



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Web Site: portal.ct.gov/csc

March 4, 2024

Raymond Welnicki
121 Amanda Drive
Manchester, CT 06040

RE: **PETITION NO. 1609** – TRITEC Americas, LLC notice of election to waive exclusion from Connecticut Siting Council jurisdiction, pursuant to Connecticut General Statutes §16-50k(e), and petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 0.999-megawatt AC solar photovoltaic electric generating facility located at 250 Carter Street, Manchester, Connecticut, and associated electrical interconnection.

Dear Raymond Welnicki:

The Connecticut Siting Council (Council) is in receipt of your recent correspondence concerning Petition No. 1609.

Before reaching a final decision on any petition, the Council must carefully consider all of the facts contained in the evidentiary record that is developed by the Council, the petitioner, parties and intervenors in the proceeding, and consider all of the concerns received from members of the public who submit written statements to the Council.

This petition will be placed on a future Council meeting agenda for discussion and decision. Please note that you can view the petition filing on our website at portal.ct.gov/csc under the "Pending Matters" link. You may also keep apprised of Council events on the website calendar and agenda.

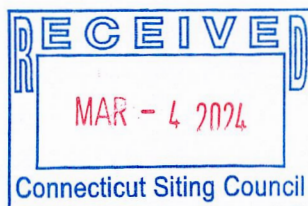
Thank you for your interest and concern in this very important matter. Your correspondence will be entered in the public comment file related to this petition.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Melanie A. Bachman'.

Melanie A. Bachman
Executive Director

MAB/RDM/dll



Raymond Welnicki
121 Amanda Dr.
Manchester, CT 06040
March 1, 2024

Melanie Bachman, Esq.
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Petition No. 1609 – Tritec Americas, LLC

Dear Ms. Bachman:

My name is Ray Welnicki and I reside at 121 Amanda Drive, Manchester, CT 06040. This property abuts 250 Carter St., Manchester, CT 06040 which is the subject property in Petition No. 1609. For the reasons outlined in this letter, I am strongly opposed to the Petitioner's request for a declaratory ruling in favor of the solar farm that it proposes.

I am extremely concerned about the adverse environmental effect of the proposal on the environment and the safety of downslope properties and residences due to inadequate consideration of all of the effects of the proposed development on stormwater and groundwater. While I have other concerns about this project, I will focus this letter on the stormwater and groundwater issues.

The Stormwater Management Report included in the Petition discusses how the proposed stormwater management system would mitigate the increase in stormwater runoff created by the solar farm. That Report concludes: "...the proposed solar array will not result in any adverse conditions to the surrounding areas and properties." But my actuarial training and experience has taught me that unequivocal claims such as this are not likely to be true across all contingencies. In fact, it appears that there are likely-to-occur situations where the solar farm and its proposed stormwater management system will create environmentally adverse and even dangerous stormwater runoff that exceeds what would be experienced pre-development.

For example, the Petitioner proposes to reduce stormwater runoff by diverting it to an infiltration basin which has the effect of concentrating the stormwater risk downslope from this location. Consider that the proposed infiltration basin would have a capacity of 46,881 cubic feet which is equivalent of 350,670 gallons of water. Yet a 2-year storm event (3.16 inches of rain in a 24-hour period) would drop over 1 million gallons of water across the 12.7 acre drainage field. If that rain were to fall intensely over, say, a 3-hour period (which is within the 90% confidence interval for a 10-year event), much of that 1-million gallon deluge would overflow the infiltration basin. I believe that this can occur even if the 3.16 inch rainfall occurred over a 6-hour or a 12-hour period. Thus, I believe that there is a

significant probability of an event where hundreds of thousands of gallons of diverted stormwater runoff could cascade at a high velocity in a concentrated area downslope of the infiltration basin. How could that not have adverse consequences to the downslope properties?

(Full disclosure: it appears from the Petition that the location of the infiltration basin's overflow pipe is located about 75 - 100 feet in elevation above my property and is pointed directly at my house. This makes me acutely attuned to the adverse consequences of this proposal.)

This risk exists year-round but known infiltration basin experience makes it clear that this risk would be greater during a cold winter. This region has experienced protracted periods of sub-freezing temperatures causing the ground to freeze at some level of depth. Some of these periods have coincided with snowpack up to a foot or more. This adds at least two exacerbating factors to the stormwater runoff risk. First, the snowpack could contain an inch or more of water equivalence. Second, the frozen ground would reduce the water infiltration rate for at least a period of time. Both factors would increase the amount of stormwater runoff that could potentially overflow the infiltration basin. Further, the hillside where the overflow would be diverted would have its own snowpack that would add to the cascade of water rushing down the slope towards the properties and residences at the base of the hill (the east side of Amanda Drive). This result could be devastating to those properties.

It is clear that the size of the proposed drainage area is one of the reasons why an infiltration basin is inappropriate for this site. In fact, the Connecticut Stormwater Guidance Manual indicates that the maximum drainage area for an infiltration basin is 10 acres. It is therefore concerning that this project proposes an infiltration basin for a 12.7 acre drainage area.

There is another reason to doubt the Report's conclusion that "...the proposed solar array will not result in any adverse conditions to the surrounding areas and properties." How could Solli Engineering, the author of the Report, make this claim when it does not appear that they considered the effect of the stormwater management system on groundwater flows? I find nothing in the report that addresses what happens to the stormwater that infiltrates into the soil below the infiltration basin. Certainly, even moderate rainstorms will divert hundreds of thousands of additional gallons of water to the infiltration basin area that would not otherwise runoff to that area. According to the EPA, infiltration basins reduce stormwater discharge volume by enhancing groundwater recharge. Thus, the predevelopment groundwater flows and flow patterns will certainly be affected by the project and those effects are likely to have adverse effects on the properties downslope of the infiltration basin. I did not see any explanation in the Petition or the Stormwater Management Report as to why that condition is an exception in this case.

The fact that the Stormwater Management Report does not address post-development groundwater flows is highly problematic. The properties downslope of the solar farm on the east side of Amanda Drive already experience large amounts of groundwater at the base of the hill upon which the proposed solar farm would sit. This groundwater exfiltration occurs year-round and is so substantial that at several locations the water runs through the properties and cascades over the sidewalk into the street. At least one property experiences a large pond for weeks at a time formed by the exfiltrated groundwater.

At my property (121 Amanda Drive), groundwater exfiltrates out at 4 primary locations. When we purchased the property in 2013, a French drain that had been installed in 2001 was failing which resulted in ponding in my backyard as close as 25 feet from the house. In May 2014 I measured the flow rate of the groundwater exfiltrating from the hill at one location 3 feet above the level of my backyard about 30 feet from my house. The four measurements I took showed an average flow of 800 gallons a day at that one location. Taken together, I estimate that the four primary exfiltration areas on my property generate over 1,000 gallons of exfiltrated ground water at the base of the hill in question at various times of the year.

The proposed stormwater management plan for the solar farm would certainly significantly increase the amount of groundwater exfiltrating from the hill at locations directly and proximately below the infiltration basin. This includes my property which sits about 75 - 100 feet in elevation below the proposed infiltration basin. As noted earlier, a 2-year storm event would deposit over 1 million gallons of water over the 12.7 acre drainage area and divert most of that water to the estimated infiltration basin that is a fraction of that area. This would represent more than a tenfold concentration of water infiltrating the soil at the infiltration basin than at present. The properties lying below that infiltration basin would therefore experience a significant multiple of the amount of exfiltrated groundwater than at present which is already at a problematic level. The risk of substantial quantities of that water reaching and damaging house foundations and basements is high; the risk of compromising the residents' enjoyment of their properties is a virtual certainty. This belies the claim made on Page 6 of the Stormwater Management Report that "the Project will have no net increase in peak flows, erosive velocities or volumes, **or adverse impacts to downstream properties.**" (Emphasis added.)

The fact that infiltration basins can cause adverse groundwater issues is a scientific reality. To this point, the New Jersey Stormwater Best Practices Manual states as follows: "Discharge from infiltration basins of the smaller storm events occurs through the subsoil; therefore, they may not be used where their installation would create a significant risk of adverse hydraulic impacts. These impacts may include exacerbating a naturally or seasonally high water table so as to cause surficial ponding, flooding of basements,.....". Connecticut would be wise to consider this caution.

The Stormwater Management Report also does not address the impact on groundwater flows over time of clearcutting 12.8 acres of trees since decomposing tree roots generally cause soil pipes that redirect groundwater flows.

Additionally, I think it's important to question how the stormwater management plan would affect the three wetlands in the vicinity of the solar farm. In particular, it would appear that the claimed reduction in downslope stormwater runoff would reduce the water sourcing of at least the southernmost of the three wetlands. It seems to me that this would be somewhat equivalent to draining the wetlands and, as such, this question should be vigorously evaluated.

There are a number of other reasons why I am opposed to this Petition, including possible ambient noise at a persistent aggravating pitch, the clearcutting of approximately 7.8 acres of urban forest land, the potential harm to wildlife habit, and an increase in the risk of fire in the vicinity of woodlands, a natural gas line and residential properties. I believe that the Siting Council will receive comments from other residents on these issues so I will hold my comments on these issues in abeyance at this time.

I believe that the significant issues that I have outlined above warrant denial of the Petitioner's request and I hope that the Connecticut Siting Council will act accordingly.

Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read 'Ray Welnicki', written in a cursive style.

Ray Welnicki