



VIA ELECTRONIC FILING

August 23rd, 2019

Jeff Thompson, Regional Chief
Nontidal Wetlands Division
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, MD 21230

Cc: Ben Grumbles, Secretary, Maryland Department of the Environment
Susan Dorsey, Assistant Secretary, Maryland Department of the Environment

Re: AI 18-NT-0323/201861760 – MD Solar 1, LLC (Shugart Valley Place), Joint Federal/State Application for the Alteration of Any Floodplain, Waterway, Tidal, or Nontidal Wetland in Maryland

Dear Mr. Thompson,

Thank you for the opportunity to submit public comment on the Shugart Solar Project Social Economic Justification SEJ (“SEJ” or “SEJ”) submitted by Origis Energy. Audubon Naturalist Society and Earthjustice are grateful for Maryland Department of the Environment’s commitment to the integrity of the public comment process.

The following letter presents environmental, procedural, and legal concerns regarding the proposed project and the applicant’s claims. While we do not deny that renewable energy generation is imperative, its development cannot come at the expense of the very environment that climate change mitigation efforts are meant to protect. Solar energy has the potential to be a “gentle and responsible use of land,” as the SEJ states, although as proposed, the project is destructive and shortsighted. 4850 Shugart Valley Place (the “Site”) does not represent a thoughtful selection of land, and places innumerable natural resources at risk.

It is important to note that the commenting parties fully support solar energy as a viable alternative to traditional energy sources such as methane gas and coal. Audubon Naturalist Society and Earthjustice do not take issue with Origis Energy or solar energy development, but

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rather the specific siting of the project. Contrary to the applicant's claims, there are innumerable more appropriate sites for utility-scale solar farms, even within Charles County. As required by updates to Maryland's Renewable Portfolio Standard, Maryland will see an increase in solar development in the next few years. As discussed in Audubon Naturalist Society's comment letter (co-signed by 28 other organizations and individuals) dated June 22nd, 2019, this project has the potential to set a precedent for future large-scale solar installations in Maryland and the DMV, and must be conducted with full consideration of environmental and social impacts.

Origis seeks to construct Shugart Solar on a nontidal wetland site in the Nanjemoy Forest. The proposed forest site encompasses two Tier II streams, which feed into the Nanjemoy Creek, a tributary of the Potomac River. Origis has applied for a nontidal wetlands and waterways permit. In response to Origis's initial application for a wetlands and waterways permit, the Department requested that Origis supplement its initial application with a Social and Economic Justification.

As explained in this letter, Origis's application and SEJ do not justify the degradation of Maryland's aquatic resources, and in fact they make clear that the project does not satisfy applicable legal requirements. Discharges into Tier II waters that would degrade water quality are prohibited, and an exception can be made only in the exceptional circumstance that the applicant demonstrates that harm to water quality is justified under the criteria of COMAR Sec. 26.08.02.04 and .04-1. The degradation of these important aquatic resources is not justified here because Shugart Solar is not necessary for development or growth in the watershed or to meet a demonstrated public need. Instead, the important goals of building clean energy capacity and mitigating carbon dioxide emissions can and should be pursued in a manner less destructive of Maryland's precious natural resources. In addition, now that MDE has correctly recognized that additional pollution in Wards Run I would result in a change in water quality, requiring a social and economic justification, MDE should not grant the permit without providing an opportunity for a public hearing on that change. Sec. 26.08.02.04(E).

Further, regardless of the SEJ, Maryland law does not authorize the issuance of a non-tidal wetland permit that would degrade aquatic resources, and Origis's application also fails to satisfy several other requirements of COMAR 26.23.02.04. This environmentally harmful project also does not qualify for coverage under Maryland's programmatic general permit for Clean Water Act section 404 authorizations, and an individual section 401 certification should be required.

I. The Social and Economic Justification

A. The Social and Economic Justification does not justify Shugart Solar.

Maryland's Tier II review process exists "to prevent degradation to high quality waters due to permitted activities." "[A]voiding, minimizing, and mitigating the environmental impacts

associated with permitted activities is necessary to protect Tier II waters.”¹ The Department may approve an application to discharge into Tier II waters only “[i]f there is no cost-effective alternative to direct discharge, all reasonable efforts have been made to minimize the use of assimilative capacity, and the SEJ [Social and Economic Justification] is adequate and justifies the discharge,” and “other applicable requirements are met.”² The requirement to submit an SEJ helps to ensure that projects approved under Tier II review “promote compact development, maintain habitat and open lands, and minimize water impacts in undeveloped areas.”³ The Department must evaluate the SEJ to determine whether “the impact to water quality is necessary for development or growth to take place in the watershed,”⁴ and must deny an application if the SEJ “does not justify the water quality impact,”⁵ *even if* no cost-effective alternatives to the project exist.

Origis’s SEJ does not demonstrate that Shugart Solar is necessary for development or growth in the watershed. First, Origis does not explain why a utility-scale solar project is necessary for development or growth, generally. Solar generation in Maryland could be increased through rooftop, brownfields, or parking lot installations,⁶ which would be more consistent with the antidegradation regulation’s encouragement of redevelopment, reuse, and infill development⁷ and emphasis on maintaining habitat, open land, and water quality. Second, Origis does not explain why the project is necessary for projected growth in the Nanjemoy watershed, specifically. Several subparts of the antidegradation regulation emphasize the relevance of the watershed to the necessity determination.⁸ Although the SEJ discusses some of the potential economic impacts of the project, it does not connect the project’s purpose to existing growth and development plans within the watershed. In fact, Charles County designates this location as a “priority preservation area.”⁹ And the Memorandum of Agreement between Origis and Georgetown shows that the benefits of the project will accrue mainly to Georgetown University.

Even if the SEJ could be revised to adequately justify the discharge into Tier II waters, Origis’s application would still fail to satisfy “other applicable requirements,” as required by Regulation .04-1, including the requirements under COMAR 26.23.02.04A for a nontidal wetland permit, as explained below. The Tier II antidegradation review procedure, which encompasses the SEJ process, does not displace, for instance, the no degradation mandate of

¹ *Tier II Review: Nontidal Wetlands and Waterway Construction*, Md. Dep’t Env’t [hereinafter *Tier II Review Guidelines*],

<https://mde.maryland.gov/programs/Water/TMDL/WaterQualityStandards/Pages/Tier-II-Wetlands-Waterways.aspx>.

² COMAR 26.08.02.04-1H(5).

³ COMAR 26.08.02.04-1K(1).

⁴ COMAR 26.06.02.04-1M.

⁵ COMAR 26.08.02.04-1H(4).

⁶ *See, e.g., Solar Development Potential on Contaminated Lands in Maryland*, Utility Scale Solar Energy Coalition 8 (Oct. 5, 2018) [hereinafter *USSEC Brownfields SEJ*],

<http://www.mdcounties.org/DocumentCenter/View/2924/USSEC-Analysis-of-Solar-Potential-on-MD-Contaminated-Lands---FINAL-10918>.

⁷ COMAR 26.08.02.04-1K(1)(c).

⁸ *E.g.*, COMAR 26.08.02.04-1K(1)(b)-(d); COMAR 26.08.02.04-1M(1)-(2).

⁹ Priority Preservation Areas Map, Charles Cty. Dep’t Plan. & Growth Mgmt.,

https://www.charlescountymd.gov/sites/default/files/pgm/rim/priority_preservation.pdf.

COMAR 26.23.02.04A(3). As discussed below, Regulation .04A(3) prohibits the Department from approving a nontidal wetland permit application if the project “cause[s] or contribute[s] to a degradation of ground or surface waters,”¹⁰ and contains no exception based on social and economic justifications.

B. The Social and Economic Justification is incomplete.

COMAR 26.08.02.04-1(L) specifies components that a Social and Economic Justification must contain. In addition to the obligation of the applicant to demonstrate that the degradation of high quality waters is socially and economically justified and necessary to meet an important public need, as discussed above, it also specifies that the SEJ “shall address . . . the economic benefit of maintaining Tier II waters.” 26.08.02.04-1(L)(3). MDE confirmed that this analysis is a required component of the SEJ requested for this project, writing on its website that the requested SEJ “will include an analysis of . . . [the] cost of degradation of the high-quality aquatic resources” and the “economic benefit of preserving the high-quality aquatic resources.”¹¹

This required component is completely missing from the submitted SEJ, which contains no discussion whatsoever of the economic benefit of maintaining Maryland’s high-quality waters, which likely include recreational benefits, educational benefits, aesthetic benefits, quality of life, and property values. Nanjemoy Creek, and by association its tributaries, include populations of herring and shad that many Nanjemoy residents rely on for food and subsistence. MDE should deny the permit because Origis’s SEJ does not include this required information and analysis.

C. Claims of Economic and Environmental Benefit

Origis Energy claims that economic benefits will be widespread and will outweigh the costs of environmental impacts. The applicant neglects to discuss potential loss of archeological resources associated with site grubbing. As discussed in Audubon Naturalist Society’s previous comment letter, the Site may be part of the ancestral homeland of Piscataway tribes of Maryland. Nearby areas of Nanjemoy have been extensively mapped and investigated for cultural resources, highlighting historical occupation of this land by Piscataway tribes.¹² This Site has not yet been evaluated for historical significance, and may prove valuable to Piscataway tribes. Site razing and leveling will destroy historical artifacts present below the ground surface. The applicant does not consider the economic value associated with the potential loss of generations of history. To limit the value of this property to environmental resources is irresponsible, insensitive, and harmful to indigenous people living in Charles County.

Origis Energy also states that the project will bring additional income tax to Charles County as a result of job creation. Origis does not consider whether the people who would be

¹⁰ COMAR 26/23.02.04A(3).

¹¹ MD Solar 1 - Shugart Valley Place, Md. Dep’t Env’t, https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Pages/MD_Solar_1.aspx.

¹² Scott M. Strickland et al., *Indigenous Cultural Landscapes Study for the Nanjemoy and Mattawoman Creek Watersheds*, Nat’l Park Service Chesapeake Bay (Nov. 2015), <https://www.nps.gov/chba/learn/news/upload/NanjemoyMattawoman-ICL-FINAL-red.pdf>.

employed by jobs associated with the project are already contributing income tax to Charles County's economy. The many millions of dollars of local spending and wages Origis attributes to the project may already be in existence through other employment venues. MDE should carefully consider whether the project will actually benefit those who are unemployed, or if it will simply relocate the source of employment.

In the SEJ, the applicant calculates the notional value per acre of a variety of ecosystems benefits present on the property, and then compares them with the remaining value after development. It is unclear why the applicant chose not to calculate air pollution offset and carbon sequestration and include these values in associated tables. The absence of these values in calculations does not allow the reader to accurately assess the original notional value of the existing ecosystem or the remaining value after construction.

The applicant does not include any statement on the predicted pollution derived from construction activities. Heavy machinery, which relies on diesel fuel, will be used in all phases of construction, including timbering. Diesel fuel combustion emits carbon monoxide, particulate matter, NO_x, and hydrocarbons.¹³ It is important that the applicant includes the pollutant releases associated with development in overall impacts on the environment, and calculates the appropriate economic losses derived from these impacts. This monetary value should be subtracted from the total post-development economic value for the first year (or as long as construction takes place), which would decrease the percentage of original notional value maintained by the project. It should also be noted that the pollutant releases associated with timbering could be avoided with proper siting of this project on already cleared land, rooftops, brownfields, or degraded farmland.

D. The Characterization of Engineered Stream Impacts Is Incorrect

As discussed in Audubon Naturalist Society's previous comment letter, the Site is unsuitable for a project of this type and scale. The engineering controls required to eliminate impacts on both proximal and distal water quality and the geology of the Site indicate that this location is better suited to remain an intact forest. As noted in the SEJ, the majority of the soil on the property is characterized as 'C' rated.¹⁴ C rated soils consist of sandy clay loam, which has a "moderately high runoff potential when thoroughly wet."¹⁵ C rated soils also have low infiltration potential¹⁶, meaning that stormwater is more likely to contribute to runoff than it is to stay in the ground. This characterization increases the potential for sediment loading in Wards Run I and II, particularly considering the post-development absence of trees to stabilize soil.

Considering soil characteristics and topography, the property's propensity for stormwater runoff is not sufficiently managed to the degree that law requires or to the Maximum Extent

¹³ Ibrahim Aslan Reşitoğlu, I.A. et al., *The Pollutant Emissions from Diesel-Engine Vehicles and Exhaust Aftertreatment Systems*, 17 Clean Tech. Env'tl. Pol'y 15, 15 (2015), <https://doi.org/10.1007/s10098-014-0793-9>.

¹⁴ Origis Energy, 2019, A Social and Economic Justification for the Shugart Solar Project, page 5.

¹⁵ Natural Resources Conservation Service, *Hydrologic Soil Groups*, in National Engineering Handbook Hydrology Chapters, U.S. Dep't Agric. 7-2 (2009), <https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=22526.wba>.

¹⁶ *Id.*

Practicable (“MEP”). The SEJ indicates that the Impervious Areas Requiring Treatment (IART) total roughly 12.45 acres, which requires that a total of 85,868 ft³ of stormwater be treated on site using Environmental Site Design (“ESD”). As planned, ESD will only achieve treatment of 42,934 ft³ of runoff- exactly half of the required volume.¹⁷ In the SEJ, the applicant claims that ESD was implemented to the MEP, although the SEJ only discusses use of non-rooftop disconnects, grassed swales, and level-spreader controls.¹⁸ As defined by Title 26.17.02 of the Code of Maryland Regulations, Maximum Extent Practicable is defined as “designing stormwater management systems so that all reasonable opportunities for using ESD planning techniques and treatment practices are exhausted and, only where absolutely necessary, a structural BMP is implemented.”¹⁹ The applicant does not exhaust stormwater management techniques, and even after considering planned ESD, 25-year, 50-year, and 100-year storm events will contribute to increased runoff volume.

According to Table 3 of the SEJ, in the event of a 25-year, 50-year, or 100-year storm, every drainage area measured on the property will see increased flow rates as a result of post-development conditions. This indicates that the applicant has neither achieved their stated goal of “enhanced stormwater management quantity control²⁰” for these storms nor maintained or reduced post-development discharge levels from the site²¹. Furthermore, as the project’s goal is to displace grid greenhouse gas emissions in the interest of climate change mitigation, it is crucial that the applicant consider the effects of increased frequency and intensity of storms, as caused by climate change. The designation of storms considered 25-, 50-, or 100-year storms is quickly becoming defunct as the mid-Atlantic region now sees these storms multiple times in one year. Without improved ESD, Wards Run I and II will be quickly inundated and eroded by storm events.

It is the responsibility of the Charles County Planning and Growth Management/Planning Division to review stormwater management Step I, II, and III plans,²² which are not currently available to the public. Given the documentation available to the commenting parties, it is evident that the applicant has not exerted all possible efforts to control stormwater runoff. We encourage MDE to consider the vast array of stormwater control options left to be implemented by the developer, as per the Maryland Stormwater Management Design Manual, and to note that level spreader controls are not considered a BMP.²³ As required by the Design Manual, none of the applicant’s stormwater management efforts result in a property that meets the designation of “woods in good condition.” Replacing forested habitat that supports thriving understory with grasses, even native grasses, does not accrue the same benefits to runoff prevention that a healthy forest does.

¹⁷ Origis Energy, A Social and Economic Justification for the Shugart Solar Project 9 (July 2019) [hereinafter *SEJ*], https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Pages/MD_Solar_1.aspx.

¹⁸ *Id.*

¹⁹ COMAR 26.17.02.

²⁰ *SEJ*, *supra* note 17, at 8.

²¹ *Id.* at 9

²² Plan Preparation Package: Development Services Permits, Charles Cty, Md. 11 (2012), https://www.charlescountymd.gov/sites/default/files/pgm/cpis/plan_prep_package2012.pdf.

²³ *Id.* at Appendix 16.

The SEJ reads, “the effect Shugart Solar will have on the stream is very small due to the care and engineering designed in place.” While the SEJ does illustrate the expected volume that will be retained on-site, it does not include an anticipated quantitative impact on assimilative capacity of the streams from increased runoff. The SEJ discusses enhanced stormwater control mechanisms for the 25-year, 50-year, and 100-year storms, but does not include specific plans for implementing BMPs other than expanded RPZ buffers. While we acknowledge that it is difficult to calculate future assimilative capacity, it is important to note that the vague language of the SEJ precludes judgement of full stream impacts, particularly without precise language concerning enhanced stormwater control.

E. Renewable Portfolio Standard and use of SRECs

A core component of the SEJ is Origis’s claim that the Shugart Solar Project will be used to satisfy Maryland’s Renewable Portfolio Standard (RPS). This claim is incomplete and is reliant on the specific terms of Origis’s Power Purchase Agreement (PPA) with Georgetown University, which is not available for public review. Without the details of the PPA, it is unclear whether or not the energy produced from the project will be used to fulfill Maryland’s RPS, or the District of Columbia’s RPS. As stated in the SEJ, the Solar Renewable Energy Credits (SRECs) generated by the project “will be purchased by our Customer [Georgetown University] under Maryland’s market based RPS system.”²⁴ Georgetown University will then be the owner of the SRECs, but may choose to either retire the credits, sell excess credits back into the market or to another end-user, or allow the credits to expire. Which option the University chooses determines the degree of benefit of the project to Marylanders.

If the University retires the credits and uses them to satisfy legal energy requirements, the credits are not eligible to participate in the Maryland SREC market, and will not contribute to meeting Maryland’s RPS. This scenario may be particularly likely due to the strict regulations posed on large buildings by Title III, Sec. 301 of the Clean Energy DC Omnibus Amendment Act of 2018, which establishes Building Energy Performance Standards for buildings larger than 50,000 square feet. This regulation tightens to include buildings with a gross floor area of 10,000 square feet or more by January 1st, 2026.²⁵ These rules apply to the majority of the University’s buildings, increasing the likelihood that the University will need to use and retire the SRECs generated by this project to avoid financial penalty, eliminating the benefit of the entire project to meeting Maryland’s RPS.

The University may instead choose to sell the SRECs back to the market, which can include selling the credits to the Southern Maryland Electric Cooperative (SMECO) for supply to Maryland-based consumers. In this case, the credits generated by the project would be used to satisfy Maryland’s RPS, and would indeed benefit the state. It is within MDE’s best interest to elucidate the terms of the Power Purchase Agreement to determine who will be the end-user of the SRECs, especially since Origis Energy states that “Once complete, the solar facility developed, built and owned by Origis Energy, will generate approximately 75,000 megawatt hours of power each year and provide 49% of Georgetown’s electricity load for campus

²⁴ *SEJ*, *supra* note 17, at 24

²⁵ D.C. Law L22-0257, Title III, Sec. 301, (a).

operations located in the nation's capital.”²⁶ This statement, in accordance with those made by the University itself,²⁷ would indicate that the school will be the end-user of the SRECs.

F. MDE must hold a public hearing on the Social and Economic Justification.

We greatly appreciate MDE's demonstrated commitment to robust public participation in the consideration of this permit application to date. Since the public hearings on this application were held, MDE has determined that Wards Run 1 has experienced degradation of water quality such that any additional loss of assimilative capacity would be a change in water quality that must be “justified as necessary for important socioeconomic reasons,” as required by COMAR 26.08.02.04(B). Under part E of the same section, MDE “shall provide public notice and opportunity for a public hearing on the proposed change before [p]ermitting a change in high quality waters.” In accordance with this requirement, and particularly in light of the high degree of public concern about this project, MDE should not grant the permit application without convening another public hearing. It is important for stakeholders and the public to be able to weigh in, not only in writing, but also in person, on the important question of whether Origis should be permitted to degrade high quality Maryland waters and aquatic resources.

II. The Project Does Not Satisfy Other Federal and State Clean Water Requirements.

A. Shugart Solar does not satisfy the requirements of COMAR 26.23.02.04A(1)-(3) for issuance of a non-tidal wetland permit.

Under COMAR 26.23.02.04A, the Department “may not” issue a non-tidal wetland permit for Shugart Solar unless it determines that the project has no practicable alternative, will avoid and then minimize adverse effects under Regulation .05B, will not cause or contribute to degradation of ground and surface water under Regulation .06A, and is consistent with any comprehensive watershed management plan approved by the Department. Shugart Solar fails to satisfy at least three of these four requirements.

1. No Degradation of Ground and Surface Water (COMAR 26.23.02.04A(3))

To receive a nontidal wetland permit, Shugart Solar must “not cause or contribute to a degradation of ground waters or surface waters under the criteria of Regulation .06(A).”²⁸ For issuance of a non-tidal wetland permit, there is no exception to this requirement based on social and economic justifications.

Origis admits that the project will result in “permanent impacts” to ground and surface waters. Due to the nature of the nontidal wetland ecosystem, these impacts will result in

²⁶ *Origis Energy USA Announces New 32.5 MW_{AC} Solar Project for Georgetown University*, Origis Energy (2017), <https://www.origisenergy.com/origis-energy-usa-announces-new-32-5-mwac-solar-project-georgetown-university/>

²⁷ Noah Telerski, *Here Comes the Sun? Local Environmentalists Oppose University Solar Project*, Georgetown Voice (Dec. 7, 2018) <https://georgetownvoice.com/2018/12/07/here-comes-the-sun-local-environmentalists-oppose-university-solar-project/> (quoting Xavier Rivera, director of utilities and energy management at Georgetown).

²⁸ COMAR 26.23.02.04A(3).

“individual and cumulative effect[s]” that constitute degradation under Regulation .06(A). Origis’s Avoidance and Minimization Analysis explains that “[i]n order for the project purpose to be practicably achieved, the non-tidal streams and wetlands must be impacted to allow for the installation of access roads and utility connections.”²⁹ Later, Origis recognizes that “[d]ue to the location and extent of onsite wetland and Water features, as well as the requirement for maintenance/access roads and utility connections, the permanent impacts to the aquatic resources proposed in this application are unavoidable.”³⁰ The likely adverse impacts of these changes, including altered hydrology, increased sedimentation, and increased nutrient runoff, and which could include the local extinction of the Dwarf Wedge Mussel and other impacts, would constitute degradation of the aquatic ecosystem diversity and aquatic species in violation of criteria (1)(a)-(b). The cumulative effect of these adverse impacts would likely be a degradation in the recreational and economic value of Wards Run, Nanjemoy Creek, and ultimately, the Chesapeake Bay. In addition to causing immediate and direct degradation of a Tier II stream, in violation of Maryland regulations protecting such water sources,³¹ the degradation of these water sources would also inhibit the successful implementation of the Chesapeake Bay TMDL.³²

In light of Origis’s recognition of the unavoidability of permanent adverse impacts to aquatic resources, MDE must deny Origis’s permit application under COMAR 26.23.02.04A(3).

2. Lack of Practicable Alternatives (COMAR 26.23.02.04A(1), 26.23.02.04D)

Section D of Regulation .04 requires a permit applicant to demonstrate that “practicable alternatives, including both alternative site analysis and on-site minimization, have been analyzed and that the proposed regulated activity has no practicable alternative.”³³ Section D(2) prescribes four criteria against which the Department should evaluate an applicant’s assertion that a proposed activity has no practicable alternative. The Shugart Solar proposal falls short of at least two of the section D(2) criteria: the alternative site criterion, under Section D(2)(a), and the demonstrated public need criterion, under Section D(2)(d). On this basis, the Department should conclude that Origis has failed to demonstrate that there is no practicable alternative to its current proposal.

²⁹ *MD Solar 1 Application, Appendix III: Avoidance and Minimization Analysis*, MD Solar 1 - Shugart Valley Place, Md. Dep’t Env’t [hereinafter *Avoidance and Minimization Analysis*], https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Documents/Solar/MD_Solar1_ShugartValleyPlace_Appendix_III.pdf

³⁰ *Id.*

³¹ See *Tier II Review Guidelines*, *supra* note 1 (allowing degradation of Tier II resources with no assimilative capacity only if the project minimizes impacts and the mitigation and/or impacts are sufficiently justified).

³² See *Chesapeake Bay TMDL Document*, EPA (Dec. 29, 2010),

<https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document>; see also Lisa Wainger et al., *Additional Beneficial Outcomes of Implementing the Chesapeake Bay TMDL: Quantification and Description of Ecosystem Services Not Monetized*, EPA (Mar. 4, 2015),

https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=523075&Lab=NHEERL (documenting the nonmonetized benefits of the Chesapeake Bay TMDL, such as increased biodiversity and resilience).

³³ COMAR 26.23.02.04D(1) (emphasis added).

The alternative site criterion requires that “[t]he basic project purpose cannot be reasonably accomplished using one or more other sites in the same general area as the proposed project that would avoid or result in less adverse impact to nontidal wetlands under the criteria in Regulation .05 of this chapter.”³⁴ An applicant must search for and demonstrate a lack of alternative sites. Origis’s application fails to establish, consistent with the criteria listed in Regulation .05, that the purpose of Shugart Solar cannot be achieved using an alternative site or sites.

Origis claims that it considered alternative sites for the project. However, neither Origis’s initial practicability analysis³⁵ nor the “Alternative Site Analysis” in its *Social and Economic Justification* (“*SEJ*”) contains the sort of sufficient and concrete details that would demonstrate the unavailability of alternative sites in compliance with Regulation .05 criteria. For example, in its *SEJ*, Origis claims that it “searched for other candidate sites within proximity and SMECO’s service area in particular.”³⁶ Origis claims to have “examined and contacted owners for several potentially suitable sites,” and notes that “*most* sites were either unavailable for purchase or lease, exhibited various design constraints upon closer examination, and/or had no viable access to existing transmission lines.”³⁷ This statement implicitly recognizes that *some* alternative sites were available that did meet these criteria. However, Origis fails to include any information on these suitable alternative sites in its application, and also did not provide any evidence of attempts to obtain land ownership rights or interests. These omissions are inconsistent with Origis’s obligations under Regulation .05A(4)(a)-(b).

Origis’s application and *SEJ* also indicate that Origis relied on a series of disparate factors to reject alternative sites. In both documents, Origis repeatedly invokes financial cost considerations as a justification for selecting the Shugart Valley site. In its initial application, Origis notes that “[o]ther sites in the vicinity would either cause greater impacts to wetlands, were not available for purchase or lease, or would not be near enough to existing power lines to be of feasible use to the project purpose.”³⁸ Origis further contends, “Close proximity to existing infrastructure is needed to adequately transmit renewable energy into the power grid.” However, Regulation .05 requires the Department to consider the physical, economic, and demographic requirements of the project site relative to alternative sites. By dismissing less proximate sites on the basis of their allegedly greater cost of transmission infrastructure, Origis prevents the

³⁴ COMAR 26.23.02.04D(2)(a).

³⁵ See *Avoidance and Minimization Analysis* (“[T]here is no practicable alternative that will allow for the construction of this development *within the project boundary* with less adverse effects of streams, wetlands, and the aquatic community than the proposed project.” (emphasis added)); *id.* (“[A]djacent parcels within the same area are either insufficient to accommodate project needs (size) or would result in greater adverse effect on streams, wetlands, buffers, and the aquatic communities.” (emphasis added)); *id.* (“[T]here are no practicable *onsite or offsite* alternatives for the proposed location of the project that would be expected to have a lower environmental impact.”)

³⁶ *Id.* at 26.

³⁷ *Id.* at 26 (emphasis added).

³⁸ MD Solar 1 - Shugart Valley Place, Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland, Md. Dep’t Env’t, at part 6 [hereinafter *MD Solar 1 Application*], https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Pages/MD_Solar_1.aspx. Part 6. This text is nearly identical to text on page 26 of Origis’s *SEJ*.

Department from holistically evaluating relative infrastructure costs alongside other physical, economic, and demographic factors.

In addition to inadequately documenting its search and improperly rejecting alternative sites, Origis's *SEJ* identifies several artificial constraints that restricted the universe of the search from the outset.³⁹ Although some of the factors Origis identifies are "governmentally imposed restrictions," such as avoiding land with Designated Critical Habitat, other factors reflect cost considerations rather than adverse wetland impact considerations.⁴⁰ In particular, Origis explains that it restricted its search to sites that were "[z]oned with utility scale solar facility as a permitted use," "[a]ccessible [to] electric transmission lines or a substation at a minimum voltage of 69 kV so the project may be cost effectively interconnected to the PJM system," "large enough [to] support utility scale solar scale economies," near power lines with capacity "suitable for interconnecting 25-40 MW of solar without triggering material network upgrade costs," and "generally flat topograph[ically] in the solar area with slopes of 10% or less."⁴¹ The only justification Origis provides for restricting its search along these criteria is that they comprise "standard industry practice."⁴² However, such considerations do not constitute "physical, economic, and demographic requirements" of the project or "governmentally imposed restrictions and requirements" on possible sites,⁴³ and should not have been relied on to artificially limit the set of comparator sites. Rejecting alternative sites on the basis that they are not currently zoned for utility scale solar is particularly unreasonable. It is also inconsistent with the Department's regulations, which expressly indicate that the applicant should make efforts to "remove or accommodate site constraints including zoning, infrastructure, [and] access." Sec. 26.23.02.05(B)(2)(e)(ii).

Finally, by not considering the full universe of alternative sites or providing the Department with adequate information on the characteristics of those sites, Origis has unnecessarily and detrimentally truncated the alternative site analysis at the screening stage. Regulation .05A requires that the alternative site analysis evaluate sites for their potential to "first avoid and then minimize adverse impacts" to wetlands. Without comparative cost metrics for Shugart Valley relative to alternative sites or concrete estimates of the mitigation costs associated with alternative sites, as contemplated under Sections A(4)(d) and (g), Origis's cost-based justification for its site selection is incomplete and does not establish a lack of practicable alternative sites. Instead, Origis structures its search to minimize cost and unavailability and makes unsubstantiated conclusions about the feasibility of alternative sites without providing sufficient documentation of its evaluation. This documentation is important, because the Department needs to determine whether there exist configurations of alternative sites that would avoid and minimize the harm to nontidal wetlands relative to the proposed Shugart Solar project.

³⁹ *SEJ*, *supra* note 17, at 25.

⁴⁰ *Id.*

⁴¹ *SEJ*, *supra* note 17, at 25.

⁴² *Id.*

⁴³ *See* COMAR 26.23.002.05A(4)(d)-(e).

The second component of the practicable alternative analysis requires the regulated activity to be “necessary for the project to meet a demonstrated public need.”⁴⁴ To determine the necessity of the regulated activity, the Department may consider, inter alia, whether the project “promotes the public health, safety, or welfare.”⁴⁵ It is clear that Maryland must shift its generation mix away from fossil fuel sources and into renewable sources, including solar. However, this fact does not justify the necessity of a utility-scale solar project in Nanjemoy. Even as it increasingly recognizes the importance of renewable energy investment, Maryland has long recognized the need to protect high-quality waters from degradation⁴⁶ and to maintain the ecological values of nontidal wetlands.⁴⁷ Origis’s application presents the Department with a false choice between increased solar generation and protection of these resources.

Origis’s proposal entails razing a significant expanse of forest and building temporary and permanent bridges over high quality water sources. Altering the design or scale of the solar farm would not avoid these impacts: in order for solar panels to receive sunlight and generate electricity, the panels need to receive mostly unencumbered light. However, the necessity of the regulated actions to the proposed project depends entirely on Origis’s choice to site the project in the Nanjemoy forest. Alternative types of solar installations, such as rooftop, parking lot, and brownfields site solar, would not similarly require the destruction of forest or degradation of high quality waters. A recent report from the Utility Scale Solar Energy Coalition estimated that contaminated lands in Maryland could host between 214-427 MW of solar capacity,⁴⁸ and EPA’s RE-Powering America’s Land Mapper identifies two brownfields sites located within the vicinity of the Nanjemoy forest.⁴⁹ Unlike these alternative locations, the Nanjemoy forest currently provides significant benefits and economic value to the general public of Maryland: the trees in the forest sequester carbon, sulfur dioxide, airborne lead, ozone, and NO_x, produce oxygen, provide habitat for threatened species, and moderate stormwater runoff into Wards Run, Nanjemoy Creek and, eventually, the Potomac River and Chesapeake Bay. Damage to these resources is not “necessary” because there is no compelling need to build a utility-scale solar installation in a forest.

In addition to the nonnecessity of building Shugart Solar in the Nanjemoy forest, Origis overstates the benefits the project will provide to the general public and has consistently undervalued the benefits that forests offer to Marylanders. In its *SEJ*, Origis explains that the immediate benefits of the project arise from its generation of Solar Renewable Energy Credits (SRECs).⁵⁰ Even though Origis asserts that “any outcome is a clear win for Marylanders overall,” most of the benefits of increased SRECs will accrue to Origis’s customer, Georgetown

⁴⁴ COMAR 26.23.02.04D(2)(d).

⁴⁵ *Id.*

⁴⁶ COMAR 26.08.02.04 and 26.08.02.04-1; *see also* 40 CFR § 131.12 (federal recognition of these benefits).

⁴⁷ COMAR 26.08.02.04D(d)

⁴⁸ USSEC Brownfields *SEJ*, *supra* note 6, at 8.

⁴⁹ *See* RE-Powering Mapper, EPA, <https://geopub.epa.gov/repoweringApp/>. The Mapper estimates that Site ID 762 could support 19.33 MW of solar capacity, and that Site ID MD0136 could support 356 MW of solar capacity. Both of these sites are relatively close to the Nanjemoy Forest. In addition to these sites, many other brownfields sites with solar capacity exist throughout the state of Maryland.

⁵⁰ *SEJ*, *supra* note 17, at 24 (emphasis added).

University,⁵¹ and the extent to which the creation of SRECs results in a public benefit depends on how Georgetown exercises control of its SRECs.⁵² As discussed above in the context of Origis's *SEJ*, the vast majority of long-term benefits from Shugart Solar accrue far from the project site. Finally, Origis's framing of the project enables Origis to take credit for reducing carbon emissions in Maryland at the same time that Georgetown is taking credit for reducing them in the District of Columbia, which results in a double-count of the benefit the project does provide.

Aside from these high-level problems with the Shugart Solar project, omissions in Origis's application should also prevent the Department accepting Origis's presentation of the relative cost-benefit balance. For instance, Origis claims that the nontidal wetland site of the project contains no "Rare, Threatened, [or] Endangered species [that] would be affected by the project"⁵³ and that the forest is "scrubby and poor."⁵⁴ However, as discussed in the Audubon Naturalist Society's initial letter to the Department, the proposed site is within a Priority Preservation Area and a Targeted Environmental Area, and the forest contains "large, mature trees."⁵⁵ By mischaracterizing the project site, Origis has failed to provide the Department with all of the "pertinent information" it would need to conclude that the necessity of Shugart Solar outweighs the benefits provided by the Nanjemoy forest and wetlands, even if such a determination were otherwise justified. Origis's failure to sufficiently assess the practicability of alternative sites buttresses the conclusion that Origis has failed to supply all of the requisite information.

3. Avoidance and Minimization of Adverse Impacts (COMAR 26.23.02.04A(2))

To grant the Shugart Solar permit, the Department must also conclude that the "[r]egulated activity will first avoid and then minimize adverse impacts to the nontidal wetland."⁵⁶ Adverse impacts contemplated in the regulation include harm to species and habitat, changes to the hydrologic regime and flow of water, and the cumulative impact to a nontidal wetland.⁵⁷ The construction of Shugart Solar will implicate most of these criteria, but Origis does not explain or document how it concluded that the proposed design and layout first avoids and then minimizes adverse impacts to these resources. In addition, Origis's *SEJ* understates the likely extent of the adverse impacts that will arise from the Shugart Solar project.

⁵¹ *Id.*

⁵² Origis explains that its customer (Georgetown), may "[c]hoose to retire [SRECs] as received to meet their internal mandates," "[s]ell excess SRECs back into the market, or carry them forward up to 3 years, per the Maryland RPS open market design to allow other entities to meet Maryland RPS obligations, or "[a]llow SRECs to expire to maintain an optimum incentive to support the fight against climate change by attracting new utility scale solar supply."

⁵³ *SEJ*, *supra* note 17, at 27.

⁵⁴ *Environmental Review Document Project NO. 16009.00*, H&B Solutions, LLC 1, 11 (2017), available at <https://georgetownvoice.com/wp-content/uploads/2018/12/HB-Solutions-Environmental-Review.pdf>.

⁵⁵ Project Assessment SEJ for Maryland Solar 1 (Shugart Valley Place Solar), Md. Dep't of Nat. Resources, 12, <http://dnr.maryland.gov/pprp/Pages/default.aspx>.

⁵⁶ COMAR 26.23.02.04A(2).

⁵⁷ COMAR 26.23.02.05B(3).

In the Avoidance and Minimization Analysis that accompanied its initial application, Origis claims that “[g]iven the location of the project site and existing waters traversing the property, . . . there is no practicable alternative that will allow for the construction of this development *within the project boundary* with less adverse effects on streams.”⁵⁸ Origis further claims that “the proposed site layout completely avoids impacts to streams and forested wetlands associated with solar array construction . . . the proposed impacts are solely a result of the required access roadways and utility connections,” and “[t]he layout of the proposed development was place in the only location feasible to suit the proposed usage.”⁵⁹ However, Origis neither describes alternative site layouts that it considered nor explains how the proposed layout minimizes adverse impacts to species and habitat relative to alternatives. In fact, Origis’s Avoidance and Minimization Analysis contains no concrete analysis of any of the specific factors identified in COMAR 26.23.02.05B(3). Although Origis’s *SEJ* claims that Origis plans to minimize adverse impacts, its discussion of proposed mitigation measures demonstrates the insufficiency rather than adequacy of those measures.

For instance, Shugart Solar will reduce the acreage of the nontidal wetland by half: Origis proposes to raze 249 acres of forest and replace it with “grasses and other low-lying plants between the solar panels.”⁶⁰ The *SEJ* does not address the destruction of habitat that local wildlife depend on, but instead discusses the “creation” of a new habitat that will “prioritize native and naturalized species” through a “controlled maintenance program.”⁶¹ Although Origis repeatedly emphasizes its intent to use “native flowers and grasses,”⁶² this emphasis obfuscates the fact that that native habitat of recent history has been *forest* habitat, and that even native grasses and flowers will disrupt the habitation of existing species that use the area for its current forested character. Critically, the Nanjemoy forest is currently home to two bird species on the Maryland Species of Greatest Conservation Need list as well as six other at risk species.⁶³ Replacing half of the forest with native grasslands will create significant adverse impacts to these species under the factors listed in Regulation .05B(3)(a)-(d). In addition to adversely affecting forest-dwelling species, the destruction of half the forest will impair the site’s ability to moderate storm water, retain sediment, and filter nutrients, which will exacerbate the inhabitability of the site for its current forest-resident species and threaten freshwater species.⁶⁴

Both the construction and existence of the Shugart Solar project will alter the flow of water in the nontidal wetland area, and will directly affect the hydrologic regime of up- and downstream areas, the function of the nontidal wetland, the passage and relocation of water

⁵⁸ *Avoidance and Minimization Analysis*, *supra* note 29 (emphases added).

⁵⁹ *Id.*

⁶⁰ *SEJ*, *supra* note 17, at 18.

⁶¹ *Id.* at 5.

⁶² *Id.*

⁶³ *See, e.g.*, Important Bird Area: Nanjemoy IBA, Audubon Maryland – DC, http://md.audubon.org/sites/g/files/amh621/f/nanjemoy_iba_updated_jan2019.pdf; *A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area*, Md. Dep’t Nat. Resources (May 2001), https://dnr.maryland.gov/criticalarea/Documents/forms_navbar/tweetyjune_2000.pdf.

⁶⁴ For instance, Nanjemoy Creek is one of the last remaining homes of the Dwarf Wedge Mussel, which has been listed as endangered since 1990. Increased sediment movement from construction or maintenance could threaten the species’ existence. G. Andrew Moser, *Dwarf Wedge Mussel Recovery Plan*, U.S. Fish & Wildlife Serv. (1993), <https://www.fws.gov/northeast/pafo/pdf/Dwarf%20wedgemussel%20Recovery%20Plan.pdf>.

through the wetland, including the subsurface flow. Regulation .05B requires Origis to avoid and minimize the project's impacts to these processes, but neither the project application nor the *SEJ* contain sufficient explanation for how it plans to do so. In its *SEJ*, Origis recognizes that “[g]roundwater recharge is one regulating service provided by a forest” and “[a]pproximately 40% of the ecosystem service value, notionally applied in DNR’s methodology, is due to the value of storm water mitigation.”⁶⁵ Origis then explains that it will offset the “slight increase in impervious surfaces due to roads, pads and substation” with “storm water management facilities engineered to replace forest coefficient values.”⁶⁶ However, Origis does not adequately account for the consequences of runoff during the construction stage of the project and the stormwater runoff plan does not account for the increased runoff that will arise due to deforestation.⁶⁷ The absence of an accurate explanation for how Origis intends to minimize the adverse effects of the project on the processes identified in Regulation .05B(3)(e)-(h) means that there is insufficient evidence for the Department to conclude that Origis has made a good faith effort to avoid and minimize the effects of the project on these factors.

B. Origis Must Obtain a Clean Water Act Section 404 Permit with Written Authorization from the U.S. Army Corps of Engineers.

The MD Solar 1 project requires a Clean Water Act (“CWA”) section 404 permit, and Origis may not utilize Maryland’s programmatic general permit without review and authorization by the U.S. Army Corps of Engineers (“Corps”). One of the CWA’s primary methods for achieving aquatic protection and restoration is the prohibition contained in section 404 against unpermitted discharges of dredged or fill materials into navigable waters.⁶⁸ The construction of causeways, road fills, and any fill necessary for the construction of a structure in navigable waters constitutes a discharge of dredged or fill materials under § 404 of the CWA,⁶⁹ and such activities are prohibited absent a permit issued by the Corps.⁷⁰

Origis must obtain a CWA section 404 permit before beginning construction because it proposes activities that constitute discharges of fill into jurisdictional waters. In its joint federal/state application, Origis states that it will need to construct a permanent road crossing over a stream, as well as a temporary bridge over another stream segment and utility line easements in wetlands.⁷¹ In the “activity” section of its application, Origis admits that it will engage in “filling,” “grading,” “removing or destroying vegetation,” and “building structures.”⁷² The application further states that these activities will occur in the following water areas: “nontidal wetland,” “25-foot buffer” for a nontidal wetland, “in stream channel,” and “100-year

⁶⁵ *SEJ*, *supra* note 17, at 31.

⁶⁶ *Id.*

⁶⁷ For example, on page 31 of its *SEJ*, Origis claims that the planting of “deep-rooted species” on the solar site will “improve” water infiltration ignores that the land is currently a forested wetland.

⁶⁸ 33 U.S.C. § 1344.

⁶⁹ 33 C.F.R. § 323.2(f).

⁷⁰ The term “navigable waters” is defined in the CWA as “the waters of the United States, including the territorial seas.” *See id.* §§ 1251, 1321, 1342, 1344; *id.* § 1362(7). The term “waters of the United States” is defined in regulation, and the state of Maryland currently follows the definitions in the 2015 “Clean Water Rule.” Clean Water Rule: Definition of “Waters of the United States”, 80 Fed. Reg. 37,054 (June 29, 2015).

⁷¹ *MD Solar 1 Application*, *supra* note 38, at 2.

⁷² *Id.* at 2.

floodplain.”⁷³ The two stream segments that will be polluted by the construction of the permanent road crossing and temporary bridge are Wards Run 1 and Wards Run 2, respectively, both of which are listed as high quality Tier II streams in Maryland.⁷⁴ In a September 5, 2018 preliminary “waters of the United States” jurisdictional determination contained in Appendix I of Origis’s application, Origis acknowledges that Wards Run is a “mapped perennial stream.”⁷⁵ Perennial streams are unquestionably considered jurisdictional “waters of the United States” under both the current regulatory definition of that term in Maryland and the Trump administration’s proposed replacement rule.⁷⁶ Origis’s own application materials propose to place fill in “jurisdictional waters.”⁷⁷ Therefore, Origis’s proposal to place fill in Wards Run to construct the roads and bridges requires a section 404 permit.⁷⁸

Moreover, MDE should not allow this project to proceed under its programmatic general permit for section 404 authorizations. The Corps allows general, rather than individual, section 404 permits for certain small projects, and has issued a “Maryland State Programmatic General Permit – 5” (“MDSPGP – 5”) that governs these activities.⁷⁹ But, as recognized in the general permit, only activities that “result in no more than minimal individual or cumulative adverse effects on the aquatic environment” may be authorized under a general permit.⁸⁰ The adverse effects of the activity proposed here by Origis would not be minimal. MDE has correctly concluded, based on biological monitoring, that Wards Run 1 does not have remaining assimilative capacity to persist as a Tier II waterway if additional pollution enters the stream. The degradation of water quality in Wards Run 1, one of only a few Tier II streams remaining in the State, would be a significant adverse effect, not a minimal effect. In addition, the general permit “does not authorize any activity that may directly or indirectly” affect a threatened or endangered species or its critical habitat.⁸¹ Because this project may, and indeed is likely to, affect the endangered Dwarf Wedge Mussel, shortnose sturgeon, and Atlantic sturgeon, as explained below, it is not authorized under the programmatic general permit.

⁷³ *Id.* at 3.

⁷⁴ MD Solar 1 - Shugart Valley Place, Md. Dep’t Env’t,

https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Pages/MD_Solar_1.aspx; Tier II Data Table, Md. Dep’t Nat. Resources, *available at*

https://mde.maryland.gov/programs/Water/TMDL/WaterQualityStandards/Documents/Tier_II_Updates/Antidegradation-Tier-II-Data-Table.pdf.

⁷⁵ *MD Solar 1 Application, Appendix I: Wetland Delineation SEJ & Jurisdictional Determination*, MD Solar 1 - Shugart Valley Place, Md. Dep’t Env’t at 27,

https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Documents/Solar/MD_Solar1_ShugartValleyPlace_Appendix_I.pdf.

⁷⁶ “Clean Water Rule: Definition of ‘Waters of the United States,’” 80 Fed. Reg. 37,054, 37,068 (June 29, 2015); Revised Definition of Waters of the United States, 84 Fed. Reg. 4154, 4173 (Feb. 14, 2019).

⁷⁷ *Avoidance and Minimization Analysis*, *supra* note 29, at 1, *available at*

https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Documents/Solar/MD_Solar1_ShugartValleyPlace_Appendix_III.pdf (stating “the amount of fill located in Jurisdictional Waters has been limited to the minimum necessary . . .”).

⁷⁸ *Id.* at 1-2.

⁷⁹ Department of the Army Programmatic General Permit, State of Maryland (Oct. 1, 2016) [hereinafter *MDSPGP-5 Permit*], *available at* <https://www.nab.usace.army.mil/Portals/63/docs/Regulatory/MDSPGP-5.pdf>.

⁸⁰ *Id.* at 2.

⁸¹ *Id.* at 76.

Further, if coverage under the programmatic general permit were permissible for a project that will degrade a Tier II stream and have other significant adverse effects on the aquatic environment, MDE would need to categorize this project as a “category B” project under its programmatic general permit for section 404 authorizations because Corps review and authorization is required. MDE appears to have categorized this project as a “Category A” project under the MDSPGP-5,⁸² which is a category reserved for activities that do not require Corps review and authorization.⁸³ In contrast, “Category B” activities require review and written approval by the Corps, as well as specific coordination with Tribal Nations, the Maryland Historic Trust, Maryland Department of Natural Resources, U.S. Environmental Protection Agency, National Marine Fisheries Service, U.S. Fish and Wildlife Service, and U.S. Coast Guard.⁸⁴ MDE and the Corps must conduct Category B review of Origis’s application, for at least two reasons.

First, Origis’s proposal to clear cut forested wetlands and build access roads and bridges in order to install a utility line does not comply with the size requirements for Category A utility line activity in the MDSPGP-5. MDE has labeled this project type a “utility line.”⁸⁵ Therefore, in order to obtain authorization under the MDSPGP-5, Origis must comply with all of the utility line activity limits and requirements in the general permit. Individual impacts from various aspects of utility line projects are intended to be added together and reviewed cumulatively under these provisions.⁸⁶ The MDSPGP-5 contains general utility line construction requirements that are applicable to both Category A and B activities, but it also contains specific separate limits for Category A and Category B activities. In order to obtain Category A review of the utility line construction aspect of the project, the construction “within nontidal waters of the United States, including wetlands, must be limited to the minimum width necessary and not to exceed 30 feet in width.”⁸⁷ According to Origis’s application, the utility line construction aspect of the project will disturb 33 feet in width of waters.⁸⁸ As a result, the project proposal does not comply with the Category A size requirements for utility line construction. In addition, the utility access road construction aspect of the project is only considered a Category A activity if the limit of the disturbed water area is no wider than thirty feet.⁸⁹ The permanent and temporary access roads proposed by Origis also violate this Category A size requirement because those roads will impact six feet and sixty feet of stream widths, respectively, for a total of 66 feet.⁹⁰ Therefore, the

⁸² Wetlands and Waterways Permits Interactive Search Portal, Md. Dep’t Nat. Resources, <http://mdewin64.mde.state.md.us/ECollaboration/SearchPortal.aspx> (follow tracking number 201861760).

⁸³ *MDSPGP-5 Permit*, *supra* note 79.

⁸⁴ *Id.* at 5, 8.

⁸⁵ Wetlands and Waterways Permits Interactive Search Portal, *available at* <http://mdewin64.mde.state.md.us/ECollaboration/SearchPortal.aspx> (follow tracking number 201861760); Permit Application Screening Form, *available at* <http://mdewin64.mde.state.md.us/ECollaboration/SearchPortal.aspx> (follow tracking number 201861760, more info., show report).

⁸⁶ *MDSPGP-5 Permit*, *supra* note 79, at 33.

⁸⁷ *Id.*

⁸⁸ *MD Solar 1 Application*, *supra* note 38, at 2.

⁸⁹ *MDSPGP-5 Permit*, *supra* note 79, at 38.

⁹⁰ *MD Solar 1 Application*, *supra* note 38, at 2.

proposed project violates two separate size requirements for Category A review, and it must be reviewed as a Category B project.⁹¹

Second, the MD Solar 1 project must also be reviewed by the Corps because “projects that have the potential to affect . . . Federally listed threatened or endangered species or their critical habitat require an application submittal to the Corps for review under the Category B MDSPGP-5 review process or alternate Corps permit review process.”⁹² As explained in the July 22, 2019 comment letter submitted by Audubon Naturalist Society and partners, this project is likely to adversely affect the Dwarf Wedge Mussel, which has been listed as endangered under the Endangered Species Act since 1990. In its most recent 5-year review of the Dwarf Wedge Mussel, the U.S. Fish and Wildlife Service concluded that the mussel remains endangered with a high degree of threat and low recovery potential.⁹³ Nanjemoy Creek, the tributary that Wards Run drains into, is one of the top three remaining stream habitat sites in Maryland, out of only nine total sites.⁹⁴ The last survey in the Nanjemoy Creek area was conducted in 2008, and only thirteen mussels were found at that time.⁹⁵ Although critical habitat has not yet been designated for this species, there is a pending petition to U.S. Fish and Wildlife Service to designate critical habitat that appears to include waters throughout the Nanjemoy peninsula.⁹⁶

In addition, this project is also likely to adversely effect the shortnose sturgeon, which is listed as endangered under the Endangered Species Act throughout its range, and the endangered Chesapeake Bay distinct population segment of the Atlantic sturgeon. According to NOAA Fisheries, shortnose sturgeon are currently found in the Potomac River. A Chesapeake Bay distinct population segment of Atlantic sturgeon has been identified and listed, and the Potomac River has been designated as critical habitat.⁹⁷ Sturgeon depend on high quality freshwater streams and tributaries like Wards Run 1 and 2 and Nanjemoy Creek. In fact, shortnose sturgeon were observed in Nanjemoy Creek in a field study conducted by federal and state wildlife agencies.⁹⁸ Degraded water quality and dredging are among the most significant threats to the survival and recovery of the species.⁹⁹

⁹¹ Because Origis proposes to permanently convert forested wetland to an herbaceous or emergent wetland for its utility right-of-way, it must also identify and complete compensatory mitigation to offset these effects, according to the MDSPGP-5 utility line activity requirements applicable to both Category A and B projects. *MDSPGP-5 Permit*, *supra* note 79. Therefore, Origis’s assertion in its application that mitigation is not required is incorrect. *MD Solar 1 Application*, *supra* note 38, at 5.

⁹² *MDSPGP-5 Permit*, *supra* note 79, at 8.

⁹³ U.S. Fish and Wildlife Service, Dwarf Wedgemussel 5-Year Review: Summary and Evaluation, Dep’t Interior, 20 (April 2013), https://ecos.fws.gov/docs/five_year_review/doc4647.pdf.

⁹⁴ *Id.* at App. p. 6.

⁹⁵ *Id.*

⁹⁶ Petition for rulemakings designating critical habitat for the Shenandoah Salamander (*Plethodon shenandoah*), Roseate Tern Northeast DPS (*Sterna dougallii dougallii*), James Spiny mussel (*Pleurobema collina*), Clubshell (*Pleurobema clava*), Dwarf Wedgemussel (*Alasmidonta heterodon*), Hay’s Spring Amphipod (*Stygobromus hayi*), Roanoke Logperch (*Percina rex*), Northeastern Beach Tiger Beetle (*Cicindela dorsalis dorsalis*), Puritan Tiger Beetle (*Cicindela puritan*) at 37 (Jan. 2015), *available at* <https://ecos.fws.gov/docs/petitions/92000/533.pdf>.

⁹⁷ 82 Fed. Reg. 39,160 (Sept. 18, 2017).

⁹⁸ USGS, *Status of Shortnose Sturgeon in the Potomac River*, U.S. Dep’t of Interior 11 (July 20, 2007) *available at* http://awsassets.panda.org/downloads/19_2007_status_of_shrtnose_sturgeon_in_potomac_river_usa.pdf.

⁹⁹ NOAA Fisheries, *Shortnose Sturgeon*, U.S. Dep’t of Com., <https://www.fisheries.noaa.gov/species/shortnose-sturgeon>.

For all of these reasons, the proposed project may adversely impact endangered species, and Corps review and coordination with U.S. Fish and Wildlife Service is accordingly necessary.

C. MDE Should Require an Individual Clean Water Act Section 401 Water Quality Certification.

Under section 401 of the CWA, a state water quality certification is needed when an applicant for a federal permit proposes to conduct “any activity . . . which may result in any discharge into the navigable waters”¹⁰⁰ Therefore, Maryland must issue a water quality certification under section 401 for activities in the state that require a section 404 permit. Because Origis is proposing to discharge fill into a jurisdictional water, it must also obtain a water quality certification from Maryland.¹⁰¹ Section 401 of the CWA gives states the authority to review any federally-permitted activity which may result in a discharge to navigable waters, and to condition the permit upon a certification that any discharge would comply with key provisions of the CWA and appropriate state laws.¹⁰² This expansive certification authority preserves a substantial role for the states in protecting water quality.

States have extensive authority to deny or impose conditions during the § 401 certification process. EPA has explained in recent guidance that “[c]onsiderations can be quite broad so long as they relate to water quality,” and “[c]ertification may address concerns related to the integrity of the aquatic resource and need not be specifically tied to a discharge.”¹⁰³ In addition to ensuring compliance with the statutorily enumerated provisions of the CWA (§§ 1311, 1312, 1313, 1316, and 1317), certifying states must assure compliance with “any other appropriate requirement of State law.”¹⁰⁴ Courts have consistently interpreted this provision to mean that all state water quality standards must be satisfied.¹⁰⁵ State water quality standards include designated uses for water bodies,¹⁰⁶ as well as the quantitative (numeric) and qualitative (narrative) criteria needed to achieve the designated uses,¹⁰⁷ and anti-degradation.¹⁰⁸ Therefore, certifying states have the obligation to ensure compliance with not only numeric water quality standards (and the total maximum daily loads used to enforce them), but also mandates designed to protect recreational uses and aquatic life.¹⁰⁹ Indeed, courts have repeatedly allowed certifying

¹⁰⁰ 33 U.S.C. § 1341(a).

¹⁰¹ *Id.*

¹⁰² 33 U.S.C. § 1341(a)(1).

¹⁰³ *Clean Water Act Section 401 Water Quality Certification: A Water Quality Protection Tool for States and Tribes* (2010) at 23, <https://www.nrc.gov/docs/ML1121/ML112160635.pdf>.

¹⁰⁴ 33 U.S.C. § 1341(d).

¹⁰⁵ *See, e.g., PUD No. 1 of Jefferson Co. v. Wa. Dep’t of Ecology*, 511 U.S. 700 (1994) (holding that state water quality standards, including minimum stream flow requirements, should be enforced through § 401 certifications).

¹⁰⁶ 40 C.F.R. § 131.10.

¹⁰⁷ 40 C.F.R. § 131.11.

¹⁰⁸ 40 C.F.R. § 131.12.

¹⁰⁹ *Anacostia Riverkeeper Inc. v. Jackson*, 798 F.Supp.2d 210, 238 (D.D.C. 2011) (holding that a state’s total maximum daily loads for a water body must ensure protection of all state water quality standards, including *all* designated uses and water quality criteria, in order to satisfy the CWA).

states to deny certifications based on the need to comply with state water quality standards, including non-quantitative standards such as the protection of aquatic life and shellfish habitat.¹¹⁰

Maryland should require Origis to submit an individual application for certification rather than rely on the general certification accompanying the MDSPGP-5, and it should seek written public comments on the application.¹¹¹ MDE does not have sufficient information to ensure that state water quality standards will be satisfied, or that aquatic life and shellfish habitat are protected. In fact, the currently available information indicates water quality standards and shellfish habitat are at great risk. Origis proposes to partially fill and force a Tier II stream and important tributary to Nanjemoy Creek and the Potomac River into a pipe culvert, as well as cause additional pollution from the construction of a temporary bridge and the clear cutting of adjacent forest land, including clear cutting within forested wetlands. These impacts to high priority waters are particularly harmful because the Nanjemoy Creek is a designated Natural Heritage Area and Stronghold Watershed,¹¹² and impacts to this tributary will affect the ongoing Chesapeake Bay TMDL. Furthermore, the degradation of these waters will likely harm habitat for the endangered Dwarf Wedge Mussel, as explained above. Finally, Wards Run has already experienced a recent degradation in water quality, limiting its assimilative capacity.¹¹³ MDE needs additional information in order to determine whether Maryland water quality standards would be violated if MD Solar 1 is constructed.

In addition to requiring an individual water quality certification, MDE should hold a public hearing on the certification. Maryland must hold a public hearing when “(1) [t]he Department determines the activity requiring certification is of broad, general interest; or (2) The application for certification generated substantial public interest as indicated by written comments concerning water quality issues.”¹¹⁴ A public hearing is warranted here due to the broad public interest in this project, as evidenced by the need to hold two public hearings on the nontidal wetlands and waterways permit in order to allow time for all interested members of the public to testify.

VI. Errata

Throughout the SEJ, the number of streams discussed is inconsistent. There are instances in which the SEJ uses the word “stream,” and others where the SEJ uses the word “streams.” We request that the SEJ be updated to reflect the fact that there are two streams, Wards Run I and Wards Run II, on the Site.

¹¹⁰ See, e.g., *AES Sparrows Point LNG v. Wilson*, 589 F.3d 721, 733 (4th Cir. 2009); *Islander East Pipeline Co., LLC v. McCarthy*, 525 F.3d 141 (2d Cir. 2008).

¹¹¹ COMAR 26.08.02.10(C).

¹¹² Charles County Comprehensive Plan 2016, Chapter 5 at 5-10, 5-17, available at https://www.charlescountymd.gov/sites/default/files/pgm/planning/comp_plan_2016_ch05.pdf.

¹¹³ MD Solar 1 - Shugart Valley Place, Md. Dep’t Env’t, https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Pages/MD_Solar_1.aspx.

¹¹⁴ COMAR 26.08.02.10(D).

Page 18 of the SEJ states that the surface area of the project site is 209 acres. The area of the project is in fact 249 acres. We request that the SEJ be updated with the correct project acreage.

Sincerely (bolded groups are authors),

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