

My name is Carolyn Kiely. I live at 11 Parkland Lane in the Quail Ridge section of Acton. I serve as a member of the Quail Ridge Board of Advisors (advising the Board on matters until the time that the residents comprise 100% of the Board). I also am a former Chair of the Carlisle Conservation Commission, as well as a former Senior Staff Member for the Committee on Natural Resources and Agriculture at the Massachusetts State House, having written many of the components of the Massachusetts hazardous waste laws (specifically Chapter 21E) as well as being the staffer responsible for the inclusion of wildlife habitat into the interests protected under the Wetlands Protection Act (originally, wildlife habitat wasn't a protected interest under the Act). My professional experience is working with engineering companies, including Massachusetts-based Camp Dresser & McKee, as well as working directly for the American Council of Engineering Companies (ACEC - the trade association for engineering companies) in Washington, DC.

I am speaking here tonight on behalf of the residents of Quail Ridge, who may also have other concerns to raise tonight.

Comments:

1. The newly proposed building is sited entirely within the 100 foot buffer zone, and a variance should not be provided.
 - a. Explanation:
 - i. This is an extremely environmentally-intrusive project in a sensitive site. The entire footprint of the proposed new building is within the 100 foot buffer zone for projects. THE ENTIRE FOOTPRINT. A portion of the building is within the 50-to-75 foot buffer, and the majority of the newly proposed building is within the 75-100 foot buffer.
 - ii. Under your rules, waivers may only be granted when "such action is in the public interest and is consistent with the intent and purpose of the bylaw." There is no public interest served to Acton by the location of the new building here, and the intent of the bylaw is to protect resources, not destroy resources.
 1. The burden of proof for proving that the proposed work will not harm the interests protected by the Bylaw is with the applicant, and Concord has NOT met that standard.
 - iii. Because the standard for granting waivers is not met by this building, we urge you to NOT waive your bylaw provisions and allow this significant building expansion to be placed at this location.
2. The newly proposed building, much of the expanded driveway including truck turnaround site, and many of the solar panels, are sited within the 400

foot “no build” zone around lakes and ponds. This setback was established under the Massachusetts River Protection Act of 1996.

a. Explanation:

- i. It is a violation of the Rivers Act to permit building – including solar panels and new construction – within this 400 foot zone. Siting the building and solar panels within this 400 foot buffer is in violation of the Rivers Act and should not be allowed.
- ii. The purpose of this 400 foot setback is to protect the water body from destruction, preserve a natural buffer, and protect wildlife and wildlife habitat, as well as protect the source of the drinking water.
- iii. I am not aware of any public policy that allows you to waive this setback. There is an allowable reduction of the buffer zone in “urban areas,” but this site does not fit the definition of an urban area. Therefore, the 400 foot no build setback under the Rivers Act must be maintained.

3. Concord incorrectly describes the purpose of the new building to be exactly the same as the old building to comply within section 3.3 of your wetlands rules and regulations, but this is incorrect. The new building is a SIGNIFICANT EXPANSION OF THE PURPOSE OF THE OLD BUILDING.

a. Explanation:

- i. Under your Rules and Regulations Section 3.3, your Commission “may permit new like activity or structures as close to the Wetland Resource Area as the existing like activity” – meaning the current small ozone treatment facility presently at the site.
- ii. Concord is trying to argue that this expansion is a “similar like activity.” However, it is anything BUT a similar like activity. In fact, Concord’s “Existing and Proposed Use Description” (Attachment D on Acton’s Docu-Share Site) calls the present building an “OZONE DISINFECTION FACILITY.” Then this document goes on to say that “the principal use of the site will REMAIN THE SAME – THE PROVISION AND TREATMENT OF PUBLIC DRINKING WATER.” That statement that the principal use of the site will remain the same is blatantly incorrect. That statement is an attempt to get the new, larger building to fit within the provisions of Section 3.3 of your Rules and Regulations.
- iii. The newly proposed building will be an ozone facility AND (Read from the MEMO -- Attachment D – relevant portions quoted in the hearing reprinted as an Attachment to this written testimony).
 1. THAT’S DEFINITELY NOT THE SAME AS THE EXISTING ACTIVITY, WHICH IS OZONE TREATMENT. It’s a

significant expansion of the existing facility's use and purpose.

- iv. Your rules specifically states that "work associated with pre-existing structures .. not presently in compliance (and the present structure isn't in compliance because it's within the 75 and 100 foot buffer zone) (and I quote) "MAY NOT INCREASE THE DEGREE OF NON-CONFORMANCE OF THOSE STRUCTURES."
 - b. Therefore, since it's an expansion and not the same as the present usage, Section 3.3 of your rules do not apply. IN FACT, THIS RULE EXPRESSLY PROHIBITS YOU FROM ALLOWING THE EXPANDED ACTIVITIES BECAUSE IT INCREASES THE DEGREE OF NON-CONFORMITY OF THE STRUCTURE.
 - c. That means that you have no legal obligation or necessity to waive the setback provisions of your existing rules for this particular building project.
4. Many of the solar panels (more than 50% in my layman's estimation) are proposed to be located within the 100 foot buffer zone.
- a. Explanation:
 - i. As previously indicated, Acton's wetlands bylaw has a 100 foot buffer around wetlands.
 - ii. There is no reason to waive the wetland bylaws to allow the solar panels within 100 feet of the wetland.
 - iii. The solar array is extremely large and is accessory to the project. The proposed plant can be operated with power that isn't from solar, just like the present plant is operated without solar power. There is a reasonable alternative to solar power to run this plant. And the alternative – electric or other form of power, or solar arrays that are sited in Concord – that would allow the present building to be powered. It is not a hardship to Concord to not allow the solar panels within this buffer zone.
 - iv. The standard for granting waivers from the wetland bylaw setbacks is not met with regard to the solar panel location.
5. Clear-Cutting of Trees well beyond the specific area where the solar panels are located will be required.
- a. As you know, vegetation such as established and mature trees provides significant protection of wetland and water supplies, especially where protection of drinking water is present.
 - b. Acton's Design Review Board (DRB) points out in a memo that "extensive portion of woodlands will need to be cut on the south side." That's to make sure that trees adjacent to the solar array are not blocking the sunlight to the solar panels.

- c. I remain concerned about the environmental impact of the cutting of the trees.
 - i. Runoff into the pond and stream
 - ii. Wildlife and wildlife habitat impacts
 - iii. Visual impacts from the pond and from adjacent conservation lands.
 - d. I also am concerned because Quail Ridge and Acorn Park own land immediately abutting the proposed solar site on the south side. I am concerned that mature, tall trees on our lands will be cut to facilitate the provision of sunlight to the arrays.
 - i. From the map, it looks like the solar panels are being constructed almost to the property line with Quail Ridge and Acorn Park. Neither party is allowing trees on our lands to be cut. Therefore, without the cutting, the efficacy of the solar panels remain in question and they probably should not be installed at all.
6. The expansion of the driveway from a one-lane road, to include a new truck turn-around and larger footprint because of a larger parking area around the building and space for outbuildings and tanks, means that the site will have significantly more impervious surface than presently exists.
- a. The area surrounding the site is a legally protected pond and shoreline, and a legally protected wetland and buffer zone. The more impervious surface that is added, the more likely it is that runoff and other hazardous chemicals and materials will run off into the wetland and pond.
 - b. The expansion of paved road and impervious surfaces will have a detrimental impact on the environment and must not be allowed.
7. Your Rules have a provision discussing “Cumulative Adverse Effects.”
- a. Quote: “an effect on a wetland or buffer resource area that is significant when considered in combination with other activities that have occurred, are occurring simultaneously or that are reasonably likely to occur within that resource area.”
 - b. Under the Cumulative Adverse Effects doctrine of your Rules, you are allowed to deny projects when the overall cumulative impact of a project is detrimental.
 - i. THE OVERALL CUMULATIVE IMPACT OF THIS PROJECT, TAKEN AS A WHOLE, IS DETRIMENTAL TO THE SENSITIVE ENVIRONMENTAL ECOSYSTEM THAT ENCOMPASSES THIS PROJECT. We therefore urge you to deny this project outright.
8. Perennial vs. Intermittent Stream: We understand that this Commission previously ruled on the status of the stream that runs behind the proposed solar panels as an intermittent stream. We disagree with this determination, but recognize that it’s already been voted upon and that we can’t change that

determination at this point. However, I would like to point out that, had the determination been made that the stream is in fact perennial (as was the original DEP determination), none of the solar panels would be allowed to be sited where they are presently proposed because a perennial stream has a 200 foot buffer zone. All of these solar panels are within the 200 foot zone, so this proposal would not be before us but for the intermittent determination for this stream.

- a. I urge you – don't make a second mistake with regard to this property. We already have lost the ability to protect between the 100 and 200 foot buffer from the water body. Let's not give up the protection of the first 100 feet just because this is a supposedly environmental-friendly project.
- b. The real beneficiary of this project is Concord. This project does not benefit Acton at all. In fact, this project, if allowed as proposed, would destroy significant mature trees, wildlife habitat, and shoreline – all to the detriment of Acton's open space.

In the event that you are inclined to go forward with issuing an order of conditions for this project, **we request that you continue this hearing and obtain an independent Peer Review of the technical aspects of the project, using an outside consultant.** DEP regulations allow you to bill the applicant for the Peer Review. Such a review will ensure that this project and any conditions are well thought-out and ensure protection of the environment. This is too intrusive a project to rush it through. Once the mature trees are cut, the habitat and environmental protection offered by the trees is gone. We urge you to deny this project outright, and in the alternative, to conduct a peer review prior to acting on this application.

Thank you for allowing me to address you this evening.

Sincerely,

Carolyn M. Kiely, Esq.

ATTACHMENT: Text from the Town of Concord (through its consultant, Environmental Partners Group, Inc.) Technical Memorandum dated November 20, 2015 (Attachment D on Acton's Docu-Share web-site for the Nagog Water Treatment Plant

- **The text below was quoted by Carolyn Kiely during testimony in comment 3.a.iii**

"The principal use of the site will remain the same – the provision and treatment of public drinking water ...The new Nagog Pond WTP (Waste Treatment Plant) will

incorporate several physical and chemical water treatment processes, including: pre-oxidation with potassium permanganate (Carolyn's comment - that's a new use of the facility and isn't done there now); coagulation with polyaluminum chloride (Carolyn's comment - that's a new use); two-stage, tapered flocculation (Carolyn's comment - that's a new use); clarification using dissolved air flotation (DAF) (Carolyn's comment - that's a new use); primary disinfection using ozone (Carolyn's comment - that's the sole present use of the site); filtration using granular activated carbon (GAC) media (Carolyn's comment - that's a new use); pH adjustment using potassium hydroxide (Carolyn's comment - that's a new use); corrosion control using zinc polyphosphate (Carolyn's comment - that's a new use); secondary disinfection using sodium hypochlorite (Carolyn's comment - that's a new use); and fluoridation using sodium fluoride (Carolyn's comment - that's a new use). The proposed Nagog Pond WTP will be state of the art and allow for the consistent production of high quality water for Concord's water supply customers ..."