

LEGAL MEMORANDUM

TO: Ronald Brand, Director of Planning and Development, Town of Farmington
FROM: Sheldon W. Boyce, Jr., Esq.
DATE: September 15, 2020
RE: Bergmann's Technical Memo dated 9/11/20 objecting to SUP Condition No. 7

As requested, I have reviewed Bergmann's Technical Memo dated 9/11/20 and have the following comments.

Initially, it is worth noting that the only stated objection is to Condition No. 7 of the current draft resolution for a special use permit (the Planning Board's soil sampling program). Apparently there are no other technical or policy objections and the Planning Board has adequately addressed all of DRS's previous concerns in that draft resolution.

The numbering of my paragraphs corresponds to the numbering of Bergmann's paragraphs.

1. The sampling methodology employed for the Planning Board's soil sampling protocol in Condition No. 7 is based on Cornell University's soil testing guidelines because the NYS Department of Agriculture and Markets relies on that testing as part of its *Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands* (Revision 10/18/2019) (*Guidelines*).¹ There is some ambiguity about what specific Cornell University soil testing the State agency is referring to in its *Guidelines*, but Cornell's *Comprehensive Assessment of Soil Health* Soil Sampling Protocols, as supplemented by its *Guide to Soil Testing*,² are sufficiently instructive to enable the carrying out of appropriate soil sampling without much controversy. And since the Smiths' property hosting the solar farms has been represented as being returned to Class 1-4 soils pastureland when the solar farming is concluded, such standard is an appropriate methodology as Bergmann acknowledges.

2. The reference to 6 NYCRR Part 375 was added due to a concern by a Planning Board member that the 15% deviation trigger in the proposed soil sampling protocol of SUP Condition No. 7 was not appropriate for chemicals and metals that had testing levels a long way from state levels of contaminant concern (i.e., a change for a monitored chemical/metal from 1 ppm to 2 ppm would constitute a 100% change (more than the general 15% change triggering PB involvement) but may need not concern the Planning Board if the state level of concern for the chemical was, say, 20 ppm). Part 375 is used in

¹https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf

²<https://ecommons.cornell.edu/bitstream/handle/1813/14283/Guide%20to%20Soil%20Testing%20and%20Interpreting%20Results.pdf?sequence=2&isAllowed=y>

the DEC regulations for remediation program sites and provides a state-established objective standard for what chemical/metal contamination levels are acceptable at the most stringent levels, as Bergmann acknowledges. Whether a NYSDEC consent order is involved, or any other DEC program, is irrelevant for Planning Board purposes on this issue, which simply seeks an appropriate objective standard against which to measure contamination of the land to determine whether a measured level change is cause for concern. Bergmann is welcome to suggest an alternative objective standard to determine when measured contaminants should become an issue of concern for the Planning Board and warrant an investigation, but has not done so. Bergmann prefers that the Planning Board just jettison the state's regulatory objective standard, which would result in a lack of any objective standard for the Planning Board and effectively gut the soil sampling section pertaining to the solar panel chemicals and metals. Using Part 375 adds refinement to the Planning Board's soil sampling protocol so that not all significant testing changes for chemicals or metals trigger Planning Board involvement—something DRS should be in favor of.

3. The soil sampling depth of 1-2" is based on Cornell University's soil testing guidelines to measure contaminant levels in particular areas and is appropriate in this context.³ Moreover, measuring soils at the shallower depth will disclose contamination sooner than testing at a deeper depth, to where contaminants may take longer to penetrate.

4. The Planning Board's soil sampling protocol that includes "additional potentially harmful chemicals or metals identified in materials used in the manufacturing of solar panels" is not arbitrary and is entirely appropriate in this situation when the solar systems could be in place for decades. To begin with, the chemicals or metals to be included are not arbitrary but are directly related to those included in solar panels used by DRS at the Yellow Mills Road project site. Since solar panel technology may well change over the ensuing decades, the Planning Board must have some way to oversee conditions resulting from such changes. As new chemicals or metals are used in solar panels or equipment on site, soil sampling should expand to include such changes to ensure that the Planning Board is able to investigate and take action should such new materials result in unanticipated contamination. Bergmann argues that a range of chemicals could be nonharmful or nontoxic when encased within a solar panel. The Planning Board expects as much. But the issue is whether those new chemicals or metals may leach out of the solar panels into the prime soils over future decades, and occasional testing of those circumstances is good land practice. Apart from the noticeable lack of any demonstration of substantial expense related to the Planning Board's soil sampling protocol, DRS can manage the claimed expense by simply using the same kind of solar panels for the life of the solar systems. The reference to "equipment used or stored on site" addresses the situation of solar panels not actually installed and operating, but also those merely kept on site, due to poor management or strategic choices, and which presence presents a possible problem over time. Again, the associated chemicals are

³<https://ecommons.cornell.edu/bitstream/handle/1813/14283/Guide%20to%20Soil%20Testing%20and%20Interpreting%20Results.pdf?sequence=2&isAllowed=y>

those contained in the solar panels or equipment used or stored on site, which DRS will have knowledge of from their manufacturer—and should be reporting to the Town when they change. There is not any requirement to run “a full suite of contaminants that could potentially be identified as part of the solar manufacturing process”—just those contaminants contained in DRS’s chosen solar system equipment (predominantly solar panels) installed or stored on site. Bergmann’s assertion that there is no potential for significant adverse impacts to the environment from solar system equipment depends on imperfect information and multiple assumptions that are merely being tested occasionally over the years in the prime soils all parties agree are to be preserved over the useful life of the solar systems.

5. Bergmann concurs that a baseline sampling protocol be implemented, but with major limitations. First, Bergmann wants a simpler sampling protocol, which is limited to the present EPA TCIP testing for the metals monitored. Bergmann’s proposal does not include benchmarking the soil characteristics which NYSDAM specifically provides for in its current *Guidelines*, which are incorporated by the present draft of the special use permit resolution and so should be a part of any soil sampling protocol. Also, Bergmann’s proposal does not include additional chemicals or metals that may become part of solar panel technology utilized at the Yellow Mills Road site—creating a possible contaminant exposure in the future for which the Planning Board will not be monitoring under Bergmann’s limited proposal.

6. Bergmann’s proposed soil sampling protocol is substantially simplified and reduced from the Planning Board’s protocol, and is apparently designed to go away early while the risk of leaching is lowest. It is unclear what is meant by one sampling “event,” but Bergmann’s idea seems to be that if early soil testing does not indicate any problems, then the soil sampling protocol should be discarded. In such case, long term problems for which the Planning Board has no other present mechanism under the Town Code to address will no longer be monitored. Bergmann does suggest that if a panel break or equipment failure is observed, then soil sampling would resume immediately and every five years thereafter. But observing panel breaks or equipment failure would be difficult for the Town given the setbacks, landscape screening and limited site access in this situation, and DRS and its affiliates are unlikely to self-report such events if it means resumption of soil sampling. Bergmann apparently accepts that a broken solar panel warrants soil sampling and proposes immediate testing and thereafter at five-year intervals, so presuming a broken solar panel every three years does not seem unreasonable even under Bergmann’s approach and provides substantial monitoring benefits to the Planning Board far into the future. There may be some merit to testing less frequently than every three years, since the leaching process is apparently very slow, but the period chosen should coincide with the required three-year reporting for Planning Board convenience when it must consider the full range of solar system issues at such time including re-evaluation of the surety. The Planning Board’s soil sampling protocol is imposed to manage the effect of new and unfamiliar technology in an A-80 Agricultural Zoning District on predominantly Class 1-4 soils which have been represented to return to agricultural production status at the conclusion of the solar systems’ useful lives. Nothing comparable exists in other commercial/industrial areas or even residential developments. Contrary to Bergmann’s claim, the Planning Board’s soil

sampling protocol does provide for situations of off-site contaminant migration or contamination from accidental, criminal or negligent activities not associated with the solar array or its retaining party. When the soil testing indicates a contamination problem, the Planning Board becomes authorized to investigate the situation and determine the circumstances, and whether Planning Board action is warranted. If there is contamination, that is not the fault of the solar system or operator (and so poses no repetitive future problem related to the Special Use Permit), and the contamination is being appropriately managed by the system operator or landowner, then the Planning Board would have no good reason to reconsider the Special Use Permit approval. Bergmann's claimed concern about an arbitrary loss of Special Use Permit approval is not well taken.

7. Finally, Bergmann's claim that SUP Condition No. 7 is arbitrary is meritless. The fact that an EPA TCLP analysis on some solar panels concluded that some panels would not leach harmful chemicals or heavy metals into the soils does not necessarily mean that the solar panels that DRS actually installs on the Yellow Mills Road site will never leach contaminants if the panels remain in place for a sufficiently long period. As discussed, Condition No. 7 does not require revocation of the Special Use Permit if contaminants are detected during soil sampling; it merely authorizes the Planning Board to investigate the circumstances and take action regarding the Special Use Permit if warranted, and does not jeopardize the Special Use Permit if the problem is not related to solar system equipment or operation. Other uses are not comparable to this situation involving eventual restoration of Class 1-4 soils. Finally, the soil sampling protocol is being applied to DRS because it is the first and only large-scale solar system for which special use permit approval has been requested in the Town's A-80 Agricultural Zoning District. The Planning Board has determined that DRS has reasonably represented that there will be no leaching of harmful chemicals or metals into the ground due to its solar systems and operations and thus no injury to the prime Class 1-4 soils, and the Special Use Permit, if approved, will be approved on that basis which warrants long-term monitoring of that premise.