

February 22, 2019

Ben Grumbles, Secretary  
Jeffrey Thompson, Chief, Non-tidal Wetlands and Waterways  
Central Region Section  
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Re: MD Solar 1 LLC, Shugart Valley Place project, Charles County

Dear Secretary Grumbles and Mr. Thompson:

While we commend Georgetown University for its exceptional efforts to reduce its greenhouse gas emissions, we have serious concerns about its plans to clearcut 210 acres of forest for a large solar farm in the midst a state-targeted ecological area (TEA).

The project's developer, Origis Energy, claims that the 100,000 panels it plans for the site will replace the carbon sequestration of over 600,000 trees. Yet, carbon sequestration is only one aspect of the value of forested land and does not account for the measurable and important contributions of woodlands to biodiversity, wildlife habitat, erosion control, water quality, and overall human well-being. Justifying this project solely on the basis of its carbon sequestration value is a flawed analysis and ignores the other significant ecological benefits that this particular site provides.

#### Biodiversity and wildlife habitat

Nanjemoy is well known for its biodiversity and its exceptional wildlife habitat. It is also an important economic generator for the County because of its role as a destination for birders, naturalists, scientists, and specialists in environmental research. The Nature Conservancy and the Audubon Society have both identified this area as a prime conservation area in part because of its large amount of contiguous forest. The Nature Conservancy deems Nanjemoy "one of Maryland's most pristine watersheds" and states that "this remarkable situation exists, in part, because the landscape has not been fragmented as it has in other places." Likewise, the Audubon Society identifies this area as the "green thumb" of southwestern Charles County because of its "large block of contiguous forest."

Segmenting this forest by clearcutting an area of 210 acres for industrial purposes will fragment habitat, create compromising "edge conditions," and reduce its value to wildlife. Particularly vulnerable are the declining populations of Forest Interior Dwelling Species (FIDS--birds). Of the 25 species of FIDS regularly breeding in Maryland's Coastal Plains forests, 20 of them breed in Nanjemoy. These include the Wood Thrush, Worm-eating Warbler, Prothonotary Warbler, and Prairie Warbler. Other species found in Nanjemoy include the Eastern Whip-poor-will and Bald Eagle, both at-risk in Maryland, as well other animals that are reclusive and need large uninterrupted expanses of woodland to survive and reproduce.

This exceptional biodiversity -- and the uninterrupted forested habitat that supports it -- are why Nanjemoy is so unusual and considered so valuable by so many people.

The issue is not whether the forest to be cleared is old growth or relatively new. Early and secondary successional habitat contribute high plant diversity and seed production to the forest ecosystem. Both types of forest are essential to the overall ecology, and fragmentation occurs when any type of forest is cleared and converted to a man-made use. With sustainable forestry practices and other activities that maintain the forest, most types of forest can generate revenue for their owners and still maintain their ecological value for generations to come. These critical ecological values need to be accounted for in any cost/benefit analysis of a plan to eliminate a forested area, yet they do not seem to have been in this project.

#### Water Quality

Forests also contribute to maintaining water quality. Nanjemoy contains many tributaries to Nanjemoy Creek and the Potomac River, and several of these streams occur on the property to be cleared. These tributaries and the benefits they provide contribute significantly to the health of the Chesapeake Bay by filtering runoff and distributing nutrients. These streams and the flooded forested wetlands associated with them also support declining species of reptiles and amphibians, as well as a number of rare plants, such as the Primrose-willow.

The applicant's own engineering studies document "unavoidable" permanent and conversion impacts on these sensitive streams and wetlands from access road crossings and clearing for a utility easement for this project. In addition, we question the applicant's assertion that the impervious surface of 100,000 solar collectors will function hydrologically as a forested site. But even if it does, the other benefits that this land provides will be seriously compromised. These benefits -- as well as the costs to replace these forest ecosystem services with engineered infrastructure -- need to be included in any accurate cost/benefit analysis for a solar farm.

The ecosystem services and goods provided by forests and water bodies include benefits in the form of direct use (e.g., irrigation, timber, and recreation), indirect use (e.g., flood protection and nutrient cycling), and nonuse values (e.g., aesthetics, endangered species protection). The presence of indirect and non-use values requires the use of nonmarket

valuation techniques, such as contingent valuation, to assess the importance of the impacts on these systems.<sup>1</sup>

If implemented, this project and the decision-making process that enabled it would set a dangerous precedent locally and nationally by targeting forested areas, rather than areas already cleared or developed, as suitable sites for large solar farms. Over time, this could result in a significant reduction of much of our nation's forested land -- as well as the many benefits these woodlands provide.

Therefore, in order to protect this valuable ecosystem for Maryland residents and its wildlife, as well as to set a precedent for evaluating the location of future solar projects, we urge officials in the State of Maryland to consider another less environmentally sensitive location for this otherwise worthwhile solar project.

Respectfully submitted,

Anne Lewis

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<sup>1</sup> "The Value of Forest Conservation for Water Quality Protection." Melissa M. Kreye, Damien C. Adams, Francisco J. Escobedo, School of Forest Resources and Conservation, University of Florida, 2014.