawn Seaman -DNR-; Bob Sadzinski -DNR-; Frederick Kelley -DNR-; Katharine McCarthy -DNR-; Megan Zagorski -DNR-; Gwenda Brewer -DNR-; Lynn M. Davidson; Chris Frye -DNR-; Max Ferlauto -DNR-
Subject:	Response to Jade III Solar Project
Date:	Tuesday, December 17, 2024 2:16:20 PM
Attachments:	2024.JadeIIIFinal.docx Parcel 7 Woodrat buffer map.pdf JadeIII_Grassland Request - Russell Rd - DRAFT 1.pdf JadeIII_Grassland Request - Aaron Run Rd - DRAFT 1.pdf

---

Dear Ms. Hall and Mr. Bauer,
Please see attached for our response to this project review. While most of the issues have been resolved, there are a few that will likely require further coordination in the near future. Thank you.
Lori Byrne

dnr.maryland.gov

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
Department of Natural Resources
580 Taylor Avenue, E-1
Annapolis, MD 21401
410-260-8573 (office)
410-260-8596 (FAX)
lori.byrne@maryland.gov

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Secretary
David Goshorn, Deputy Secretary

December 17, 2024

Ms. Melissa S. Hall
H&B Solutions, LLC
37534 Oliver Drive
Selbyville, DE 19975

RE: Final Comments for Environmental Review for Jade Meadow III Solar Project, 4491 Acres Along MD 36/MD 135 in Westernport/Barton area, Garrett and Allegany County, Maryland.

Dear Ms. Hall:

Thank you for your continued coordination with the Wildlife and Heritage Service (WHS) as we worked through the many potential concerns for rare, threatened and endangered species and protected habitats on this project site. This letter serves to address the outstanding rare species' concerns at the present time, since our September 6, 2024 interim response letter (2024.JadeIIISolarInterim.doc).

For **Property #1** (Garrett County Tax Map 62 Parcel 2), **Property #2** (Garrett County Tax Map 62 Parcel 29), **Property #3** (Garrett County Tax Map 62 Parcel 10), **Property #5** (Garrett County Tax Map 62 Parcel 33), **Property #6** (Garrett County Tax Map 62 Parcel 6), **Property #8** (Garrett County Tax Map 62 Parcel 11), **Property #9** (Garrett County Tax Map 62 Parcel 12), **Property #10** (Garrett County Tax Map 62 Parcel 13), **Property #11** (Garrett County Tax Map 62 Parcel 28), **Property #12** (Garrett County Tax Map 62 Parcel 14), **Property #18** (Garrett County Tax Map 62 Parcel 16), **Property #19** (Garrett County Tax Map 62 Parcel 18), **Property #31** (Allegany County Tax Map 68 Parcel 209) and **Property #32** (Allegany County Tax Map 68 Parcel 226), there is overlap with the Aaron Run Fields site that is known to support several rare birds, most of which require grasslands to successfully breed:

- The Sedge Wren (*Cistothorus platensis* – state listed as Endangered) has been confirmed as a breeding species in this area. This state-listed species is a highly rare breeding species in Maryland. Recent MD/DC Breeding Bird Atlas data confirmed its status in this area in 2020. The Sedge Wren requires grassland/sedge marsh habitat for successful breeding.
- The Henslow's Sparrow (*Centronyx henslowii* – state listed as In Need of Conservation) has been documented as a potential breeding species at this site. This state-listed species is a rare breeding species in Maryland. Records are from our Natural Heritage database as well as from eBird reports including Breeding Bird Atlas observations in recent years. The Henslow's Sparrow is known to nest in weedy areas or wet meadows (often reclaimed mine grasslands) and requires large expanses of habitat to successfully breed. Fifty acres is thought to be the minimum grassland acreage for this species to successfully breed. In addition, 25 acres of the 50 acres of grassland must be at least 150 feet from the nearest non-herbaceous edge (i.e., an edge containing trees or shrubs, including woodland, forest, hedgerows greater than 6 feet in height, or land with buildings or other structures). Formerly breeding in all physiographic regions of the state, this species is now only known to breed in western Maryland.
- The Golden-winged Warbler (*Vermivora chrysoptera* – state listed as In Need of Conservation) has been documented as a potential breeding species at this site. This state-listed species is a rare breeding species in Maryland and has been proposed for federal listing in the near future. Records are from recent eBird observations during the breeding season. This species utilizes open areas near forested edges, often with dense shrubs.

- The Long-eared Owl (*Asio otus*- state Rare breeding status) has been confirmed as a breeding species in this area. Recent MD/DC Breeding Bird Atlas data confirmed its breeding status. It is important to note that the public version of the eBird database does not include the exact locations for Long-eared Owl in Maryland. This species is highly sensitive to disturbance such as that caused by birders and wildlife photographers, often resulting in displacement from disclosed locations. The Long-eared Owl utilizes the dense pine stands within and adjacent to these grasslands as nesting habitat, and the fields as feeding habitat.

For **Property #20** (Garrett County Tax Map 55 Parcel 14), **Property #23** (Garrett County Tax Map 46 Parcel 42), **Property #24** (Garrett County Tax Map 55 Parcel 15), and **Property #25** (Garrett County Tax Map 55 Parcel 3), there is overlap with the Russell Road site that is known to support several rare birds, most of which require grasslands to successfully breed:

- The Short-eared Owl (*Asio flammeus* – state listed as Endangered) has been regularly observed in the Russell Road area during the winter months since 2017, according to recent eBird observations. The recommended open grassland patch size for conservation of this species is considered to be 250 acres. Nesting areas of at least 120-160 acres are typical for habitat in a landscape with other large grassland areas.
- Both the Henslow's Sparrow (*Centronyx henslowii*) and the Golden-winged Warbler (*Vermivora chrysoptera*) have been documented as potential breeding species at this site. The habitat needs of these species were presented above.
- The Northern Harrier (*Circus hudsonius* – state listed as In Need of Conservation) is a potential breeding species at this site, having been observed during the breeding season. It has also been observed here during the winter months as well, including records from recent eBird observations. This species is also a rare breeding species in Maryland. Large managed grassland areas such as this provide potential breeding areas for Northern Harrier which is thought to require a minimum of 100 acres of contiguous grassland habitat for successful breeding.

The areas proposed to be set aside for conservation of avian habitat in the maps provided on November 13, 2024 are not adequate to provide protection for the rare grassland birds which require the minimum of acreage as described above. As an alternative we suggest that the areas on the attached maps be conserved as grassland bird habitat to address the conservation of the rare and Endangered grassland birds known to occur on site. These two maps offer possible configurations of habitat set aside for the grassland bird species of concern and could be considered a starting point for future discussions.

For **Property #14** (Garrett County Tax Map 62 Parcel 17), there were potential concerns for the state-listed endangered Virginia Mallow (*Ripariosida hermaphrodita*) and the state-listed endangered Allegheny Woodrat (*Neotoma magister*). The shapefiles indicate that the known records do not occur in close proximity to the limits-of-disturbance. Based on the current information, the WHS has no further concerns for impacts to either of these species from the proposed project on Property #14.

For **Property #7** (Garrett County Tax Map 62 Parcel 7), WHS has determined that there is a significant population of the Allegheny Woodrat on State Land adjacent to this property. WHS requests that a 650 foot forested buffer (as shown on the attached map originally emailed on September 13, 2024) be maintained from the western edge of the parcel boundary. There appears to already be a strip-mine or field in much of that part of the parcel, so additional forest removal in that zone would degrade the buffer. In this case, the presence of the Allegheny Woodrat should be assumed, and these protection measures implemented.

For **Property #16** (Garrett County Tax Map 70 Parcel 31), there is overlap with part of the Savage River at Bloomington site, which is known to support the Appalachian Cottontail (*Sylvilagus obscurus*), a species with In Need of Conservation status in Maryland. The presence of the Appalachian Cottontail should be assumed, given that it has been documented on site and that it is difficult to confirm presence/absence. Based on your response of August 9, 2024, all of the potential habitat for this species has been removed from the limits-of-disturbance on the appropriate parcels. WHS has no further concerns for impacts to this species from the proposed project at Property #16.

For **Property #30** (Garrett County Tax Map 47 Parcel 10), there is overlap with Russell Road Bog which supports rare species that could potentially occur within the project's LOD: Low Rough Aster (*Eurybia radula*), Stiff Gentian (*Gentianella quinquefolia*) and Wild Indigo *(Baptisia* spp.) – host plant for the Frosted Elfin, which is state-listed as Endangered. Based on the August 21, 2024 report by ECS, and the revised September 30, 2024 report by ECS, none of the above-mentioned species were found on Property #30, and therefore WHS has no further concerns for impacts to these species from the proposed project at Property #30.

As far as the two proposed wildlife habitat areas provided on maps in an email dated November 13, 2024, WHS feels that these are not necessary to support the rare species for which they are targeted because either the habitat is unsuitable or the targeted rare species is unlikely occur in the immediate proximity. This total of 75 acres could be used for solar panels: The 60 acre Appalachian cottontail area of curtailed LOD and the 15 acre Virginia Mallow and Allegheny Woodrat area of curtailed LOD

For the overall project site, our remote analysis suggests that the forested area contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices. The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the WHS.

Thank you for allowing us the opportunity to review this project. We look forward to working with you on future protection measures and management recommendations, including best practices for pollinators and grassland birds. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

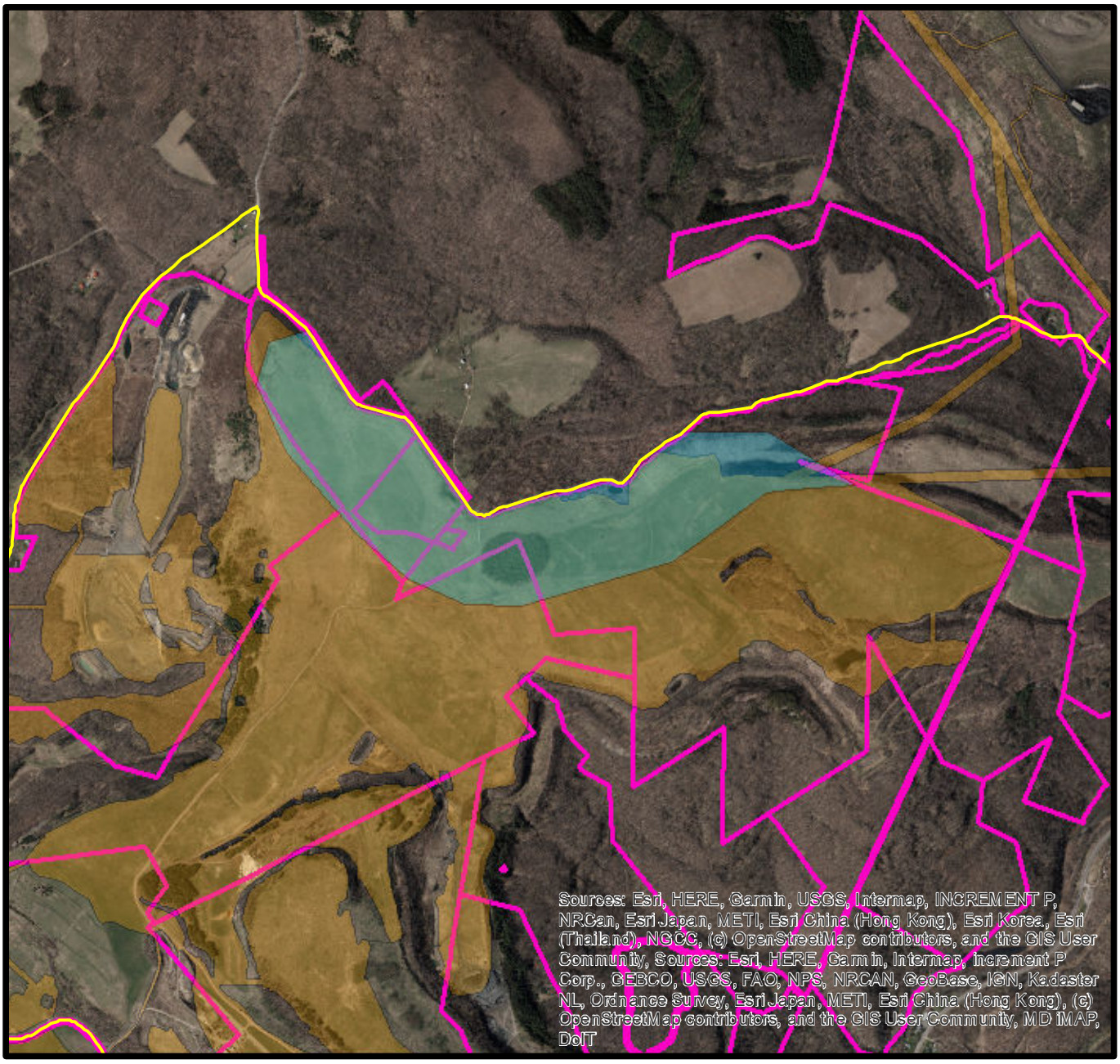
Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.JadeIII.final
Attachments (3)
Cc: F Kelley, DNR
S. Seaman, DNR
K. McCarthy, DNR
G. Brewer, DNR
L. Davidson, DNR
M. Zagorski, DNR
C. Frye, DNR
M. Ferlauto, DNR

Jade III Grassland Set-aside Request - Aaron Run Rd
DRAFT 1



Legend

- TRAN_LocalRdCenterline_J...
- JadeIII_Grassland_Request...
- LOD
- MDNR_Parcel_Species
- MD_SixInchImagery
- World Street Map

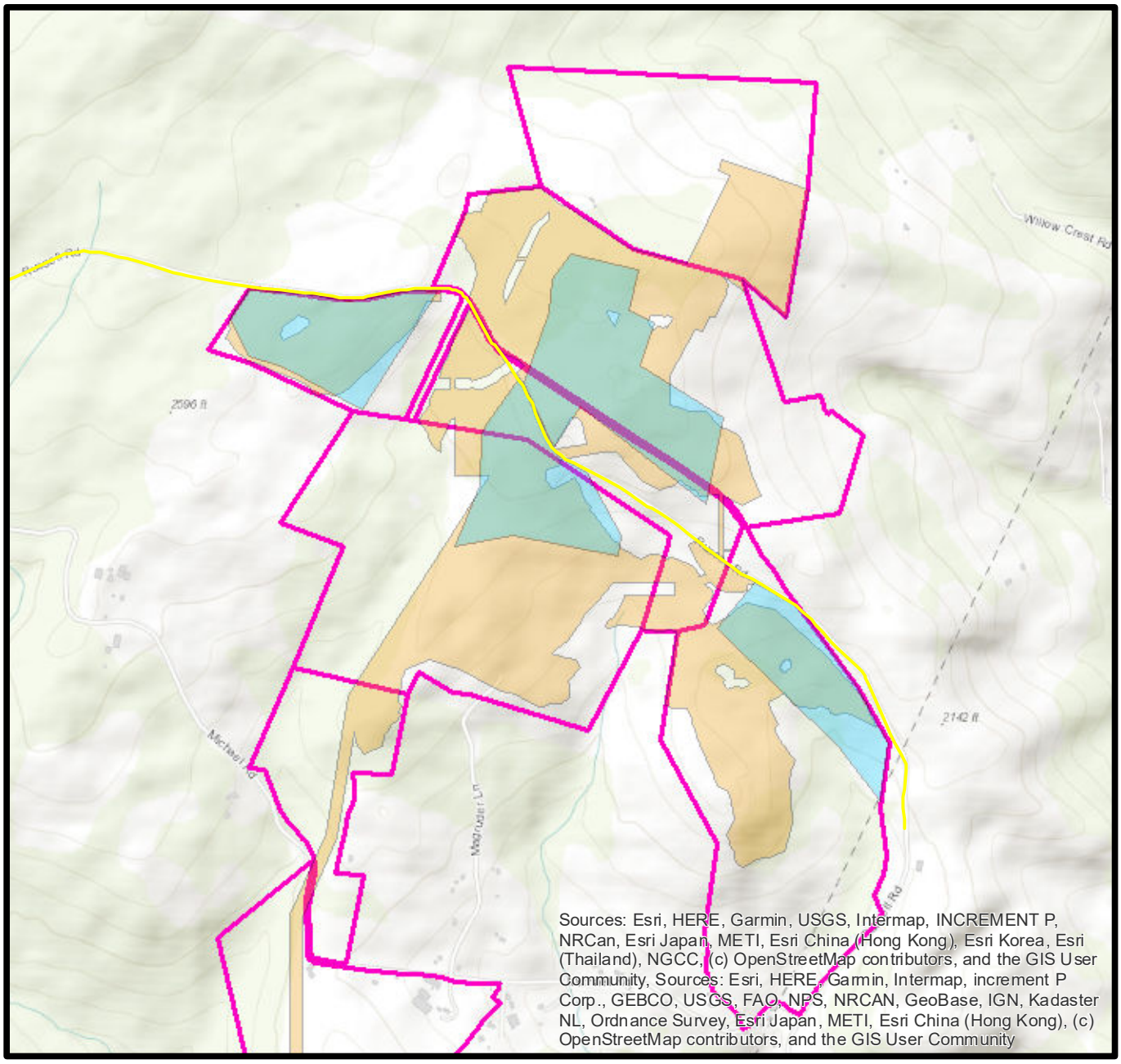
0 0.175 0.35 0.7 Miles

N W E S

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Wildlife & Heritage Service
11/22/24

Jade III Grassland Set-aside Request - Russell Rd
DRAFT 1



0 0.15 0.3 0.6 Miles

N W E S

TRAN_LocalRdCenterline_J...
JadeIII_Grassland_Request...
LOD
MDNR_Parcel_Species
World Street Map

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Wildlife & Heritage Service
11/22/24



N

Jade III Parcels

Parcel 7 650 ft. buffer

LOD

0 0.05 0.1 0.2 Miles