

BRUCE L. MCDERMOTT 203.772.7787 DIRECT TELEPHONE 860.240.5723 DIRECT FACSIMILE BMCDERMOTT@MURTHALAW.COM

November 9, 2020

Melanie A. Bachman, Esq. Executive Director/Staff Attorney Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Petition 1425 - Gaylord Mountain Solar Project 2019, LLC Petition for a Declaratory Ruling, Pursuant to Connecticut General Statutes §4-176 and §16-50k, for the Proposed Construction, Maintenance and Operation of a 1.9-Megawatt AC Solar Photovoltaic Electric Generating Facility Located at 360 Gaylord Mountain Road in Hamden, Connecticut, and Associated Electrical Interconnection

Dear Ms. Bachman:

The South Central Connecticut Regional Water Authority respectfully submits the Direct Testimony of John Hudak to the Connecticut Siting Council ("Council") in the above-captioned petition.

I certify that a copy hereof has been furnished on this date via electronic mail and/or first class mail, postage prepaid, to all parties, intervenors and participants of record according to the Council's service list for this docket as of this date. A copy has also been filed with the Council as an electronic web filing and is complete.

Should the Council have any questions regarding this filing, please do not hesitate to contact me.

Very truly yours,

Bruce L. McDermott

Enclosure

Murtha Cullina LLP 265 Church Street New Haven, CT 06510 T 203.772.7700 F 203.772.7723

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Gaylord Mountain Solar Project 2019, LLC Petition for a : Petition 1425

Declaratory Ruling, Pursuant to Connecticut General

Statutes §4-176 and §16-50k, for the Proposed

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Facility Located at 360 Gaylord Mountain Road in Hamden,

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DIRECT TESTIMONY OF JOHN HUDAK

- Q. Please identify yourselves.
- A. I am John Hudak, Environmental Planning Manager at the South Central Connecticut Regional Water Authority. My business address is 90 Sargent Drive, New Haven, CT 06511.
- Q. What are your responsibilities at the RWA?
- A. My role at the RWA includes setting and implementing policies and programs associated with source water protection, environmental regulatory compliance, source water monitoring and management, stream flow management, permitting, water supply planning, and legislative and regulatory affairs. I have also worked on behalf of the RWA and the Connecticut Water Works Association as an active contributor to the statewide water planning process including the development of aquifer protection regulations, stream flow standards, and Connecticut's first State Water Plan.
- Q. What is the purpose of your testimony?

- A. The purpose of our testimony is to provide information for the Siting Council concerning the RWA's review of the proposed project which information I hope will assist the Siting Council in its review and consideration of the project.
- Q. Please describe the business of RWA.
- A. The RWA is a nonprofit regional public corporation and a political subdivision of the State of Connecticut. Its mission is to provide customers with high-quality water and services at a reasonable cost while promoting the preservation of watershed land and aquifers. The RWA supplies an average of 43 million gallons of water per day to approximately 430,000 people in a 15-municipality region centered in New Haven, Connecticut.
- Q. Would you please describe the RWA's land management efforts.
- A. A critical component of maintaining the long-term viability of our drinking water sources is our commitment to watershed land preservation. The RWA manages its lands in accordance with a Land Use Plan ("LUP") that governs allowed uses on all of its land holdings. Any proposed activities on our properties not specifically authorized must receive approval for a LUP amendment from our governing boards. The RWA owns over 27,000 acres of mostly forested land and continues to protect additional watershed land as it becomes available. Since 2007, we have spent \$12.8 million to protect 948 acres of land by acquisition or through legal agreements that guarantee the land is protected from development.
- Q. What role do forests play in the RWA's watershed protection efforts?
- A. Forestlands on the RWA's water supply watersheds are the first layer of a multibarrier approach to ensure that high quality drinking water is delivered to our

customers. Forests are the most beneficial land cover for protecting water quality for the following reasons:

- Trees intercept rain and snow before guiding this precipitation to the humus layer of the forest floor, which acts like a sponge. Water is held in the forest floor soil layers, promoting infiltration and uptake by tree roots;
- Forests have very little soil erosion; thus less sediment and nutrients are transported to streams, lakes, and reservoirs;
- Forests reduce runoff flow and velocities, further reducing streambank erosion and sediment transport;
- Forests use nutrients from soil, atmospheric deposition, and stormwater runoff that would otherwise help fuel harmful algae blooms in lakes and reservoirs.
- Forests help mitigate impacts of climate change on water quality, such as moderating stream temperatures and, attenuating runoff from extreme precipitation events. The water quality of lakes and reservoirs is in large part a function of watershed forest cover. The overall cost of treatment necessary to meet state and federal drinking water requirements and customer expectations is generally less for a forested vs. a developed watershed.
- Q. What is the RWA's position when it comes to renewable energy in the state?
- A. The RWA supports the expanded use of renewable energy sources to reduce greenhouse gas emissions and the impacts of climate change. This includes the

use of hydropower and solar energy to power some of our own water system facilities. The RWA recently modified its internal approval process to streamline efforts to develop small renewable energy projects.

- Q. Can renewable energy projects be placed on the RWA's property?
- A. Projects on water company owned watershed lands require a Water Company Lands Permit from the Connecticut Department of Public Health (DPH) to ensure that proposed activities will not compromise the purity and adequacy of the public water supply. Such was the case when the RWA received such a permit for a 1-megawatt solar array completed on one of its wellfields in 2015. The array was constructed on a previously disturbed site dominated by invasive vegetation. Had the RWA instead proposed clear-cutting several acres of mature forest on its watershed land, it is fair to say that the DPH would have denied the application. Non-water company owned lands on public water supply watersheds are not subject to this permitting requirement. Nevertheless, the impacts of forest loss are the same regardless of ownership.
- Q. What is your understanding regarding the proposed project that is the subject of this proceeding?
- A. The solar array site proposed in this application is located on the watershed of Eaton Brook, which flows to the Mill River. From here, the river passes near the RWA's Mount Carmel wellfield before flowing downstream to the Lake Whitney reservoir, both of which are active drinking water sources for RWA customers. The applicant's petition proposes to clear-cut 12 acres of mature forest on land

- characterized by steep slopes and highly erosive soil types. The attached map shows where the various water resources are located.
- Q. In response to the Siting Council's Interrogatory 51, the petitioner indicates that they have attempted to meet with the RWA on several occasions but that to date "the RWA has not responded to those offers." Do you agree with that statement?
- A. Yes. The petitioner has offered to set up a meeting with its engineers to discuss the project. However, given the location of the project the RWA does not believe that any changes to the project design can address the RWA's concerns.
- Q. Also in response to Interrogatory 51, the petition indicates that the nearest waterbody is Lake Bethany which is located more than 5 miles southeast of the project. Do you agree with that statement?
- A I do not. Lake Bethany, an active RWA water supply reservoir, is approximately 1.2 miles from the proposed project site. However, this impoundment is in a separate watershed and not relevant to the petition. The project site is within the watershed of the Lake Whitney public water supply reservoir, which is approximately 5 miles southeast of the proposed project site.
- Q. The response to Interrogatory 51 says, "Additionally, surface runoff currently does not infiltrate the soils in the Project Area and thus would not recharge the groundwater associated with this drinking water aquifer." Do you agree with that statement?
- A. Although the glacial till surficial geology of the project site would be expected to have low infiltration rates relative to the stratified drift deposits that occur in the Mill River valley, it is unlikely that there is currently zero infiltration of runoff into the

underlying soils of the project site. Soil survey information available from the Natural Resources Conservation Service (NRCS) indicate that site soil types are mostly a mix of hydrologic Class B and C soils. According to the NRCS, infiltration rates generally range from 0.15-0.30 in/hr for Class B soils and 0.05-0.15 in/hr for Class C soils. Attenuation and infiltration of precipitation and runoff in forests are important water quality benefits, and part of the reason that the RWA has invested so heavily in watershed preservation.

Q. Finally, the response to Interrogatory 51 states:

A spill prevention plan has been proposed and is included in the Resource Protection Plan provided as Appendix B of the Environment Assessment. This plan details measures to install and maintain erosion and sedimentation controls and manage refueling and fuel storage procedures (no hazardous materials will be used), spill prevention and response protocols, and requirements for supplying and maintaining a fuel spill remediation kit.

Does this address your concerns about potential impacts to the public water supply watershed?

- A. Erosion controls and measures to avoid releases of fuels and hazardous materials are basic expectations for constructions projects in order to mitigate impacts on water resources. However, these Best Management Practices will not wholly replace the source water protection benefits provided by the site's current forest cover.
- Q. Has the RWA developed an opinion about the proposed project?
- A. We are opposed to this petition for declaratory ruling based on the following reasons:

- The project will result in an irretrievable loss of forestland that protects the affected RWA sources of supply in the Mill River watershed. Even if the solar array is eventually dismantled and abandoned, it is likely that the invasive species presently documented within the adjacent power utility right of way will colonize the site and effectively prevent the regeneration of the forest cover that now exists;
- When considering drinking water source protection, the distinction of forest vs. core forest is immaterial. All forest is valuable in this regard;
- The "site selection process" contained in the petition appears to consider the various alternative sites in terms of real estate market cost, but does not adequately factor the value of the chosen site in terms of ecosystem services, such as the aforementioned benefits to water quality. A former industrial site within the Lake Whitney watershed, which has stood vacant and demolished for at least 12 years, was considered and rejected (100 Skiff Street, Hamden). We believe that a solar array at this alternate site could be designed to have net water quality and environmental benefits;
- We are concerned how the loss of forest cover will affect water quality, water temperatures, and peak flows in Eaton Brook. While there are no direct water withdrawals from this stream, these impacts could add further stress to the Mill River ecosystem and disrupt the ongoing balancing of interests amongst current watershed development, public water supply needs, and cold-water fish habitat;

- Approval of the petition will set a detrimental precedent and potentially promote and incentivize the destruction of other forestlands now serving to protect drinking water sources used by the RWA and other Connecticut water providers.
- Q. Would you describe the Governor's Council on Climate Change (GC3) Working and Natural Lands Subgroup.
- A. Yes. On September 3, 2019, Governor Ned Lamont issued Executive Order No. 3, which re-established and expanded the membership and responsibilities of the Governor's Council on Climate Change, also known as the GC3. According to the DEEP's website, the purpose of the Working and Natural Lands Working Group is to evaluate "the role of nature-based solutions (e.g., scaling up the preservation and restoration of forests and coastal wetlands, green and natural infrastructure, agricultural lands) in climate change mitigation and adaptation and how to best incorporate the economic, social, and environmental co-benefits of these solutions into Connecticut's climate change planning strategies."
- Q. Are you familiar with the Working Group's recently issued draft report.
- A. Yes. The report from the Forests subgroup was released in September for public comment, recommends a no-net loss policy for Connecticut forestlands and strongly discourages the conversion of such lands to solar installations. Draft Report at 3. The report is available on the DEEP's website at https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3-working-group-

reports/GC3_WNL_Forests_DRAFT_report_public_comment_091120.pdf. The RWA's position is wholly consistent with these recommendations.

- Q. Would you please summarize the RWA's position on this proposed project.
- A. Yes. While the RWA endorses the development of renewable energy to meet Connecticut's goals for reducing greenhouse gas emissions, these goals should not be achieved at the expense of the state's drinking water sources. The RWA therefore urges the Siting Council to reject this petition.
- Q. Does this conclude your testimony?
- A. Yes.

